FLUOR FERNALD CLOSURE PLAN
BASIS OF ESTIMATE

PBS-02
DEMOLITION AND DECONTAMINATION

SEPTEMBER 2001

2503-PL-0010
REVISION 1

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Section 2: BFUD – Facility Isolation and Utility Redistribution

1.0 Narrative
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    6) Task #6 – Utility Redistribution - Liquid Storage
    7) Task #7 – Utility Redistribution - Pilot Plant
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    9) Task #9 – Utility Redistribution - Administration (Includes Electrical Complex)
    10) Task #10 – Utility Redistribution - East Warehouse
    11) Task #11 – Utility Redistribution - Miscellaneous Structures

12) Task #12 – Utility Redistribution - Building 64/65
13) Task #13 – Utility Redistribution - Plant 1, Phase II
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15) Task #15 – Utility Redistribution - Plant 6
16) Task #16 – Utility Redistribution - Area 3A
17) Task #17 – Utility Redistribution - Area 3B
18) Task #18 – Utility Redistribution - Area 4A
19) Task #19 – Utility Redistribution – Area 4B
20) Task #20 – Utility Redistribution - Area 5

1.5 Project Plan/Technical Scope and Quantification

1.5.1 BFUD1 – Facility Isolation

1) Task #1 – Facility Isolation - Plant 2
   - 1.1) Plan/Scope – Facility Isolation - Plant 2
   - 1.2) Quantification – Facility Isolation - Plant 2
2) Task #2 – Facility Isolation - Plant 3
   - 2.1) Plan/Scope – Facility Isolation - Plant 3
   - 2.2) Quantification - Facility Isolation - Plant 3
3) Task #3 – Facility Isolation - General Sump
   - 3.1) Plan/Scope - Facility Isolation - General Sump
   - 3.2) Quantification – Facility Isolation - General Sump
4) Task #4 – Facility Isolation - Plant 8
   - 4.1) Plan/Scope - Facility Isolation - Plant 8
   - 4.2) Quantification – Facility Isolation - Plant 8
5) Task #5 – Facility Isolation - Health and Safety Building
   - 5.1) Plan/Scope - Facility Isolation - Health and Safety Building
   - 5.2) Quantification – Facility Isolation - Health and Safety Building
6) Task #6 – Facility Isolation - Liquid Storage
   - 6.1) Plan/Scope - Facility Isolation - Liquid Storage
   - 6.2) Quantification – Facility Isolation - Liquid Storage
7) Task #7 – Facility Isolation - Pilot Plant
   - 7.1) Plan/Scope - Facility Isolation - Pilot Plant
   - 7.2) 7.2) Quantification – Facility Isolation - Pilot Plant
8) Task #8 – Facility Isolation – Laboratory
   - 8.1) Plan/Scope - Facility Isolation - Laboratory
   - 8.2) Quantification – Facility Isolation - Laboratory
9) Task #9 – Facility Isolation - Administration (Includes Electrical Complex)
   - 9.1) Plan/Scope - Facility Isolation - Administration (Includes Electrical Complex)
   - 9.2) Quantification – Facility Isolation - Administration (Includes Electrical Complex)
10) Task #10 – Facility Isolation - East Warehouse
   - 10.1) Plan/Scope - Facility Isolation - East Warehouse
   - 10.2) Quantification - Facility Isolation - East Warehouse

11) Task #11 – Facility Isolation - Miscellaneous Structures
    11.1) Plan/Scope - Facility Isolation - Miscellaneous Structures
    11.2) Quantification – Facility Isolation - Miscellaneous Structures
12) Task #12 – Facility Isolation - Building 64/65
    12.1) Plan/Scope - Facility Isolation - Building 64/65
    12.2) Quantification – Facility Isolation - Building 64/65
13) Task #13 – Facility Isolation - Plant 1, Phase II
    13.1) Plan/Scope - Facility Isolation - Plant 1, Phase II
    13.2) Quantification – Facility Isolation - Plant 1, Phase II
14) Task #14 – Facility Isolation - Plant 5
    14.1) Plan/Scope - Facility Isolation - Plant 5
    14.2) Quantification - Facility Isolation - Plant 5
15) Task #15 – Facility Isolation - Plant 6
    15.1) Plan/Scope - Facility Isolation - Plant 6
    15.2) Quantification - Facility Isolation - Plant 6
16) Task #16 – Facility Isolation – Area 3A
    16.1) Plan/Scope - Facility Isolation – Area 3A
    16.2) Quantification - Facility Isolation – Area 3A
17) Task #15 – Facility Isolation – Area 3B
    17.1) Plan/Scope - Facility Isolation – Area 3B
    17.2) Quantification - Facility Isolation – Area 3B
18) Task #18 – Facility Isolation – Area 4A
    18.1) Plan/Scope - Facility Isolation – Area 4A
    18.2) Quantification - Facility Isolation – Area 4A
19) Task #19 – Facility Isolation - Area 4B
    19.1) Plan/Scope - Facility Isolation - Area 4B
    19.2) Quantification – Facility Isolation - Area 4B
20) Task #20 – Facility Isolation - Area 5
    20.1) Plan/Scope - Facility Isolation - Area 5
    20.2) Quantification – Facility Isolation - Area 5

1.5.2 BFUD2 – Utility Redistribution

1) Task #1 – Utility Redistribution - Plant 2
    1.1) Plan/Scope – Utilities Redistribution - Plant 2
    1.2) Quantification – Utilities Redistribution - Plant 2
2) Task #2 – Utilities Redistribution - Plant 3
    2.1) Plan/Scope – Utilities Redistribution - Plant 3
    2.2) 2.2) Quantification - Utilities Redistribution - Plant 3
3) Task #3 – Utilities Redistribution - General Sump
    3.1) Plan/Scope - Utilities Redistribution - General Sump
    3.2) Quantification – Utilities Redistribution - General Sump
4) Task #4 – Utilities Redistribution - Plant 8
    4.1) Plan/Scope - Utilities Redistribution - Plant 8
    4.2) Quantification – Utilities Redistribution - Plant 8
5) Task #5 – Utilities Redistribution - Health and Safety Building

5.1) Plan/Scope - Utilities Redistribution - Health and Safety Building
5.2) Quantification – Utilities Redistribution - Health and Safety Building

6) Task #6 – Utilities Redistribution - Liquid Storage
6.1) Plan/Scope - Utilities Redistribution - Liquid Storage
6.2) Quantification – Utilities Redistribution - Liquid Storage

7) Task #7 – Utilities Redistribution - Pilot Plant
7.1) Plan/Scope - Utilities Redistribution - Pilot Plant
7.2) Quantification – Utilities Redistribution - Pilot Plant

8) Task #8 – Utilities Redistribution – Laboratory
8.1) Plan/Scope - Utilities Redistribution - Laboratory
8.2) Quantification – Utilities Redistribution - Laboratory

9) Task #9 – Utilities Redistribution - Administration (Includes Electrical Complex)
9.1) Plan/Scope - Utilities Redistribution - Administration (Includes Electrical Complex)
9.2) Quantification – Utilities Redistribution - Administration (Includes Electrical Complex)

10) Task #10 – Utilities Redistribution - East Warehouse
10.1) Plan/Scope - Utilities Redistribution - East Warehouse
10.2) Quantification - Utilities Redistribution - East Warehouse

11) Task #11 – Utilities Redistribution - Miscellaneous Structures
11.1) Plan/Scope - Utilities Redistribution - Miscellaneous Structures
11.2) Quantification – Utilities Redistribution - Miscellaneous Structures

12) Task #12 – Utilities Redistribution - Building 64/65
12.1) Plan/Scope - Utilities Redistribution - Building 64/65
12.2) Quantification – Utilities Redistribution - Building 64/65

13) Task #13 – Utilities Redistribution - Plant 1, Phase II
13.1) Plan/Scope - Utilities Redistribution - Plant 1, Phase II
13.2) Quantification – Utilities Redistribution - Plant 1, Phase II

14) Task #14 – Utilities Redistribution - Plant 5
14.1) Plan/Scope - Utilities Redistribution - Plant 5
14.2) Quantification - Utilities Redistribution - Plant 5

15) Task #15 – Utilities Redistribution - Plant 6
15.1) Plan/Scope - Utilities Redistribution - Plant 6
15.2) Quantification - Utilities Redistribution - Plant 6

16) Task #16 – Utilities Redistribution – Area 3A
16.1) Plan/Scope - Utilities Redistribution – Area 3A
16.2) Quantification - Utilities Redistribution – Area 3A

17) Task #15 – Utilities Redistribution – Area 3B
17.1) Plan/Scope - Utilities Redistribution – Area 3B

17.2) Quantification - Utilities Redistribution – Area 3B

18) Task #18 – Utilities Redistribution – Area 4A

18.1) Plan/Scope - Utilities Redistribution – Area 4A

18.2) 18.2) Quantification - Utilities Redistribution – Area 4A

19) Task #19 – Utilities Redistribution - Area 4B

19.1) Plan/Scope - Utilities Redistribution - Area 4B

19.2) 19.2) Quantification – Utilities Redistribution - Area 4B

20) Task #20 – Utilities Redistribution - Area 5

20.1) Plan/Scope - Utilities Redistribution - Area 5

20.2) Quantification – Utilities Redistribution - Area 5

Section 3: BFDD – Facility D&D

1.0 Narrative
- 1.1 Overview
- 1.2 Assumptions/Exclusions
  - 1.2.1 Assumptions
  - 1.2.2 Exclusions
  - 1.2.3 Government-Furnished Equipment/Services
- 1.3 Drivers
- 1.4 Project Physical Descriptions
  - 1.4.1 BFDD2 – D&D Subcontract – Plant 2
    1) Task #1 – Premobilization
    2) Task #2 – Mobilization
    3) Task #3 – Building 2A
    4) Task #4 – Building 2D
    5) Task #5 – Component 2F
    6) Task #6 – Component 2H
    7) Task #7 – Demobilization
  - 1.4.2 BFDD3 – D&D Subcontract – Plant 3
    1) Task #1 – Premobilization
    2) Task #2 – Mobilization
    3) Task #3 – Building 3B
    4) Task #4 – Building 3C
    5) Task #5 – Component 3D
    6) Task #6 – Building 3E
    7) Task #7 – Component 3J
    8) Task #8 – Component 3K
    9) Task #9 – Building 39A
    10) Task #10 – Component 22E
    11) Task #11 – Demobilization
  - 1.4.3 BFDDS – D&D Subcontract – General Sump
    1) Task #1 – Premobilization
    2) Task #2 – Mobilization
    3) Task #3 – Building 2B
    4) Task #4 – Building 2C
    5) Task #5 – Component 3H
    6) Task #6 – Component 18B
    7) Task #7 – Building 18D
    8) Task #8 – Building 18H
    9) Task #9 – Building 3A
    10) Task #10 – Building 3L
    11) Task #11 – Miscellaneous Pipes and Racks
    12) Task #12 – Demobilization
  - 1.4.4 BFDD8 – D&D Subcontract – Plant 8
    1) Task #1 – Premobilization
    2) Task #2 – Mobilization

3) Task #3 – Building 8A
4) Task #4 – Building 8B
5) Task #5 - Building 8C
6) Task #6 - Building 8D
7) Task #7 – Component 8E
8) Task #8 - Component 8G
9) Task #9 - Component 8H
10) Task #10 - Demobilization

1.4.5 BFDDH – D&D Subcontract – Health and Safety Building
1) Task #1 - Premobilization
2) Task #2 - Mobilization
3) Task #3 - Building 53A
4) Task #4 - Demobilization

1.4.6 BFDDQ – D&D Subcontract – Liquid Storage
1) Task #1 - Premobilization
2) Task #2 - Mobilization
3) Task #3 - Building 26A
4) Task #4 - Component 26B
5) Task #5 - Building 28D
6) Task #6 - Building 45A
7) Task #7 - Building 80
8) Task #8 - Demobilization

1.4.7 BFDDP – D&D Subcontract – Pilot Plant
1) Task #1 - Premobilization
2) Task #2 - Mobilization
3) Task #3 - Building 13A
4) Task #4 - Component 13B
5) Task #5 – Building 13C
6) Task #6 - Component 13D
7) Task #7 - Building 37
8) Task #8 - Building 54A
9) Task #9 - Building 54B
10) Task #10 - Building 54C
11) Task #11 - Demobilization

1.4.8 BFDDB – D&D Subcontract – Laboratory
1) Task #1 - Premobilization
2) Task #2 - Mobilization
3) Task #3 - Building 15A
4) Task #4 – Building 15B
5) Task #5 – Building 15C
6) Task #6 - Demobilization

1.4.9 BFDDA – D&D Subcontract – Administration
1) Task #1 - Premobilization
2) Task #2 - Mobilization
3) Task #3 - Building 11
4) Task #4 - Building 14A

5) Task #5 - Building 14B
6) Task #6 - Component 20K
7) Task #7 - Building 53B
8) Task #8 – Building 46
9) Task #9 - Building 31A
10) Task #10 - Demobilization

1.4.10 BFDDE – D&D Subcontract – East Warehouse
1) Task #1 – Premobilization
2) Task #2 - Mobilization
3) Task #3 - Component 20D
4) Task #4 - Building 77
5) Task #5 - Building 79
6) Task #6 - Building 82A
7) Task #7 - Demobilization

1.4.11 BFDDM – D&D Subcontract – Miscellaneous Structures
1) Task #1 - Component 5F (Plant 6 Covered Storage Pad)
2) Task #2 - Component 12E (Maintenance Storage Shed)
3) Task #3 - Component 12F (Maintenance Storage Shed)
4) Task #4 - Building 12G (Restored Area Maintenance)
5) Task #5 – Component 16B (Electrical Substation)
6) Task #6 - Component 16C (Electrical Panels and Transformer)
7) Task #7 – Component 16F (Trailer Substation #1)
8) Task #8 – Component 16G (Trailer Substation #2)
9) Task #9 – Component 20E (Well House #1)
10) Task #10 - Component 20F (Well House #2)
11) Task #11 - Component 20G (Well House #3)
12) Task #12 – Component 22B (Storm Sewer Lift Station)
13) Task #13 – Component 22D (Scale House and Weigh Scale)
14) Task #14 – Component 23 (Meteorological Tower)
15) Task #15 – Component 25C (Sewer Llift Station Building)
16) Task #16 – Component 26C (Main Electrical Substation Riser/Strainer House)
17) Task #17 – Building 28E (Guard Post at OSDF South Entrance)
18) Task #18 – Building 28G (Guard Post NW of Building 45)
19) Task #19 – Building 28H (Guard Post South of K-65 Area)
20) Task #20 – Building 28J (Security Checkpoint – South Access Road)
21) Task #21 – Building 28K (Security Checkpoint – East Parking Lot)
22) Task #22 – Building 28L (Guard Post – N. Construction Access Road)
23) Task #23 – Building 28M (Guard Post on "F" Street)
24) Task #24 – Building 30D (Sampling Line Processing)
25) Task #25 – Building 50 (Maintenance Storage Building
26) Task #26 – Building 52A (RTRAK Building)
27) Task #27 – Building 52B (ASTD SCEP Buildling)

28) Task #28 – Building 60 (Quonset Hut #1)
29) Task #29 – Building 61 (Quonset Hut #2)
30) Task #30 – Building 62 (Quonset Hut #3)
31) Task #31 – Building 68 (Pilot Plant Warehouse)
32) Task #32 – Building 93A (Southwest Boiler House)
33) Task #33 – Component G-008 (Pipe Bridges)
34) Task #34 – Building TS-08 (Environmental Monitoring Equipment Storage)
35) Task #35 – Trailer T1 (FF)
36) Task #36 – Trailer T2 (Rad Safety)
37) Task #37 – Trailer T3 (Wise Construction)
38) Task #38 – Trailer T4 (Multimedia Visual Storage)
39) Task #39 – Trailer T5 (FF Construction)
40) Task #40 – Trailer T6 (Restrooms)
41) Task #41 – Trailer T7 (FF)
42) Task #42 – Trailer T8 (Wise Construction)
43) Task #43 – Trailer 12 (CRU4-DLS)
44) Task #44 – Trailer T17 (FF)
45) Task #45 – Trailer T18 (Break Trailer)
46) Task #46 – Trailer T19 (Rad Safety)
47) Task #47 – Trailer T23 (10 Plex)
48) Task #48 – Trailer T24 (7 Plex – North)
49) Task #49 – Trailer T25 (7 Plex – South)
50) Task #50 – Trailer T26 (Waste Management)
51) Task #51 – Trailer T29 (Computer)
52) Task #52 – Trailer T30 (Computer)
53) Task #53 – Trailer T33 (Shipping Office)
54) Task #54 – Trailer T34 (FF)
55) Task #55 – Trailer T35 (FF)
56) Task #56 – Trailer T36 (Heavy Equipment Operators)
57) Task #57 – Trailer T40 (Thorium Overpack)
58) Task #58 – Trailer T41 (Waste Certification – QA)
59) Task #59 – Trailer T42 (Respirator Washing Facility)
60) Task #60 – Trailer T43 (Restoration)
61) Task #61 – Trailer T44 (FF Maintenance)
62) Task #62 – Trailer T45 (Environmental Monitoring)
63) Task #63 – Trailer T46 (Environmental Monitoring)
64) Task #64 – Trailer T49 (Bio-Assay Semi-Trailer)
65) Task #65 – Trailer T40 (Rad Safety)
66) Task #66 – Trailer T57 (Rad Safety)
67) Task #67 – Trailer T58 (Construction Office)
68) Task #68 – Trailer T59 (FF Waste Management)
69) Task #69 – Trailer T60 (Environmental Monitoring)
70) Task #70 – Trailer T61 (Startup Group)
71) Task #71 – Trailer T62 (Startup Group)
72) Task #72 – Trailer T65 (Plant 1 Pad MC&A Office)

73) Task #73 – Trailer T66 (RIMIA Tri-Plex)
74) Task #74 – Trailer T67 (Rad. Tech.)
75) Task #75 – Trailer T68 (CRU1 Office)
76) Task #76 – Trailer T69 (Control Point - RIMIA)
77) Task #77 – Trailer T71 (Safe Shutdown)
78) Task #78 – Trailer T72 (Safe Shutdown)
79) Task #79 – Trailer T74 (ARASA Changeout Facility)
80) Task #80 – Trailer T75 (Multimedia Services)
81) Task #81 – Trailer T82 (Capital Project)
82) Task #82 – Trailer T83 (Capital Project)
83) Task #83 – Trailer T84 (Capital Project)
84) Task #84 - Trailer T85 (Capital Project)
85) Task #85 – Trailer T86 (Capital Project)
86) Task #86 - Trailer T87 (Capital Project)
87) Task #87 – Trailer T89 (WPA Men's Changeout)
88) Task #88 - Trailer T90 (WPA Women's Changeout)
89) Task #89 – Trailer T91 (WPA Men's Changeout)
90) Task #90 – Trailer T92 (WPA Breakroom)
91) Task #91 – Trailer T93 (Radiation Control Unit Quad)
92) Task #92 – Trailer T94 (Radiation Control Unit Quad)
93) Task #93 – Trailer T95 (Radiation Control Unit Quad)
94) Task #94 – Trailer T96 (Radiation Control)
95) Task #95 – Trailer T97 (FF Office – CRU4)
96) Task #96 – Trailer T98 (OSDF)
97) Task #97 – Trailer T100 (FF Office)
98) Task #98 – Trailer T103 (Storage)
99) Task #99 – Trailer T108 (IAWWTF)
100) Task #100 – Trailer T109 (IAWWTF)
101) Task #101 – Trailer T117 (CRU4 Construction Support Office)
102) Task #102 – Trailer T118 (CRU4 Support Office)
103) Task #103 – Trailer T119 (Restrooms)
104) Task #104 – Trailer T121 (FF Office)
105) Task #105 – Trailer T122 (Storage)
106) Task #106 – Trailer T127 (OEPA – Part of T68)
107) Task #107 – Trailer T128 (Mixed Waste)
108) Task #108 – Trailer T129 (OEPA – Part of T68)
109) Task #109 – Trailer T130 (Breakroom)
110) Task #110 – Trailer T131 (Breakroom)
111) Task #111 – Trailer T132 (Kelchner Office)
112) Task #112 – Trailer T135 (Boiler Maintenance)
113) Task #113 – Trailer T138 (Southern Waste Unit Site Prep. Group)
114) Task #114 – Trailer T139 (Southern Waste Unit Site Prep. Group)
115) Task #115 – Trailer T141 (Maintenance Storage)
116) Task #116 – Trailer T142 (Maintenance Storage)

117) Task #117 – Trailer T164 (FF Training)
118) Task #118 – Trailer T165 (FF Training)
119) Task #119 – Trailer T166 (Industrial Relations)
120) Task #120 – Trailer T167 (Industrial Relations)
121) Task #121 – Trailer T168 (ARASA Contractor)
122) Task #122 – Trailer T169 (ARASA Contractor)
123) Task #123 – Trailer T170 (ARASA Contractor)
124) Task #124 – Trailer T171 (ARASA Contractor)
125) Task #125 – Trailer T172 (FCNDP)
126) Task #126 – Trailer T173 (FCNDP)
127) Task #127 – Trailer T173 (FCNDP)
128) Task #128 – Trailer T175 (FCNDP)
129) Task #129 – Trailer T176 (FCNDP)
130) Task #130 – Trailer T177 (FCNDP)
131) Task #131 – Trailer T178 (FCNDP)
132) Task #132 – Trailer T179 (FCNDP)
133) Task #133 – Trailer T181 (FF Office)
134) Task #134 – Trailer T182 (FF Office)
135) Task #135 – Trailer T183 (FF Office)
136) Task #136 – Trailer T186 (OSDF Office Trailer)
137) Task #137 – Trailer T191 (Breakroom/Cooldown)
138) Task #138 – Trailer T301 (IT Corp.)
139) Task #139 – Trailer T305 (Environmental Monitoring)
140) Task #140 – Trailer T306 (Environmental Monitoring)
141) Task #141 – Trailer T312 (Cell 1 Personal Cool Down)
142) Task #142 – Trailer T313 (ARASA Admin. Office "A")
143) Task #143 – Trailer T314 (ARASA Admin. Office "B")
144) Task #144 – Trailer T315 (ARASA Laboratory Office)
145) Task #145 – Trailer T316 (ARASA Laboratory "A")
146) Task #146 – Trailer T317 (ARASA Laboratory "B")
147) Task #147 – Trailer T318 (ARASA MHB/RCLO Pow. Mod. Bldg.)
148) Task #148 – Trailer T319 (ARASA Breakroom)
149) Task #149 – Trailer T320 (ARASA Laundry/Resp. Wash Facility)
150) Task #150 – Trailer T321 (ARASA MHB Rad. Cont. Trailer)
151) Task #151 – Trailer T322 (ARASA Supervisor's Office)
152) Task #152 – Trailer T323 (ARASA Control Room)
153) Task #153 – Trailer T325 (ARASA GCS/WTS Pow. Mod. Bldg.)
154) Task #154 – Trailer T326 (ARASA Cont. Emissions Mon. Tr.)
155) Task #155 – Trailer T327 (Weigh Scale Ticket Office)
156) Task #156 – Trailer T330 (Doffing Trailer)
157) Task #157 – Trailer T502 (IT Corp. ARASA)
158) Task #158 – Trailer T505 (Facilities Shutdown Break Trailer)
159) Task #159 – Trailer T506 (Office)

160) Task #160 – Trailer T512 (Break – M. Ravenscraft)
161) Task #161 – Trailer T513 (Construction Coordinators)
162) Task #162 – Trailer T514 (Construction – Conference Room)
163) Task #163 – Trailer T520 (S&W Office)
164) Task #164 – Trailer T529 (Storage)
165) Task #165 – Trailer T540 (Triplex – Porter Breakroom)
166) Task #166 – Trailer T603 (Storage – Semi-Trailer)
167) Task #167 – Trailer T604 (Maintenance Storage Semi Trailer)
168) Task #168 – Trailer T608 (Break Trailer – Waste Management)
169) Task #169 – Building 24C – Locomotive Engine House/Repair and Truck Washing Facility
170) Task #170 – Railroad Track

1.4.12 BFDDN – D&D Subcontract – Building 64/65
1) Task #1 – Premobilization
2) Task #2 - Mobilization
3) Task #3 - Building 64 (Thorium Warehouse)
4) Task #4 - Building 65 (Old Plant 5 Warehouse)
5) Task #5 – Demobilization

1.4.13 BFDD1 – D&D Subcontract – Plant 1, Phase II
1) Task #1 - Premobilization
2) Task #2 - Mobilization
3) Task #3 - Building 1B
4) Task #4 - Component 20A
5) Task #5 - Building 30A
6) Task #6 - Building 56A
7) Task #7 - Building 71
8) Task #8 - Components TS-4, TS-5, and TS-6
9) Task #9 - Component 16N

1.4.14 BFDD5 – D&D Subcontract – Plant 5
1) Task #1 – Premobilization
2) Task #2 - Mobilization
3) Task #3 - Building 5A
4) Task #4 - Component 5D
5) Task #5 - Demobilization

1.4.15 BFDD6 – D&D Subcontract – Plant 6
1) Task #1 - Premobilization
2) Task #2 - Mobilization
3) Task #3 - Building 6A
4) Task #4 – Building 6B
5) Task #5 – Building 6C
6) Task #6 – Building 6D
7) Task #7 – Building 6E
8) Task #8 - Building 6F
9) Task #9 - Building 6G
10) Task #10 - Demobilization

1.5 Project Plan/Technical Scope and Quantification

1.5.1 BFDD2 – D&D Subcontract – Plant 2

1) Task #1 – Premobilization
   - 1.1) Plan/Scope - Premobilization
   - 1.2) Quantification – Premobilization
2) Task #2 – Mobilization
   - 2.1) Plan/Scope - Mobilization
   - 2.2) Quantification - Mobilization
3) Task #3 – Buliding 2A
   - 3.1) Plan/Scope - Building 2A
   - 3.2) Quantification - Building 2A
4) Task #4 - Building 2D
   - 4.1) Plan/Scope - Building 2D
   - 4.2) Quantification - Building 2D
5) Task #5 - Component 2F
   - 5.1) Plan/Scope - Component 2F
   - 5.2) Quantification - Component 2F
6) Task #6 – Component 2H
   - 6.1) Plan/Scope - Component 2H
   - 6.2) Quantification – Component 2H
7) Task #7 – Demobilization
   - 7.1) Plan/Scope - Demobilization
   - 7.2) Quantification – Demobilization

1.5.2 BFDD3 – D&D Subcontract – Plant 3

1) Task #1 – Premobilization
   - 1.1) Plan/Scope - Premobilization
   - 1.2) Quantification – Premobilization
2) Task #2 - Mobilization
   - 2.1) Plan/Scope - Mobilization
   - 2.2) Quantification – Mobilization
3) Task #3 - Building 3B
   - 3.1) Plan/Scope - Building 3B
   - 3.2) Quantification – Building 3B
4) Task #4 – Building 3C
   - 4.1) Plan/Scope - Building 3C
   - 4.2) Quantification – Building 3C
5) Task #5 – Component 3D
   - 5.1) Plan/Scope – Component 3D
   - 5.2) Quantification – Component 3D
6) Task #6 – Building 3E
   - 6.1) Plan/Scope – Component 3E
   - 6.2) Quantification – Component 3E
7) Task #7 – Component 3J
   - 7.1) Plan/Scope – Component 3J
   - 7.2) Quantification – Component 3J
8) Task #8 – Component 3K

8.1) Plan/Scope – Component 3K
8.2) Quantification – Component 3K
9) Task #9 – Building 39A
9.1) Plan/Scope – Building 39A
9.2) Quantification – Building 39A
10) Task #10 – Component 22E
10.1) Plan/Scope – Component 22E
10.2) Quantification – Component 22E
11) Task #11 – Demobilization
11.1) Plan/Scope – Demobilization
11.2) Quantification – Demobilization

1.5.3 BFDDS – D&D Subcontract – General Sump
1) Task #1 - Premobilization
1.1) Plan/Scope - Premobilization
1.2) Quantification – Premobilization
2) Task #2 - Mobilization
2.1) Plan/Scope - Mobilization
2.2) Quantification – Mobilization
3) Task #3 - Building 2B
3.1) Plan/Scope - Building 2B
3.2) Quantification – Building 2B
4) Task #4 – Building 2C
4.1) Plan/Scope - Building 2C
4.2) Quantification – Building 2C
5) Task #5 – Component 3H
5.1) Plan/Scope – Component 3H
5.2) Quantification – Component 3H
6) Task #6 – Building 18B
6.1) Plan/Scope – Component 18B
6.2) Quantification – Component 18B
7) Task #7 – Component 18D
7.1) Plan/Scope – Component 18D
7.2) Quantification – Component 18D
8) Task #8 – Component 18H
8.1) Plan/Scope – Component 18H
8.2) Quantification – Component 18H
9) Task #9 – Building 3A
9.1) Plan/Scope – Building 3A
9.2) Quantification – Building 3A
10) Task #10 – Building 3L
10.1) Plan/Scope – Building 3L
10.2) Quantification – Building 3L
11) Task #11 – Miscellaneous Pipe and Pipe Racks
11.1) Plan/Scope – Building 3L
11.2) Quantification – Building 3L
12) Task #12 – Demobilization

12.1) Plan/Scope – Demobilization
12.2) Quantification – Demobilization

1.5.4 BFDD8 – D&D Subcontract – Plant 8

1) Task #1 - Premobilization
   1.1) Plan/Scope - Premobilization
   1.2) Quantification – Premobilization
2) Task #2 - Mobilization
   2.1) Plan/Scope - Mobilization
   2.2) Quantification – Mobilization
3) Task #3 - Building 8A
   3.1) Plan/Scope - Building 8A
   3.2) Quantification – Building 8A
4) Task #4 – Building 8B
   4.1) Plan/Scope - Building 8B
   4.2) Quantification – Building 8B
5) Task #5 – Building 8C
   5.1) Plan/Scope – Building 8C
   5.2) Quantification – Building 8C
6) Task #6 – Building 8D
   6.1) Plan/Scope – Building 8D
   6.2) Quantification – Building 8D
7) Task #7 – Building 8E
   7.1) Plan/Scope – Building 8E
   7.2) Quantification – Building 8E
8) Task #8 – Building 8G
   8.1) Plan/Scope – Building 8G
   8.2) Quantification – Building 8G
9) Task #9 – Building 8H
   9.1) Plan/Scope – Building 8H
   9.2) Quantification – Building 8H
10) Task #10 – Demobilization
   10.1) Plan/Scope – Demobilization
   10.2) Quantification – Demobilization

1.5.5 GFDDH – D&D Subcontract – Health and Safety Building

1) Task #1 - Premobilization
   1.1) Plan/Scope - Premobilization
   1.2) Quantification – Premobilization
2) Task #2 - Mobilization
   2.1) Plan/Scope - Mobilization
   2.2) Quantification – Mobilization
3) Task #3 – Building 53A
   3.1) Plan/Scope - Building 53A
   3.2) Quantification – Building 53A
4) Task #4 – Demobilization
   4.1) Plan/Scope - Demobilization
   4.2) Quantification – Demobilization

1.5.6 BFDDQ – D&D Subcontract – Liquid Storage
- 1) Task #1 – Premobilization
  - 1.1) Plan/Scope – Premobilization
  - 1.2) Quantification – Premobilization
- 2) Task #2 – Mobilization
  - 2.1) Plan/Scope - Mobilization
  - 2.2) Quantification – Mobilization
- 3) Task #3 – Building 26A
  - 3.1) Plan/Scope – Building 26A
  - 3.2) Quantification – Building 26A
- 4) Task #4 – Component 26B
  - 4.1) Plan/Scope – Component 26B
  - 4.2) Quantification – Component 26B
- 5) Task #5 – Building 28D
  - 5.1) Plan/Scope – Building 28D
  - 5.2) Quantification – Building 28D
- 6) Task #6 – Building 45A
  - 6.1) Plan/Scope - Building 45A
  - 6.2) Quantification – Building 45A
- 7) Task #7 – Building 80
  - 7.1) Plan/Scope – Building 80
  - 7.2) Quantification – Building 80
- 8) Task #8 – Demobilization
  - 8.1) Plan/Scope – Demobilization
  - 8.2) Quantification – Demobilization

1.5.7 BFDDP – D&D Subcontract – Pilot Plant
- 1) Task #1 - Premobilization
  - 1.1) Plan/Scope - Premobilization
  - 1.2) Quantification – Premobilization
- 2) Task #2 - Mobilization
  - 2.1) Plan/Scope - Mobilization
  - 2.2) Quantification – Mobilization
- 3) Task #3 – Building 13A
  - 3.1) Plan/Scope – Building 13A
  - 3.1) Quantification – Building 13A
- 4) Task #4 – Component 13B
  - 4.1) Plan/Scope – Component 13B
  - 4.2) Quantification – Component 13B
- 5) Task #5 – Building 13C
  - 5.1) Plan/Scope – Building 13C
  - 5.2) Quantification – Building 13C
- 6) Task #6 – Component 13D
  - 6.1) Plan/Scope – Component 13D
  - 6.2) Quantification – Component 13D
- 7) Task #7 – Building 37
  - 7.1) Plan/Scope – Building 37

7.2) Quantification – Building 37

8) Task #8 – Building 54A
8.1) Plan/Scope – Building 54A
8.2) Quantification – Building 54A

9) Task #9 – Building 54B
9.1) Plan/Scope – Building 54B
9.2) Quantification – Building 54B

10) Task #10 – Building 54C
10.1) Plan/Scope – Building 54C
10.2) Quantification – Building 54C

11) Task #11 – Demobilization
11.1) Plan/Scope – Demobilization
11.2) Quantification – Demobilization

1.5.8 BFDDB – D&D Subcontract – Laboratory

1) Task #1 – Premobilization
1.1) Plan/Scope – Premobilization
1.2) Quantification – Premobilization

2) Task #2 – Mobilization
2.1) Plan/Scope – Mobilization
2.2) Quantification – Mobilization

3) Task #3 – Building 15A
3.1) Plan/Scope – Building 15A
3.2) Quantification – Building 15A

4) Task #4 – Building 15B
4.1) Plan/Scope – Building 15B
4.2) Quantification – Building 15B

5) Task #5 – Building 15C
5.1) Plan/Scope – Building 15C
5.2) Quantification – Building 15C

6) Task #6 – Demobilization
6.1) Plan/Scope – Demobilization
6.2) Quantification – Demobilization

1.5.9 BFDDA – D&D Subcontract – Administration (Includes Electrical Complex)

1) Task #1 - Premobilization
1.1) Plan/Scope – Premobilization
1.2) Quantification – Premobilization

2) Task #2 – Mobilization
2.1) Plan/Scope – Mobilization
2.2) Quantification – Mobilization

3) Task #3 – Building 11
3.1) Plan/Scope – Building 11
3.2) Quantification – Building 11

4) Task #4 – Building 14A
4.1) Plan/Scope - Building 14A
4.2) Quantification – Building 14A

5) Task #5 – Building 14B
   5.1) Plan/Scope - Building 14B
   5.2) Quantification – Building 14B
6) Task #6 – Component 20K
   6.1) Plan/Scope – Component 20K
   6.2) Quantification – Component 20K
7) Task #7 – Building 53B
   7.1) Plan/Scope – Building 53B
   7.2) Quantification – Building 53B
8) Task #8 – Building 46
   8.1) Plan/Scope - Building 46
   8.2) Quantification – Building 46
9) Task #9 – Building 31A
   9.1) Plan/Scope – Building 31A
   9.2) Quantification – Building 31A
10) Task #10 – Demobilization
   10.1) Plan/Scope – Demobilization
   10.2) Quantification – Demobilization

1.5.10 BFDDE – D&D Subcontract – East Warehouse
1) Task #1 – Premobilization
   1.1) Plan/Scope – Premobilization
   1.2) Quantification – Premobilization
2) Task #2 – Mobilization
   2.1) Plan/Scope – Mobilization
   2.2) Quantification – Mobilization
3) Task #3 – Component 20D
   3.1) Plan/Scope – Component 20D
   3.2) Quantification – Component 20D
4) Task #4 – Building 77
   4.1) Plan/Scope – Building 77
   4.2) Quantification – Building 77
5) Task #5 – Building 79
   5.1) Plan/Scope – Building 79
   5.2) Quantification – Building 79
6) Task #6 – Building 82A
   6.1) Plan/Scope – Building 82A
   6.2) Quantification – Building 82A
7) Task #7 – Demobilization
   7.1) Plan/Scope – Demobilization
   7.2) Quantification – Demobilization

1.5.11 BFDDM – D&D Subcontract – Miscellaneous
1) Task #1 – Component 5F (Plant 5 Covered Storage Pad)
2) Task #2 – Component 12E (Maintenance Storage Shed)
3) Task #3 – Component 12F (Maintenance Storage Shed)
4) Task #4 – Building 12G (Restored Area Maintenance Building)
5) Task #5 – Component 16B (Electrical Substation)

6) Task #6 – Component 16C (Electrical Panels & Transformer)
7) Task #7 – Component 16F (Trailer Substation #1)
8) Task #8 – Component 16G (Trailer Substation #2)
9) Task #9 – Component 20E (Well House #1)
10) Task #10 – Component 20F (Well House #2)
11) Task #11 – Component 20G (Well House #3)
12) Task #12 – Component 22B (Storm Sewer Lift Station)
13) Task #13 – Component 22D (Scale House and Weigh Scale)
14) Task #14 – Component 23 (Meteorological Tower)
15) Task #15 – Component 25C (Sewer Lift Station Building)
16) Task #16 – Component 26C (Main Electrical Substation Riser/Strainer House)
17) Task #17 – Building 28E (Guard Post at OSDF South Entrance)
18) Task #18 – Building 28G (Guard Post NW of Building 45)
19) Task #19 – Building 28H (Guard Post South of K-65 Area)
20) Task #20 – Building 28J (Security Checkpoint – South Access Road)
21) Task #21 – Building 28K (Security Checkpoint – East Parking Lot)
22) Task #22 – Building 28L (Guard Post – N. Construction Access Road)
23) Task #23 – Building 28M (Guard Post on "F" Street)
24) Task #24 – Building 30D (Sampling Line Processing)
25) Task #25 – Building 50 (Maintenance Storage Building
26) Task #26 – Building 52A (RTRAK Building)
27) Task #27 – Building 52B (ASTD SCEP Buildling)
28) Task #28 – Building 60 (Quonset Hut #1)
29) Task #29 – Building 61 (Quonset Hut #2)
30) Task #30 – Building 62 (Quonset Hut #3)
31) Task #31 – Building 68 (Pilot Plant Warehouse)
32) Task #32 – Building 93A (Southwest Boiler House)
33) Task #33 – Component G-008 (Pipe Bridges)
34) Task #34 – Building TS-08 (Environmental Monitoring Equipment Storage)
35) Task #35 – Trailer T1 (FF)
36) Task #36 – Trailer T2 (Rad Safety)
37) Task #37 – Trailer T3 (Wise Construction)
38) Task #38 – Trailer T4 (Multimedia Visual Storage)
39) Task #39 – Trailer T5 (FF Construction)
40) Task #40 – Trailer T6 (Restrooms)
41) Task #41 – Trailer T7 (FF)
42) Task #42 – Trailer T8 (Wise Construction)
43) Task #43 – Trailer 12 (CRU4-DLS)
44) Task #44 – Trailer T17 (FF)
45) Task #45 – Trailer T18 (Break Trailer)
46) Task #46 – Trailer T19 (Rad Safety)

47) Task #47 – Trailer T23 (10 Plex)
48) Task #48 – Trailer T24 (7 Plex – North)
49) Task #49 – Trailer T25 (7 Plex – South)
50) Task #50 – Trailer T26 (Waste Management)
51) Task #51 – Trailer T29 (Computer)
52) Task #52 – Trailer T30 (Computer)
53) Task #53 – Trailer T33 (Shipping Office)
54) Task #54 – Trailer T34 (FF)
55) Task #55 – Trailer T35 (FF)
56) Task #56 – Trailer T36 (Heavy Equipment Operators)
57) Task #57 – Trailer T40 (Thorium Overpack)
58) Task #58 – Trailer T41 (Waste Certification – QA)
59) Task #59 – Trailer T42 (Respirator Washing Facility)
60) Task #60 – Trailer T43 (Restoration)
61) Task #61 – Trailer T44 (FF Maintenance)
62) Task #62 – Trailer T45 (Environmental Monitoring)
63) Task #63 – Trailer T46 (Environmental Monitoring)
64) Task #64 – Trailer T49 (Bio-Assay Semi-Trailer)
65) Task #65 – Trailer T40 (Rad Safety)
66) Task #66 – Trailer T57 (Rad Safety)
67) Task #67 – Trailer T58 (Construction Office)
68) Task #68 – Trailer T59 (FF Waste Management)
69) Task #69 – Trailer T60 (Environmental Monitoring)
70) Task #70 – Trailer T61 (Startup Group)
71) Task #71 – Trailer T62 (Startup Group)
72) Task #72 – Trailer T65 (Plant 1 Pad MC&A Office)
73) Task #73 – Trailer T66 (RIMIA Tri-Plex)
74) Task #74 – Trailer T67 (Rad. Tech.)
75) Task #75 – Trailer T68 (CRU1 Office)
76) Task #76 – Trailer T69 (Control Point - RIMIA)
77) Task #77 – Trailer T71 (Safe Shutdown)
78) Task #78 – Trailer T72 (Safe Shutdown)
79) Task #79 – Trailer T74 (ARASA Changeout Facility)
80) Task #80 – Trailer T75 (Multimedia Services)
81) Task #81 – Trailer T82 (Capital Project)
82) Task #82 – Trailer T83 (Capital Project)
83) Task #83 – Trailer T84 (Capital Project)
84) Task #84 - Trailer T85 (Capital Project)
85) Task #85 – Trailer T86 (Capital Project)
86) Task #86 - Trailer T87 (Capital Project)
87) Task #87 – Trailer T89 (WPA Men's Changeout)
88) Task #88 - Trailer T90 (WPA Women's Changeout)
89) Task #89 – Trailer T91 (WPA Men's Changeout)
90) Task #90 – Trailer T92 (WPA Breakroom)
91) Task #91 – Trailer T93 (Radiation Control Unit Quad)
92) Task #92 – Trailer T94 (Radiation Control Unit Quad)

93) Task #93 – Trailer T95 (Radiation Control Unit Quad)
94) Task #94 – Trailer T96 (Radiation Control)
95) Task #95 – Trailer T97 (FF Office – CRU4)
96) Task #96 – Trailer T98 (OSDF)
97) Task #97 – Trailer T100 (FF Office)
98) Task #98 – Trailer T103 (Storage)
99) Task #99 – Trailer T108 (IAWWTF)
100) Task #100 – Trailer T109 (IAWWTF)
101) Task #101 – Trailer T117 (CRU4 Construction Support Office)
102) Task #102 – Trailer T118 (CRU4 Support Office)
103) Task #103 – Trailer T119 (Restrooms)
104) Task #104 – Trailer T121 (FF Office)
105) Task #105 – Trailer T122 (Storage)
106) Task #106 – Trailer T127 (OEPA – Part of T68)
107) Task #107 – Trailer T128 (Mixed Waste)
108) Task #108 – Trailer T129 (OEPA – Part of T68)
109) Task #109 – Trailer T130 (Breakroom)
110) Task #110 – Trailer T131 (Breakroom)
111) Task #111 – Trailer T132 (Kelchner Office)
112) Task #112 – Trailer T135 (Boiler Maintenance)
113) Task #113 – Trailer T138 (Southern Waste Unit Site Prep. Group)
114) Task #114 – Trailer T139 (Southern Waste Unit Site Prep. Group)
115) Task #115 – Trailer T141 (Maintenance Storage)
116) Task #116 – Trailer T142 (Maintenance Storage)
117) Task #117 – Trailer T164 (FF Training)
118) Task #118 – Trailer T165 (FF Training)
119) Task #119 – Trailer T166 (Industrial Relations)
120) Task #120 – Trailer T167 (Industrial Relations)
121) Task #121 – Trailer T168 (ARASA Contractor)
122) Task #122 – Trailer T169 (ARASA Contractor)
123) Task #123 – Trailer T170 (ARASA Contractor)
124) Task #124 – Trailer T171 (ARASA Contractor)
125) Task #125 – Trailer T172 (FCNDP)
126) Task #126 – Trailer T173 (FCNDP)
127) Task #127 – Trailer T173 (FCNDP)
128) Task #128 – Trailer T175 (FCNDP)
129) Task #129 – Trailer T176 (FCNDP)
130) Task #130 – Trailer T177 (FCNDP)
131) Task #131 – Trailer T178 (FCNDP)
132) Task #132 – Trailer T179 (FCNDP)
133) Task #133 – Trailer T181 (FF Office)
134) Task #134 – Trailer T182 (FF Office)
135) Task #135 – Trailer T183 (FF Office)
136) Task #136 – Trailer T186 (OSDF Office Trailer)

137) Task #137 – Trailer T191 (Breakroom/Cooldown)
138) Task #138 – Trailer T301 (IT Corp.)
139) Task #139 – Trailer T305 (Environmental Monitoring)
140) Task #140 – Trailer T306 (Environmental Monitoring)
141) Task #141 – Trailer T312 (Cell 1 Personal Cool Down)
142) Task #142 – Trailer T313 (ARASA Admin. Office "A")
143) Task #143 – Trailer T314 (ARASA Admin. Office "B")
144) Task #144 – Trailer T315 (ARASA Laboratory Office)
145) Task #145 – Trailer T316 (ARASA Laboratory "A")
146) Task #146 – Trailer T317 (ARASA Laboratory "B")
147) Task #147 – Trailer T318 (ARASA MHB/RCLO Pow. Mod. Bldg.)
148) Task #148 – Trailer T319 (ARASA Breakroom)
149) Task #149 – Trailer T320 (ARASA Laundry/Resp. Wash Facility)
150) Task #150 – Trailer T321 (ARASA MHB Rad. Cont. Trailer)
151) Task #151 – Trailer T322 (ARASA Supervisor's Office)
152) Task #152 – Trailer T323 (ARASA Control Room)
153) Task #153 – Trailer T325 (ARASA GCS/WTS Pow. Mod. Bldg.)
154) Task #154 – Trailer T326 (ARASA Cont. Emissions Mon. Tr.)
155) Task #155 – Trailer T327 (Weigh Scale Ticket Office)
156) Task #156 – Trailer T330 (Doffing Trailer)
157) Task #157 – Trailer T502 (IT Corp. ARASA)
158) Task #158 – Trailer T505 (Facilities Shutdown Break Trailer)
159) Task #159 – Trailer T506 (Office)
160) Task #160 – Trailer T512 (Break – M. Ravenscraft)
161) Task #161 – Trailer T513 (Construction Coordinators)
162) Task #162 – Trailer T514 (Construction – Conference Room)
163) Task #163 – Trailer T520 (S&W Office)
164) Task #164 – Trailer T529 (Storage)
165) Task #165 – Trailer T540 (Triplex – Porter Breakroom)
166) Task #166 – Trailer T603 (Storage – Semi-Trailer)
167) Task #167 – Trailer T604 (Maintenance Storage Semi Trailer)
168) Task #168 – Trailer T608 (Break Trailer – Waste Management)
169) Task #169 – Building 24C – Locomotive Engine House/Repair and Truck Washing Facility
170) Task #170 – Railroad Track

1.5.12 BFDDN – D&D Subcontract – Building 64/65

1) Task #1 - Premobilization – Building 64/65
   1.1) Plan/Scope - Premobilization
   1.2) Quantification – Premobilization
2) Task #2 - Mobilization
   2.1) Plan/Scope - Mobilization
   2.2) Quantification – Mobilization

3) Task #3 – Building 64 (Thorium Warehouse)
   3.1) Plan/Scope – Building 64 (Thorium Warehouse)
   3.2) Quantification - Building 64 (Thorium Warehouse)
4) Task #4 – Building 65 (Old Plant 5 Warehouse)
   4.1) Plan/Scope - Building 65 (Old Plant 5 Warehouse)
   4.2) Quantification - Building 65 (Old Plant 5 Warehouse)
5) Task #5 – Demobilization
   5.1) Plan/Scope – Demobilization
   5.2) Quantification – Demobilization

1.5.13 BFDD1 – D&D Subcontract – Plant 1, Phase II
1) Task #1 – Premobilization
   1.1) Plan/Scope – Premobilization
   1.2) Quantification – Premobilization
2) Task #2 – Mobilization
   2.1) Plan/Scope – Mobilization
   2.2) Quantification – Mobilization
3) Task #3 – Building 1B
   3.1) Plan/Scope – Building 1B
   3.2) Quantification – Building 1B
4) Task #4 – Building 20A
   4.1) Plan/Scope – Building 20A
   4.2) Quantification – Building 20A
5) Task #5 - Building 30A
   5.1) Plan/Scope – Building 30A
   5.2) Quantification – Building 30A
6) Task #6 – Building 56A
   6.1) Plan/Scope – Building 56A
   6.2) Quantification – Building 56A
7) Task #7 – Building 71
   7.1) Plan/Scope – Building 71
   7.2) Quantification – Building 71
8) Task #8 - Component TS-04, TS-05, TS-06
   8.1) Plan/Scope – Component TS-04, TS-05, TS-06
   8.2) Quantification - Component TS-04, TS-05, TS-06
9) Task #9 – Component 16N
   9.1) Plan/Scope – Component 16N
   9.2) Quantification – Components 16N
10) Task #10 – Demobilization
   10.1) Plan/Scope - Demobilization
   10.2) Quantification – Demobilization

1.5.14 BFDD5 – D&D Subcontract – Plant 5
1) Task #1 – Premobilization
   1.1) Plan/Scope – Premobilization
   1.2) Quantification – Premobilization
2) Task #2 – Mobilization
   2.1) Plan/Scope – Mobilization

2.2) Quantification – Mobilization

3) Task #3 – Building 5A
   3.1) Plan/Scope – Building 5A
   3.2) Quantification – Building 5A

4) Task #4 – Component 5D
   4.1) Plan/Scope – Component 5D
   4.2) Quantification – Component 5D

5) Task #5 – Demobilization
   5.1) Plan/Scope – Demobilization
   5.2) Quantification – Demobilization

1.5.15 BFDD6 – D&D Subcontract – Plant 6

1) Task #1 – Premobilization
   1.1) Plan/Scope – Premobilization
   1.2) Quantification – Premobilization

2) Task #2 – Mobilization
   2.1) Plan/Scope – Mobilization
   2.2) Quantification – Mobilization

3) Task #3 – Building 6A
   3.1) Plan/Scope – Building 6A
   3.2) Quantification – Building 6A

4) Task #4 – Building 6B
   4.1) Plan/Scope – Building 6B
   4.2) Quantification – Building 6B

5) Task #5 – Building 6C
   5.1) Plan/Scope – Building 6C
   5.2) Quantification – Building 6C

6) Task #6 – Building 6D
   6.1) Plan/Scope – Building 6D
   6.2) Quantification – Building 6D

7) Task #7 – Building 6E
   7.1) Plan/Scope - Building 6E
   7.2) Quantification – Building 6E

8) Task #8 – Building 6F
   8.1) Plan/Scope – Building 6F
   8.2) Quantification – Building 6F

9) Task #9 – Building 6G
   9.1) Plan/Scope - Building 6G
   9.2) Quantification – Building 6G

10) Task #10 – Demobilization
   10.1) Plan/Scope – Demobilization
   10.2) Quantification – Demobilization

Section 4: BDFW – Off-site Debris Disposal D&D

1.0 Narrative
- 1.1 Overview
- 1.2 Assumptions/Exclusions
  - 1.2.1 Assumptions
  - 1.2.2 Exclusions
- 1.3 Drivers
- 1.4 Project Physical Description
- 1.5 Project Plan/Technical Scope and Quantification
  - 1.5.1 Task #1 - BDFW1 – Administration Complex Off-Site Debris Disposal
    - 1) Plan/Scope - Administration Complex Off-Site Debris
    - 2) Quantification – Administration Complex Off-Site Debris
  - 1.5.2 Task #2 – BDFW2 – Elecrical Complex Off-Site Debris Disposal
    - 1) Plan/Scope – Electrical Complex Off-Site Debris Disposal
    - 2) Quantification - Electrical Complex Off-Site Debris Disposal
  - 1.5.3 Task #3 – BDFW3 – General Sump Complex Off-Site Debris Disposal
    - 1) Plan/Scope - General Sump Complex Off-Site Debris Disposal
    - 2) Quantification - General Sump Complex Off-Site Debris Disposal
  - 1.5.4 Task #4 – BDFW4 – Plant 1 Phase II Complex Off-Site Debris Disposal
    - 1) Plan/Scope - Plant 1 Phase II Complex Off-Site Debris Disposal
    - 2) Quantification - Plant 1 Phase II Complex Off-Site Debris Disposal
  - 1.5.5 Task #5 – BDFW5 – Plant 2 Complex Off-Site Debris Disposal
    - 1) Plan/Scope – Plant 2 Complex Off Site Debris Disposal
    - 2) Quantification – Plant 2 Complex Off Site Debris Disposal
  - 1.5.6 Task #6 – BDFW6 – Plant 3 Complex Off-Site Debris Disposal
    - 1) Plan/Scope – Plant 3 Complex Off-Site Debris Disposal
    - 2) Quantification – Plant 3 Complex Off-Site Debris Disposal
  - 1.5.7 Task #7 – BDFW7 – Plant 8 Complex Off-Site Debris Disposal
    - 1) Plan/Scope - Plant 8 Complex Off-Site Debris Disposal
    - 2) Quantification - Plant 8 Complex Off-Site Debris Disposal
  - 1.5.8 Task #8 – BDFW8 – Liquid Storage Complex Off-Site Debris Disposal
    - 1) Plan/Scope – Liquid Storage Complex Off-Site Debris Disposal
    - 2) Quantification - Liquid Storage Complex Off-Site Debris Disposal
  - 1.5.9 Task #9 – BDFW9 – Laboratory Complex Off-Site Debris Disposal
    - 1) Plan/Scope – Laboratory Complex Off-Site Debris Disposal
    - 2) Quantification - Laboratory Complex Off-Site Debris Disposal
  - 1.5.10 Task #10 – BDFWA – Pilot Plant Complex Off-Site Debris Disposal
    - 1) Plan/Scope - Pilot Plant Complex Off-Site Debris Disposal
    - 2) Quantification - Pilot Plant Complex Off-Site Debris Disposal

1.5.11 Task #11 – BDFWB – East Warehouse Complex Off-Site Debris Disposal

1) Plan/Scope – East Warehouse Complex Off-Site Debris Disposal
2) Quantification - East Warehouse Complex Off-Site Debris Disposal

WBS DICTIONARY
CONTROL ACCOUNT/CHARGE NUMBER

U.S. DEPARTMENT OF ENERGY
WORK BREAKDOWN STRUCTURE DICTIONARY
PART II - ELEMENT DEFINITION

1. PROJECT TITLE	2. DATE OF CONTRACT
FEMP (DEFENSE)	12/01/2000

3. IDENTIFICATION NUMBER	4. INDEX LINE NO.
DE-AC24-01OH20115	8

5. WBS ELEMENT CODE	6. WBS ELEMENT TITLE
1.1.B	PBS 02 FACILITY D&D

7. APPROVED CP NO.	8. DATE OF CHANGES
NEW PER CP# FY01-0115-0002-00	08/14/2001

9. SYSTEM DESIGN DESCRIPTION	10. BUDGET AND REPORTING NUMBER
CERCLA / ACA	EW05H3020

11. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Material
Subcontracts

b. TECHNICAL CONTENT:

Includes activities associated with the above-grade decontamination and dismantlement (D&D) of site structures which is to be performed in accordance with the Operable Unit 3 (OU3) Integrated Remedial Design/Remedial Action Work Plan.

c. SCOPE OF WORK:

The scope includes management oversight, planning, procurement, field preparation, construction management, utility redistribution, utility isolation, D&D subcontract(s), above-grade debris management, and project closeout activities.

The following above-grade D&D projects are established within WBS element 1.1.B:

-1.1.B.A Project Management
-1.1.B.B Facility Isolation and Utility Redistribution
-1.1.B.C D&D Projects
-1.1.B.D Offsite Debris Disposal

U.S. DEPARTMENT OF ENERGY
WORK BREAKDOWN STRUCTURE DICTIONARY
PART II - ELEMENT DEFINITION

1. PROJECT TITLE	2. DATE OF CONTRACT
FEMP (DEFENSE)	12/01/2000

3. IDENTIFICATION NUMBER	4. INDEX LINE NO.
DE-AC24-01OH20115	9

5. WBS ELEMENT CODE	6. WBS ELEMENT TITLE
1.1.B.A	MANAGEMENT

7. APPROVED CP NO.	8. DATE OF CHANGES
NEW PER CP# FY01-0115-0002-00	08/14/2001

9. SYSTEM DESIGN DESCRIPTION	10. BUDGET AND REPORTING NUMBER
CERCLA / ACA	EW05H3020

11. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Materials
Subcontracts
ODCs

b. TECHNICAL CONTENT:

This element provides management to Facility D&D activities.

c. SCOPE OF WORK:

The scope of Management includes the following:

- Providing overall project management and strategic planning for removal/remedial actions.
- Developing a variety of program-level plans and strategies for D&D actions in integration with other site projects. These activities include: evaluation of D&D performed to determine actuals (hours expended per task, waste packaged, schedule durations, etc.) and to identify optimal approaches; modifying estimates of future D&D activities based on these actuals; scheduling of D&D activities around funding scenarios and inter-project integration; development of D&D contract strategies and contracting tools; and development of D&D project scopes.
- Evaluating D&D options and work performance to optimize future planning.
- Maintaining critical programmatic interfaces with Waste Minimization and Recycling, Technical Integration, and Technology Programs.
- Coordinating plant operations and maintenance, waste handling, and common support services associated with the FDP Project Management and Remediation Planning activities.
- Ensuring timely award of subcontracts and purchases to accomplish D&D and ensuring that contracts meet government regulations and that their scope and

U.S. DEPARTMENT OF ENERGY
WORK BREAKDOWN STRUCTURE DICTIONARY
PART II - ELEMENT DEFINITION

1. PROJECT TITLE	2. DATE OF CONTRACT
FEMP (DEFENSE)	12/01/2000

3. IDENTIFICATION NUMBER	4. INDEX LINE NO.
DE-AC24-01OH20115	9

5. WBS ELEMENT CODE	6. WBS ELEMENT TITLE
1.1.B.A	MANAGEMENT

7. APPROVED CP NO.	8. DATE OF CHANGES
NEW PER CP# FY01-0115-0002-00	08/14/2001

9. SYSTEM DESIGN DESCRIPTION	10. BUDGET AND REPORTING NUMBER
CERCLA / ACA	EW05H3020

11. ELEMENT TASK DESCRIPTION

terms support the objectives of the FDP remedial effort.
- Ensuring that cost and schedule requirements are defined, planned, and monitored against an integrated baseline so that performance can be measured consistent with overall commitments and budgets.
- Providing program over-site of CERCLA related activities including approval of CERCLA documents.
- Developing and obtaining U.S. EPA approval on the OU3 Final Remedial Action Report
- Finalize OU3 Administrative Record Post-ROD file and archive related historical information.
- Planning and Procurement - includes all planning and procurement activities performed prior to contract award, including Title I/II engineering, document development, estimating, scheduling, data gathering, field surveys and supplemental sampling that supports project planning.
- Construction Management - includes all field activities associated with construction management, support contractors and materials from contract award through completion of field activities.
- Project Closeout - includes all project closeout activities occurring after completion of field activities. This includes the development of the project completion report and cost account closeout.

Onsite Debris Disposal includes:

- delivery of empty containers to the queue area;
- debris categorization oversight and debris/container inspection;
- transportation of containers (once filled) to either interim storage or OSDF transfer area;
- dumping of containerized debris into bulk interim storage (if suitable).
- treatment of mixed waste to meet OSDF waste acceptance criteria;
- certification/manifesting for on-site disposal;
- return of empty containers from the OSDF transfer area.

This work also includes ancillary activities to accomplish the main functions, including stakeholder involvement, document publication, participation in on-site and off-site meetings with DOE and site regulators, and preparation of responses to questions and comments regarding the D&D and waste disposition planning process. Utilization of teaming partner companies and subcontractors is possible to fulfill this scope. The scope also includes travel for attendance at off-site meetings and conferences relevant to this activity area and/or supporting staff growth.

WORK SCOPE DEFINITION
(Control Account)

1. PROJECT TITLE	2. DATE	
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3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.B.A	MANAGEMENT

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
48	J.M. STEVENS/5187	J.M. STEVENS

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3020	FACILITY D&D

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
CHANGE PER CP# FY01-0115-0001-00	12/00 - 01/09

12. TASK IDENTIFICATION (CONTROL ACCOUNT)	13. TASK DESCRIPTION (ONE LINE)
BFDP	PBS 02 PROJECT MANAGEMENT

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Material
ODC's
Subcontracts

b. TECHNICAL CONTENT:

This element provides management to Facility D&D activities.

c. SCOPE OF WORK:

The scope of Management includes the following:

- Providing overall project management and strategic planning for removal/remedial actions.
- Developing a variety of program-level plans and strategies for D&D actions in integration with other site projects. These activities include: evaluation of D&D performed to determine actuals (hours expended per task, waste packaged, schedule durations, etc.) and to identify optimal approaches; modifying estimates of future D&D activities based on these actuals; scheduling of D&D activities around funding scenarios and inter-project integration; development of D&D contract strategies and contracting tools; and development of D&D project scopes.
- Evaluating D&D options and work performance to optimize future planning.
- Maintaining critical programmatic interfaces with Waste Minimization and Recycling, Technical Integration, and Technology Programs.
- Coordinating plant operations and maintenance, waste handling, and common support services associated with the ~~FDP Project~~ Management and Remediation

Project Manager	Control Account Manager	Control Team Manager
		Rodney Whitaker

WORK SCOPE DEFINITION
(Control Account)

1. PROJECT TITLE	2. DATE	
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3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.B.A	MANAGEMENT

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
48	J.M. STEVENS/5187	J.M. STEVENS

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3020	FACILITY D&D

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
CHANGE PER CP# FY01-0115-0001-00	12/00 - 01/09

12. TASK IDENTIFICATION (CONTROL ACCOUNT)	13. TASK DESCRIPTION (ONE LINE)
BFDP	PBS 02 PROJECT MANAGEMENT

14. ELEMENT TASK DESCRIPTION

Planning activities.
- Ensuring timely award of subcontracts and purchases to accomplish D&D and ensuring that contracts meet government regulations and that their scope and terms support the objectives of the FDP remedial effort.
- Ensuring that cost and schedule requirements are defined, planned, and monitored against an integrated baseline so that performance can be measured consistent with overall commitments and budgets.
- Providing program over-site of CERCLA related activities including approval of CERCLA documents.
- Developing and obtaining U.S. EPA approval on the OU3 Final Remedial Action Report
- Finalize OU3 Administrative Record Post-ROD file and archive related historical information.
- Planning and Procurement - includes all planning and procurement activities performed prior to contract award, including Title I/II engineering, document development, estimating, scheduling, data gathering, field surveys and supplemental sampling that supports project planning.
- Construction Management - includes all field activities associated with construction management, support contractors and materials from contract award through completion of field activities.
- Project Closeout - includes all project closeout activities occurring after completion of field activities. This includes the development of the project completion report and cost account closeout.

Onsite Debris Disposal includes:

- delivery of empty containers to the queue area;
- debris categorization oversight and debris/container inspection;
- transportation of containers (once filled) to either interim storage or OSDF transfer area;
- dumping of containerized debris into bulk interim storage (if suitable).
- treatment of mixed waste to meet OSDF waste acceptance criteria;
- certification/manifesting for on-site disposal;
- return of empty containers from the OSDF transfer area.

This work also includes ancillary activities to accomplish the main functions, including stakeholder involvement, document publication, participation in

WORK SCOPE DEFINITION
(Control Account)

1. PROJECT TITLE	2. DATE	
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3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.B.A	MANAGEMENT

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
48	J.M. STEVENS/5187	J.M. STEVENS

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3020	FACILITY D&D

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
CHANGE PER CP# FY01-0115-0001-00	12/00 - 01/09

12. TASK IDENTIFICATION (CONTROL ACCOUNT)	13. TASK DESCRIPTION (ONE LINE)
BFDP	PBS 02 PROJECT MANAGEMENT

14. ELEMENT TASK DESCRIPTION

on-site and off-site meetings with DOE and site regulators, and preparation of responses to questions and comments regarding the D&D and waste disposition planning process. Utilization of teaming partner companies and subcontractors is possible to fulfill this scope. The scope also includes travel for attendance at off-site meetings and conferences relevant to this activity area and/or supporting staff growth.

d. WORK SPECIFICALLY EXCLUDED:

- Utility Redistribution and Facility Isolation
- D&D Subcontractor
- Off-Site Debris Disposal

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
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3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.B.A	MANAGEMENT

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
48	J.M.STEVENS/5187	J.M. STEVENS

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3020	FACILITY D&D

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
NEW SCOPE PER CP #FY01-0115-0002-00	12/00 - 01/09

12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
BFDP1	PROJECT MANAGEMENT

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Materials
Subcontracts
ODC's

b. TECHNICAL CONTENT:

Facility D&D Project Management establishes and maintains a project team responsible for providing program level and strategic planning for the decontamination and dismantlement (D&D) of site structures, utility redistribution, facility isolation, and the disposition of D&D generated waste debris in accordance with Operable Unit 3 (OU3) Integrated Remedial Design/Remedial Action (RD/RA) Work Plan.

c. SCOPE OF WORK:

This is the management account for project level and strategic planning for the D&D of site structures:

PLANT 1 -Phase II

1B	Plant 1 Storage Shelter
16N	Plant 1 Substation
20A	Pump Station & Power Center
30A	Chemical Warehouse
56A	CP Storage Warehouse
71	General In-Process Warehouse
TS-04	Tension Support Structure # 4
TS-05	Tension Support Structure # 5

Project Manager	Control Account Manager	Control Team Manager
		Rodney Wartsbe

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
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3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.B.A	MANAGEMENT

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
48	J.M.STEVENS/5187	J.M. STEVENS

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3020	FACILITY D&D

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
NEW SCOPE PER CP #FY01-0115-0002-00	12/00 - 01/09

12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
BFDP1	PROJECT MANAGEMENT

14. ELEMENT TASK DESCRIPTION

TS-06 Tension Support Structure # 6

PLANT 2 COMPLEX
2A Ore Refinery Plant
2D Metal Dissolver Bldg.
2F Cold Side Ore Conveyer
2H Conveyor Tunnel (From Plant 1)

PLANT 3 COMPLEX
3B Ozone Bldg.
3C NAR Control House
3D NAR Towers
3E Hot Raffinate Bldg.
3J Combined Raffinate Tanks
3K Old Cooling Water Tower
39A Incinerator Bldg.
22E Utility Trench to Pit Area

PLANT 5 COMPLEX
5A Metals Production Plant
5D West Derby Breakout/Slag Milling

PLANT 6 COMPLEX
6A Metals Fabrication Plant
6G Plant 6 Sump Bldg.

PLANT 8 COMPLEX
8A Recovery Plant
8B Plant 8 Maintenance Bldg.
8C Rotary Kiln/Drum Reconditioning Bldg.
8D Plant 8 Railroad Filter Bldg.
8E Drum Conveyer Shelter
8G Trash Compactor Area
8H Soil Washing Building

HEALTH & SAFETY STRUCTURE
53A Health & Safety Building

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
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3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.B.A	MANAGEMENT

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
48	J.M.STEVENS/5187	J.M. STEVENS

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3020	FACILITY D&D

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
NEW SCOPE PER CP #FY01-0115-0002-00	12/00 - 01/09

12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
BFDP1	PROJECT MANAGEMENT

14. ELEMENT TASK DESCRIPTION

ADMINISTRATION COMPLEX
11 Services Building
14A Administration Building
14B Bldg. 14 EOC Generator Set
53B INVIVO Bldg.
20K New Admin. Area Cooling Towers
31A Vehicle Repair Garage
46 Heavy Equipment Building

EAST WAREHOUSE COMPLEX
20D Elevated Potable Storage Tank
77 Finished Products Warehouse (4A)
79 Plant 6 Warehouse
82A RIMIA

GENERAL SUMP COMPLEX
2B General/Refinery Sump Control Bldg.
2C Bulk Lime Handling Bldg.
3A Maintenance Bldg.
3H Refinery Sump
3L Electrical Power Center Bldg.
18B General Sump
18D Biodenitrification Towers
18H BDN Effluent Treatment Facility

LABORATORY COMPLEX
15A Laboratory Building
15B Laboratory Chemical Storage
15C Laboratory Garage

LIQUID STORAGE COMPLEX
26A Pump House - HP Fire Protection
26B Elevated Storage Water Tank
28D Guard Post on West End of 2nd St.
45A Maintenance (Former Rust Engr. and Construction Div. Bldg.)
80 Plant 8 Warehouse

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
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3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.B.A	MANAGEMENT

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
48	J.M.STEVENS/5187	J.M. STEVENS

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3020	FACILITY D&D

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
NEW SCOPE PER CP #FY01-0115-0002-00	12/00 - 01/09

12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
BFDP1	PROJECT MANAGEMENT

14. ELEMENT TASK DESCRIPTION

64/65 STRUCTURES
64 Thorium Warehouse
65 Old Plant 5 Warehouse

PILOT PLANT COMPLEX
13A Pilot Plant Wet Side
13B Pilot Plant Maintenance Bldg.
13C Sump Pump House
13D Pilot Plant Thorium Tank Farm
37 Pilot Plant Annex
54A 6 to 4 Reduction Facility
54B Pilot Plant Shelter/Warehouse
54C Pilot Plant Dissociator Shelter

MISCELLANEOUS STRUCTURES
Railroad Tracks, Phase I Railroad Tracks, Phase II
5F Plant 5 Covered Storage Pad
12E Maintenance Laborer Storage Bldg.
12F Maintenance Laborer Storage Bldg.
12G Restored Area Maintenance Bldg.
16B Electrical Substation
16C Electrical Panels & Transformer
16F Trailer Substation #1
16G Trailer Substation #2
20E Well House #1
20F Well House #2
20G Well House #3
22B Storm Sewer Lift Station
22D Scale House & Weigh Scale
23 Meteorological Tower
24C Locomotive Maintenance Building
25C Sewage Lift Station Bldg.
26C Main Elect. Substation Riser/Strainer House
28E Guard Post at OSDF South Entrance (formerly @T81)
28G Guard Post NW of Bldg. 45 (T327)
28H Guard Post South of K-65 Area

WORK SCOPE DEFINITION
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1. PROJECT TITLE	2. DATE	
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3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.B.A	MANAGEMENT

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
48	J.M.STEVENS/5187	J.M. STEVENS

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3020	FACILITY D&D

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
NEW SCOPE PER CP #FY01-0115-0002-00	12/00 - 01/09

12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
BFDP1	PROJECT MANAGEMENT

14. ELEMENT TASK DESCRIPTION

28J	Security Checkpoint (South Access Rd.)
28K	Security Checkpoint (E. Park. Lot)
28L	Guard Post (N. Const. Access Rd)
28M	Guard Post on "F" Street
30D	Sampling Line Processing
50	Maintenance Storage Building
52A	RTRAK Building
52B	ASTD SCEP Building
60	Quonset Hut # 1
61	Quonset Hut # 2
62	Quonset Hut # 3
68	Pilot Plant Warehouse
93A	Southwest Boiler House
G-008	Pipe Bridges
TS-08	Environ. Monitor. Equip. Storage
T1	FDF
T2	Rad Safety
T3	Wise Construction
T4	FDF Training
T5	FDF Construction
T6	Restrooms
T7	FDF
T8	Wise Construction
T12	CRU4 (DLS)
T17	FDF
T18	Break Trailer
T19	Rad Safety
T23	10 Plex
T24	7 Plex North
T25	7 Plex South
T26	Waste Management
T29	Computer
T30	Computer
T33	Shipping Office
T34	FDF
T35	FDF
T36	Heavy Equip. Operators

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
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3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.B.A	MANAGEMENT

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
48	J.M.STEVENS/5187	J.M. STEVENS

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3020	FACILITY D&D

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
NEW SCOPE PER CP #FY01-0115-0002-00	12/00 - 01/09

12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
BFDP1	PROJECT MANAGEMENT

14. ELEMENT TASK DESCRIPTION

T40	Thorium Overpack
T41	Waste Certification (QA)
T42	Respirator Washing Facility
T43	Restoration
T44	FDF Maintenance
T45	Environmental Monitoring
T46	Environmental Monitoring
T49	Bio-Assay Semi-Trailer
T50	Rad Safety
T57	Rad Safety
T58	Construction Office
T59	FDF Waste Management
T60	DOE Field Office
T61	Startup Group
T62	Startup Group
T65	Plant 1 Pad MC&A Office
T66	RIMIA Tri-Plex
T67	Rad. Tech.
T68	CRU1 Office
T69	Control Point - RIMIA
T71	Safe Shutdown
T72	Safe Shutdown
T74	ARASA Changeout Facility
T75	Multimedia Services
T82	Capital Project
T83	Capital Project
T84	Capital Project
T85	Capital Project
T86	Capital Project
T87	Capital Project
T89	WPA Mens Changeout
T90	WPA Womens Changeout
T91	WPA Mens Changeout
T92	WPA Breakroom
T93	Radiation Control Unit Quad
T94	Radiation Control Unit Quad
T95	Radiation Control Unit Quad

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
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3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.B.A	MANAGEMENT

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
48	J.M.STEVENS/5187	J.M. STEVENS

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3020	FACILITY D&D

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
NEW SCOPE PER CP #FY01-0115-0002-00	12/00 - 01/09

12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
BFDP1	PROJECT MANAGEMENT

14. ELEMENT TASK DESCRIPTION

T96	Radiation Control
T97	FDF Office (CRU4)
T98	OSDF
T100	FDF Office
T103	Storage
T108	IAWWTF
T109	IAWWTF
T117	CRU4 Construction Support Office
T118	CRU4 Support Office
T119	Restrooms
T121	FDF Office
T122	Storage
T127	OEPA (Part of T68)
T128	Mixed Waste
T129	OEPA (Part of T68)
T130	Breakroom
T131	Breakroom
T132	Kelchner Office
T135	Boiler Maintenance
T138	Southern Waste Unit Site Prep. Grp
T139	Southern Waste Unit Site Prep. Grp
T141	Maintenance Storage
T142	Maintenance Storage
T164	FDF Training
T165	FDF Training
T166	Industrial Relations
T167	Industrial Relations
T168	ARASA Contractor
T169	ARASA Contractor
T170	ARASA Contractor
T171	ARASA Contractor
T172	FCNDP
T173	FCNDP
T174	FCNDP
T175	FCNDP
T176	FCNDP
T177	FCNDP

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
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3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME	
1.1.B.A	MANAGEMENT	
5. PERFORMING DIV/DEPARTMENT CODE	**6. ORIGINATOR NAME/PHONE**	**7. WBS ELEMENT MANAGER**
48	J.M.STEVENS/5187	J.M. STEVENS
8. BUDGET AND REPORTING NUMBER	**9. BUDGET TITLE**	
EW05H3020	FACILITY D&D	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		**11. ESTIMATED START / COMPLETION DATE**
NEW SCOPE PER CP #FY01-0115-0002-00		12/00 - 01/09
12. TASK IDENTIFICATION (WORK PACKAGE)	**13. TASK DESCRIPTION (ONE LINE)**	
BFDP1	PROJECT MANAGEMENT	

14. ELEMENT TASK DESCRIPTION

T178	FCNDP
T179	FCNDP
T181	FDF Office
T182	FDF Office
T183	FDF Office
T186	OSDF Office Trailer
T191	Breakroom/Cooldown
T301	IT Corp.
T305	Environmental Monitoring
T306	Environmental Monitoring
T312	Cell 1 Personal Cool Down
T313	ARASA Admin. Office "A"
T314	ARASA Admin. Office "B"
T315	ARASA Laboratory Office
T316	ARASA Laboratory "A"
T317	ARASA Laboratory "B"
T318	ARASA MHB/RCLO Pow. Mod. Bld
T319	ARASA Breakroom
T320	ARASA Laun./Resp. wash facility
T321	ARASA MHB Rad. Cont. Trailer
T322	ARASA Supervisor's Office
T323	ARASA Control Room
T325	ARASA GCS/WTS Pow. Mod. Bldg
T326	ARASA Cont. Emissions Mon. Tr.
T327	Weigh Scale Ticket Office
T330	Doffing Trailer
T502	IT Corp. ARASA
T505	Facilities Shutdown Break Trailer
T506	Office
T512	Break-M. Ravenscraft
T513	Construction Coordinators
T514	Construction (Conference Room)
T520	S&W Office
T529	Storage
T540	Triplex - Porter Breakroom
T603	Storage - Semi Trailer
T604	Maintenance Storage Semi Trailer

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
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3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.B.A	MANAGEMENT

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
48	J.M.STEVENS/5187	J.M. STEVENS

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3020	FACILITY D&D

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
NEW SCOPE PER CP #FY01-0115-0002-00	12/00 - 01/09

12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
BFDP1	PROJECT MANAGEMENT

14. ELEMENT TASK DESCRIPTION

T608 Break Trailer - Waste Management

SOILS PROJECT (NOT IN D&D SCOPE OF WORK)

18A	BDN Surge Lagoon
18C	Coal Pile Runoff Basin
18E	Storm Water Retention Basins
18W	S.W.U. Retention Basin
20J	Lime Slurry Pits
21A	Haul Road Wheel Wash Facility
21B	OSDF Wheel Wash Facility
22C	Truck Scale
22G	Main Gate Truck Scale
24D	Railroad Inspection Pit
31B	Old Truck Scale
74A	Plt. 2 East Pad
74B	Plt. 2 West Pad
74C	Plt. 8 East Pad
74D	Plt. 8 West Pad
74E	Plt. 4 Pad
74F	Plt. 7 Pad
74G	Plt. 5 East Pad
74H	Plt. 5 South Pad
74J	Plant 6 Pads
74K	Plt. 9 Pad
74L	Bldg. 65 West Pad
74M	Bldg. 64 East Pad & Railroad Dock
74N	Building 12 North Pad
74P	Decontamination Pad
74Q	Plt. 8 Old Metal Dissolver Pad
74R	Plt. 8 North Pad
74S	Bldg. 63 West Pad
74T	Plt. 1 Storage Pad
74U	Pilot Plant Pad
74V	Laboratory Pad
74W	Bldg. 39A Pad
82B	Fuel Loading/Unloading Facility - Gas Boy
89	Parking Lots

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
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3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.B.A	MANAGEMENT

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
48	J.M.STEVENS/5187	J.M. STEVENS

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
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10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
NEW SCOPE PER CP #FY01-0115-0002-00	12/00 - 01/09

12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
BFDP1	PROJECT MANAGEMENT

14. ELEMENT TASK DESCRIPTION

34A K-65 Storage Tank (North)
34B K-65 Storage Tank (South)
34C RTS Building
35A Metal Oxide Storage Tank (North)
35B Metal Oxide Storage Tank (South)
94A CRU4 Vitrification Pilot Plant

WASTE PITS PROJECT (NOT IN D&D SCOPE OF WORK)
18F Pit #5 Sluice Gate
18G Clearwell Pump House
18N Waste Pit Area Storm Water Runoff Control
18X OU1 Remediation Swm Pond
88 Clearwell Line
91A Gas Clean. Sys./Water Treat. Sys.
91B Material Handling Building
91C Railcar Loadout (RCLO)
91D Railcar Prep. & Liner Storage
91E Maintenance Building
91F Warehouse
91G Truck Wash Pump House
91H Geo-Lab

POST CLOSURE STRUCTURES (NOT IN D&D SCOPE OF WORK)
16A Main Electrical Station
16D Main Electrical Switch House
16E Main Electrical Transformers
16H 10 Plex's North Substation
16J 10 Plex's South Substation
16K Dissolved Oxygen Facility Substation
18J Methanol Tank
18M High Nitrate Storage Tank
18P Dissolved Oxygen Building
18Q South Plume Int. Treatment Bldg./IAWWT Valve House
18R Outfall Line Pit
18S Recovery Well System Control Bldg. (S. of Willey Rd.)
18T Public Water Supply Meter House (at Willey Rd.)

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
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3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.B.A	MANAGEMENT

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
48	J.M.STEVENS/5187	J.M. STEVENS

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3020	FACILITY D&D

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
NEW SCOPE PER CP #FY01-0115-0002-00	12/00 - 01/09

12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
BFDP1	PROJECT MANAGEMENT

14. ELEMENT TASK DESCRIPTION

18U	50K gal. Storage Tank
18V	Southfield Valve House
18Y	AWWT Ozone Generation Bldg.
18Z	Sludge Mix Tank
19B	Pilot Plant Ammonia Tank Farm/AWWT Caustic Tank Storage
22F	Main Gas Meter
25J	10 Plexs Sewage Lift Station
25K	New Sewage Treat. Plant Complex
26D	Domestic & Fire Water Booster St.
26E	Domestic & Fire Water 400K Gal.
26F	Domestic & Fire Water Lift Station
51A	Advanced Wastewater Treatment
51B	Slurry Dewatering Facility
51C	AWWT Laboratory Expansion Bldg.
T76	SWOC
T77	SWOC
T78	SWOC
T79	SWOC
T80	ERMC
T81	ERMC
T114	Operations Control Center (DOE)
T115	Radiological/Analytical Lab (DOE)
T116	Organic Lab (DOE)
T124	FDF Security
T180	AWWT Office

1) D&D Project Management

Facility D&D Project Management consists of the day to day management of all activities associated with the following projects:

- Administration Complex D&D
- Electrical Station Complex D&D
- General Sump Complex D&D
- Laboratory Complex D&D
- Health & Safety Building D&D
- Liquid Storage Complex D&D
- Plant 1, Phase II Complex D&D

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1. PROJECT TITLE	2. DATE	
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3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.B.A	MANAGEMENT

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
48	J.M.STEVENS/5187	J.M. STEVENS

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3020	FACILITY D&D

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
NEW SCOPE PER CP #FY01-0115-0002-00	12/00 - 01/09

12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
BFDP1	PROJECT MANAGEMENT

14. ELEMENT TASK DESCRIPTION

- Plant 2 Complex D&D
- Plant 3 Complex D&D
- Plant 8 Complex D&D
- Plant 5 Complex D&D
- Plant 6 Complex D&D
- Pilot Plant Complex D&D
- East Warehouse Complex D&D
- OU1 Complex D&D
- 64/65 Structures
- Miscellaneous Components D&D
- Onsite D&D Debris Disposal

Typical Facility D&D Project Management activities include:

- Developing a variety of program-level plans and strategies for D&D actions in integration with other site projects. These activities include:
- Evaluation of D&D performed to determine actuals (hours expended per task, waste packaged, schedule durations, etc.) and to identify optimal approaches;
- Modifying estimates of future D&D activities based on these actuals;
- Scheduling of D&D activities around funding scenarios and inter-project integration;
- Development of D&D contract strategies and contracting tools; and
- Development of D&D project scopes.
- Evaluating D&D options and work performance to optimize future planning.
- Maintaining critical programmatic interfaces with Waste Minimization and Recycling, Technical Integration, and Technology Programs.
- Coordinating plant operations and maintenance, waste handling, and common support services associated with the FDP Project Management and Remediation Planning activities.
- Ensuring timely award of subcontracts and purchases to accomplish D&D and ensuring that contracts meet government regulations and that their scope and terms support the objectives of the FDP remedial effort.
- Ensuring that cost and schedule requirements are defined, planned, and monitored against an integrated baseline so that performance can be measured consistent with overall commitments and budgets.
- Providing program oversight of CERCLA related activities including approval of CERCLA documents.

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(Work Package)

1. PROJECT TITLE	2. DATE	
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3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.B.A	MANAGEMENT

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
48	J.M.STEVENS/5187	J.M. STEVENS

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3020	FACILITY D&D

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
NEW SCOPE PER CP #FY01-0115-0002-00	12/00 - 01/09

12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
BFDP1	PROJECT MANAGEMENT

14. ELEMENT TASK DESCRIPTION

- Developing and obtaining U.S. EPA approval on the OU3 Final Remedial Action Report.
- Performing ancillary activities to accomplish the main functions, including (but not limited to) stakeholder involvement, document publication, participation in on-site and off-site meetings with DOE and site regulators, and preparation of responses to questions and comments regarding the D&D and waste disposition planning process.

2) Planning and Procurement

Planning consists of the following activities:

- Develop Scope of Work
- Develop Schedule
- Review Facility Shutdown Turnover Package
- Prepare Estimate
- Prepare Safety Assessment
- Prepare Davis Bacon Determination
- Prepare Real Property Disposition Package
- Prepare Implementation Plan
- Develop Performance Specifications
- Develop RFP
- Conduct Job Walkthrough
- Conduct Kick-off Meeting
- Complete Utility Redistribution
- Install D&D support facilities
- Prepare Rad con survey summary
- Prepare ACM survey summary
- Prepare PWID
- Prepare WMP/MSCC and debris quantity
- Prepare debris generation forecast & container id info
- Identify stockpile and container queue areas
- Conduct recycle evaluation
- Prepare Rad air emissions modeling
- Identify Air monitoring locations
- Prepare Photo Book
- Develop Training requirements matrix
- Prepare QA Plan

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3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.B.A	MANAGEMENT

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
48	J.M.STEVENS/5187	J.M. STEVENS

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EW05H3020	FACILITY D&D

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
NEW SCOPE PER CP #FY01-0115-0002-00	12/00 - 01/09

12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
BFDP1	PROJECT MANAGEMENT

14. ELEMENT TASK DESCRIPTION

- Obtain Performance Grade

Procurement consists of the following activities:
- Conduct the Pre-bid tour
- Conduct the Pre-bid meeting
- Complete Proposal
- Receipt of bids
- Conduct an evaluation of the bids
- Prepare consent request package
- Conduct DOE evaluation
- Obtain DOE consent
- Award Contract

3) Construction Management

Construction Management consists of the following activities:
- Contract award
- Oversight of Contractor
- Contract Administration
- Construction Management activities
- Project Control activities
- Safety oversight
- IH oversight
- Radiological oversight
- Technology Group interface
- Laboratory support
- Engineering support
- Process hold-up material removal

The following is a list of the primary support services that are centralized in other Fluor Fernald divisions but not budgeted under this plan.
- WAO activities
- WGS activities
- Laundry activities (supplying of laundrable PPEs)
- Transportation activities
- Maintenance of Government owned or leased trailers
- Maintenance of Government Furnished Equipment

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
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3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.B.A	MANAGEMENT

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
48	J.M.STEVENS/5187	J.M. STEVENS

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3020	FACILITY D&D

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
NEW SCOPE PER CP #FY01-0115-0002-00	12/00 - 01/09

12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
BFDP1	PROJECT MANAGEMENT

14. ELEMENT TASK DESCRIPTION

- ECDC activities
- Multimedia Visual Services support

4) Project Closeout

Closure consists of Preparation of the Project Completion Report, Task Order Closeout completion, and Preparation of the Turnover Package.

5) Onsite Waste Disposal

The technical scope includes transferring all D&D generated onsite debris from the D&D construction Zone to the OMTA or directly to the OSDF when operational. This scope includes transportation of all existing and future onsite debris generated by D&D activities that are identified below.

Category A, B, D, E, I2 and I4 onsite debris will be relocated from the D&D construction zones to the OMTA or directly to the OSDF in Roll-Off-Boxes (ROBs) by a ROB transportation truck operated by FAT&LC personnel. The ROB transportation truck will pick-up the filled ROBs, transport them to the OMTA or OSDF and dump the contents and return the empty ROB to the D&D construction zone.

Category H onsite debris will be relocated from the D&D construction zones to the OMTA or directly to the OSDF in Sealand® containers by a forktruck operated by FAT&LC personnel. The forktruck will pick-up the filled Sealand® containers, transport them to the OMTA or OSDF. Empty Sealand® containers will be transferred to the D&D construction zone.

Category G (Transite) onsite debris have been placed on pallets up to 4 foot high stacks and banded together by the D&D contractor. Palletized transite will be placed on a flatbed truck by forktrucks in preparation for relocation from the D&D construction zone or other staging areas to the OMTA or directly to the OSDF. The flatbed truck and forktrucks will be operated by FAT&LC personnel. Empty flatbed trucks will be returned to the D&D construction zone.

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(Work Package)

1. PROJECT TITLE	2. DATE	
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3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.B.A	MANAGEMENT

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
48	J.M.STEVENS/5187	J.M. STEVENS

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3020	FACILITY D&D

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
NEW SCOPE PER CP #FY01-0115-0002-00	12/00 - 01/09

12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
BFDP1	PROJECT MANAGEMENT

14. ELEMENT TASK DESCRIPTION

In the event any of this onsite debris is thorium contaminated, then the onsite debris can be stockpiled outside. This scope includes the maintenance of the stockpiles, which includes the encapsulation of the stockpile two (2) times annually until the debris is placed in the OSDF. The encapsulation would consist of sprayed application of a typical asbestos type encapsulant.

d. WORK SPECIFICALLY EXCLUDED:

1. Management of D&D activities associated with OU4 (Silos) related structures and components.
2. Management of Utility Redistribution and facility isolation activities associated with OU4 (Silos) related structures and components.
3. Management of Onsite and offsite debris disposition activities associated with OU4 (Silos) related structures and components.
4. Any activities not associated with D&D management.
5. Specifically excluded from the scope of work are facility isolation and utility redistribution, D&D subcontractor, and offsite waste disposition activities associated with specific D&D projects.
6. FF G&A.
7. OMTA waste handling or general maintenance.
8. Burial costs for the OSDF.
9. Container purchase scope and budget.
10. SSR activities are excluded from the scope of this waste stream.
11. Offsite debris disposal scope and budget.
12. Size reduction, packaging, movement or staging of debris not specifically associated with D&D projects as described in the D&D Closure Plans.

1. PROJECT TITLE: DEMOLITION AND DECONTAMINATION	2. DATE: 09/10/01	3. PBS#: 02
4. WBS ELEMENT CODE: 1.1.B.A.	5. WBS ELEMENT TITLE: PROJECT MANAGEMENT	
6. CAM NAME/ PHONE: MIKE STEVENS/ 5187	7. CAM SIGNATURE:	
8. ORIGINAL/ CHANGE SCOPE/ PER CP#:	9. CONTROL ACCOUNT: BFDP	

SECTION 1: BFDP – PROJECT MANAGEMENT

1.0 NARRATIVE

1.1 OVERVIEW

Facility D&D Project Management establishes and maintains a project team responsible for providing program level and strategic planning for the decontamination and dismantlement (D&D) of site structures, utility redistribution, facility isolation, and the disposition of D&D generated waste debris in accordance with Operable Unit 3 (OU3) Integrated Remedial Design/Remedial Action (RD/RA) Work Plan.

1.2 ASSUMPTIONS/EXCLUSIONS

1.2.1 Assumptions

Project Management

R1-F02-047

- Management of D&D activities throughout performance of closure contract. ~~The scope of work for D&D activities are identified in the individual D&D Closure Plans.~~

R1-F02-047

- Management of Utility Redistribution and Facility Isolation activities throughout performance of closure contract. ~~The scope of work for Utility Redistribution and Facility Isolation activities is identified in the individual D&D Closure Plans.~~

R1-F02-047

- Management of D&D generated onsite and offsite waste debris disposition activities throughout performance of closure contract. ~~The specifics of onsite and offsite activities are identified in the onsite D&D debris disposal Closure Plan and the offsite D&D debris disposal Closure Plan.~~

- The sole source D&D contractor concept, to be performed by MACTEC, will be accepted by DOE by the end of July 2001 and awarded by the end of September 2001.

On-Site Waste Disposal

- Closure Baseline scenario 6 forms the basis for schedules and priorities.
- Onsite debris transfer from the D&D construction zone to the OMTA will be performed by FAT&LC represented personnel.
- Work will be performed in full compliance with the Closure Contract S/RID.
- Funding will be made available to support the baseline as approved.
- Containers will be manufactured and delivered by vendors to support the schedule.
- The OSDF remains a viable disposal site for onsite waste streams as planned.
- Regulatory requirements remain static during the baseline performance period.
- Materials do not require any type of criticality controls.
- None of the wastes incorporated in onsite waste streams require additional formal characterization or sampling for disposition. Existing process knowledge, sampling analysis and visual inspections will fulfill the need for characterization information.
- Material is non-RCRA. Any material subsequently identified to be RCRA would be transferred by change proposal to the D&D offsite debris control account.
- Prohibited articles and wastes that require treatment prior to disposition included in the work package can be effectively dispositioned through other processes included in the closure baseline, such as by utilizing existing planned RCRA treatment contracts.
- OMTA expansions will be accepted by the DOE and/or the Regulatory Agencies as required to accept D&D debris. The OMTA or OSDF will have sufficient resources and capacity to receive and disposition onsite wastes so that no containers are required to be purchased for interim storage.
- FEMP Maintenance will provide budget for replacements and repairs of general use equipment for this work package, such as the OSDF ROB fleet and various vehicles used in the collection and processing of these wastes and containers.
- D&D onsite debris waste generation forecasts for these waste streams are reliable within +/- 5%.
- Weather impacts on loading and shipping operations are typical for the FEMP.

- Necessary equipment is available to support operations.

- Non-residue Legacy Waste asbestos is acceptable for disposal in the OSDF. OMTA or other D&D onsite debris storage costs are not included to stage material until eventual OSDF disposal in FY2004 and 5.

- During normal OSDF placement years, regulated asbestos will be immediately transferred o an identified OSDF transfer area, without the need for prior staging.

- Debris complying with OSDF WAC Attainment Plan requirements can be transferred to identified OSDF Transfer Area(s).

- Delivery of accepted wastes to an area identified by the OSDF Project, as a Transfer Area constitutes completion of work scope under this work package.

- Thorium contaminated, onsite debris can be stockpiled outside. This scope includes the maintenance of the stockpiles, which includes the encapsulation of the stockpile two (2) times annually until the debris is placed in the OSDF. The encapsulation would consist of sprayed application of a typical ~~asbestos type~~ encapsulant.

R1-F02-050

- Operation of OSDF transfer area(s), associated waste staging costs and waste placement costs are provided in OSDF project budgets.

- The sole source D&D contractor concept, to be performed by MACTEC, will be accepted by DOE by the end of July 2001 and awarded by the end of September 2001.

1.2.2 Exclusions

Project Management

- Management of D&D activities associated with OU4 (Silos) related structures and components.

- Management of Utility Redistribution and facility isolation activities associated with OU4 (Silos) related structures and components.

- Management of Onsite and offsite debris disposition activities associated with OU4 (Silos) related structures and components.

- Any activities not associated with D&D management.

- Specifically excluded from the scope of work are facility isolation and utility redistribution, D&D subcontractor, and offsite waste disposition activities associated with specific D&D projects.

On-Site Waste Disposal

R1-F02-050

- Burial costs ~~fees~~ for the OSDF.

- Container purchase scope and budget.

- SSR activities are excluded from the scope of this waste stream.

- Offsite debris disposal scope and budget.

- Size reduction, packaging, movement or staging of debris not specifically associated with D&D projects as described in the D&D Closure Plans.

- OMTA waste handling or general maintenance.

1.2.3 Government Furnished Equipment/Service

There are no government furnished equipment/services associated with this scope of work.

1.3 DRIVERS

- D&D of all facilities at the FEMP is stipulated in the OU3 Record of Decision for Interim Remedial Action (IROD) (DOE1994a), with final treatment and disposition stipulated in the OU3 Record of Decision for Final Remedial Action (DOE 1996a).

- The OU3 Integrated RD/RA Work Plan (Final, May 1997) established a remediation schedule and an EPA Enforceable Milestone for the initial execution of each D&D Project. Any changes to the Milestones will be modified to meet the site objectives and the EPA notified accordingly.

- Procedure D10-02-009, "Decontamination and Demolition Project Planning"

On-Site Waste Disposal

- Drivers include either events (or activities) that must occur as predecessor or contemporary to the project, as well as significant requirements that must be met in the execution of the project.
- OSDF will return to full operation in FY-2004 and receive all asbestos and debris that meet WAC in a timely manner.
- Closure Contract S/RID
- Operable Unit 3 requirements (decision and implementing documents).
- OSDF WAC Attainment Plan
- DOE 435.1

1.4 PROJECT PHYSICAL DESCRIPTION

This is the management account for program level and strategic planning for the D&D of site structures, utility redistribution, facility isolation, and disposition of D&D generated waste. Table1.4 identifies all structures, components, and trailers and indicates whether the structure, component, or trailer is part of a D&D Complex, part of another PBS's scope of work, or is a post-closure structure, component, or trailer that will remain beyond this scope of work.

Table 1.4

PLANT 1 -Phase II	
1B	Plant 1 Storage Shelter
16N	Plant 1 Substation
20A	Pump Station & Power Center
30A	Chemical Warehouse
56A	CP Storage Warehouse
71	General In-Process Warehouse
TS-04	Tension Support Structure # 4
TS-05	Tension Support Structure # 5
TS-06	Tension Support Structure # 6
PLANT 2 COMPLEX	
2A	Ore Refinery Plant
2D	Metal Dissolver Bldg.
2F	Cold Side Ore Conveyer
2H	Conveyor Tunnel (From Plant 1)
PLANT 3 COMPLEX	
3B	Ozone Bldg.
3C	NAR Control House

PLANT 3 COMPLEX – Continued	
3D	NAR Towers
3E	Hot Raffinate Bldg.
3J	Combined Raffinate Tanks
3K	Old Cooling Water Tower
39A	Incinerator Bldg.
22E	Utility Trench to Pit Area
PLANT 5 COMPLEX	
5A	Metals Production Plant
5D	West Derby Breakout/Slag Milling
PLANT 6 COMPLEX	
6A	Metals Fabrication Plant
6G	Plant 6 Sump Bldg.
PLANT 8 COMPLEX	
8A	Recovery Plant
8B	Plant 8 Maintenance Bldg.
8C	Rotary Kiln/Drum Reconditioning Bldg.
8D	Plant 8 Railroad Filter Bldg.
8E	Drum Conveyer Shelter
8G	Trash Compactor Area
8H	Soil Washing Building
HEALTH & SAFETY STRUCTURE	
53A	Health & Safety Building
ADMINISTRATION COMPLEX	
11	Services Building
14A	Administration Building
14B	Bldg. 14 EOC Generator Set
~~53A~~	~~Health & Safety Building~~
53B	INVIVO Bldg.
20K	New Admin. Area Cooling Towers
31A	Vehicle Repair Garage
46	Heavy Equipment Building
EAST WAREHOUSE COMPLEX	
20D	Elevated Potable Storage Tank
77	Finished Products Warehouse (4A)
79	Plant 6 Warehouse
82A	RIMIA
~~**ELECTRICAL STATION COMPLEX**~~	
~~31A~~	~~Vehicle Repair Garage~~
~~46~~	~~Heavy Equipment Bldg.~~
GENERAL SUMP COMPLEX	
2B	General/Refinery Sump Control Bldg.
2C	Bulk Lime Handling Bldg.
3A	Maintenance Bldg.
3H	Refinery Sump
3L	Electrical Power Center Bldg.
18B	General Sump

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	18D	Biodenitrification Towers
	18H	BDN Effluent Treatment Facility
	LABORATORY COMPLEX	
	15A	Laboratory Building
	15B	Laboratory Chemical Storage
	15C	Laboratory Garage
	LIQUID STORAGE COMPLEX	
	26A	Pump House - HP Fire Protection
	26B	Elevated Storage Water Tank
	28D	Guard Post on West End of 2nd St.
	45A	Maintenance (Former Rust Engr. and Construction Div. Bldg.)
	80	Plant 8 Warehouse
	64/65 STRUCTURES	
R1-F02-047	64	Thorium Warehouse
	65	Old Plant 5 Warehouse
	PILOT PLANT COMPLEX	
	13A	Pilot Plant Wet Side
	13B	Pilot Plant Maintenance Bldg.
	13C	Sump Pump House
	13D	Pilot Plant Thorium Tank Farm
	37	Pilot Plant Annex
	54A	6 to 4 Reduction Facility
	54B	Pilot Plant Shelter/Warehouse
	54C	Pilot Plant Dissociator Shelter
	~~**OU1 COMPLEX**~~	
R1-F02-047	~~24G~~	~~Locomotive Maintenance Bldg~~
	~~Railroad Tracks~~	~~Railroad Tracks~~
	MISCELLANEOUS STRUCTURES	
	Railroad Tracks	Railroad Tracks
	5F	Plant 5 Covered Storage Pad
	12E	Maintenance Laborer Storage Bldg.
	12F	Maintenance Laborer Storage Bldg.
	12G	Restored Area Maintenance Bldg.
	16B	Electrical Substation
	16C	Electrical Panels & Transformer
	16F	Trailer Substation #1
	16G	Trailer Substation #2
	20E	Well House #1
	20F	Well House #2
	20G	Well House #3
	22B	Storm Sewer Lift Station
	22D	Scale House & Weigh Scale
	23	Meteorological Tower
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	25C	Sewage Lift Station Bldg.
	26C	Main Elect. Substation Riser/Strainer House
	28E	Guard Post at OSDF South Entrance (formerly @T81)

MISCELLANEOUS STRUCTURES - Continued	
28G	Guard Post NW of Bldg. 45 (T327)
28H	Guard Post South of K-65 Area
28J	Security Checkpoint (South Access Rd.)
28K	Security Checkpoint (E. Park. Lot)
28L	Guard Post (N. Const. Access Rd)
28M	Guard Post on "F" Street
30D	Sampling Line Processing
50	Maintenance Storage Building
52A	RTRAK Building
52B	ASTD SCEP Building
60	Quonset Hut # 1
61	Quonset Hut # 2
62	Quonset Hut # 3
~~64~~	~~Thorium Warehouse~~
~~65~~	~~Old Plant 5 Warehouse~~
68	Pilot Plant Warehouse
93A	Southwest Boiler House
G-008	Pipe Bridges
TS-08	Environ. Monitor. Equip. Storage
T1	FDF
T2	Rad Safety
T3	Wise Construction
T4	FDF Training
T5	FDF Construction
T6	Restrooms
T7	FDF
T8	Wise Construction
T12	CRU4 (DLS)
T17	FDF
T18	Break Trailer
T19	Rad Safety
T23	10 Plex
T24	7 Plex North
T25	7 Plex South
T26	Waste Management
T29	Computer
T30	Computer
T33	Shipping Office
T34	FDF
T35	FDF
T36	Heavy Equip. Operators
T40	Thorium Overpack
T41	Waste Certification (QA)
T42	Respirator Washing Facility
T43	Restoration
T44	FDF Maintenance

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MISCELLANEOUS STRUCTURES – Continued	
T45	Environmental Monitoring
T46	Environmental Monitoring
T49	Bio-Assay Semi-Trailer
T50	Rad Safety
T57	Rad Safety
T58	Construction Office
T59	FDF Waste Management
T60	DOE Field Office
T61	Startup Group
T62	Startup Group
T65	Plant 1 Pad MC&A Office
T66	RIMIA Tri-Plex
T67	Rad. Tech.
T68	CRU1 Office
T69	Control Point – RIMIA
T71	Safe Shutdown
T72	Safe Shutdown
T74	ARASA Changeout Facility
T75	Multimedia Services
T82	Capital Project
T83	Capital Project
T84	Capital Project
T85	Capital Project
T86	Capital Project
T87	Capital Project
T89	WPA Mens Changeout
T90	WPA Womens Changeout
T91	WPA Mens Changeout
T92	WPA Breakroom
T93	Radiation Control Unit Quad
T94	Radiation Control Unit Quad
T95	Radiation Control Unit Quad
T96	Radiation Control
T97	FDF Office (CRU4)
T98	OSDF
T100	FDF Office
T103	Storage
T108	IAWWTF
T109	IAWWTF
T117	CRU4 Construction Support Office
T118	CRU4 Support Office
T119	Restrooms
T121	FDF Office
T122	Storage
T127	OEPA (Part of T68)
T128	Mixed Waste

MISCELLANEOUS STRUCTURES – Continued	
T129	OEPA (Part of T68)
T130	Breakroom
T131	Breakroom
T132	Kelchner Office
T135	Boiler Maintenance
T138	Southern Waste Unit Site Prep. Grp
T139	Southern Waste Unit Site Prep. Grp
T141	Maintenance Storage
T142	Maintenance Storage
T164	FDF Training
T165	FDF Training
T166	Industrial Relations
T167	Industrial Relations
T168	ARASA Contractor
T169	ARASA Contractor
T170	ARASA Contractor
T171	ARASA Contractor
T172	FCNDP
T173	FCNDP
T174	FCNDP
T175	FCNDP
T176	FCNDP
T177	FCNDP
T178	FCNDP
T179	FCNDP
T181	FDF Office
T182	FDF Office
T183	FDF Office
T186	OSDF Office Trailer
T191	Breakroom/Cooldown
T301	IT Corp.
T305	Environmental Monitoring
T306	Environmental Monitoring
T312	Cell 1 Personal Cool Down
T313	ARASA Admin. Office "A"
T314	ARASA Admin. Office "B"
T315	ARASA Laboratory Office
T316	ARASA Laboratory "A"
T317	ARASA Laboratory "B"
T318	ARASA MHB/RCLO Pow. Mod. Bld
T319	ARASA Breakroom
T320	ARASA Laun./Resp. wash facility
T321	ARASA MHB Rad. Cont. Trailer
T322	ARASA Supervisor's Office
T323	ARASA Control Room
T325	ARASA GCS/WTS Pow. Mod. Bldg

MISCELLANEOUS STRUCTURES – Continued	
T326	ARASA Cont. Emissions Mon. Tr.
T327	Weigh Scale Ticket Office
T330	Doffing Trailer
T502	IT Corp. ARASA
T505	Facilities Shutdown Break Trailer
T506	Office
T512	Break-M. Ravenscraft
T513	Construction Coordinators
T514	Construction (Conference Room)
T520	S&W Office
T529	Storage
T540	Triplex - Porter Breakroom
T603	Storage - Semi Trailer
T604	Maintenance Storage Semi Trailer
T608	Break Trailer - Waste Management
SOILS PROJECT (NOT IN D&D SCOPE OF WORK)	
18A	BDN Surge Lagoon
18C	Coal Pile Runoff Basin
18E	Storm Water Retention Basins
18W	S.W.U. Retention Basin
20J	Lime Slurry Pits
21A	Haul Road Wheel Wash Facility
21B	OSDF Wheel Wash Facility
22C	Truck Scale
22G	Main Gate Truck Scale
24D	Railroad Inspection Pit
31B	Old Truck Scale
74A	Plt. 2 East Pad
74B	Plt. 2 West Pad
74C	Plt. 8 East Pad
74D	Plt. 8 West Pad
74E	Plt. 4 Pad
74F	Plt. 7 Pad
74G	Plt. 5 East Pad
74H	Plt. 5 South Pad
74J	Plant 6 Pads
74K	Plt. 9 Pad
74L	Bldg. 65 West Pad
74M	Bldg. 64 East Pad & Railroad Dock
74N	Building 12 North Pad
74P	Decontamination Pad
74Q	Plt. 8 Old Metal Dissolver Pad
74R	Plt. 8 North Pad
74S	Bldg. 63 West Pad
74T	Plt. 1 Storage Pad

SOILS PROJECT (NOT IN D&D SCOPE OF WORK) – Continued	
74U	Pilot Plant Pad
74V	Laboratory Pad
74W	Bldg. 39A Pad
82B	Fuel Loading/Unloading Facility - Gas Boy
89	Parking Lots
34A	K-65 Storage Tank (North)
34B	K-65 Storage Tank (South)
34C	RTS Building
35A	Metal Oxide Storage Tank (North)
35B	Metal Oxide Storage Tank (South)
94A	CRU4 Vitrification Pilot Plant
WASTE PITS PROJECT (NOT IN D&D SCOPE OF WORK)	
18F	Pit #5 Sluice Gate
18G	Clearwell Pump House
18N	Waste Pit Area Storm Water Runoff Control
18X	OU1 Remediation Swm Pond
88	Clearwell Line
91A	Gas Clean. Sys./Water Treat. Sys.
91B	Material Handling Building
91C	Railcar Loadout (RCLO)
91D	Railcar Prep. & Liner Storage
91E	Maintenance Building
91F	Warehouse
91G	Truck Wash Pump House
91H	Geo-Lab
POST CLOSURE STRUCTURES (NOT IN D&D SCOPE OF WORK)	
16A	Main Electrical Station
16D	Main Electrical Switch House
16E	Main Electrical Transformers
16H	10 Plex's North Substation
16J	10 Plex's South Substation
16K	Dissolved Oxygen Facility Substation
18J	Methanol Tank
18M	High Nitrate Storage Tank
18P	Dissolved Oxygen Building
18Q	South Plume Int. Treatment Bldg./IAWWT Valve House
18R	Outfall Line Pit
18S	Recovery Well System Control Bldg. (S. of Willey Rd.)
18T	Public Water Supply Meter House (at Willey Rd.)
18U	50K gal. Storage Tank
18V	Southfield Valve House
18Y	AWWT Ozone Generation Bldg.
18Z	Sludge Mix Tank
19B	Pilot Plant Ammonia Tank Farm/AWWT Caustic Tank Storage

POST CLOSURE STRUCTURES (NOT IN D&D SCOPE OF WORK) – Continued	
22F	Main Gas Meter
25J	10 Plexs Sewage Lift Station
25K	New Sewage Treat. Plant Complex
26D	Domestic & Fire Water Booster St.
26E	Domestic & Fire Water 400K Gal.
26F	Domestic & Fire Water Lift Station
51A	Advanced Wastewater Treatment
51B	Slurry Dewatering Facility
51C	AWWT Laboratory Expansion Bldg.
T76	SWOC
T77	SWOC
T78	SWOC
T79	SWOC
T80	ERMC
T81	ERMC
T114	Operations Control Center (DOE)
T115	Radiological/Analytical Lab (DOE)
T116	Organic Lab (DOE)
T124	FDF Security
T180	AWWT Office

1.4.1 BFDP - Project Management

1) Task #1 –D&D Project Management

Facility D&D Project Management consists of the day to day management of all activities associated with the following projects:

- Administration Complex D&D
- Electrical Station Complex D&D
- General Sump Complex D&D
- Laboratory Complex D&D
- Health & Safety Building D&D
- Liquid Storage Complex D&D
- Plant 1, Phase II Complex D&D
- Plant 2 Complex D&D
- Plant 3 Complex D&D
- Plant 8 Complex D&D
- Plant 5 Complex D&D
- Plant 6 Complex D&D
- Pilot Plant Complex D&D
- East Warehouse Complex D&D
- OU1 Complex D&D
- 64/65 Structures
- Miscellaneous Components D&D

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- ~~Offsite D&D Debris Disposal~~
- Onsite D&D Debris Disposal

2) Task #2 - Planning and Procurement

Planning

Planning and Procurement includes all planning and procurement activities performed prior to contract award, including Title I/II engineering, document development, estimating, scheduling, data gathering, field surveys and supplemental sampling that supports project planning.

Procurement

Planning and Procurement includes all planning and procurement activities performed prior to contract award, including Title I/II engineering, document development, estimating, scheduling, data gathering, field surveys and supplemental sampling that supports project planning.

3) Task #3 - Construction Management

Construction Management includes all field activities associated with construction management, support contractors and materials from contract award through completion of field activities and removal of hold-up materials that may be encountered by the Contractor during field activities.

4) Task #4 - Project Closeout

Project Closeout includes all project closeout activities occurring after completion of field activities. This includes the development of the project completion report and cost account closeout.

5) Task #5 – On-Site Waste Disposal

This work package provides for the one time transfer of D&D debris to the OSDF Material Transfer Area (OMTA) or directly to the OSDF.

The scope of work includes the movement of containerized or palletized onsite debris from D&D construction zones that have been consolidated into waste stream categories. The categories of onsite debris are as follows:

- Waste Stream Category A – Accessible Metals (Includes both Uranium and Thorium material)

- Waste Stream Category B – Inaccessible Metals (Includes both Uranium and Thorium material)

- Waste Stream Category D – Lite Gage Metal (Includes both Uranium and Thorium material)

- Waste Stream Category E – Concrete (Includes both Uranium and Thorium material)

- Waste Stream Category G – Non Regulated (Transite) Asbestos (Includes both Uranium and Thorium material)
- Waste Stream Category H – Regulated Asbestos (Includes both Uranium and Thorium material)

- Waste Stream Category I2 – Miscellaneous Non-Cellulosic (e.g. PPE, Plastic) (Includes both Uranium and Thorium material)

- Waste Stream Category I4 – Miscellaneous Cellulosic (e.g. cardboard, paper, wood) (Includes both Uranium and Thorium material)

1.5 PROJECT PLAN/TECHNICAL SCOPE AND QUANTIFICATION

1.5.1 BFPD1 – D&D Project Management

1) Task #1 – Facility D&D Project Management

1.1) Plan/Scope – Facility D&D Project Management

Facility D&D Project Management consists of the day to day management of all activities associated with the following projects:

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- Administration Complex D&D
- Electrical Station Complex D&D
- General Sump Complex D&D
- Laboratory Complex D&D
- Health & Safety Building D&D
- Liquid Storage Complex D&D
- Plant 1, Phase II Complex D&D
- Plant 2 Complex D&D
- Plant 3 Complex D&D
- Plant 8 Complex D&D
- Plant 5 Complex D&D
- Plant 6 Complex D&D
- Pilot Plant Complex D&D
- East Warehouse Complex D&D
- OU1 Complex D&D

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- 64/65 Structures
- Miscellaneous Components D&D
- ~~Offsite D&D Debris Disposal~~
- Onsite D&D Debris Disposal

Typical Facility D&D Project Management activities include:

- Developing a variety of program-level plans and strategies for D&D actions in integration with other site projects. These activities include:

- Evaluation of D&D performed to determine actuals (hours expended per task, waste packaged, schedule durations, etc.) and to identify optimal approaches;
-
- Modifying estimates of future D&D activities based on these actuals;

- Scheduling of D&D activities around funding scenarios and inter-project integration;

- Development of D&D contract strategies and contracting tools; and

- Development of D&D project scopes.
-
- Evaluating D&D options and work performance to optimize future planning.

- Maintaining critical programmatic interfaces with Waste Minimization and Recycling, Technical Integration, and Technology Programs.

- Coordinating plant operations and maintenance, waste handling, and common support services associated with the FDP Project Management and Remediation Planning activities.

- Ensuring timely award of subcontracts and purchases to accomplish D&D and ensuring that contracts meet government regulations and that their scope and terms support the objectives of the FDP remedial effort.

- Ensuring that cost and schedule requirements are defined, planned, and monitored against an integrated baseline so that performance can be measured consistent with overall commitments and budgets.

- Providing program oversight of CERCLA related activities including approval of CERCLA documents.

- Developing and obtaining U.S. EPA approval on the OU3 Final Remedial Action Report.

- Performing ancillary activities to accomplish the main functions, including (but not limited to) stakeholder involvement, document publication, participation in on-site and

off-site meetings with DOE and site regulators, and preparation of responses to questions and comments regarding the D&D and waste disposition planning process.

1.2) Quantification – Facility D&D Project Management

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Facility D&D Project Management manpower is essentially a level of effort over the entire duration of this task through FY06 to correspond with the MACTEC contract. Beginning in FY07 manpower levels will decrease to correspond to the remaining D&D activities. ~~Beginning in FY07, Facility D&D Project Management activities will be integrated with PBS-07 (Silos) and no longer will be budgeted separately. At that time PBS-07 will provide these services for D&D Projects~~. The duration of Facility D&D Project Management is identified in Section 2.0 and the projectized and matrixed Fluor Fernald personnel are identified in Section 3.0.

Materials, Equipment, and Other Direct Costs (ODCs) for the Facility D&D Project Management Control Account are identified in Table 1. In addition, this Control Account covers all ODCs for all Projects listed in the Plan/Scope Section of 1.5.1.

Table 1
Materials, Equipment and Other Direct Costs

DESCRIPTION	BASIS	COST FOR PROJECT
Office Supplies & Equipment	Miscellaneous	$ 12,000 / Year / FY-01 through FY-09
Memberships	5 / Year @ $200 ea.	$ 1,000 / Year / FY-01 through FY-09
Meetings and Conferences	4 / Year @ $1,000 ea.	$ 4,000 / Year / FY-01 through FY-09
Travel	4 / Year @ $3,000 ea.	$ 12,000 / Year / FY-01 through FY-09
Relocation	Finance Guidance	$ 60,000 / Relocation One / Year – FY 02, 03, 04
Registration Fees	5 / Year @ $500 ea.	$ 2,500 / Year / FY-01 through FY-09
Training – Annual Refresher	12 / Year @ $250 ea.	$ 3,000 / Year / FY-01 through FY-09
Training – Initial	3 / Year @ $1,500 ea.	$ 4,500 / Year / FY-01 through FY-09

2) Task #2 - Planning and Procurement

2.1) Plan/Scope – Planning and Procurement

Planning consists of the following activities:

- Develop Scope of Work
- Develop Schedule
- Review Facility Shutdown Turnover Package
- Prepare Estimate

- Prepare Safety Assessment
- Prepare Davis Bacon Determination
- Prepare Real Property Disposition Package
- Prepare Implementation Plan
- Develop Performance Specifications
- Develop RFP
- Conduct Job Walkthrough
- Conduct Kick-off Meeting
- Complete Utility Redistribution
- Install D&D support facilities
- Prepare Rad con survey summary
- Prepare ACM survey summary
- Prepare PWID
- Prepare WMP/MSCC and debris quantity
- Prepare debris generation forecast & container id info
- Identify stockpile and container queue areas
- Conduct recycle evaluation
- Prepare Rad air emissions modeling
- Identify Air monitoring locations
- Prepare Photo Book
- Develop Training requirements matrix
- Prepare QA Plan
- Obtain Performance Grade

Procurement consists of the following activities:

- Conduct the Pre-bid tour
- Conduct the Pre-bid meeting
- Complete Proposal
- Receipt of bids
- Conduct an evaluation of the bids
- Prepare consent request package
- Conduct DOE evaluation
- Obtain DOE consent
- Award Contract

2.2) Quantification – Planning and Procurement

Manpower for Planning and Procurement activities is essentially a level of effort over the entire duration of this task. The duration of Planning and Procurement activities are identified in Section 2.0. Planning and Procurement activities will be conducted by projectized and matrixed Fluor Fernald personnel as identified in Section 3.0.

Material, Equipment, and Other Direct Costs (ODCs) for this task is identified in Table 1.

Table 1
Materials, Equipment, and Services

DESCRIPTION	BASIS	COST FOR PROJECT
Material	Miscellaneous Allowance - $2,000 per 13 remaining projects.	$ 26,000 ~~$ 2,000~~
Equipment	None or FEMP owned	$ 0
ODCs	Allotted in Control Account BFDP	$ 0

3) Task #3 - Construction Management

3.1) Plan/Scope – Construction Management

Construction Management consists of the following activities:

- Contract award
- Oversight of Contractor
- Contract Administration
- Construction Management activities
- Project Control activities
- Safety oversight
- IH oversight
- Radiological oversight
- Technology Group interface
- Laboratory support
- Engineering support
- Process hold-up material removal

The following is a list of the primary support services that are centralized in other Fluor Fernald divisions but not budgeted under this plan.

- WAO activities
- WGS activities
- Laundry activities (supplying of laundrable PPEs)
- Transportation activities
- Maintenance of Government owned or leased trailers
- Maintenance of Government Furnished Equipment
- ECDC activities
- Multimedia Visual Services support

3.2) Quantification – Construction Management

Manpower for Construction Management activities is essentially a level of effort over the entire duration of this task. The duration of Construction Management activities are

identified in Section 2.0. Construction Management activities will be conducted by projectized and matrixed Fluor Fernald personnel as identified in Section 3.0.

ODC's are provided in the Project Management Facility D&D Control Account BFDP. The materials and services that are required to support the D&D Contractor are identified in Table 2:

Table 2
Materials, Equipment, and Services

DESCRIPTION	BASIS	COST FOR PROJECT
Sampling equipment and service	Personnel and area monitoring. 13 projects @ $3,000 per complex	$ 39,000
Sampling Analysis	1259 samples @ $100 per sample	$125,900
Miscellaneous PPE	Construction Management Personnel. 13 projects @ $1,000 per complex.	$ 13,000
Material	$500 Miscellaneous Allowance per month @ 96 months	$ 48,000

4) Task #4 - Project Closeout

4.1) Plan/Scope – Project Closeout

Closure consists of Preparation of the Project Completion Report, Task Order Closeout completion, and Preparation of the Turnover Package.

4.2) Quantification – Project Closeout

Manpower for Project Closeout activities is essentially a level of effort over the entire duration of this task. The duration of Project Closeout activities are identified in Section 2.0. Project Closeout activities will be conducted by projectized and matrixed Fluor Fernald personnel as identified in Section 3.0.

Material, Equipment, and Other Direct Costs (ODCs) for this task is identified in Table 3.

Table 3
Materials, Equipment, and Services

DESCRIPTION	BASIS	COST FOR PROJECT
Material	Miscellaneous Allowance. 13 projects @ $2,000 per complex.	$ 26,000
Equipment	None or FEMP owned	$ 0
ODCs	Allotted in Control Account BFDP	$ 0

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Task #5 – Onsite Waste Disposal

5.1) Plan/Scope – Onsite Waste Disposal

The technical scope includes transferring all D&D generated onsite debris from the D&D construction Zone to the OMTA or directly to the OSDF when operational. This scope includes transportation of all existing and future onsite debris generated by D&D activities that are identified below.

Category A, B, D, E, I2 and I4 onsite debris will be relocated from the D&D construction zones to the OMTA or directly to the OSDF in Roll-Off-Boxes (ROBs) by a ROB transportation truck operated by FAT&LC personnel. The ROB transportation truck will pick-up the filled ROBs, transport them to the OMTA or OSDF and dump the contents and return the empty ROB to the D&D construction zone.

Category H onsite debris will be relocated from the D&D construction zones to the OMTA or directly to the OSDF in Sealand® containers by a Forktruck operated by FAT&LC personnel. The Forktruck will pick-up the filled Sealand® containers, transport them to the OMTA or OSDF. Empty Sealand® containers will be transferred to the D&D construction zone.

Category G (Transite) onsite debris have been placed on pallets in 4 foot high stacks and banded together by the D&D contractor. Palletized transite will be placed on a flatbed truck by forktrucks in preparation for relocation from the D&D construction zone or other staging areas to the OMTA or directly to the OSDF. The flatbed truck and forktrucks will be operated by FAT&LC personnel. Empty flatbed trucks will be returned to the D&D construction zone.

In the event any of this onsite debris is thorium contaminated, then the onsite debris can be stockpiled outside. This scope includes the maintenance of the stockpiles, which includes the encapsulation of the stockpile two (2) times annually until the debris is placed in the OSDF. The encapsulation would consist of sprayed application of a typical asbestos type encapsulant.

5.2) Quantification

Plant 2

The Plant 2 Complex D&D includes the transfer of:

- 848 Roll-Off Boxes;
- 239 pallets; and
- 49 Sealand containers of debris

Complex	Plant 2				
Category	Cu. Yd.	Cu. Ft.	# Boxes	# Pallets	# SeaLands
Cat. A	5375.3	145133.1	199.1		
TH-C-Cat A	900	24300	33.3		
Cat. B	12415.5	335218.5	459.8		
TH-C-Cat B	202.5	5467.5	7.5		
Cat. D	0	0	0.0		
Cat. E	913.5	24664.5	60.9		
TH-C-Cat E	450	12150	30.0		
Cat. G	1392.2	37589.4		234.9	
TH-C-Cat G	24	648		4.1	
Cat. H	1135.2	30650.4			31.6
TH-C-Cat H	636	17172			17.7
Cat. 1-2	1027.5	27742.5	38.1		
Cat. 1.4	514.5	13891.5	19.1		
Totals		674,627	848	239	49

Plant 3

The Plant 3 Complex D&D includes the transfer of:

- 477 Roll-Off Boxes;
- 136 pallets; and
- 14 Sealand containers of debris

Complex	Plant 3				
Category	Cu. Yd.	Cu. Ft.	# Boxes	# Pallets	# SeaLands
Cat. A	1543	41661	57.1		
TH-C-Cat A	483	13041	17.9		
Cat. B	7620.9	205764.3	282.3		
TH-C-Cat B	183	4941	6.8		
Cat. D	20.6	556.2	0.8		
Cat. E	1460.5	39433.5	97.4		
TH-C-Cat E	111	2997	7.4		
Cat. G	514.8	13899.6		86.9	
TH-C-Cat G	292.5	7897.5		49.4	
Cat. H	408	11016			11.3
TH-C-Cat H	82.8	2235.6			2.3
Cat. 1-2	138	3726	5.1		
Cat. 1.4	63.2	1706.4	2.3		
Totals		348,875	477	136	14

General Sump

The General Sump Complex D&D includes the transfer of:

- 315 Roll-Off Boxes;
- 13 pallets; and
- 23 Sealand containers of debris

Complex	General Sump				
Category	Cu. Yd.	Cu. Ft.	# Boxes	# Pallets	# SeaLands
Cat. A	1034.7	27936.9	38.3		
TH-C-Cat A	0.0	0	0.0		
Cat. B	6616.5	178645.5	245.1		
TH-C-Cat B	0.0	0	0.0		
Cat. D	76.4	2062.8	2.8		
Cat. E	330.8	8931.6	22.1		
TH-C-Cat E	0.0	0	0.0		
Cat. G	78.0	2106		13.2	
TH-C-Cat G	0.0	0		0.0	
Cat. H	810.4	21880.8			22.5
TH-C-Cat H	0.0	0			0.0
Cat. 1-2	93.4	2521.8	3.5		
Cat. 1.4	79.6	2149.2	2.9		
Totals		246,235	315	13	23

Plant 8

The Plant 8 Complex D&D includes the transfer of:

- 804 Roll-Off Boxes;
- 172 pallets; and
- 10 Sealand containers of debris

Complex	Plant 8				
Category	Cu. Yd.	Cu. Ft.	# Boxes	# Pallets	# SeaLands
Cat. A	6404.1	172910.7	237.2		
TH-C-Cat A	495	13365	18.3		
Cat. B	8449.3	228131.1	312.9		
TH-C-Cat B	495	13365	18.3		
Cat. D	688.8	18597.6	25.5		
Cat. E	2502.5	67567.5	166.8		
TH-C-Cat E	99	2673	6.6		
Cat. G	509.7	13761.9		86.0	
TH-C-Cat G	509.7	13761.9		86.0	
Cat. H	264.8	7149.6			7.4
TH-C-Cat H	88.8	2397.6			2.5
Cat. 1-2	243.5	6574.5	9.0		
Cat. 1.4	245.1	6617.7	9.1		
Totals		566,873	804	172	10

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Health & Safety Building

The Health & Safety Building D&D includes the transfer of:

- 156 Roll-Off Boxes;
- 0 pallets; and
- 0 Sealand containers of debris

Complex	Administration				
Category	Cu. Yd.	Cu. Ft.	# Boxes	# Pallets	# SeaLands
Cat. A	666.7	18,000	25		
TH-C-Cat A	0.0	0	0.0		
Cat. B	0.0	0	0.0		
TH-C-Cat B	0.0	0	0.0		
Cat. D	807.4	21,800	30		
Cat. E	0.0	0	0.0		
TH-C-Cat E	0.0	0	0.0		
Cat. G	0.0	0		0.0	
TH-C-Cat G	0.0	0		0.0	
Cat. H	0.0	0			0.0
TH-C-Cat H	0.0	0			0.0
Cat. 1-2	2725.9	73,600	101		
Cat. 1.4	0.0	0	0		
Totals	4200	113,400	156	0	0

Liquid Storage

The Liquid Storage Complex D&D includes the transfer of:

- 165 Roll-Off Boxes;
- 15 pallets; and
- One (1) Sealand container of debris

Complex	Liquid Storage				
Category	Cu. Yd.	Cu. Ft.	# Boxes	# Pallets	# SeaLands
Cat. A	1884.0	50868	69.8		
TH-C-Cat A	0.0	0	0.0		
Cat. B	2181.0	58887	80.8		
TH-C-Cat B	0.0	0	0.0		
Cat. D	0.0	0	0.0		
Cat. E	0.0	0	0.0		
TH-C-Cat E	0.0	0	0.0		
Cat. G	90.0	2430		15.2	
TH-C-Cat G	0.0	0		0.0	
Cat. H	30.0	810			0.8
TH-C-Cat H	0.0	0			0.0
Cat. 1-2	310.0	8370	11.5		
Cat. 1.4	85.4	2305.8	3.2		
Totals		123,671	165	15	1

Pilot Plant

The Pilot Plant Complex D&D includes the transfer of:

- 267 Roll-Off Boxes;
- 18 pallets; and
- One (1) Sealand containers of debris

Complex	Pilot Plant				
Category	Cu. Yd.	Cu. Ft.	# Boxes	# Pallets	# SeaLands
Cat. A	605.8	16356.6	22.4		
TH-C-Cat A	64	1728	2.4		
Cat. B	1905	51435	70.6		
TH-C-Cat B	519	14013	19.2		
Cat. D	1020	27540	37.8		
Cat. E	979	26433	65.3		
TH-C-Cat E	612	16524	40.8		
Cat. G	30.2	815.4		5.1	
TH-C-Cat G	76	2052		12.8	
Cat. H	43.5	1174.5			1.2
TH-C-Cat H	0	0			0.0
Cat. 1-2	115.6	3121.2	4.3		
Cat. 1.4	106.6	2878.2	3.9		
Totals		164,071	267	18	1

Laboratory

The Laboratory Complex D&D includes the transfer of:

- 408 Roll-Off Boxes; and
- 3 pallets;

Complex	Laboratory				
Category	Cu. Yd.	Cu. Ft.	# Boxes	# Pallets	# SeaLands
Cat. A	955.0	25785	35.4		
TH-C-Cat A	0.0	0	0.0		
Cat. B	2785.0	75195	103.1		
TH-C-Cat B	0.0	0	0.0		
Cat. D	0.0	0	0.0		
Cat. E	4000.0	108000	266.7		
TH-C-Cat E	0.0	0	0.0		
Cat. G	20.0	540		3.4	
TH-C-Cat G	0.0	0		0.0	
Cat. H	1.0	27			0.0
TH-C-Cat H	0.0	0			0.0
Cat. 1-2	0.2	5.4	0.0		
Cat. 1.4	76.0	2052	2.8		
Totals		211,604	408	3	0

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Administration (Includes Electrical Complex)

The Administration Complex D&D includes the transfer of:

- 1,302 Roll-Off Boxes;
- 28 pallets; and
- 5 Sealand containers of debris

Complex	Administration				
Category	Cu. Yd.	Cu. Ft.	# Boxes	# Pallets	# SeaLands
Cat. A	1008.0	27216	37.3		
TH-C-Cat A	0.0	0	0.0		
Cat. B	4467.0	120609	165.4		
TH-C-Cat B	0.0	0	0.0		
Cat. D	2112.0	57024	78.2		
Cat. E	10219.0	275913	681.3		
TH-C-Cat E	0.0	0	0.0		
Cat. G	166.0	4482		28.0	
TH-C-Cat G	0.0	0		0.0	
Cat. H	180.0	4860			5.0
TH-C-Cat H	0.0	0			0.0
Cat. 1-2	9055.0	244485	335.4		
Cat. 1.4	110.0	2970	4.1		
Totals		737,559	1,302	28	5

East Warehouse

The East Warehouse Complex D&D includes the transfer of:

- 42 Roll-Off Boxes; and
- One (1) Sealand containers of debris

Complex	East Warehouse				
Category	Cu. Yd.	Cu. Ft.	# Boxes	# Pallets	# SeaLands
Cat. A	368.9	9960.3	13.7		
TH-C-Cat A	0.0	0	0.0		
Cat. B	281.2	7592.4	10.4		
TH-C-Cat B	0.0	0	0.0		
Cat. D	222.1	5996.7	8.2		
Cat. E	121.6	3283.2	8.1		
TH-C-Cat E	0.0	0	0.0		
Cat. G	0.0	0		0.0	
TH-C-Cat G	0.0	0		0.0	
Cat. H	29.3	791.1			0.8
TH-C-Cat H	0.0	0			0.0
Cat. 1-2	15.1	407.7	0.6		
Cat. 1.4	33.3	899.1	1.2		
Totals		28,931	42	0	1

Miscellaneous Structures

The Miscellaneous Components D&D include the transfer of:

- 622 Roll-Off Boxes;
- 13 pallets; and
- 38 Sealand containers of debris

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Complex	Miscellaneous Components				
Category	Cu. Yd.	Cu. Ft.	# Boxes	# Pallets	# SeaLands
Cat. A	3002.8	135076.8	185.1		
TH-C-Cat A	420.0	11340	15.6		
Cat. B	1901.0	51327	70.4		
TH-C-Cat B	810.0	21870	30.0		
Cat. D	1472.4	39755.4	54.5		
Cat. E	165.6	4471.2	11.0		
TH-C-Cat E	420.0	11340	28.0		
Cat. G	76.4	2062.8		12.9	
TH-C-Cat G	0.0	0		0.0	
Cat. H	1364.4	36838.8			37.9
TH-C-Cat H	0.0	0			0.0
Cat. 1-2	1742.9	47058.9	64.5		
Cat. 1.4	4387.8	118475.1	162.3		
Totals		207,509	622	13	38

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Building 64/65

The Building 64/65 D&D include the transfer of:

- 249 Roll-Off Boxes;
- 13 pallets; and
- 38 Sealand containers of debris

Complex	Miscellaneous Components				
Category	Cu. Yd.	Cu. Ft.	# Boxes	# Pallets	# SeaLands
Cat. A	2123.4	57331.8	78.6		
TH-C-Cat A	420.0	11340	15.6		
Cat. B	1901.0	51327	70.4		
TH-C-Cat B	810.0	21870	30.0		
Cat. D	32.7	882.9	1.2		
Cat. E	165.6	4471.2	11.0		
TH-C-Cat E	420.0	11340	28.0		
Cat. G	76.4	2062.8		12.9	
TH-C-Cat G	0.0	0		0.0	
Cat. H	1364.4	36838.8			37.9
TH-C-Cat H	0.0	0			0.0
Cat. 1-2	303.2	8186.4	11.2		
Cat. 1-4	68.8	1857.6	2.5		
Totals		207,509	249	13	38

Plant 1, Phase II

The Plant 1, Phase II Complex D&D includes the transfer of:

- 205 Roll-Off Boxes;
- 14 pallets; and
- One (1) Sealand container of debris

Complex	Plant 1 - Phase II				
Category	Cu. Yd.	Cu. Ft.	# Boxes	# Pallets	# SeaLands
Cat. A	2909.0	78543	107.7		
TH-C-Cat A	0.0	0	0.0		
Cat. B	1378.0	37206	51.0		
TH-C-Cat B	0.0	0	0.0		
Cat. D	0.0	0	0.0		
Cat. E	403.0	10881	26.9		
TH-C-Cat E	0.0	0	0.0		
Cat. G	80.0	2160		13.5	
TH-C-Cat G	0.0	0		0.0	
Cat. H	18.0	486			0.5
TH-C-Cat H	0.0	0			0.0
Cat. 1-2	513.0	13851	19.0		
Cat. 1.4	0.0	0	0.0		
Totals		143,127	205	14	1

Plant 5

The Plant 5 Complex D&D includes the transfer of:

- 357 Roll-Off Boxes; and
- 106 pallets;

Complex	Plant 5				
Category	Cu. Yd.	Cu. Ft.	# Boxes	# Pallets	# SeaLands
Cat. A	3807.2	102794.4	141.0		
TH-C-Cat A	0	0	0.0		
Cat. B	2506.4	67672.8	92.8		
TH-C-Cat B	0	0	0.0		
Cat. D	1206.3	32570.1	44.7		
Cat. E	1089.9	29427.3	72.7		
TH-C-Cat E	0	0	0.0		
Cat. G	631	17037		106.5	
TH-C-Cat G	0	0		0.0	
Cat. H	0	0			0.0
TH-C-Cat H	0	0			0.0
Cat. 1-2	127	3429	4.7		
Cat. 1.4	32	864	1.2		
Totals		253,795	357	106	0

Plant 6

The Plant 6 Complex D&D includes the transfer of:

- 586 Roll-Off Boxes;
- 120 pallets; and
- 20 Sealand containers of debris

Complex	Plant 6				
Category	Cu. Yd.	Cu. Ft.	# Boxes	# Pallets	# SeaLands
Cat. A	3029	81783	112.2		
TH-C-Cat A	0	0	0.0		
Cat. B	9247.7	249687.9	342.5		
TH-C-Cat B	0	0	0.0		
Cat. D	2291.5	61870.5	84.9		
Cat. E	236.9	6396.3	15.8		
TH-C-Cat E	0	0	0.0		
Cat. G	708.5	19129.5		119.6	
TH-C-Cat G	0	0		0.0	
Cat. H	711.6	19213.2			19.8
TH-C-Cat H	0	0			0.0
Cat. 1-2	516	13932	19.1		
Cat. 1.4	302	8154	11.2		
Totals		460,166	586	120	20

Plant 7

The Plant 7 Complex includes the transfer of:

- 5 ROB's of Category I2.

Plant 1 Complex

The Plant 1 Complex includes the transfer of:

- 82 pallets of transite

This activity is scheduled in FY01.

Plant 4

The Plant 4 Complex includes the transfer of:

- 176 pallets of transite

This activity is scheduled in FY01.

Boiler Plant

The Boiler Plant Complex includes the transfer of:

- 26 pallets of transite

This activity is scheduled in FY01.

Plant 9

The Plant 9 Complex includes the transfer of:

- 84 pallets of transite

This activity is scheduled in FY01.

Maintenance Tank Farm

The Maintenance/Tank Farm includes the transfer of:

- 115 pallets of transite

This activity is scheduled in FY01.

Movement of D&D onsite debris will be conducted by Fluor Fernald personnel such as HAZWAT's, Heavy Equipment Operators, General Laborers, Industrial Vacuum Operators and Managerial Supervision. The duration of onsite debris activities is identified in Section 2. These personnel that are matrixed to support the project and estimated FTE's are identified in Section 3.

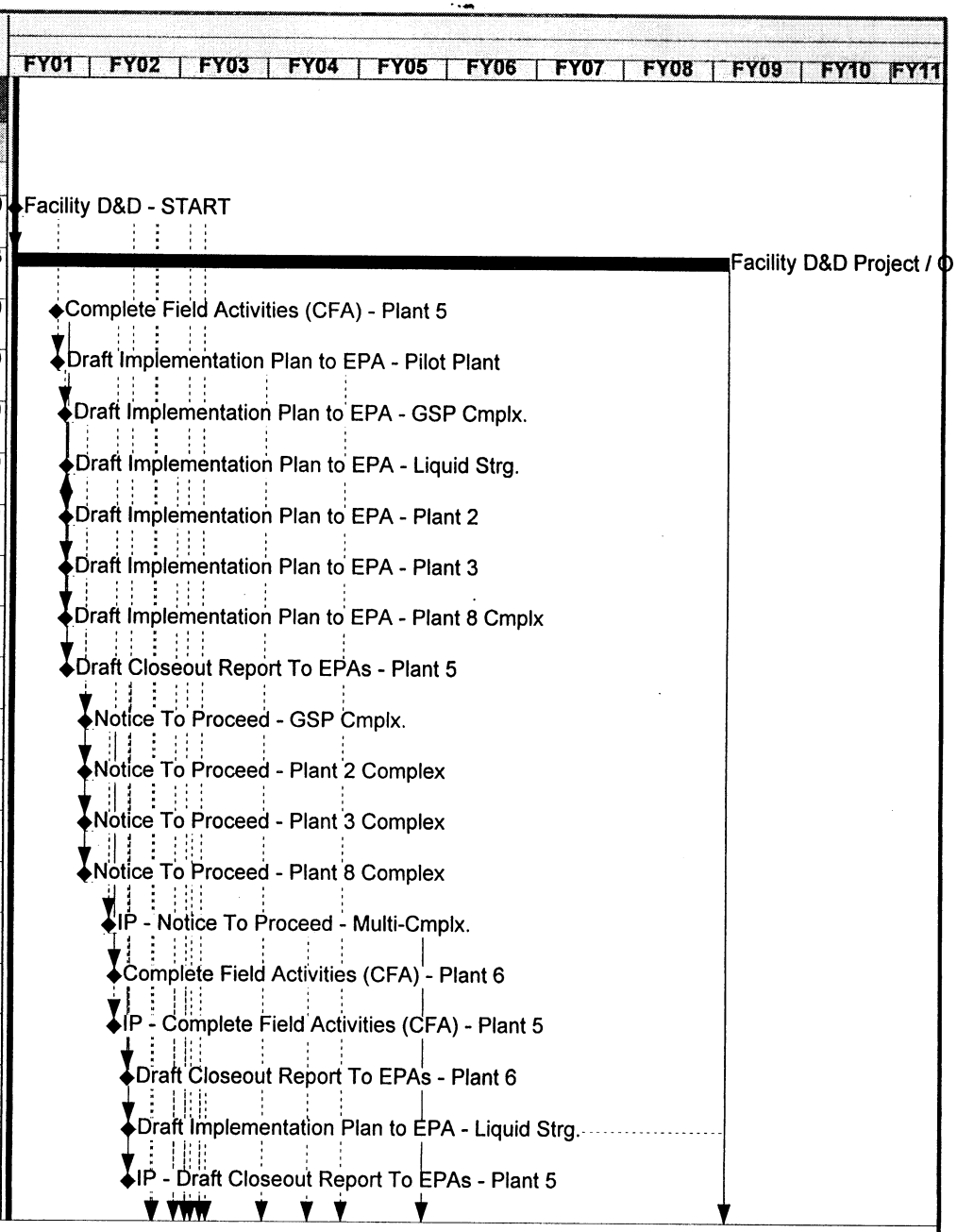
ODC's are provided in the Project Management Facility D&D Control Account BFDP. The materials, equipment and services that are required to support the onsite debris movement are identified in Table 1:

Table 1
Materials, Equipment and Services

R1-F02-047

DESCRIPTION	BASIS	COST
Misc. PPE	WGS personnel. $1,000 per project.	$ 21,000
Material	$5,000 misc allowance per project	$105,000
Equipment	FEMP Owned	$ 0
ODC's	Alloted in Control Account BFDP	$ 0

Activity ID	Activity Description	Early Start	Early Finish	Orig Dur
B PBS 02 - FACILITY D&D				
1.1.B.A MANAGEMENT				
BFDP1 PBS02 PROJECT / ON-SITE WASTE MANAGEMENT				
BDPJMGM099	Facility D&D - START	04DEC00		0
BDPJMGM100	Facility D&D Project / On-Site Debris Management	04DEC00	11DEC08	1,613
BDXU5C10M4	Complete Field Activities (CFA) - Plant 5		16MAY01	0
BDPPCX12M2	Draft Implementation Plan to EPA - Pilot Plant	25MAY01*		0
BDGSPC112M	Draft Implementation Plan to EPA - GSP Cmplx.	01JUL01*		0
BDLQS711M2	Draft Implementation Plan to EPA - Liquid Strg.	02JUL01*		0
BDP2C000M2	Draft Implementation Plan to EPA - Plant 2	02JUL01		0
BDP3C000M2	Draft Implementation Plan to EPA - Plant 3	02JUL01		0
BDP8C083M2	Draft Implementation Plan to EPA - Plant 8 Cmplx	02JUL01		0
BDXU5C10M5	Draft Closeout Report To EPAs - Plant 5		15JUL01	0
BDGSPC113M	Notice To Proceed - GSP Cmplx.	01OCT01*		0
BDP2C000M3	Notice To Proceed - Plant 2 Complex	01OCT01		0
BDP3C000M3	Notice To Proceed - Plant 3 Complex	01OCT01		0
BDP8C083M3	Notice To Proceed - Plant 8 Complex	01OCT01		0
BDMLTECXM1	IP - Notice To Proceed - Multi-Cmplx.	07JAN02*		0
BDXU6100M4	Complete Field Activities (CFA) - Plant 6		24JAN02	0
BDEPA5C1M7	IP - Complete Field Activities (CFA) - Plant 5		28JAN02*	0
BDXU6100M5	Draft Closeout Report To EPAs - Plant 6		25MAR02	0
BDLQS7EPA2	Draft Implementation Plan to EPA - Liquid Strg.	28MAR02*		0
BDEPA5C1M9	IP - Draft Closeout Report To EPAs - Plant 5		29MAR02	0



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Start Date	01DEC00
Finish Date	11DEC08
Data Date	01DEC00
Run Date	10SEP01 15:19

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Sheet 1 of 3

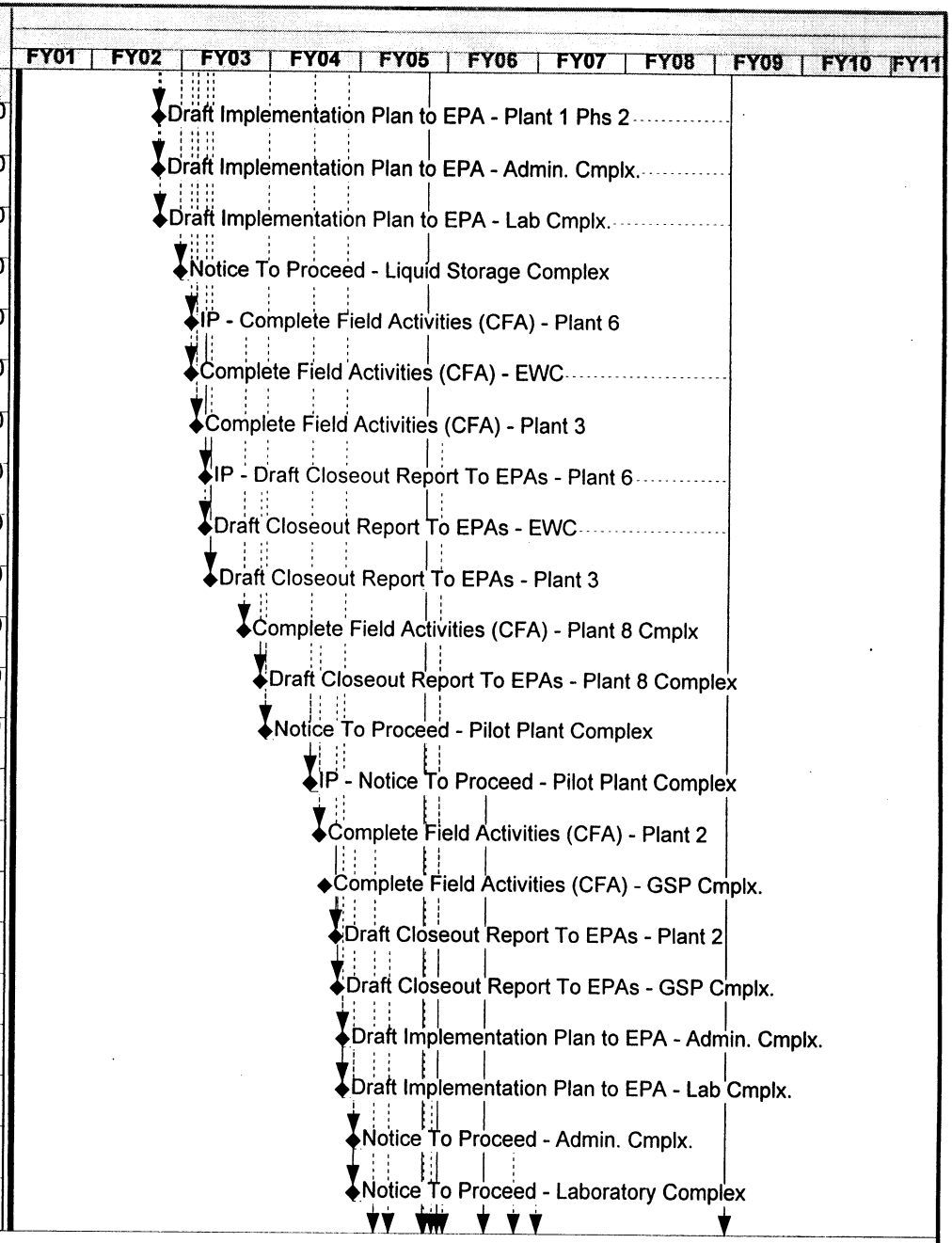
FACILITY D&D

1.1.B.A MANAGEMENT

Early Bar
Progress Bar
Critical Activity

Date	Revision	hecked	Approved
	D-705		
	D-861		
	R1-F02-047		

Activity ID	Activity Description	Early Start	Early Finish	Orig Dur
BFDP1 PBS02 PROJECT / ON-SITE WASTE MANAGEMENT				
BDP1P2EPA2	Draft Implementation Plan to EPA - Plant 1 Phs 2	01JUL02*		0
BDADMEPA12	Draft Implementation Plan to EPA - Admin. Cmplx.	05JUL02*		0
BDLABCEPA2	Draft Implementation Plan to EPA - Lab Cmplx.	08JUL02*		0
BDLQS711M3	Notice To Proceed - Liquid Storage Complex	01OCT02*		0
BDEPA6C6M7	IP - Complete Field Activities (CFA) - Plant 6		19NOV02*	0
BDEWHCEPA4	Complete Field Activities (CFA) - EWC		19NOV02*	0
BDP3C000M4	Complete Field Activities (CFA) - Plant 3		10DEC02	0
BDEPA6C6M9	IP - Draft Closeout Report To EPAs - Plant 6		18JAN03	0
BDEWHCEPA5	Draft Closeout Report To EPAs - EWC		18JAN03*	0
BDP3C000M5	Draft Closeout Report To EPAs - Plant 3		10FEB03	0
BDP8C083M4	Complete Field Activities (CFA) - Plant 8 Cmplx		01JUL03	0
BDP8C083M5	Draft Closeout Report To EPAs - Plant 8 Complex		02SEP03	0
BDPPCX12M3	Notice To Proceed - Pilot Plant Complex	01OCT03*		0
BDPPEPA1M2	IP - Notice To Proceed - Pilot Plant Complex	29MAR04*		0
BDP2C000M4	Complete Field Activities (CFA) - Plant 2		11MAY04	0
BDGSPC114M	Complete Field Activities (CFA) - GSP Cmplx.		27MAY04	0
BDP2C000M5	Draft Closeout Report To EPAs - Plant 2		12JUL04	0
BDGSPC115M	Draft Closeout Report To EPAs - GSP Cmplx.		26JUL04	0
BDADM0112M	Draft Implementation Plan to EPA - Admin. Cmplx.	17AUG04*		0
BDLABC11M2	Draft Implementation Plan to EPA - Lab Cmplx.	17AUG04		0
BDADM0113M	Notice To Proceed - Admin. Cmplx.	04OCT04*		0
BDLABC11M3	Notice To Proceed - Laboratory Complex	04OCT04		0



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Start Date	01DEC00
Finish Date	11DEC08
Data Date	01DEC00
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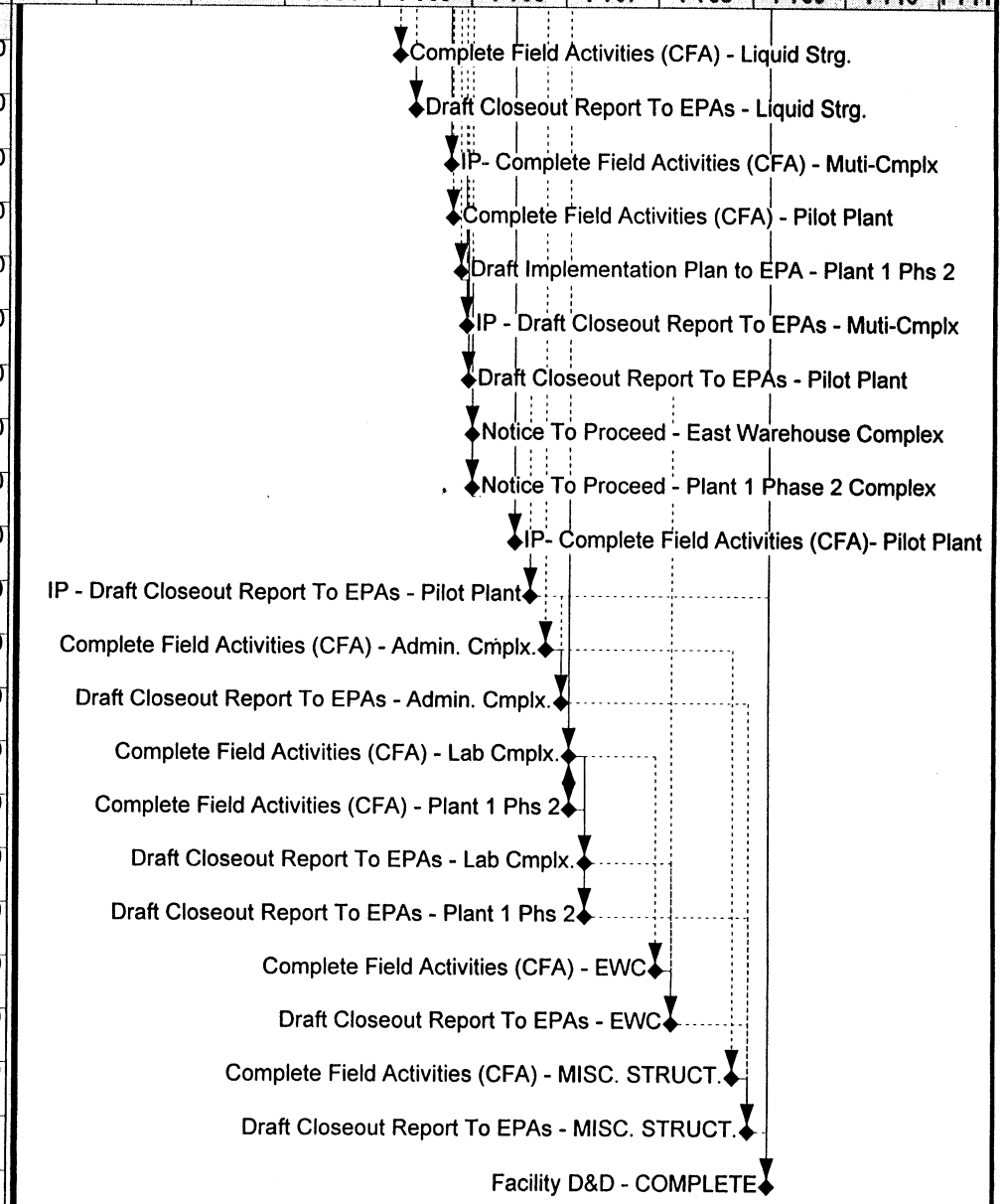
FACILITY D&D

1.1.B.A MANAGEMENT

Early Bar
Progress Bar
Critical Activity

Date	Revision	hecked	Approved
	D-705		
	D-861		
	R1-F02-047		

Activity ID	Activity Description	Early Start	Early Finish	Orig Dur
BFDP1 PBS02 PROJECT / ON-SITE WASTE MANAGEMENT				
BDLQS711M4	Complete Field Activities (CFA) - Liquid Strg.		22DEC04	0
BDLQS711M5	Draft Closeout Report To EPAs - Liquid Strg.		22FEB05	0
BDMLTECXM2	IP- Complete Field Activities (CFA) - Muti-Cmplx		15JUL05	0
BDPPCX12M4	Complete Field Activities (CFA) - Pilot Plant		18JUL05	0
BDP1P210M2	Draft Implementation Plan to EPA - Plant 1 Phs 2	18AUG05*		0
BDMLTECXM3	IP - Draft Closeout Report To EPAs - Muti-Cmplx		13SEP05	0
BDPPCX12M5	Draft Closeout Report To EPAs - Pilot Plant		19SEP05	0
BDEWHC00M3	Notice To Proceed - East Warehouse Complex	03OCT05*		0
BDP1P210M3	Notice To Proceed - Plant 1 Phase 2 Complex	03OCT05		0
BDPPEPA1M3	IP- Complete Field Activities (CFA)- Pilot Plant		26MAR06	0
BDPPEPA1M4	IP - Draft Closeout Report To EPAs - Pilot Plant		25MAY06	0
BDADM0114M	Complete Field Activities (CFA) - Admin. Cmplx.		24JUL06	0
BDADM0115M	Draft Closeout Report To EPAs - Admin. Cmplx.		21SEP06	0
BDLABC11M4	Complete Field Activities (CFA) - Lab Cmplx.		26OCT06	0
BDP1P210M4	Complete Field Activities (CFA) - Plant 1 Phs 2		26OCT06	0
BDLABC11M5	Draft Closeout Report To EPAs - Lab Cmplx.		26DEC06	0
BDP1P210M5	Draft Closeout Report To EPAs - Plant 1 Phs 2		26DEC06	0
BDEWHC00M4	Complete Field Activities (CFA) - EWC		30SEP07*	0
BDEWHC00M5	Draft Closeout Report To EPAs - EWC		29NOV07	0
BDMSSC10M4	Complete Field Activities (CFA) - MISC. STRUCT.		23JUL08	0
BDMSSC10M5	Draft Closeout Report To EPAs - MISC. STRUCT.		22SEP08	0
BDPJMGM101	Facility D&D - COMPLETE		11DEC08	0



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Start Date	01DEC00
Finish Date	11DEC08
Data Date	01DEC00
Run Date	10SEP01 15:19

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FACILITY D&D

1.1.B.A MANAGEMENT

Early Bar
Progress Bar
Critical Activity

Date	Revision	hecked	Approved
	D-705		
	D-861		
	R1-F02-047		

SECTION 1

3.0 MANPOWER PLANS

Manpower Planning Sheet (CR2)

MPS # 1BA01 D&D MANAGEMENT

DRIVERS		START DATE	END DATE	TOT	FY 2001				FY 2002				FY 2003				FY 2004				FY 2005				FY 2006			
					Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
206 ADMIN COMPLEX D&D		10/01/2004	07/03/2006																		XXX	XXX	XXX	XXX	XXX	XXX	XXX	X
Construction	Construction Coordinator			68.20	0.8	0.8	0.8	0.8	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2	2	2	2
Construction	Construction Engineer			44.10	1.8	1.8	1.8	1.8	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1
Construction	Construction Mgr.			53.80	2.2	2.2	2.2	2.2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1
Project Management	Project Mgr.			24.00	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Administration	Clerks			9.00	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.2	0.1	0.1	0.1
Engineering & Design	Engineer			54.10	6.3	6.3	6.3	6.3	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1	1	1	1
Project Controls	Scheduler			24.90	1.3	1.3	1.3	1.3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.5	0.5	0.5	0.5
Project Controls	Cost Analyst			26.90	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.5	0.5	0.5	0.5
Procurement	Buyer/Contracts Administrator			22.90	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.5	0.5	0.5	0.5
Environmental	Environmental Protection Rep.			0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental	Environmental Scientist Rep.			7.80	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.1	0.1	0.1
Environmental	Environmental Scientist Tech.			7.30	0	0	0	0	0.5	0.5	0.3	0.4	0.2	0.2	0.3	0.3	0.5	0.5	0.4	0.5	0.4	0.3	0.3	0.3	0.2	0.1	0.1	0.1
General Labor	General Laborer			67.20	7.8	7.8	7.8	7.8	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1
General Labor	Hazwat			52.00	0	0	0	0	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	1	1	1	1
Transportation Labor	Heavy Equipment Operator			22.40	0.6	0.6	0.6	0.6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Environmental Safety & H	Industrial Hygienist Tech.			24.10	1.3	1.3	1.3	1.3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.5	0.5	0.5	0.5
Operations Labor	Industrial Vacuum Operator			4.10	0	0	0	0	0.3	0.3	0.2	0.1	0.2	0.2	0.2	0.2	0.4	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1
QA/QC	QA/QC Tech.			21.70	1.1	1.1	1.1	1.1	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.5	0.5	0.5	0.5
Environmental Safety & H	Rad Engineer			26.00	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.5	0.5	0.5	0.5
Environmental Safety & H	Rad Tech			214.90	7.1	7.1	7.1	7.1	8	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	6	6	6	6
Environmental Safety & H	Safety Tech.			34.10	3.3	3.3	3.3	3.3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Waste Management	Waste Engineer			32.10	3.3	3.3	3.3	3.3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.5	0.5	0.5	0.5
Lab	Chemist			19.30	0.7	0.7	0.7	0.7	1.5	1.5	0.9	0.9	0.6	0.6	0.9	0.3	1.3	1.3	1	1	1	0.7	0.7	0.7	0.4	0.1	0.1	0.1
Engineering & Design	Drafter/CAD Operator			8.10	0.2	0.2	0.2	0.2	0.5	0.5	0.3	0.4	0.2	0.2	0.3	0.3	0.5	0.5	0.4	0.5	0.4	0.3	0.3	0.3	0.2	0.1	0.1	0.1
Engineering & Design	Engineer Electrical			1.00	0	0	0	0	0.2	0	0	0	0.2	0	0	0	0.4	0	0	0	0.2	0	0	0	0	0	0	0
Engineering & Design	Engineer Civil			1.00	0	0	0	0	0.2	0	0	0	0.2	0	0	0	0.4	0	0	0	0.2	0	0	0	0	0	0	0
Engineering & Design	Engineer Piping/Mechanic			1.00	0	0	0	0	0.2	0	0	0	0.2	0	0	0	0.4	0	0	0	0.2	0	0	0	0	0	0	0
Lab	Lab Tech.			7.70	0.2	0.2	0.2	0.2	0.5	0.5	0.3	0.3	0.2	0.2	0.3	0.1	0.5	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.2	0.1	0.1	0.1
Subcontract	Subcontract Staff			458.00	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	10	10	10	10

Manpower Planning Sheet (CR2)

MPS # 1BA01 D&D MANAGEMENT

DRIVERS		START DATE	END DATE	FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
206 ADMIN COMPLEX D&D		10/01/2004	07/03/2006																				
Construction	Construction Coordinator			1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0
Construction	Construction Engineer			0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0	0	0	0	0	0	0	0	0	0	0
Construction	Construction Mgr.			1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0
Project Management	Project Mgr.			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Administration	Clerks			0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0	0	0	0	0	0	0	0	0	0	0
Engineering & Design	Engineer			0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0	0	0	0	0	0	0	0	0	0	0
Project Controls	Scheduler			0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0	0	0	0	0	0	0	0	0	0	0
Project Controls	Cost Analyst			0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0	0	0	0	0	0	0	0	0	0	0
Procurement	Buyer/Contracts Administrator			0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0	0	0	0	0	0	0	0	0	0	0
Environmental	Environmental Protection Rep.			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental	Environmental Scientist Rep.			0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0	0	0	0	0	0	0	0	0	0	0
Environmental	Environmental Scientist Tech.			0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0	0	0	0	0	0	0	0	0	0	0
General Labor	General Laborer			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
General Labor	Hazwat			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transportation Labor	Heavy Equipment Operator			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & Health	Industrial Hygienist Tech.			0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0	0	0	0	0	0	0	0	0	0	0
Operations Labor	Industrial Vacuum Operator			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QA/QC	QA/QC Tech.			0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & Health	Rad Engineer			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & Health	Rad Tech			0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & Health	Safety Tech.			0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0	0	0	0	0	0	0	0	0	0	0
Waste Management	Waste Engineer			0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0	0	0	0	0	0	0	0	0	0	0
Lab	Chemist			0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0	0	0	0	0	0	0	0	0	0	0
Engineering & Design	Drafter/CAD Operator			0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0	0	0	0	0	0	0	0	0	0	0
Engineering & Design	Engineer Electrical			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Engineering & Design	Engineer Civil			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Engineering & Design	Engineer Piping/Mechanic			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lab	Lab Tech.			0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0	0	0	0	0	0	0	0	0	0	0
Subcontract	Subcontract Staff			2	2	2	2	2	2	2	2	2	0	0	0	0	0	0	0	0	0	0	0

Manpower Planning Sheet (CR2)

MPS # 1BA01 D&D MANAGEMENT

DRIVERS		START DATE	END DATE	TOT	FY 2001 Q1	FY 2001 Q2	FY 2001 Q3	FY 2001 Q4	FY 2002 Q1	FY 2002 Q2	FY 2002 Q3	FY 2002 Q4	FY 2003 Q1	FY 2003 Q2	FY 2003 Q3	FY 2003 Q4	FY 2004 Q1	FY 2004 Q2	FY 2004 Q3	FY 2004 Q4	FY 2005 Q1	FY 2005 Q2	FY 2005 Q3	FY 2005 Q4	FY 2006 Q1	FY 2006 Q2	FY 2006 Q3	FY 2006 Q4
Subcontract	Subcontract Craft			1026.00	40	40	30	30	30	50	50	50	50	50	50	50	50	50	50	50	50	50	50	30	20	20	20	20
		Sheet Totals:		2362.70	104.70	104.70	94.70	94.70	86.00	107.40	106.10	106.20	106.10	105.50	106.10	105.30	108.50	107.20	106.50	106.70	107.20	105.90	105.90	85.90	51.00	50.20	50.20	50.20

Manpower Planning Sheet (CR2)

MPS # 1BA01 D&D MANAGEMENT

DRIVERS	START DATE	END DATE	FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Subcontract	Subcontract Craft		5	5	5	5	5	5	5	5	5	0	0	0	0	0	0	0	0	0	0	0
		Sheet Totals:	11.10	11.10	11.10	11.10	11.10	11.10	11.10	11.10	11.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

SECTION 1

4.0 ESTIMATE

BFDP1

D&D MANAGEMENT

09/07/2001
10:15 AM

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

PBS: OHFN02 FACILITY D&D
WBS: 1.1.B.A MANAGEMENT
CTRL ACCT: BFDP D&D MANAGEMENT
CHARGE NO: BFDP1 D&D MANAGEMENT
COMMENT NO: D-213, D-214, D-216, D-220, D-439, D-705, D-861, F02-029, F02-047, F02-048

DATE: 06-Sep-01
PROJECT MGR: JM STEVENS
CAM: JM STEVENS
PREPARED BY:
FISCAL YEAR: 2000-2010

Resource: BUYCON **BUYER/CONTRACTS ADMN** **EOC:** LABOR
Res Dept: **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	1,452.0	1,747.0	1,747.0	1,747.0	1,747.0	926.5	174.7	174.7	42.1	0.0
Cum Hours:	1,452.0	3,199.0	4,946.0	6,693.0	8,440.0	9,366.5	9,541.2	9,715.9	9,758.0	9,758.0
Yr Total Cost:	60,839	77,048	81,609	86,421	91,544	51,870	10,603	11,175	2,993	0
Cum Total Cost:	60,839	137,887	219,496	305,917	397,461	449,331	459,934	471,109	474,102	474,102

Resource: CLERKS **CLERKS** **EOC:** LABOR
Res Dept: **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	435.6	698.8	698.8	698.8	698.8	235.3	174.7	174.7	42.1	0.0
Cum Hours:	435.6	1,134.4	1,833.2	2,532.0	3,230.8	3,466.1	3,640.8	3,815.5	3,857.6	3,857.6
Yr Total Cost:	10,406	17,572	18,612	19,710	20,878	7,511	6,045	6,372	1,706	0
Cum Total Cost:	10,406	27,979	46,591	66,301	87,179	94,690	100,735	107,107	108,814	108,814

Resource: CNSCOD **CONSTRUCTION COORD** **EOC:** LABOR
Res Dept: **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	1,281.6	5,472.8	5,501.0	5,371.0	5,551.0	3,820.0	1,817.0	1,817.0	431.0	0.0
Cum Hours:	1,281.6	6,754.4	12,255.4	17,626.4	23,177.4	26,997.4	28,814.4	30,631.4	31,062.4	31,062.4
Yr Total Cost:	40,678	182,840	194,662	201,268	220,344	162,003	83,537	88,048	23,210	0
Cum Total Cost:	40,678	223,518	418,180	619,448	839,793	1,001,796	1,085,332	1,173,381	1,196,590	1,196,590

INCLUDES ESCALATION COSTS

09/07/2001
10:15 AM

Resource: CNSENG **CONSTRUCTION ENG** **EOC:** LABOR
Res Dept: **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	2,733.6	3,714.0	3,754.0	3,624.0	3,804.0	2,073.0	1,817.0	1,817.0	431.0	0.0
Cum Hours:	2,733.6	6,447.6	10,201.6	13,825.6	17,629.6	19,702.6	21,519.6	23,336.6	23,767.6	23,767.6
Yr Total Cost:	148,981	213,056	228,099	233,183	259,275	150,956	143,439	151,186	39,853	0
Cum Total Cost:	148,981	362,037	590,136	823,320	1,082,594	1,233,550	1,376,989	1,528,174	1,568,027	1,568,027

Resource: CNSMGR **CONSTRUCTION MGR** **EOC:** LABOR
Res Dept: **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	3,194.4	3,494.0	3,494.0	3,494.0	3,494.0	1,853.0	174.7	174.7	42.1	0.0
Cum Hours:	3,194.4	6,688.4	10,182.4	13,676.4	17,170.4	19,023.4	19,198.1	19,372.8	19,414.9	19,414.9
Yr Total Cost:	198,085	228,055	241,556	255,798	270,962	153,529	15,692	16,539	4,429	0
Cum Total Cost:	198,085	426,140	667,696	923,494	1,194,456	1,347,985	1,363,676	1,380,215	1,384,645	1,384,645

Resource: CSTANL **COST ANALYST** **EOC:** LABOR
Res Dept: **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	2,904.0	1,747.0	1,747.0	1,747.0	1,747.0	926.5	174.7	174.7	42.1	0.0
Cum Hours:	2,904.0	4,651.0	6,398.0	8,145.0	9,892.0	10,818.5	10,993.2	11,167.9	11,210.0	11,210.0
Yr Total Cost:	112,966	71,532	75,766	80,233	84,990	48,156	9,844	10,375	2,779	0
Cum Total Cost:	112,966	184,497	260,263	340,497	425,486	473,642	483,486	493,861	496,640	496,640

Resource: DRFCAD **DRAFTER/CAD OPERATOR** **EOC:** LABOR
Res Dept: **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	290.4	739.7	437.7	829.3	562.8	224.7	174.7	174.7	42.1	0.0
Cum Hours:	290.4	1,030.1	1,467.8	2,297.1	2,859.9	3,084.6	3,259.3	3,434.0	3,476.1	3,476.1
Yr Total Cost:	9,058	24,284	15,220	30,538	21,953	9,364	7,893	8,319	2,228	0
Cum Total Cost:	9,058	33,342	48,562	79,100	101,053	110,417	118,310	126,629	128,857	128,857

INCLUDES ESCALATION COSTS

Resource: ENGCVL **ENGINEER CIVIL** **EOC:** LABOR
Res Dept: **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	0.0	84.2	84.2	168.4	77.4	0.0	0.0	0.0	0.0	0.0
Cum Hours:	0.0	84.2	168.4	336.8	414.2	414.2	414.2	414.2	414.2	414.2
Yr Total Cost:	0	4,820	5,105	10,812	5,264	0	0	0	0	0
Cum Total Cost:	0	4,820	9,924	20,736	26,000	26,000	26,000	26,000	26,000	26,000

Resource: ENGELE **ENGINEER ELECTRICAL** **EOC:** LABOR
Res Dept: **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	0.0	84.2	84.2	168.4	77.4	0.0	0.0	0.0	0.0	0.0
Cum Hours:	0.0	84.2	168.4	336.8	414.2	414.2	414.2	414.2	414.2	414.2
Yr Total Cost:	0	4,640	4,914	10,408	5,067	0	0	0	0	0
Cum Total Cost:	0	4,640	9,554	19,962	25,029	25,029	25,029	25,029	25,029	25,029

Resource: ENGINR **ENGINEER** **EOC:** LABOR
Res Dept: **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	9,147.6	2,620.5	2,620.5	2,620.5	2,620.5	1,800.0	174.7	174.7	42.1	0.0
Cum Hours:	9,147.6	11,768.1	14,388.6	17,009.1	19,629.6	21,429.6	21,604.3	21,779.0	21,821.1	21,821.1
Yr Total Cost:	628,989	189,660	200,888	212,732	225,343	165,372	17,400	18,340	4,911	0
Cum Total Cost:	628,989	818,649	1,019,536	1,232,268	1,457,611	1,622,983	1,640,383	1,658,722	1,663,633	1,663,633

Resource: ENGMEC **ENGINEER MECH/PIPING** **EOC:** LABOR
Res Dept: **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	0.0	84.2	84.2	168.4	77.4	0.0	0.0	0.0	0.0	0.0
Cum Hours:	0.0	84.2	168.4	336.8	414.2	414.2	414.2	414.2	414.2	414.2
Yr Total Cost:	0	5,511	5,837	12,362	6,019	0	0	0	0	0
Cum Total Cost:	0	5,511	11,348	23,710	29,729	29,729	29,729	29,729	29,729	29,729

Resource: ENSREP **ENVIR SCIENCE REP** **EOC:** LABOR
Res Dept: **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	580.8	524.1	524.1	524.1	524.1	224.7	174.7	174.7	42.1	0.0
Cum Hours:	580.8	1,104.9	1,629.0	2,153.1	2,677.2	2,901.9	3,076.6	3,251.3	3,293.4	3,293.4
Yr Total Cost:	24,370	23,148	24,518	25,963	27,503	12,598	10,618	11,191	2,997	0
Cum Total Cost:	24,370	47,518	72,036	97,999	125,502	138,099	148,717	159,909	162,906	162,906

Resource: ENSTEC **ENVIR SCIENTIST TECH** **EOC:** LABOR
Res Dept: **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	0.0	739.7	437.7	829.3	562.8	224.7	174.7	174.7	42.1	0.0
Cum Hours:	0.0	739.7	1,177.4	2,006.7	2,569.5	2,794.2	2,968.9	3,143.6	3,185.7	3,185.7
Yr Total Cost:	0	22,050	13,820	27,728	19,933	8,503	7,166	7,553	2,023	0
Cum Total Cost:	0	22,050	35,870	63,598	83,530	92,033	99,199	106,753	108,776	108,776

Resource: GLMNT **GEN LABOR MAINT** **EOC:** LABOR
Res Dept: **Overtime:** **Class:** HOU

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	11,555.6	3,681.0	3,620.0	3,589.0	3,704.0	2,022.0	85.0	35.0	10.0	0.0
Cum Hours:	11,555.6	15,236.6	18,856.6	22,445.6	26,149.6	28,171.6	28,256.6	28,291.6	28,301.6	28,301.6
Yr Total Cost:	285,229	97,099	100,354	104,929	116,422	68,789	4,514	1,959	622	0
Cum Total Cost:	285,229	382,329	482,683	587,612	704,035	772,823	777,337	779,296	779,918	779,918

Resource: HAZWAT **HAZWAT** **EOC:** LABOR
Res Dept: **Overtime:** **Class:** HOU

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	0.0	5,324.0	5,292.0	5,279.0	5,331.0	2,047.0	39.0	14.0	4.0	0.0
Cum Hours:	0.0	5,324.0	10,616.0	15,895.0	21,226.0	23,273.0	23,312.0	23,326.0	23,330.0	23,330.0
Yr Total Cost:	0	162,595	170,680	180,080	193,564	80,436	2,440	923	293	0
Cum Total Cost:	0	162,595	333,275	513,355	706,919	787,355	789,794	790,717	791,010	791,010

Resource: HEOOPR **HEAVY EQUIP OPERATOR** **EOC:** LABOR
Res Dept: **Overtime:** **Class:** HOU

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	986.2	1,830.0	1,798.0	1,785.0	1,837.0	1,835.0	39.0	14.0	4.0	0.0
Cum Hours:	986.2	2,816.2	4,614.2	6,399.2	8,236.2	10,071.2	10,110.2	10,124.2	10,128.2	10,128.2
Yr Total Cost:	32,835	61,973	63,958	67,005	74,046	78,984	2,666	1,009	320	0
Cum Total Cost:	32,835	94,808	158,766	225,771	299,818	378,801	381,467	382,476	382,796	382,796

Resource: INDVAC **INDUSTRIAL VACUUM OP** **EOC:** LABOR
Res Dept: **Overtime:** **Class:** HOU

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	0.0	390.9	349.4	477.9	388.1	185.3	0.0	0.0	0.0	0.0
Cum Hours:	0.0	390.9	740.3	1,218.2	1,606.3	1,791.6	1,791.6	1,791.6	1,791.6	1,791.6
Yr Total Cost:	0	10,932	10,350	14,991	12,896	6,578	0	0	0	0
Cum Total Cost:	0	10,932	21,282	36,274	49,170	55,748	55,748	55,748	55,748	55,748

Resource: INHTEC **INDUST HYGIENIST TEC** **EOC:** LABOR
Res Dept: **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	2,007.6	1,978.7	2,007.0	1,877.0	2,057.0	1,146.5	244.7	244.7	52.1	0.0
Cum Hours:	2,007.6	3,986.3	5,993.3	7,870.3	9,927.3	11,073.8	11,318.5	11,563.2	11,615.3	11,615.3
Yr Total Cost:	75,666	78,498	84,335	83,522	96,958	57,737	13,359	14,081	3,332	0
Cum Total Cost:	75,666	154,165	238,500	322,022	418,980	476,717	490,076	504,157	507,488	507,488

Resource: LABCHM **CHEMIST** **EOC:** LABOR
Res Dept: **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	1,016.4	2,086.5	1,048.5	2,006.2	1,339.0	324.7	174.7	174.7	42.1	0.0
Cum Hours:	1,016.4	3,102.9	4,151.4	6,157.6	7,496.6	7,821.3	7,996.0	8,170.7	8,212.8	8,212.8
Yr Total Cost:	39,396	85,125	45,309	91,806	64,906	16,816	9,808	10,338	2,769	0
Cum Total Cost:	39,396	124,521	169,830	261,636	326,542	343,358	353,166	363,504	366,273	366,273

Resource: LABTEC **LAB TECH** **EOC:** LABOR
Res Dept: **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	290.4	695.5	349.5	785.2	562.8	224.7	174.7	174.7	42.1	0.0
Cum Hours:	290.4	985.9	1,335.4	2,120.6	2,683.4	2,908.1	3,082.8	3,257.5	3,299.6	3,299.6
Yr Total Cost:	8,070	20,344	10,829	25,762	19,560	8,343	7,032	7,412	1,985	0
Cum Total Cost:	8,070	28,414	39,243	65,005	84,565	92,908	99,941	107,353	109,338	109,338

Resource: MAT300 **MATERIAL OBJCLASS300** **EOC:** MATERIAL
Res Dept: **Overtime:** **Class:** MAT

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Units:	245,408.0	55,431.5	55,431.5	55,653.3	55,431.5	55,209.8	55,209.8	55,653.3	12,860.1	0.0
Cum Units:	245,408.0	300,839.5	356,271.1	411,924.4	467,355.9	522,565.7	577,775.6	633,428.8	646,289.0	646,289.0
Yr Total Cost:	245,408	56,928	58,465	60,343	61,785	63,323	65,159	67,587	16,071	0
Cum Total Cost:	245,408	302,336	360,801	421,144	482,929	546,252	611,411	678,998	695,069	695,069

Resource: ODC700 **ODC 700** **EOC:** ODC
Res Dept: **Overtime:** REG **Class:** ODC

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Units:	24,761.9	29,761.9	29,761.9	29,881.0	29,761.9	29,642.9	29,642.9	29,881.0	6,904.8	0.0
Cum Units:	24,761.9	54,523.8	84,285.7	114,166.7	143,928.6	173,571.4	203,214.3	233,095.2	240,000.0	240,000.0
Yr Total Cost:	24,762	30,565	31,391	32,399	33,173	33,999	34,985	36,288	8,629	0
Cum Total Cost:	24,762	55,327	86,718	119,117	152,290	186,289	221,274	257,562	266,190	266,190

Resource: ODCTRVL **TRAVEL RESOURCE** **EOC:** ODC
Res Dept: **Overtime:** **Class:** ODC

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Units:	9,904.8	11,904.8	11,904.8	11,952.4	11,904.8	11,857.1	11,857.1	11,952.4	2,761.9	0.0
Cum Units:	9,904.8	21,809.5	33,714.3	45,666.7	57,571.4	69,428.6	81,285.7	93,238.1	96,000.0	96,000.0
Yr Total Cost:	9,905	12,226	12,556	12,960	13,269	13,599	13,994	14,515	3,451	0
Cum Total Cost:	9,905	22,131	34,687	47,647	60,916	74,516	88,509	103,025	106,476	106,476

Resource: PJCSCH **SCHEDULERS** **EOC:** LABOR
Res Dept: **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	1,887.6	1,747.0	1,747.0	1,747.0	1,747.0	926.5	349.4	349.4	84.2	0.0
Cum Hours:	1,887.6	3,634.6	5,381.6	7,128.6	8,875.6	9,802.1	10,151.5	10,500.9	10,585.1	10,585.1
Yr Total Cost:	99,816	97,239	102,995	109,068	115,533	65,462	26,763	28,208	7,554	0
Cum Total Cost:	99,816	197,055	300,050	409,118	524,652	590,114	616,877	645,085	652,639	652,639

Resource: PRJMGR **PROJECT MANAGER** **EOC:** LABOR
Res Dept: **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	1,452.0	1,747.0	1,747.0	1,747.0	1,747.0	1,747.0	0.0	0.0	0.0	0.0
Cum Hours:	1,452.0	3,199.0	4,946.0	6,693.0	8,440.0	10,187.0	10,187.0	10,187.0	10,187.0	10,187.0
Yr Total Cost:	129,460	163,953	173,659	183,897	194,799	208,121	0	0	0	0
Cum Total Cost:	129,460	293,413	467,071	650,969	845,768	1,053,889	1,053,889	1,053,889	1,053,889	1,053,889

Resource: QACTEC **QA/QC TECH** **EOC:** LABOR
Res Dept: **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	1,597.2	1,572.3	1,572.3	1,572.3	1,572.3	915.9	174.7	174.7	42.1	0.0
Cum Hours:	1,597.2	3,169.5	4,741.8	6,314.1	7,886.4	8,802.3	8,977.0	9,151.7	9,193.8	9,193.8
Yr Total Cost:	49,322	51,106	54,131	57,323	60,721	37,790	7,814	8,236	2,206	0
Cum Total Cost:	49,322	100,427	154,558	211,881	272,601	310,391	318,206	326,442	328,647	328,647

Resource: RADENG **RAD ENGINEER** **EOC:** LABOR
Res Dept: **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	0.0	1,747.0	1,747.0	1,747.0	1,747.0	926.5	0.0	0.0	0.0	0.0
Cum Hours:	0.0	1,747.0	3,494.0	5,241.0	6,988.0	7,914.5	7,914.5	7,914.5	7,914.5	7,914.5
Yr Total Cost:	0	86,794	91,932	97,353	103,124	58,431	0	0	0	0
Cum Total Cost:	0	86,794	178,726	276,079	379,203	437,633	437,633	437,633	437,633	437,633

INCLUDES ESCALATION COSTS

Resource: RADTEC **RAD TECH** **EOC:** LABOR
Res Dept: **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	10,549.2	17,091.5	17,990.0	17,730.0	18,090.0	11,346.0	1,013.5	1,013.5	230.5	0.0
Cum Hours:	10,549.2	27,640.7	45,630.7	63,360.7	81,450.7	92,796.7	93,810.2	94,823.7	95,054.2	95,054.2
Yr Total Cost:	363,606	621,416	693,419	718,611	784,225	526,667	53,486	56,375	13,906	0
Cum Total Cost:	363,606	985,023	1,678,441	2,397,052	3,181,277	3,707,944	3,761,430	3,817,806	3,831,711	3,831,711

Resource: S&HTEC **SAFETY TECH** **EOC:** LABOR
Res Dept: **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	4,911.6	1,978.7	2,007.0	1,887.0	2,047.0	1,967.0	244.7	244.7	52.1	0.0
Cum Hours:	4,911.6	6,890.3	8,897.3	10,784.3	12,831.3	14,798.3	15,043.0	15,287.7	15,339.8	15,339.8
Yr Total Cost:	141,994	60,212	64,689	64,407	74,010	75,981	10,247	10,800	2,555	0
Cum Total Cost:	141,994	202,206	266,895	331,302	405,312	481,293	491,540	502,340	504,896	504,896

Resource: SERVSUB **SUBS** **EOC:** SUBCONTRACTORS
Res Dept: **Overtime:** **Class:** SUB

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Units:	389,269.0	379,930.0	328,622.9	287,529.5	292,969.5	277,150.8	241,681.1	228,330.0	52,612.1	0.0
Cum Units:	389,269.0	769,199.0	1,097,821.9	1,385,351.3	1,678,320.8	1,955,471.6	2,197,152.7	2,425,482.7	2,478,094.8	2,478,094.8
Yr Total Cost:	389,269	390,188	346,608	311,757	326,550	317,877	285,233	277,291	65,747	0
Cum Total Cost:	389,269	779,457	1,126,065	1,437,822	1,764,372	2,082,249	2,367,482	2,644,774	2,710,520	2,710,520

Resource: WSTENG **WASTE ENGINEER** **EOC:** LABOR
Res Dept: **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	4,791.6	1,747.0	1,747.0	1,747.0	1,747.0	926.5	174.7	174.7	42.1	0.0
Cum Hours:	4,791.6	6,538.6	8,285.6	10,032.6	11,779.6	12,706.1	12,880.8	13,055.5	13,097.6	13,097.6
Yr Total Cost:	244,515	93,837	99,392	105,252	111,492	63,172	12,913	13,611	3,645	0
Cum Total Cost:	244,515	338,352	437,744	542,996	654,488	717,660	730,573	744,184	747,829	747,829

09/07/2001
10:15 AM

GRAND TOTALS:

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	63,065.4	65,367.3	64,236.1	65,966.8	65,460.4	38,849.0	7,745.7	7,645.7	1,804.1	0.0
Cum Hours:	63,065.4	128,432.7	192,668.8	258,635.6	324,096.0	362,945.0	370,690.7	378,336.4	380,140.5	380,140.5
Yr Total Cost:	3,373,626	3,245,246	3,325,659	3,528,622	3,716,107	2,551,964	862,648	877,733	220,212	0
Cum Total Cost:	3,373,626	6,618,872	9,944,531	13,473,153	17,189,260	19,741,225	20,603,873	21,481,606	21,701,818	21,701,818

CAM _____ CONTROL TEAM _____

INCLUDES ESCALATION COSTS

SECTION 1

5.0 RISK PLAN

Risk/Opportunity Identification and Analysis Form

Project: D&D Management		R1: F02-047	PBS Number: 02				Total Baseline Dollars (Minimum Case)			$21,701,818	
Evaluator: M. Stevens	Date: 08-13-01		WBS Number: 1.1.B.A								
CAM: M. Stevens	Date: 08-13-01		Control Account Number: BFDP				R1: F02-047				
Project Task	Risk and/or Opportunity	Potential Impact	Internal Or External Driver	Impact Cost $ (Maximum Case)	Risk Impact Level	Risk Probability %	Risk Probability Level	Probable Cost $ (Likeliest Case)	Risk Critical Value	Risk Handling Strategy	
R1: F02-047											
Onsite Debris-Thorium contaminated debris	Have to stage in ROBs	Purchase 50 ROBs	Internal	$350,000	2	10	2	$35,000	2	Accept	
Onsite Debris- Cat I Storage	Have to stage in ROBs	Purchase 70 ROBs	Internal	$490,000	2	25	2	$122,500	2	Accept	
			Total:	$840,000				Total:	$157,500		

Risk/Opportunity Identification and Analysis Form

Project: Demolition:East Warehouse		PBS Number: 02				Total Baseline Dollars (Minimum Case): $968,908.00				
Evaluator: M. Stevens	Date: 2-26-01	WBS Number: 1.1.B.Q								
CAM: M. Stevens	Date: 2-26-01	Control Account Number: BEWC								
Project Task	Risk and/or Opportunity	Potential Impact	Internal Or External Driver	Impact Cost $ (Maximum Case)	Risk Impact Level	Risk Probability %	Risk Probability Level	Probable Cost $ (Likeliest Case)	Risk Critical Value	Risk Handling Strategy
Utility Isolation	Delay	Escalation	Internal	$10,000.00	1	25	2	$2,500.00	1	Accept
Utility Redistribution	Delay	Escalation	Internal	$0.00	1	25	2	$0.00	1	
Demolition	Delay	Escalation	Internal	$50,000.00	1	25	2	$12,500.00	1	Accept
			Total:	$60,000.00			Total:	$15,000.00		

Risk/Opportunity Identification and Analysis Form

R1-F02-047

R1-F02-047

Project: Administration Complex		PBS Number: 02				Total Baseline Dollars (Minimum Case): $12,500,390.00				
Evaluator: M. Stevens	Date: 2-26-01	WBS Number: 1.1.B.B								
CAM: M. Stevens	Date: 2-26-01	Control Account Number: BADM								
Project Task	Risk and/or Opportunity	Potential Impact	Internal Or External Driver	Impact Cost $ (Maximum Case)	Risk Impact Level	Risk Probability %	Risk Probability Level	Probable Cost $ (Likeliest Case)	Risk Critical Value	Risk Handling Strategy
Utility Isolation	Delay	Escalation	Internal	$10,000.00	1	25	2	$2,500.00	1	Accept
Utility Redistribution	Delay	Escalation	Internal	$30,000.00	1	25	2	$7,500.00	1	Accept
Demolition	Delay	Escalation	Internal	$120,000.00	2	25	2	$30,000.00	2	Accept
			Total:	$160,000.00			Total:	$40,000.00		

Risk/Opportunity Identification and Analysis Form

R1-F02-047

R1-F02-047

Project: Demolition: Electrical Substation		PBS Number: 02				Total Baseline Dollars (Minimum Case): $782,457.00				
Evaluator: M. Stevens	Date: 2-26-01	WBS Number: 1.1.B.C								
CAM: M. Stevens	Date: 2-26-01	Control Account Number: BELE								
Project Task	Risk and/or Opportunity	Potential Impact	Internal Or External Driver	Impact Cost $ (Maximum Case)	Risk Impact Level	Risk Probability %	Risk Probability Level	Probable Cost $ (Likeliest Case)	Risk Critical Value	Risk Handling Strategy
Utility Isolation	Delay	Escalation	Internal	$50,000.00	1	25	2	$12,500.00	1	Accept
Utility Redistribution	Delay	Escalation	Internal	$100,000.00	2	25	2	$25,000.00	1	Accept
Demolition	Delay	Escalation	Internal	$20,000.00	1	25	2	$5,000.00	1	Accept
			Total:	$170,000.00			Total:	$42,500.00		

Risk/Opportunity Identification and Analysis Form

R1-F02-047

R1-F02-047

~~Project: Demolition:General Sump~~		~~PBS Number: 02~~				~~Total Baseline Dollars (Minimum Case): $3,566,696.00~~				
~~Evaluator: M. Stevens~~	~~Date: 2-26-01~~	~~WBS Number: 1.1.B.D~~								
~~CAM: M. Stevens~~	~~Date: 2-26-01~~	~~Control Account Number: BGSC~~								
~~Project Task~~ R1-F02-047	~~Risk and/or Opportunity~~	~~Potential Impact~~	~~Internal Or External Driver~~	~~Impact Cost $ (Maximum Case)~~	~~Risk Impact Level~~	~~Risk Probability %~~	~~Risk Probability Level~~	~~Probable Cost $ (Likeliest Case)~~	~~Risk Critical Value~~	~~Risk Handling Strategy~~
~~Utility Isolation~~	~~Delay~~	~~Escalation~~	~~Internal~~	~~$10,000.00~~	~~1~~	~~25~~	~~2~~	~~$2,500.00~~	~~1~~	~~Accept~~
~~Utility Redistribution~~	~~Delay~~	~~Escalation~~	~~Internal~~	~~$0.00~~	~~1~~	~~25~~	~~2~~	~~$0.00~~	~~1~~	
~~Demolition~~	~~Delay~~	~~Escalation~~	~~Internal~~	~~$30,000.00~~	~~1~~	~~25~~	~~2~~	~~$7,500.00~~	~~1~~	~~Accept~~
			~~Total:~~	~~$40,000.00~~			~~Total:~~	~~$10,000.00~~		

Risk/Opportunity Identification and Analysis Form

R1-F02-047

R1-F02-047

Project: Laboratory		PBS Number: 02				Total Baseline Dollars (Minimum Case): $5,964,999.00				
Evaluator: M. Stevens	Date: 2-26-01	WBS Number: 1.1.B.E								
CAM: M. Stevens	Date: 2-26-01	Control Account Number: BLAB								
Project Task R1-F02-047	Risk and/or Opportunity	Potential Impact	Internal Or External Driver	Impact Cost $ (Maximum Case)	Risk Impact Level	Risk Probability %	Risk Probability Level	Probable Cost $ (Likeliest Case)	Risk Critical Value	Risk Handling Strategy
Utility Isolation	Delay	Escalation	Internal	$20,000.00	1	25	2	$5,000.00	1	Accept
Utility Redistribution	Delay	Escalation	Internal	$0.00	1	25	2	$0.00	1	
Demolition	Delay	Escalation	Internal	$250,000.00	2	25	2	$62,500.00	2	Accept
			Total:	$270,000.00			Total:	$67,500.00		

Risk/Opportunity Identification and Analysis Form

R1-F02-047

R1-F02-047

Project: Demolition:Liquid Storage		PBS Number: 02				Total Baseline Dollars (Minimum Case): $3,461,074.00				
Evaluator: M. Stevens	Date: 2-26-01	WBS Number: 1.1.B.F								
CAM: M. Stevens	Date: 2-26-01	Control Account Number: BLQD								
Project Task R1-F02-047	Risk and/or Opportunity	Potential Impact	Internal Or External Driver	Impact Cost $ (Maximum Case)	Risk Impact Level	Risk Probability %	Risk Probability Level	Probable Cost $ (Likeliest Case)	Risk Critical Value	Risk Handling Strategy
Utility Isolation	Delay	Escalation	Internal	$20,000.00	1	25	2	$5,000.00	1	Accept
Utility Redistribution	Delay	Escalation	Internal	$20,000.00	1	25	2	$5,000.00	1	Accept
Demolition	Delay	Escalation	Internal	$60,000.00	1	25	2	$15,000.00	1	Accept
			Total:	$100,000.00			Total:	$25,000.00		

Risk/Opportunity Identification and Analysis Form

R1-F02-047

~~ot: Demolition:Miscellaneous~~		~~PBS Number: 02~~									
~~Evaluator: M. Stevens~~	~~Date: 2-26-01~~	~~WBS Number: 1.1.B.U~~									
~~CAM: M. Stevens~~	~~Date: 2-26-01~~	~~Control Account Number: BMSC~~									
~~Project Task~~	~~Risk and/or Opportunity~~	~~Potential Impact~~	~~Internal Or External Driver~~	~~Impact Cost $ (Maximum Case)~~	~~Risk Impact Level~~	~~Risk Probability %~~	~~Risk Probability Level~~	~~Probable Cost $ (Likeliest Case)~~	~~Risk Critical Value~~	~~Risk Handling Strategy~~	
~~Utility Isolation~~	~~Delay~~	~~Escalation~~	~~Internal~~	~~$80,000.00~~	~~1~~	~~25~~	~~2~~	~~$20,000.00~~	~~1~~	~~Accept~~	
~~Utility Redistribution~~	~~Delay~~	~~Escalation~~	~~Internal~~	~~$120,000.00~~	~~1~~	~~25~~	~~2~~	~~$30,000.00~~	~~1~~	~~Accept~~	
~~Demolition~~	~~Delay~~	~~Escalation~~	~~Internal~~	~~$160,000.00~~	~~2~~	~~25~~	~~2~~	~~$40,000.00~~	~~2~~	~~Accept~~	
			~~Total:~~	~~$360,000.00~~			~~Total:~~	~~$90,000.00~~			

R1-F02-047

~~Baseline Dollars (Minimum Case): $11,502,986.00~~

Risk/Opportunity Identification and Analysis Form

R1-F02-047

R1-F02-047

Project: Pilot Plant	PBS Number: 02				Total Baseline Dollars (Minimum Case): $8,265,081.00				
Evaluator: M. Stevens	WBS Number: 1.1.B.P								
CAM: M. Stevens	Control Account Number: BPPC								
Project Task	Potential Impact	Internal Or External Driver	Impact Cost $ (Maximum Case)	Risk Impact Level	Risk Probability %	Risk Probability Level	Probable Cost $ (Likeliest Case)	Risk Critical Value	Risk Handling Strategy
Utility Isolation	Escalation	Internal	$10,000.00	1	25	2	$2,500.00	1	Accept
Utility Redistribution	Escalation	Internal	$0.00	1	25	2	$0.00	1	
Demolition	Escalation	Internal	$120,000.00	2	25	2	$30,000.00	2	Accept
		Total:	$130,000.00			Total:	$32,500.00		

Risk/Opportunity Identification and Analysis Form

R1-F02-047

R1-F02-047

Project: Plant 2		PBS Number: 02				Total Baseline Dollars (Minimum Case): $14,694,681.00				
Evaluator: M. Stevens	Date: 2-26-01	WBS Number: 1.1.B.H								
CAM: M. Stevens	Date: 2-26-01	Control Account Number: BPL2								
Project Task	Risk and/or Opportunity	Potential Impact	Internal Or External Driver	Impact Cost $ (Maximum Case)	Risk Impact Level	Risk Probability %	Risk Probability Level	Probable Cost $ (Likeliest Case)	Risk Critical Value	Risk Handling Strategy
Utility Isolation	Delay	Escalation	Internal	$0.00	1	25	2	$0.00	1	
Utility Redistribution	Delay	Escalation	Internal	$0.00	1	25	2	$0.00	1	
Demolition	Delay	Escalation	Internal	$600,000.00	2	25	2	$150,000.00	2	Accept
			Total:	$600,000.00			Total:	$150,000.00		

Risk/Opportunity Identification and Analysis Form

R1-F02-047

R1-F02-047

Project: Plant 3		PBS Number: 02				Total Baseline Dollars (Minimum Case): $4,955,486.00				
Evaluator: M. Stevens	Date: 2-26-01	WBS Number: 1.1.B.J								
CAM: M. Stevens	Date: 2-26-01	Control Account Number: BPL3								
Project Task R1-F02-047	Risk and/or Opportunity	Potential Impact	Internal Or External Driver	Impact Cost $ (Maximum Case)	Risk Impact Level	Risk Probability %	Risk Probability Level	Probable Cost $ (Likeliest Case)	Risk Critical Value	Risk Handling Strategy
Utility Isolation	Delay	Escalation-	Internal	$10,000.00	1	25	2	$2,500.00	1	Accept
Utility Redistribution	Delay	Escalation-	Internal	$0.00	1	25	2	$0.00	1	Accept
Demolition	Delay	Escalation	Internal	$90,000.00	1	25	2	$22,500.00	1	Accept
			Total:	$100,000.00			Total:	$25,000.00		

Risk/Opportunity Identification and Analysis Form

R1-F02-047

~~ot: Demolition: Plant 5~~		~~PBS Number: 02~~					~~Baseline Dollars (Minimum Case): $2,617,590.00~~				
~~Evaluator: M. Stevens~~	~~Date: 2-26-01~~	~~WBS Number: 1.1.B.K~~									
~~CAM: M. Stevens~~	~~Date: 2-26-01~~	~~Control Account Number: BPL5~~									
~~Project Task~~	~~Risk and/or Opportunity~~	~~Potential Impact~~	~~Internal Or External Driver~~	~~Impact Cost $ (Maximum Case)~~	~~Risk Impact Level~~	~~Risk Probability %~~	~~Risk Probability Level~~	~~Probable Cost $ (Likeliest Case)~~	~~Risk Critical Value~~	~~Risk Handling Strategy~~
~~Utility Isolation~~	~~Delay~~	~~Escalation~~	~~Internal~~	~~$0.00~~	~~1~~	~~25~~	~~2~~	~~$0.00~~	~~1~~	~~Accept~~
~~Utility Redistribution~~	~~Delay~~	~~Escalation~~	~~Internal~~	~~$0.00~~	~~1~~	~~25~~	~~2~~	~~$0.00~~	~~1~~	~~Accept~~
~~Demolition~~	~~Delay~~	~~Escalation~~	~~Internal~~	~~$0.00~~	~~1~~	~~25~~	~~2~~	~~$0.00~~	~~1~~	~~Accept~~
			~~Total:~~	~~$0.00~~			~~Total:~~	~~$0.00~~		

Risk/Opportunity Identification and Analysis Form

R1-F02-047

R1-F02-047

~~Project: Plant 6~~		~~PBS Number: 02~~				~~Total Baseline Dollars (Minimum Case): $6,001,749.00~~				
~~Evaluator: M. Stevens~~	~~Date: 2-26-01~~	~~WBS Number: 1.1.B.M~~								
~~CAM: M. Stevens~~	~~Date: 2-26-01~~	~~Control Account Number: BPL6~~								
~~Project Task~~	~~Risk and/or Opportunity~~	~~Potential Impact~~	~~Internal Or External Driver~~	~~Impact Cost $ (Maximum Case)~~	~~Risk Impact Level~~	~~Risk Probability %~~	~~Risk Probability Level~~	~~Probable Cost $ (Likeliest Case)~~	~~Risk Critical Value~~	~~Risk Handling Strategy~~
~~Utility Isolation~~	~~Delay~~	~~Escalation~~	~~Internal~~	~~$0.00~~	~~1~~	~~25~~	~~2~~	~~$0.00~~	~~1~~	
~~Utility Redistribution~~	~~Delay~~	~~Escalation~~	~~Internal~~	~~$0.00~~	~~1~~	~~25~~	~~2~~	~~$0.00~~	~~1~~	
~~Demolition~~	~~Delay~~	~~Escalation~~	~~Internal~~	~~$0.00~~	~~1~~	~~25~~	~~2~~	~~$0.00~~	~~1~~	
			~~Total:~~	~~$0.00~~			~~Total:~~	~~$0.00~~		

Risk/Opportunity Identification and Analysis Form

R1-F02-047

~~ot: Plant 8~~		~~PBS Number: 02~~				R1-F02-047 ~~Baseline Dollars (Minimum Case): $6,861,638.00~~				
~~Evaluator: M. Stevens~~	~~Date: 2-26-01~~	~~WBS Number: 1.1.B.N~~								
~~CAM: M. Stevens~~	~~Date: 2-26-01~~	~~Control Account Number: BPL8~~								
~~Project Task~~ R1-F02-047	~~Risk and/or Opportunity~~	~~Potential Impact~~	~~Internal Or External Driver~~	~~Impact Cost $ (Maximum Case)~~	~~Risk Impact Level~~	~~Risk Probability %~~	~~Risk Probability Level~~	~~Probable Cost $ (Likeliest Case)~~	~~Risk Critical Value~~	~~Risk Handling Strategy~~
~~Utility Isolation~~	~~Delay~~	~~Escalation~~	~~Internal~~	~~$0.00~~	~~1~~	~~25~~	~~2~~	~~$0.00~~	~~1~~	
~~Utility Redistribution~~	~~Delay~~	~~Escalation~~	~~Internal~~	~~$0.00~~	~~1~~	~~25~~	~~2~~	~~$0.00~~	~~1~~	
~~Demolition~~	~~Delay~~	~~Escalation~~	~~Internal~~	~~$240,000.00~~	~~2~~	~~25~~	~~2~~	~~$60,000.00~~	~~2~~	~~Accept~~
			~~Total:~~	~~$240,000.00~~			~~Total:~~	~~$60,000.00~~		

Risk/Opportunity Identification and Analysis Form

R1-F02-047

R1-F02-047

Project: Demolition:Plant 1, Phase II		PBS Number: 02					Total Baseline Dollars (Minimum Case): $3,085,150.00			
Evaluator: M. Stevens	Date: 2-26-01	WBS Number: 1.1.B.G								
CAM: M. Stevens	Date: 2-26-01	Control Account Number: BPL1								
Project Task	Risk and/or Opportunity	Potential Impact	Internal Or External Driver	Impact Cost $ (Maximum Case)	Risk Impact Level	Risk Probability %	Risk Probability Level	Probable Cost $ (Likeliest Case)	Risk Critical Value	Risk Handling Strategy
Utility Isolation	Delay	Escalation-	Internal	$10,000.00	1	25	2	$2,500.00	1	Accept
Utility Redistribution	Delay	Escalation-	Internal	$0.00	1	25	2	$0.00	1	
Demolition	Delay	Escalation	Internal	$60,000.00	2	25	2	$15,000.00	2	Accept
			Total:	$70,000.00			Total:	$17,500.00		

R1-F02 047

Risk/Opportunity Identification and Analysis Form

R1-F02-047

~~ot: Onsite Debris Disposal~~		~~PBS Number: 02~~				R1-F02-047 ~~Baseline Dollars (Minimum Case): $2,464,989.00~~				
~~Evaluator: M. Stevens~~	~~Date: 5/1/2001~~	~~WBS Number: 1.1.B.S~~								
~~CAM: M. Stevens~~	~~Date: 5/1/2001~~	~~Control Account Number: BDNW~~								
~~Project Task~~	~~Risk and/or Opportunity~~	~~Potential Impact~~	~~Internal Or External Driver~~	~~Impact Cost $ (Maximum Case)~~	~~Risk Impact Level~~	~~Risk Probability %~~	~~Risk Probability Level~~	~~Probable Cost $ (Likeliest Case)~~	~~Risk Critical Value~~	~~Risk Handling Strategy~~
~~Onsite Debris Thorium contaminated debris~~	~~Have to stage in ROBs~~	~~Purchase 50 ROBs~~	~~Internal~~	~~$350,000.00~~	~~2~~	~~10~~	~~2~~	~~$35,000.00~~	~~2~~	~~Accept~~
~~Onsite Debris- Cat I Storage~~	~~Have to stage in ROBs~~	~~Purchase 70 ROBs~~	~~Internal~~	~~$490,000.00~~	~~2~~	~~25~~	~~2~~	~~$122,500.00~~	~~2~~	~~Accept~~
			~~Total:~~	~~$840,000.00~~			~~Total:~~	~~$157,500.00~~		

Risk/Opportunity Identification and Analysis Form

R1-F02-047

~~ct: D&D Project Management~~		~~PBS Number: 02~~				R1-F02-047 ~~Baseline Dollars (Minimum Case): $2,381,679.00~~				
~~Evaluator: M. Stevens~~	~~5/1/01~~	~~WBS Number: 1.1.B.A~~								
~~CAM: M. Stevens~~	~~5/1/01~~	~~Control Account Number: BFDP~~								
~~Project Task~~ R1-F02-047	~~Risk and/or Opportunity~~	~~Potential Impact~~	~~Internal Or External Driver~~	~~Impact Cost $ (Maximum Case)~~	~~Risk Impact Level~~	~~Risk Probability %~~	~~Risk Probability Level~~	~~Probable Cost $ (Likeliest Case)~~	~~Risk Critical Value~~	~~Risk Handling Strategy~~
~~None identified~~										~~Accept~~

Risk/Opportunity Identification and Analysis Form

R1-F02-047

~~t: OU1 D&D~~		~~PBS Number: 02~~				R1-F02-047 ~~Baseline Dollars (Minimum Case): $1,126,092.00~~				
~~Evaluator: M. Stevens~~	~~5/1/01~~	~~WBS Number: 1.1.B.T~~								
~~CAM: M. Stevens~~	~~5/1/01~~	~~Control Account Number: BWPR~~								
~~Project Task~~ R1-F02-047	~~Risk and/or Opportunity~~	~~Potential Impact~~	~~Internal Or External Driver~~	~~Impact Cost $ (Maximum Case)~~	~~Risk Impact Level~~	~~Risk Probability %~~	~~Risk Probability Level~~	~~Probable Cost $ (Likeliest Case)~~	~~Risk Critical Value~~	~~Risk Handling Strategy~~
~~Utility Isolation~~	~~Delay~~	~~Escalation~~	~~Internal~~	~~$10,000.00~~	~~1~~	~~25~~	~~2~~	~~$2,500.00~~	~~1~~	~~Accept~~
~~Demolition~~	~~Delay~~	~~Escalation~~	~~Internal~~	~~$50,000.00~~	~~1~~	~~25~~	~~2~~	~~$12,500.00~~	~~1~~	~~Accept~~
			~~Total:~~	~~$60,000.00~~			~~Total:~~	~~$15,000.00~~		

WBS DICTIONARY
CONTROL ACCOUNT/CHARGE NUMBER

U.S. DEPARTMENT OF ENERGY
WORK BREAKDOWN STRUCTURE DICTIONARY
PART II - ELEMENT DEFINITION

1. PROJECT TITLE	2. DATE OF CONTRACT
FEMP (DEFENSE)	12/01/2000

3. IDENTIFICATION NUMBER	4. INDEX LINE NO.
DE-AC24-01OH20115	10

5. WBS ELEMENT CODE	6. WBS ELEMENT TITLE
1.1.B.B	FACILITY ISOLATION & UTILITY REDISTRIBUTION

7. APPROVED CP NO.	8. DATE OF CHANGES
NEW PER CP# FY01-0115-0002-00	05/15/2001

9. SYSTEM DESIGN DESCRIPTION	10. BUDGET AND REPORTING NUMBER
CERCLA / ACA	EW05H3020

11. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Material
ODCs
Subcontracts

b. TECHNICAL CONTENT:

The Administration Complex decontamination and dismantlement (D&D) WBS Element includes activities associated with the utility redistribution, facilities isolation and above-grade D&D of the Administration Complex, which is to be performed in accordance with the Operable Unit 3 (OU3) Integrated Remedial Design/Remedial Action (RD/RA) Work Plan. Facilities included in the Administration Complex are 11, 14A, 14B, 53A, 53B, and 20K.

c. SCOPE OF WORK:

The scope of work includes utility redistribution, facility shutdown, planning, procurement, construction management, D&D Contractor and closure activities associated with the above-grade D&D of the Administration Complex. The scope of work will be accomplished in control account BADM in the following sequence:

Utility Redistribution - includes identification and relocation of electric, water and other utilities necessary to continue operations.

Utility Isolation - includes utility isolation activities along with removal of process hold-up materials encountered by the Contractor during field activities.

Planning and Procurement - includes all planning and procurement activities performed prior to contract award, including Title I/II engineering, document development, estimating, scheduling, data gathering, field surveys and supplemental sampling that supports project planning.

U.S. DEPARTMENT OF ENERGY
WORK BREAKDOWN STRUCTURE DICTIONARY
PART II - ELEMENT DEFINITION

1. PROJECT TITLE FEMP (DEFENSE)	2. DATE OF CONTRACT 12/01/2000
3. IDENTIFICATION NUMBER DE-AC24-01OH20115	4. INDEX LINE NO. 10
5. WBS ELEMENT CODE 1.1.B.B	6. WBS ELEMENT TITLE FACILITY ISOLATION & UTILITY REDISTRIBUTION
7. APPROVED CP NO. NEW PER CP# FY01-0115-0002-00	8. DATE OF CHANGES 05/15/2001
9. SYSTEM DESIGN DESCRIPTION CERCLA / ACA	10. BUDGET AND REPORTING NUMBER EW05H3020

11. ELEMENT TASK DESCRIPTION

Construction Management - includes all field activities associated with construction management, support contractors and materials from contract award through completion of field activities.

Prime D&D Contractor(s) - includes only the D&D Contractor and any contract modifications.

Project Closeout - includes all project closeout activities occurring after completion of field activities. This includes the development of the project completion report and cost account closeout.

WORK SCOPE DEFINITION
(Control Account)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	08/20/2001	Page 1

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.B.B	FACILITY ISOLATION & UTILITY REDISTRIBUTION

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
48	J. M. STEVENS/5187	J. M. STEVENS

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3020	FACILITY D&D

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
NEW PER CP# FY01-0115-0002-00	03/01 - 01/08

12. TASK IDENTIFICATION (CONTROL ACCOUNT)	13. TASK DESCRIPTION (ONE LINE)
BFUD	FACILITY ISOLATION & UTILITY REDISTRIBUTION

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Materials
Subcontracts

b. TECHNICAL CONTENT:

Includes activities associated with Facility Isolation and Utility Redistribution.

c. SCOPE OF WORK:

Facility Isolation and Utility Redistribution includes activities associated with the isolation and/or redistribution of all utilities from structures or trailers prior to the start of D&D activities. Facility isolation activities include the physical disconnection of all utilities (i.e. electric, water, steam, etc) that services the structor or trailer. Utility Redistribution activities include the relocation of any utility that services structures or trailers that are distributed through a structure requiring demolition of an area requiring soil excavation.

BFUD1 - Utility Redistribution - includes identification and relocation of electric, water and other utilities necessary to continue operations.

BFUD2 - Facility Isolation - includes utility isolation activities.

Project Manager	Control Account Manager	Control Team Manager
		Rodney Whitaker

WORK SCOPE DEFINITION
(Control Account)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	08/20/2001	Page 2

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.B.B	FACILITY ISOLATION & UTILITY REDISTRIBUTION

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
48	J. M. STEVENS/5187	J. M. STEVENS

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3020	FACILITY D&D

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
NEW PER CP# FY01-0115-0002-00	03/01 - 01/08

12. TASK IDENTIFICATION (CONTROL ACCOUNT)	13. TASK DESCRIPTION (ONE LINE)
BFUD	FACILITY ISOLATION & UTILITY REDISTRIBUTION

14. ELEMENT TASK DESCRIPTION

d. WORK SPECIFICALLY EXCLUDED:

Project Management
D&D Subcontractor
Offsite Debris Disposal
ODCs

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	08/20/2001	Page 1

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.B.B	FACILITY ISOLATION & UTILITY REDISTRIBUTION

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
48	J. M. STEVENS/5187	J. M. STEVENS

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3020	FACILITY D&D

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
NEW PER CP# FY01-0115-0002-00	03/01 - 01/08

12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
BFUD1	FACILITY ISOLATION

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Materials
Subcontracts

b. TECHNICAL CONTENT:

Facility Isolation includes activities necessary to prepare the work area and support facilities for the above-grade decontamination and dismantlement (D&D) which is to be performed in accordance with the OU3 Integrated Remedial Design/Remedial Action Work Plan.

Facility Isolation includes utility isolation activities (i.e. electric, water, steam, etc.) for all structures listed below and excavation area 3A, 4A, 3B, 4B, 5:

PLANT 1 -Phase II

1B	Plant 1 Storage Shelter
16N	Plant 1 Substation
20A	Pump Station & Power Center
30A	Chemical Warehouse
56A	CP Storage Warehouse
71	General In-Process Warehouse
TS-04	Tension Support Structure # 4
TS-05	Tension Support Structure # 5
TS-06	Tension Support Structure # 6

PLANT 2 COMPLEX

2A	Ore Refinery Plant
2D	Metal Dissolver Bldg.
2F	Cold Side Ore Conveyer

Project Manager	Control Account Manager	Control Team Manager
		Rodney Whitaker

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	08/20/2001	Page 2

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.B.B	FACILITY ISOLATION & UTILITY REDISTRIBUTION

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
48	J. M. STEVENS/5187	J. M. STEVENS

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3020	FACILITY D&D

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
NEW PER CP# FY01-0115-0002-00	03/01 - 01/08

12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
BFUD1	FACILITY ISOLATION

14. ELEMENT TASK DESCRIPTION

2H Conveyor Tunnel (From Plant 1)

PLANT 3 COMPLEX
3B Ozone Bldg.
3C NAR Control House
3D NAR Towers
3E Hot Raffinate Bldg.
3J Combined Raffinate Tanks
3K Old Cooling Water Tower
39A Incinerator Bldg.
22E Utility Trench to Pit Area

PLANT 5 COMPLEX
5A Metals Production Plant
5D West Derby Breakout/Slag Milling

PLANT 6 COMPLEX
6A Metals Fabrication Plant
6G Plant 6 Sump Bldg.

PLANT 8 COMPLEX
8A Recovery Plant
8B Plant 8 Maintenance Bldg.
8C Rotary Kiln/Drum Reconditioning Bldg.
8D Plant 8 Railroad Filter Bldg.
8E Drum Conveyer Shelter
8G Trash Compactor Area
8H Soil Washing Building

HEALTH & SAFETY STRUCTURE
53A Health & Safety Building

ADMINISTRATION COMPLEX
11 Services Building
14A Administration Building
14B Bldg. 14 EOC Generator Set
53B INVIVO Bldg.

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	08/20/2001	Page 3

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.B.B	FACILITY ISOLATION & UTILITY REDISTRIBUTION

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
48	J. M. STEVENS/5187	J. M. STEVENS

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3020	FACILITY D&D

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
NEW PER CP# FY01-0115-0002-00	03/01 - 01/08

12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
BFUD1	FACILITY ISOLATION

14. ELEMENT TASK DESCRIPTION

20K New Admin. Area Cooling Towers
31A Vehicle Repair Garage
46 Heavy Equipment Building

EAST WAREHOUSE COMPLEX
20D Elevated Potable Storage Tank
77 Finished Products Warehouse (4A)
79 Plant 6 Warehouse
82A RIMIA

GENERAL SUMP COMPLEX
2B General/Refinery Sump Control Bldg.
2C Bulk Lime Handling Bldg.
3A Maintenance Bldg.
3H Refinery Sump
3L Electrical Power Center Bldg.
18B General Sump
18D Biodenitrification Towers
18H BDN Effluent Treatment Facility

LABORATORY COMPLEX
15A Laboratory Building
15B Laboratory Chemical Storage
15C Laboratory Garage

LIQUID STORAGE COMPLEX
26A Pump House - HP Fire Protection
26B Elevated Storage Water Tank
28D Guard Post on West End of 2nd St.
45A Maintenance (Former Rust Engr. and Construction Div. Bldg.)
80 Plant 8 Warehouse

64/65 STRUCTURES
64 Thorium Warehouse
65 Old Plant 5 Warehouse

PILOT PLANT COMPLEX

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(Work Package)

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3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.B.B	FACILITY ISOLATION & UTILITY REDISTRIBUTION

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
48	J. M. STEVENS/5187	J. M. STEVENS

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3020	FACILITY D&D

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
NEW PER CP# FY01-0115-0002-00	03/01 - 01/08

12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
BFUD1	FACILITY ISOLATION

14. ELEMENT TASK DESCRIPTION

13A	Pilot Plant Wet Side
13B	Pilot Plant Maintenance Bldg.
13C	Sump Pump House
13D	Pilot Plant Thorium Tank Farm
37	Pilot Plant Annex
54A	6 to 4 Reduction Facility
54B	Pilot Plant Shelter/Warehouse
54C	Pilot Plant Dissociator Shelter

MISCELLANEOUS STRUCTURES

Railroad Tracks, Phase I Railroad Tracks, Phase II

5F	Plant 5 Covered Storage Pad
12E	Maintenance Laborer Storage Bldg.
12F	Maintenance Laborer Storage Bldg.
12G	Restored Area Maintenance Bldg.
16B	Electrical Substation
16C	Electrical Panels & Transformer
16F	Trailer Substation #1
16G	Trailer Substation #2
20E	Well House #1
20F	Well House #2
20G	Well House #3
22B	Storm Sewer Lift Station
22D	Scale House & Weigh Scale
23	Meteorological Tower
24C	Locomotive Maintenance Building
25C	Sewage Lift Station Bldg.
26C	Main Elect. Substation Riser/Strainer House
28E	Guard Post at OSDF South Entrance (formerly @T81)
28G	Guard Post NW of Bldg. 45 (T327)
28H	Guard Post South of K-65 Area
28J	Security Checkpoint (South Access Rd.)
28K	Security Checkpoint (E. Park. Lot)
28L	Guard Post (N. Const. Access Rd)
28M	Guard Post on "F" Street
30D	Sampling Line Processing
50	Maintenance Storage Building

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14. ELEMENT TASK DESCRIPTION

52A	RTRAK Building
52B	ASTD SCEP Building
60	Quonset Hut # 1
61	Quonset Hut # 2
62	Quonset Hut # 3
68	Pilot Plant Warehouse
93A	Southwest Boiler House
G-008	Pipe Bridges
TS-08	Environ. Monitor. Equip. Storage
T1	FDF
T2	Rad Safety
T3	Wise Construction
T4	FDF Training
T5	FDF Construction
T6	Restrooms
T7	FDF
T8	Wise Construction
T12	CRU4 (DLS)
T17	FDF
T18	Break Trailer
T19	Rad Safety
T23	10 Plex
T24	7 Plex North
T25	7 Plex South
T26	Waste Management
T29	Computer
T30	Computer
T33	Shipping Office
T34	FDF
T35	FDF
T36	Heavy Equip. Operators
T40	Thorium Overpack
T41	Waste Certification (QA)
T42	Respirator Washing Facility
T43	Restoration
T44	FDF Maintenance
T45	Environmental Monitoring

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14. ELEMENT TASK DESCRIPTION

T46	Environmental Monitoring
T49	Bio-Assay Semi-Trailer
T50	Rad Safety
T57	Rad Safety
T58	Construction Office
T59	FDF Waste Management
T60	DOE Field Office
T61	Startup Group
T62	Startup Group
T65	Plant 1 Pad MC&A Office
T66	RIMIA Tri-Plex
T67	Rad. Tech.
T68	CRU1 Office
T69	Control Point - RIMIA
T71	Safe Shutdown
T72	Safe Shutdown
T74	ARASA Changeout Facility
T75	Multimedia Services
T82	Capital Project
T83	Capital Project
T84	Capital Project
T85	Capital Project
T86	Capital Project
T87	Capital Project
T89	WPA Mens Changeout
T90	WPA Womens Changeout
T91	WPA Mens Changeout
T92	WPA Breakroom
T93	Radiation Control Unit Quad
T94	Radiation Control Unit Quad
T95	Radiation Control Unit Quad
T96	Radiation Control
T97	FDF Office (CRU4)
T98	OSDF
T100	FDF Office
T103	Storage
T108	IAWWTF

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14. ELEMENT TASK DESCRIPTION

T109	IAWWTF
T117	CRU4 Construction Support Office
T118	CRU4 Support Office
T119	Restrooms
T121	FDF Office
T122	Storage
T127	OEPA (Part of T68)
T128	Mixed Waste
T129	OEPA (Part of T68)
T130	Breakroom
T131	Breakroom
T132	Kelchner Office
T135	Boiler Maintenance
T138	Southern Waste Unit Site Prep. Grp
T139	Southern Waste Unit Site Prep. Grp
T141	Maintenance Storage
T142	Maintenance Storage
T164	FDF Training
T165	FDF Training
T166	Industrial Relations
T167	Industrial Relations
T168	ARASA Contractor
T169	ARASA Contractor
T170	ARASA Contractor
T171	ARASA Contractor
T172	FCNDP
T173	FCNDP
T174	FCNDP
T175	FCNDP
T176	FCNDP
T177	FCNDP
T178	FCNDP
T179	FCNDP
T181	FDF Office
T182	FDF Office
T183	FDF Office
T186	OSDF Office Trailer

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14. ELEMENT TASK DESCRIPTION

T191	Breakroom/Cooldown
T301	IT Corp.
T305	Environmental Monitoring
T306	Environmental Monitoring
T312	Cell 1 Personal Cool Down
T313	ARASA Admin. Office "A"
T314	ARASA Admin. Office "B"
T315	ARASA Laboratory Office
T316	ARASA Laboratory "A"
T317	ARASA Laboratory "B"
T318	ARASA MHB/RCLO Pow. Mod. Bld
T319	ARASA Breakroom
T320	ARASA Laun./Resp. wash facility
T321	ARASA MHB Rad. Cont. Trailer
T322	ARASA Supervisor's Office
T323	ARASA Control Room
T325	ARASA GCS/WTS Pow. Mod. Bldg
T326	ARASA Cont. Emissions Mon. Tr.
T327	Weigh Scale Ticket Office
T330	Doffing Trailer
T502	IT Corp. ARASA
T505	Facilities Shutdown Break Trailer
T506	Office
T512	Break-M. Ravenscraft
T513	Construction Coordinators
T514	Construction (Conference Room)
T520	S&W Office
T529	Storage
T540	Triplex - Porter Breakroom
T603	Storage - Semi Trailer
T604	Maintenance Storage Semi Trailer
T608	Break Trailer - Waste Management

SOILS PROJECT (NOT IN FACILITY ISOLATION SCOPE OF WORK)

18A	BDN Surge Lagoon
18C	Coal Pile Runoff Basin
18E	Storm Water Retention Basins

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14. ELEMENT TASK DESCRIPTION

18W	S.W.U. Retention Basin
20J	Lime Slurry Pits
21A	Haul Road Wheel Wash Facility
21B	OSDF Wheel Wash Facility
22C	Truck Scale
22G	Main Gate Truck Scale
24D	Railroad Inspection Pit
31B	Old Truck Scale
74A	Plt. 2 East Pad
74B	Plt. 2 West Pad
74C	Plt. 8 East Pad
74D	Plt. 8 West Pad
74E	Plt. 4 Pad
74F	Plt. 7 Pad
74G	Plt. 5 East Pad
74H	Plt. 5 South Pad
74J	Plant 6 Pads
74K	Plt. 9 Pad
74L	Bldg. 65 West Pad
74M	Bldg. 64 East Pad & Railroad Dock
74N	Building 12 North Pad
74P	Decontamination Pad
74Q	Plt. 8 Old Metal Dissolver Pad
74R	Plt. 8 North Pad
74S	Bldg. 63 West Pad
74T	Plt. 1 Storage Pad
74U	Pilot Plant Pad
74V	Laboratory Pad
74W	Bldg. 39A Pad
82B	Fuel Loading/Unloading Facility - Gas Boy
89	Parking Lots
34A	K-65 Storage Tank (North)
34B	K-65 Storage Tank (South)
34C	RTS Building
35A	Metal Oxide Storage Tank (North)
35B	Metal Oxide Storage Tank (South)
94A	CRU4 Vitrification Pilot Plant

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14. ELEMENT TASK DESCRIPTION

WASTE PITS PROJECT (NOT IN FACILITY ISOLATION SCOPE OF WORK)

18F	Pit #5 Sluice Gate
18G	Clearwell Pump House
18N	Waste Pit Area Storm Water Runoff Control
18X	OU1 Remediation Swm Pond
88	Clearwell Line
91A	Gas Clean. Sys./Water Treat. Sys.
91B	Material Handling Building
91C	Railcar Loadout (RCLO)
91D	Railcar Prep. & Liner Storage
91E	Maintenance Building
91F	Warehouse
91G	Truck Wash Pump House
91H	Geo-Lab

POST CLOSURE STRUCTURES (NOT IN FACILITY ISOLATION SCOPE OF WORK)

16A	Main Electrical Station
16D	Main Electrical Switch House
16E	Main Electrical Transformers
16H	10 Plex's North Substation
16J	10 Plex's South Substation
16K	Dissolved Oxygen Facility Substation
18J	Methanol Tank
18M	High Nitrate Storage Tank
18P	Dissolved Oxygen Building
18Q	South Plume Int. Treatment Bldg./IAWWT Valve House
18R	Outfall Line Pit
18S	Recovery Well System Control Bldg. (S. of Willey Rd.)
18T	Public Water Supply Meter House (at Willey Rd.)
18U	50K gal. Storage Tank
18V	Southfield Valve House
18Y	AWWT Ozone Generation Bldg.
18Z	Sludge Mix Tank
19B	Pilot Plant Ammonia Tank Farm/AWWT Caustic Tank Storage
22F	Main Gas Meter
25J	10 Plexs Sewage Lift Station

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14. ELEMENT TASK DESCRIPTION

25K	New Sewage Treat. Plant Complex
26D	Domestic & Fire Water Booster St.
26E	Domestic & Fire Water 400K Gal.
26F	Domestic & Fire Water Lift Station
51A	Advanced Wastewater Treatment
51B	Slurry Dewatering Facility
51C	AWWT Laboratory Expansion Bldg.
T76	SWOC
T77	SWOC
T78	SWOC
T79	SWOC
T80	ERMC
T81	ERMC
T114	Operations Control Center (DOE)
T115	Radiological/Analytical Lab (DOE)
T116	Organic Lab (DOE)
T124	FDF Security
T180	AWWT Office

c. SCOPE OF WORK:

FACILITY ISOLATION

Facility Isolation will begin after the building or component is vacated and prior to D&D activities.

Facility Isolation consists of isolating or air gapping the following utilities:

- Potable water
- Treated water
- Cooling water supply and return
- Sanitary Sewer
- Process Lines
- Steam and condensate
- Air

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14. ELEMENT TASK DESCRIPTION

- Fuel gas
- Electric

At the completion of facility isolation activities, a Facility Isolation Turnover package will be prepared documenting the location of all utility isolations.

d. WORK SPECIFICALLY EXCLUDED:

- Project Management
- D&D Subcontractor
- FF G&A
- ODCs
- Removal of Process holdup material, records, salvageable equipment, fire extinguishers, chemicals, etc.
- Utility Redistribution

WORK SCOPE DEFINITION
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BFUD2	UTILITY REDISTRIBUTION

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Labor
Materials
Subcontracts

b. TECHNICAL CONTENT:

Utility Redistribution includes activities necessary to prepare the work area and support facilities for the above-grade decontamination and dismantlement (D&D) which is to be performed in accordance with the OU3 Integrated Remedial Design/Remedial Action Work Plan.

Utility Redistribution includes indentification and relocation of utilities (i.e. electric and water sources) to maintain nearby structures, components or trailers operational during D&D activities.

c. SCOPE OF WORK:

Utility Redistribution consists of tasks that are performed prior to D&D of a building or component.

Building 11 (Service Building) utility redistribution

To maintain T-24, T-25, T-43, T-45, T-46 operational:

- Reroute electric from cooling tower overhead transformer feed
- Reroute telephone from new telecommunications building
- Reroute alarm from T-77 to maintain 25C (sewage lift station) operational:
- Reroute electric feed to Building 25C (Sewage Lift Station) from Main

Project Manager	Control Account Manager	Control Team Manager
		Rodney Whitaker

WORK SCOPE DEFINITION
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14. ELEMENT TASK DESCRIPTION

Substation transformer
- Reroute electricity to met tower.

Building 14A (Administration Building) utility redistribution
To maintain site telephone service install new Telephone room (incoming and outgoing cable):

- Reroute to support AWWT and Area 7 trailers/buildings.
- Install new self contain pre-fab building located north of T-77.
- Reroute incoming cable via overhead poles from north entrance road to new splice box west of 14A. 15 new poles needed.
- Reroute outgoing cable via overhead from new building to closest overhead tie points (approximately 6 points) located north of T-77.
- Reroute incoming fiberoptic cable from 14A to new building.
- Reroute satellite equipment wiring to new building.
- New building requires electric, fire alarm,
- Reroute telecommunications to support Silos and WPRAP. Reroute 600 pair 24-gauge wire and 12-strand fiberoptic cable from new building by existing poles along 30/45 building access road to existing Hut #3 in Silos area.
- Splice cable out of 14A and splice into new building.

To maintain Taco trailers operational:

- Domestic Water needs cross-tie outside southwest corner of Admin. Building. (coordinate with Facility Shutdown)

To maintain T-23 operational:

- Reroute electric from cooling tower overhead transformer feed
- Reroute telephone from new telecommunications building
- Reroute alarm from new telephone building
- Reroute signals and equipment from weather station Met Tower to new telephone building.

Building 53A (Health and Safety Building) utility redistribution

- Reroute telephone feed to Building 82A.

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14. ELEMENT TASK DESCRIPTION

- Reroute telephone fiber optic to Hut #1.
- Reroute telephone and fiber optic to Building 53B (Invivo).
- Convert Building 53B to electric heat.
- Reroute power to T71 and T72.
- Reroute fire alarms to Hut #6.

BUILDING 25C UTILITY REDISTRIBUTION:

Provide portable generator hook-up at Building 25C to provide emergency electrical power for sewage lift station. Provide a manual throwover switch.

BUILDING 15 A UTILITY REDISTRIBUTION:

Reroute fire alarms from trailer complexes to fire alarm panel in T-76.

BUILDING 45A UTILITY REDISTRIBUTION:

Repower electric to trailers T57, T58, T100, T135, T97, parking lot lights and streetlights. Install fire alarm panel in T58 and reroute alarms. Terminate telephone cable from Hut 3 in T58 and redistribute phones and LAN to the trailers.

BUILDING 22B UTILITY REDISTRIBUTION:

Install new lift station north of Taco Trailers to collect sewerage from remaining Area 5 Trailers and pump into existing line to the sewerage treatment plant.

BUILDING 26C UTILITY REDISTRIBUTION:

Install new lift station to collect sewerage from Silo Area and AWWT and pump to sewerage treatment plant.

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BFUD2	UTILITY REDISTRIBUTION

14. ELEMENT TASK DESCRIPTION

BUILDING 16B (SUBSTATION) UTILITY REDISTRIBUTION:

Refeed the electrical power supply to the main parking lot lights and main entrance road lighting system.

BUILDING 93A (BOILER HOUSE) UTILITY REDISTRIBUTION:

Refeed electrical power to two (2) air compressors.

AREA 4A UTILITY REDISTRIBUTION:

Refeed substation to Building 20A via overhead 13.2 kv pole line.

d. WORK SPECIFICALLY EXCLUDED:

- Project Management
- D&D Subcontractor
- FF G&A
- ODCs
- Facility Isolation

SECTION 1

1.0 NARRATIVE

1. PROJECT TITLE: DEMOLITION AND DECONTAMINATION	2. DATE: 09/10/01	3. PBS#: 02
4. WBS ELEMENT CODE: 1.1.B.B	5. WBS ELEMENT TITLE: Facility Isolation and Utility Redistribution	
6. CAM NAME/ PHONE: MIKE STEVENS/ 5187	7. CAM SIGNATURE:	
8. ORIGINAL/ CHANGE SCOPE/ PER CP#:	9. CONTROL ACCOUNT: BFUD	

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SECTION 2: BFUD – FACILITY ISOLATION AND UTILITY REDISTRIBUTION

1.0 NARRATIVE

1.1 OVERVIEW

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Facility Isolation and Utility Redistribution includes all activities associated with the isolation and/or redistribution of all utilities from structures, or trailers prior to the start of D&D activities. Facility Isolation activities include the physical disconnection of all utilities (i.e. electric, water, steam, etc.) that services the structure or trailer. Utility Redistribution activities include the relocation of any utility that services structures or trailers that are distributed through a structure requiring demolition or an area requiring soil excavation.

1.2 ASSUMPTIONS/EXCLUSIONS

1.2.1 Assumptions

Plant 2

- No process hold-up material is expected other than that specifically identified by quantity in the SSD turnover package.
- All chemicals have been removed from this complex.
- All records have been removed from this complex.
- All salvageable equipment has been removed from this complex.
- All utilities have been isolated by Facilities Isolation.
- No utility redistribution is required.

Plant 3

- No process hold-up material is expected.
- All chemicals have been removed from this complex.
- All records have been removed from this complex.
- All salvageable equipment has been removed from this complex.
- All utilities have been isolated by Facilities Shutdown.
- No utility redistribution is required.

General Sump

- No process hold-up material is expected other than that specifically identified by quantity in the SSD turnover package.

- All chemicals have been removed from this complex.
- All records have been removed from this complex.
- All salvageable equipment has been removed from this complex.
- No utility redistribution is required with the exception of Hut 2.

Plant 8

- No process hold-up material is expected other than that specifically identified by quantity in the SSD turnover package.
- All chemicals have been removed from this complex.
- All records have been removed from this complex.
- All salvageable equipment has been removed from this complex.
- **All utilities have been isolated by Facilities Shutdown.**

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Health and Safety Building

- No process hold-up material is expected.
- All chemicals have been removed prior to D&D.
- All records have been removed prior to D&D.
- All salvageable equipment has been removed prior to D&D.
- Medical, dosimetry, and other facility occupants will have removed any salvageable equipment prior to turnover to the D&D project. Any remaining equipment will be handled as waste.

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- Regulatory approval for the D&D of Building 53A (Health and Safety Building) will be obtained prior to the end of August 2001. An Implementation Plan letter for Building 53A will be submitted to DOE and the Regulatory Agencies prior to the end of ~~June 2001~~ August 2001.

Liquid Storage

- No process hold-up material is expected.
- All chemicals have been removed from this complex.
- All records have been removed from this complex.
- All salvageable equipment has been removed from this complex.

Pilot Plant

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- No process hold-up material is expected other than what is identified in Safe Shutdown turnover package.
- All chemicals have been removed from this complex.
- All records have been removed from this complex.
- All salvageable equipment has been removed from this complex.
- With the exception of 13B electric, all utilities have been isolated by Facilities Shutdown.
- **No utility redistribution is required.**

Laboratory

- No process hold-up material is expected.

- All chemicals have been removed from this complex.
- All records have been removed from this complex.
- All salvageable equipment has been removed from this complex.

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Administration (Includes Electrical Complex)
- No process hold-up material is expected.
- All chemicals have been removed from this complex.
- All records have been removed from this complex.
- All salvageable equipment has been removed from this complex.

East Warehouse
- No process hold-up material is expected.
- All chemicals have been removed from this complex.
- All records have been removed from this complex.
- All salvageable equipment has been removed from this complex.

Miscellaneous Structures
- No process hold-up material is expected.
- All chemicals have been removed prior to D&D.
- All records have been removed prior to D&D.
- All salvageable equipment has been removed prior to D&D.

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Building 64/65
- No process hold-up material is expected.
- All chemicals have been removed prior to D&D.
- All records have been removed prior to D&D.
- All salvageable equipment has been removed prior to D&D.

Plant 1, Phase II
- No process hold-up material is expected.
- All chemicals have been removed from this complex.
- All records have been removed from this complex.
- All salvageable equipment has been removed from this complex.

Plant 5
- No process hold-up material is expected.
- All chemicals have been removed from this complex.
- All records have been removed from this complex.
- All salvageable equipment has been removed from this complex.
- All utilities have been isolated by Facilities Shutdown.
- No utility redistribution is required.

Plant 6
- All chemicals have been removed from this complex.

- All records have been removed from this complex.
- All salvageable equipment has been removed from this complex.
- All utilities have been isolated by Facilities Shutdown.
- Perched Water System must remain operational during D&D activities.

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Soil Excavation Areas

- No utility isolation is required for Soil Excavation Area 6 or 7.
- No utility redistribution is required for Soil Excavation Area 6 or 7.

1.2.2 Exclusions

Work not included in the projects is as follows:

- D&D of structures or trailers.
- Facility closure activities (i.e. removal of salvageable equipment, fire extinguishers, chemicals, HVAC filters, etc.).
- Removal of process hold-up materials.
- Handling, transportation, and disposition of offsite waste.

1.2.3 Government-Furnished Equipment/Services

There are no government-furnished equipment/services associated with this scope of work.

1.3 DRIVERS

D&D is being conducted in accordance with:

- D&D of all facilities at the FEMP is stipulated in the OU3 Record of Decision for Interim Remedial Action (IROD) (DOE1994a), with final treatment and disposition stipulated in the OU3 Record of Decision for Final Remedial Action (DOE 1996a).
- The OU3 Integrated RD/RA Work Plan (Final, May 1997) established a remediation schedule and an EPA Enforceable Milestone for the initial execution of each D&D Project. Any changes to the Milestones will be modified to meet the site objectives and the EPA notified accordingly.

1.4 PROJECT PHYSICAL DESCRIPTION

The scope of work includes utility redistribution and facility isolation of all structures and trailers prior to D&D.

1.4.1 BFUD1 – Facility Isolation

1) Task #1 – Facility Isolation – Plant 2

No Facility Isolation is required.

2) Task #2 - Facility Isolation – Plant 3

No Facility Isolation is required.

3) Task #3 - Facility Isolation – General Sump

Facility Isolation of applicable utilities.

4) Task #4 - Facility Isolation – Plant 8

No Facility Isolation is required.

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5) Task #5 - Facility Isolation – Health and Safety Building

Facility Isolation of applicable utilities.

6) Task #6 - Facility Isolation – Liquid Storage

Facility Isolation of applicable utilities.

7) Task #7 - Facility Isolation – Pilot Plant

Facility Isolation of applicable utilities.

8) Task #8 - Facility Isolation – Laboratory

Facility Isolation of applicable utilities.

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9) Task #9 - Facility Isolation – Administration (Includes Electrical Complex)

Facility Isolation of applicable utilities.

10) Task #10 - Facility Isolation – East Warehouse

Facility Isolation of applicable utilities.

11) Task #11 - Facility Isolation – Miscellaneous Structures

Facility Isolation of applicable utilities.

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12) Task #12 – Facility Isolation – Building 64/65

Facility Isolation of applicable utilities.

13) Task #13 - Facility Isolation – Plant 1, Phase II

Facility Isolation of applicable utilities.

14) Task #14 - Facility Isolation – Plant 5

No Facility Isolation is required.

15) Task #15 - Facility Isolation – Plant 6

No Facility Isolation is required.

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16) Task #16 – Facility Isolation – Area 3A

Facility Isolation of applicable utilities.

17) Task #17 – Facility Isolation – Area 3B

Facility Isolation of applicable utilities.

18) Task #18 – Facility Isolation – Area 4A

Facility Isolation of applicable utilities.

19) Task #19 – Facility Isolation – Area 4B

Facility Isolation of applicable utilities.

20) Task # 20 – Facility Isolation – Area 5

Facility Isolation of applicable utilities.

1.4.2 BFUD2 - Utility Redistribution

Utility Redistribution includes identification and relocation of utilities (i.e. electric and water sources) to maintain nearby structures, components or trailers operational during D&D activities.

1) Task #1 - Utility Redistribution - Plant 2

No utility redistribution is required.

2) Task #2 - Utility Redistribution – Plant 3

No utility redistribution is required.

3) Task #3 - Utility Redistribution – General Sump

No utility redistribution is required.

4) Task #4 - Utility Redistribution – Plant 8

No utility redistribution is required.

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5) Task #5 - Utility Redistribution – Health and Safety Building

Utility Redistribution includes identification and relocation of utilities (i.e. electric and water sources) to maintain nearby structures, components or trailers operational during D&D activities.

6) Task #6 - Utility Redistribution – Liquid Storage

Prior to Building 45A D&D, repower electric to trailers T57, T58, T100, T135, T97, parking lot lights, and streetlights. Install fire alarm panel in T58 and reroute alarms. Terminate telephone cable from Hut 3 in T58 and redistribute phones and LAN to the trailers.

7) Task #7 - Utility Redistribution – Pilot Plant

No utility redistribution is required.

8) Task #8 - Utility Redistribution – Laboratory

Reroute fire alarms from trailer complexes to fire alarm panel in T-76.

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9) Task #9 - Utility Redistribution – Administration (Includes Electrical Complex)

Utility Redistribution includes identification and relocation of utilities (i.e. electric and water sources) to maintain nearby structures, components or trailers operational during D&D activities.

10) Task #10 - Utility Redistribution – East Warehouse

No utility redistribution is required for this scope of work.

11) Task #11 - Utility Redistribution – Miscellaneous Structures

Utility Redistribution includes the identification and relocation of utilities (i.e. electric and water sources) to maintain nearby structures, components, or trailers operational during D&D activities or soil excavation activities.

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12) Task #12 - Utility Redistribution – Building 64/65

No utility redistribution is required.

13) Task #13 - Utility Redistribution – Plant 1, Phase II

No utility redistribution is required.

14) Task #14 - Utility Redistribution – Plant 5

No utility redistribution is required.

15) Task #15 - Utility Redistribution – Plant 6

No utility redistribution is required.

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16) Task #16 – Utility Redistribution – Area 3A

No utility redistribution is required.

17) Task #17 – Utility Redistribution – Area 3B

No utility redistribution is required.

18) Task #18 – Utility Redistribution – Area 4A

Reroute subsurface electrical from 16A to Building 20A.

19) Task #19 – Utility Redistribution – Area 4B

No utility redistribution is required.

20) Task #20 – Utility Redistribution – Area 5

No utility redistribution is required.

1.5 PROJECT PLAN/TECHNICAL SCOPE AND QUANTIFICATION

1.5.1 BFUD1 – Facility Isolation

1) Task #1 – Facility Isolation – Plant 2

1.1) Plan/Scope – Facility Isolation – Plant 2

Facility Isolation work is completed. The Plant 2 Complex utility isolation status is as follows:

Building 2A

- Potable water – Isolated
- Treated water – Isolated
- Steam and Condensate – Isolated
- Air – Isolated
- Cooling water supply and Return – Isolated
- Sanitary Sewers – Isolated
- Electric – Isolated
- Fuel Gas – Isolated
- Miscellaneous Process lines on High Line – Isolated

Building 2D

- Potable water – Isolated
- Treated water – Isolated
- Steam and Condensate – Isolated
- Air – Isolated
- Cooling water supply and Return – Isolated
- Sanitary Sewers – Isolated
- Electric – Isolated
- Fuel Gas – Isolated
- Miscellaneous Process lines on High Line – Isolated

Component 2F

- Potable water – None
- Treated water – None
- Steam and Condensate – Isolated
- Air – Isolated
- Cooling water supply and Return – None
- Sanitary Sewers – None
- Electric – Isolated
- Fuel Gas – None

Building 2H

- Potable water – None
- Treated water – None
- Steam and Condensate – Isolated
- Air – Isolated
- Cooling water supply and Return – None
- Sanitary Sewers – None
- Electric – Isolated
- Fuel Gas – None
- Miscellaneous Process lines on High Line – None

At the completion of facility isolation activities a Facility Isolation Turnover package will be prepared documenting the location of all utility isolations.

1.2) Quantification – Facility Isolation – Plant 2

No Facility Isolation is required.

2) Task #2 – Facility Isolation – Plant 3

2.1) Plan/Scope – Facility Isolation – Plant 3

Facility Isolation work is completed. The Plant 3 Complex utility isolation status is as follows:

Building 3B

- Domestic water – not applicable
- Fire water – not applicable
- Steam and Condensate – Isolated
- Air – Isolated
- Cooling water supply and Return – not applicable

- Sanitary Sewers – not applicable
- Electric – Isolated
- Fuel Gas – not applicable

Building 3C

- Domestic water – not applicable
- Fire water – not applicable
- Steam and Condensate – Isolated
- Air – Isolated
- Cooling water supply and Return – not applicable
- Sanitary Sewers – Isolated
- Electric – Isolated
- Fuel Gas – not applicable

Component 3D

- Domestic water – not applicable
- Fire water – not applicable
- Steam and Condensate – Isolated
- Air – Isolated
- Cooling water supply and Return – Isolated
- Sanitary Sewers – not applicable
- Electric – Isolated
- Fuel Gas – not applicable

Building 3E

- Domestic water – not applicable
- Fire water – not applicable
- Steam and Condensate – Isolated
- Air – Isolated
- Cooling water supply and Return – not applicable
- Sanitary Sewers – not applicable
- Electric – Isolated
- Fuel Gas – not applicable

Component 3J

- Domestic water – not applicable
- Fire water – not applicable
- Steam and Condensate – Isolated
- Air – Isolated
- Cooling water supply and Return – not applicable

- Sanitary Sewers – not applicable
- Electric – Isolated
- Fuel Gas – not applicable

Component 3K

- Domestic water – not applicable
- Fire water – not applicable
- Steam and Condensate – not applicable
- Air – not applicable
- Cooling water supply and Return – not applicable
- Sanitary Sewers – not applicable
- Electric – not applicable
- Fuel Gas – not applicable

Building 39A

- Domestic water – not applicable
- Fire water – not applicable
- Steam and Condensate – Isolated
- Air – Isolated
- Cooling water supply and Return – not applicable
- Sanitary Sewers – not applicable
- Electric – Isolated
- Fuel Gas – not applicable

Component 22E

- Domestic water – not applicable
- Fire water – not applicable
- Steam and Condensate – not applicable
- Air – Isolated
- Cooling water supply and Return – not applicable
- Sanitary Sewers – not applicable
- Electric – not applicable
- Fuel Gas – not applicable

At the completion of facility isolation activities a Facility Isolation Turnover package was prepared documenting the location of all utility isolations.

2.2) Quantification – Facility Isolation – Plant 3

No Facility Isolation is required.

3) Task #3 – Facility Isolation – General Sump

3.1) Plan/Scope – Facility Isolation – General Sump

Facility Isolation will begin after the building or component is vacated and prior to D&D activities.

Building 2B

- Domestic water – access domestic water by excavating one trench up to eight (8) feet deep at Building 2B. The domestic water line will be physically isolated using a blank placed in the line. The excavation will be backfilled upon completion.
- Cooling water supply and return – Isolated
- Steam and condensate line – Isolated
- Fire water line – Isolated
- Sanitary sewer – Isolated
- Electric – air gap main feeders from substation 3C and air gap at building.
- Air – Isolated
- Fuel Gas - Isolated

Building 2C

- Domestic water – Isolated
- Cooling water supply and return – Isolated
- Steam and condensate line – Isolated
- Fire water line – Isolated
- Sanitary sewer – Isolated
- Electric – Isolated
- Air – Isolated
- Fuel Gas - Isolated

Building 3H

- Domestic water – access domestic water by excavating one trench up to eight (8) feet deep at Building 3H. The domestic water line will be physically isolated using a blank placed in the line. The excavation will be backfilled upon completion.
- Cooling water supply and return – Isolated
- Steam and condensate line – Isolated
- Fire water line – Isolated
- Sanitary sewer – Isolated
- Electric – Isolated

- Air – Isolated
- Fuel Gas – Isolated

Building 18B

- Domestic water – access domestic water by excavating one trench up to eight (8) feet deep at Building 18B. The domestic water line will be physically isolated using a blank placed in the line. The excavation will be backfilled upon completion.
- Cooling water supply and return – Isolated
- Steam and condensate line – Isolated
- Fire water line – Isolated
- Sanitary sewer – Isolated
- Electric – Isolated
- Air – Isolated
- Fuel Gas - Isolated

Building 18D

- Domestic water – Isolated
- Cooling water supply and return – Isolated
- Steam and condensate line – Isolated
- Fire water line – Isolated
- Sanitary sewer – Isolated
- Electric – Isolated
- Air – Isolated
- Fuel Gas – Isolated

Building 18H

- Domestic water – access domestic water by excavating one trench up to eight (8) feet deep at Building 18H. The domestic water line will be physically isolated using a blank placed in the line. The excavation will be backfilled upon completion.
- Cooling water supply and return – Isolated
- Steam and condensate line – Isolated
- Fire water line – Isolated
- Sanitary sewer – Isolated
- Electric – Isolated
- Air – Isolated
- Fuel Gas – Isolated

Building 3A

- Domestic water – Isolated
- Cooling water supply and return – Isolated
- Steam and condensate line – Isolated
- Fire water line – Isolated
- Sanitary sewer – Isolated
- Electric – air gap lines feeding into building from substation 3L.
- Air – Isolated
- Fuel Gas – Isolated

Building 3L

- Domestic water – Isolated
- Cooling water supply and return – Isolated
- Steam and condensate line – Isolated
- Fire water line – Isolated
- Sanitary sewer – Isolated
- Electric – air gap all lines feeding into the substation and the supply line in the electric manhole.
- Air – Isolated
- Fuel Gas – Isolated

At the completion of facility isolation activities a Facility Isolation Turnover package will be prepared documenting the location of all utility isolations.

3.2) Quantification – Facility Isolation – General Sump

The duration of Facility Isolation activities is identified in Section 2.0.

Planning of Facility Isolation activities will be by the appropriate Electrical, Civil, and Piping Engineer. Facility Isolation field work will be conducted by FAT&LC personnel, such as carpenters, electricians, Hazwat laborers, Millwrights, and pipefitters as applicable, with the appropriate H&S technician, QA/QC technician, Rad technician, and managerial supervision. Those personnel that are projectized or matrixed to support the project and the estimated FTEs are identified in Section 3.0.

Material, Equipment, and Other Direct Costs (ODCs) for this task is identified in Table 4.

Table 4
Materials, Equipment, and Services

DESCRIPTION	BASIS	COST FOR PROJECT
Material	Miscellaneous Allowance @ $2,000/Structure	$ 12,000
Equipment	None or FEMP owned	$ 0
ODCs	Allotted in Control Account BFDP	$ 0

4) Task #4 – Facility Isolation – Plant 8

4.1) Plan/Scope – Facility Isolation – Plant 8

Facility Isolation work is completed. The Plant 8 Complex utility isolation status is as follows:

Building 8A

- Potable water – Isolated
- Treated water – Isolated
- Steam and Condensate – Isolated
- Air – Isolated
- Cooling water supply and Return – Isolated
- Sanitary Sewers – Isolated
- Electric – Isolated
- Fuel Gas – Isolated
- Miscellaneous Process lines on High Line – Isolated

Building 8B

- Potable water – Isolated
- Treated water – None
- Steam and Condensate – Isolated
- Air – Isolated
- Cooling water supply and Return – None
- Sanitary Sewers – Isolated
- Electric – Isolated
- Fuel Gas – None
- Miscellaneous Process lines on High Line – Isolated

Building 8C

- Potable water – Isolated
- Treated water – Isolated
- Steam and Condensate – Isolated
- Air – Isolated
- Cooling water supply and Return – None
- Sanitary Sewers – None
- Electric – Isolated
- Fuel Gas – Isolated
- Miscellaneous Process lines on High Line - Isolated

Building 8D

- Potable water – None
- Treated water – None
- Fire Water – None
- Steam and Condensate – Isolated
- Air – Isolated
- Cooling water supply and Return – None
- Sanitary Sewers – None
- Electric – Isolated
- Fuel Gas – None
- Miscellaneous Process lines on High Line – None

Component 8E

- Potable water – None
- Treated water – None
- Steam and Condensate – None
- Fire Water – Isolated
- Air – Isolated
- Cooling water supply and Return – None
- Sanitary Sewers – None
- Electric – Isolated
- Fuel Gas – None
- Miscellaneous Process lines on High Line – None

Component 8G

- Potable water – Isolated
- Treated water – Isolated
- Steam and Condensate – Isolated
- Air – Isolated

- Cooling water supply and Return – Isolated
- Sanitary Sewers – Isolated
- Electric – Isolated
- Fuel Gas – Isolated
- Fire Water – Isolated
- Miscellaneous Process lines on High Line – Isolated

Component 8H

- Potable water – Isolated
- Treated water – Isolated
- Steam and Condensate – Isolated
- Air – Isolated
- Cooling water supply and Return – Isolated
- Sanitary Sewers – Isolated
- Electric – Isolated
- Fuel Gas – Isolated
- Fire Water – Isolated
- Miscellaneous Process lines on High Line – Isolated

At the completion of facility isolation activities a Facility Isolation Turnover package was be prepared documenting the location of all utility isolations.

4.2) Quantification – Facility Isolation – Plant 8

No Facility Isolation is required.

5) Task #5 – Facility Isolation – Health and Safety Building

5.1) Plan/Scope – Facility Isolation – Health and Safety Building

- Domestic water – access domestic water by excavating one trench on the north side of the Building 53A. The domestic water line will be physically isolated using a blank placed in the line. The excavation will be backfilled upon completion.
- Cooling water supply and return - access cooling water supply and return lines (one line for each) by excavating one trench at the northeast corner of the Administration Building. Each cooling water line will be physically isolated using a blank placed in the line. The excavation will be backfilled upon completion.
- Steam and condensate line – access the steam and condensate lines (one line for each) using a manlift to the high line on at the corner of 1st and D Street. Each line will be physically isolated using a blank placed in the line.

- Fire water line - access fire water line by excavating one trench on the north side of Building 53A. The fire water line will be physically isolated using a blank placed in line. The excavation will be backfilled upon completion.
- Air Line – access airline on the south center side of Building 53A. The airline will be physically isolated using a blank placed in the line.
- Sanitary sewer – Each sanitary sewer line will be physically isolated using a blank placed in the line. Access one north side line through Manhole 157 and the other north side line though Manhole 105.
- Electric - air gap, all lines into building, and the 13.2Kv supply line to Building 11 located in the electrical manholes. Building 53A electric feeds out of Building 11. Airgap the feeds into Building 53A.
- Fuel Gas – not applicable.

5.2) Quantification – Facility Isolation – Health and Safety Building

The duration of Facility Isolation activities is identified in Section 2.0.

Planning of Facility Isolation activities will be by the appropriate Electrical, Civil, and Piping Engineer. Facility Isolation field work will be conducted by FAT&LC personnel, such as carpenters, electricians, Hazwat laborers, Millwrights, and pipefitters as applicable, with the appropriate H&S technician, QA/QC technician, Rad technician, and managerial supervision. Those personnel that are projectized or matrixed to support the project and the estimated FTEs are identified in Section 3.0.

Material, Equipment, and Other Direct Costs (ODCs) for this task is identified in Table 4.

Table 4
Materials, Equipment, and Services

DESCRIPTION	BASIS	COST FOR PROJECT
Material	Miscellaneous Allowance @ $2,000/Structure	$ 12,000
Equipment	None or FEMP owned	$ 0
ODCs	Allotted in Control Account BFDP	$ 0

6) Task #6 – Facility Isolation – Liquid Storage

6.1) Plan/Scope – Facility Isolation – Liquid Storage

Facility Isolation will begin after the building or component is vacated and prior to D&D activities. The Liquid Storage Complex Facility Isolation consists of Building 26A, Component 26B, Buildings 28D, 45A, and 80.

Building 26A

- Domestic water – access domestic water by excavating one trench up to eight (8) feet deep on the north side of the Building 26A. The domestic water line will be physically isolated using a blank placed in the line. The excavation will be backfilled upon completion.
- Cooling water supply and return - access cooling water supply and return lines (one line for each) by excavating one trench up to eight (8) feet deep on the north corner of the Building 26A. Each cooling water line will be physically isolated using a blank placed in the line. The excavation will be backfilled upon completion.
- Steam line, condensate line and fuel gas line – access the steam, condensate and fuel gas lines (one line for each) using a manlift to the high line on the north side of Building 26A. Each line will be physically isolated using a blank placed in the line.
- Fire water line - access fire water line by excavating two trenches up to eight (8) feet deep (one on the north side and one on the west side) at Building 26A. The fire water line will be physically isolated using a blank placed in each of the two line locations. The excavations will be backfilled upon completion.
- Sanitary Sewer – access each sanitary sewer (5 feeds) by excavating five trenches up to eight (8) feet deep (one for each sewer line). Each sanitary sewer line will be physically isolated using a blank placed in the line. Each excavation will be backfilled upon completion.
- Electric – air gap all lines feeding into the building and the two 13.2Kv supply lines to Building 26A located in the electrical manholes. Air gap the entire substation located in the northwest corner of the Building 26A basement. Access the 480 volt overhead line located on the north side of Building 26A using a manlift. Air gap the 480 volt line.
- Fuel Gas – not applicable.
- Air line – not applicable.

Building 26B

- Domestic water – access domestic water by excavating one trench up to eight (8) feet deep on the north side of the Building 26B. The domestic water line will be physically isolated using a blank placed in the line. The excavation will be backfilled upon completion.
- Cooling water supply and return - access cooling water supply and return lines (one line for each) by excavating one trench up to eight (8) feet deep on the north corner of the Building 26B. Each cooling water line will be physically isolated using a blank placed in the line. The excavation will be backfilled upon completion.
- Steam line, condensate line and fuel gas line – access the steam, condensate and fuel gas lines (one line for each) using a manlift to the high line on the north

side of Building 26B. Each line will be physically isolated using a blank placed in the line.

- Fire water line - access fire water line by excavating two trenches up to eight (8) feet deep (one on the north side and one on the west side) at Building 26B. The fire water line will be physically isolated using a blank placed in each of the two line locations. The excavations will be backfilled upon completion.
- Sanitary Sewer – access each sanitary sewer (5 feeds) by excavating five trenches up to eight (8) feet deep (one for each sewer line). Each sanitary sewer line will be physically isolated using a blank placed in the line. Each excavation will be backfilled upon completion.
- Electric – air gap all lines feeding into the building and the two 13.2Kv supply lines to Building 26B located in the electrical manholes. Air gap the entire substation located in the northwest corner of the Building 26B basement. Access the 480 volt overhead line located on the north side of Building 26B using a manlift. Air gap the 480 volt line.
- Fuel Gas – not applicable.
- Air line – not applicable.

Building 28D

- Domestic water – access domestic water by excavating one trench up to eight (8) feet deep on the north side of the Building 28D. The domestic water line will be physically isolated using a blank placed in the line. The excavation will be backfilled upon completion.
- Cooling water supply and return - access cooling water supply and return lines (one line for each) by excavating one trench up to eight (8) feet deep on the north corner of the Building 28D. Each cooling water line will be physically isolated using a blank placed in the line. The excavation will be backfilled upon completion.
- Steam line, condensate line and fuel gas line – access the steam, condensate and fuel gas lines (one line for each) using a manlift to the high line on the north side of Building 28D. Each line will be physically isolated using a blank placed in the line.
- Fire water line - access fire water line by excavating two trenches up to eight (8) feet deep (one on the north side and one on the west side) at Building 28D. The fire water line will be physically isolated using a blank placed in each of the two line locations. The excavations will be backfilled upon completion.
- Sanitary Sewer – access each sanitary sewer (5 feeds) by excavating five trenches up to eight (8) feet deep (one for each sewer line). Each sanitary sewer line will be physically isolated using a blank placed in the line. Each excavation will be backfilled upon completion.
- Electric – air gap all lines feeding into the building and the two 13.2Kv supply lines to Building 28D located in the electrical manholes. Air gap the entire substation located in the northwest corner of the Building 28D basement. Access

the 480 volt overhead line located on the north side of Building 28D using a manlift. Air gap the 480 volt line.

- Fuel Gas – not applicable.
- Air line – not applicable.

Component 45A

- Domestic water – access domestic water by excavating one trench up to eight (8) feet deep on the north side of the Building 45A. The domestic water line will be physically isolated using a blank placed in the line. The excavation will be backfilled upon completion.
- Cooling water supply and return - access cooling water supply and return lines (one line for each) by excavating one trench up to eight (8) feet deep on the north corner of the Building 45A. Each cooling water line will be physically isolated using a blank placed in the line. The excavation will be backfilled upon completion.
- Steam line, condensate line and fuel gas line – access the steam, condensate and fuel gas lines (one line for each) using a manlift to the high line on the north side of Building 45A. Each line will be physically isolated using a blank placed in the line.
- Fire water line - access fire water line by excavating two trenches up to eight (8) feet deep (one on the north side and one on the west side) at Building 45A. The fire water line will be physically isolated using a blank placed in each of the two line locations. The excavations will be backfilled upon completion.
- Sanitary Sewer – access each sanitary sewer (5 feeds) by excavating five trenches up to eight (8) feet deep (one for each sewer line). Each sanitary sewer line will be physically isolated using a blank placed in the line. Each excavation will be backfilled upon completion.
- Electric – air gap all lines feeding into the building and the two 13.2Kv supply lines to Building 45A located in the electrical manholes. Air gap the entire substation located in the northwest corner of the Building 45A basement. Access the 480 volt overhead line located on the north side of Building 45A using a manlift. Air gap the 480 volt line.
- Fuel Gas – not applicable.
- Air line – not applicable.

Building 80

- Domestic water – access domestic water by excavating one trench up to eight (8) feet deep on the north side of the Building 80. The domestic water line will be physically isolated using a blank placed in the line. The excavation will be backfilled upon completion.
- Cooling water supply and return - access cooling water supply and return lines (one line for each) by excavating one trench up to eight (8) feet deep on the

north corner of the Building 80. Each cooling water line will be physically isolated using a blank placed in the line. The excavation will be backfilled upon completion.

- Steam line, condensate line and fuel gas line – access the steam, condensate and fuel gas lines (one line for each) using a manlift to the high line on the north side of Building 80. Each line will be physically isolated using a blank placed in the line.
- Fire water line - access fire water line by excavating two trenches up to eight (8) feet deep (one on the north side and one on the west side) at Building 80. The fire water line will be physically isolated using a blank placed in each of the two line locations. The excavations will be backfilled upon completion.
- Sanitary Sewer – access each sanitary sewer (5 feeds) by excavating five trenches up to eight (8) feet deep (one for each sewer line). Each sanitary sewer line will be physically isolated using a blank placed in the line. Each excavation will be backfilled upon completion.
- Electric – air gap all lines feeding into the building and the two 13.2Kv supply lines to Building 80 located in the electrical manholes. Air gap the entire substation located in the northwest corner of the Building 80 basement. Access the 480 volt overhead line located on the north side of Building 80 using a manlift. Air gap the 480 volt line.
- Fuel Gas – not applicable.
- Air line – not applicable.

At the completion of facility isolation activities a Facility Isolation Turnover package will be prepared documenting the location of all utility isolations.

6.2) Quantification – Facility Isolation – Liquid Storage

The duration of Facility Isolation activities is identified in Section 2.0.

Planning of Facility Isolation activities will be by the appropriate Electrical, Civil, and Piping Engineer. Facility Isolation field work will be conducted by FAT&LC personnel, such as carpenters, electricians, Hazwat laborers, Millwrights, and pipefitters as applicable, with the appropriate H&S technician, QA/QC technician, Rad technician, and managerial supervision. Those personnel that are projectized or matrixed to support the project and the estimated FTEs are identified in Section 3.0.

Material, Equipment, and Other Direct Costs (ODCs) for this task is identified in Table 5.

Table 5
Materials, Equipment, and Services

DESCRIPTION	BASIS	COST FOR PROJECT
Material	Miscellaneous Allowance @ $2,000/Structure	$ 10,000
Equipment	None or FEMP owned	$ 0
ODCs	Allotted in Control Account BFDP	$ 0

7) Task #7 – Facility Isolation – Pilot Plant

7.1) Plan/Scope – Facility Isolation – Pilot Plant

Facility Isolation will begin after the building or component is vacated and prior to D&D activities.

The duration of Facility Isolation activities is identified in Section 2.0.

Planning of Facility Isolation activities will be by the appropriate Electrical, Civil, and Piping Engineer. Facility Isolation field work will be conducted by FAT&LC personnel, such as carpenters, electricians, Hazwat laborers, Millwrights, and pipefitters as applicable, with the appropriate H&S technician, QA/QC technician, Rad technician, and managerial supervision. Those personnel that are projectized or matrixed to support the project and the estimated FTEs are identified in Section 3.0.

At the completion of facility isolation activities a Facility Isolation Turnover package will be prepared documenting the location of all utility isolations.

Building 13A

- Domestic water – not applicable
- Fire water – not applicable
- Steam and Condensate – not applicable
- Air – not applicable
- Cooling water supply and Return – not applicable
- Sanitary Sewers – not applicable
- Electric – Isolated
- Fuel Gas – Isolated

Building 13B

- Domestic water – not applicable
- Fire water – not applicable
- Steam and Condensate – not applicable

- Air – not applicable
- Cooling water supply and Return – not applicable
- Sanitary Sewers – not applicable
- Electric – air gap all lines entering building
- Fuel Gas – Isolated

Building 13C

- Domestic water – not applicable
- Fire water – not applicable
- Steam and Condensate – not applicable
- Air – not applicable
- Cooling water supply and Return – not applicable
- Sanitary Sewers – not applicable
- Electric – Isolated
- Fuel Gas – Isolated

Component 13D

- Domestic water – not applicable
- Fire water – not applicable
- Steam and Condensate – not applicable
- Air – not applicable
- Cooling water supply and Return – not applicable
- Sanitary Sewers – not applicable
- Electric – Isolated
- Fuel Gas – Isolated

Building 37

- Domestic water – not applicable
- Fire water – not applicable
- Steam and Condensate – not applicable
- Air – not applicable
- Cooling water supply and Return – not applicable
- Sanitary Sewers – not applicable
- Electric – Isolated
- Fuel Gas – Isolated

Building 54A

- Domestic water – not applicable
- Fire water – not applicable
- Steam and Condensate – not applicable

- Air – not applicable
- Cooling water supply and Return – not applicable
- Sanitary Sewers – not applicable
- Electric – Isolated
- Fuel Gas – Isolated

Building 54B

- Domestic water – not applicable
- Fire water – not applicable
- Steam and Condensate – not applicable
- Air – not applicable
- Cooling water supply and Return – not applicable
- Sanitary Sewers – not applicable
- Electric – Isolated
- Fuel Gas – Isolated

Building 54C

- Domestic water – not applicable
- Fire water – not applicable
- Steam and Condensate – not applicable
- Air – not applicable
- Cooling water supply and Return – not applicable
- Sanitary Sewers – not applicable
- Electric – Isolated
- Fuel Gas – Isolated

At the completion of facility isolation activities a Facility Isolation Turnover package will be prepared documenting the location of all utility isolations.

7.2) Quantification – Facility Isolation – Pilot Plant

The duration of Facility Isolation activities is identified in Section 2.0.

Planning of Facility Isolation activities will be by the appropriate Electrical, Civil, and Piping Engineer. Facility Isolation field work will be conducted by FAT&LC personnel, such as carpenters, electricians, Hazwat laborers, Millwrights, and pipefitters as applicable, with the appropriate H&S technician, QA/QC technician, Rad technician, and managerial supervision. Those personnel that are projectized or matrixed to support the project and the estimated FTEs are identified in Section 3.0.

Material, Equipment, and Other Direct Costs (ODCs) for this task is identified in Table 4.

Table 4
Materials, Equipment, and Services

DESCRIPTION	BASIS	COST FOR PROJECT
Material	Miscellaneous Allowance	$2,000
Equipment	None or FEMP owned	$ 0
ODCs	Allotted in Control Account BFDP	$ 0

8) Task #8 – Facility Isolation – Laboratory

8.1) Plan/Scope – Facility Isolation – Laboratory

Facility Isolation will begin after the building or component is vacated and prior to D&D activities. The Laboratory Complex Facility Isolation consists of Buildings 15A, 15B, and 15C.

Building 15A

- Domestic water – access domestic water by excavating one trench up to eight (8) feet deep on the north side of the Building 15A. The domestic water line will be physically isolated using a blank placed in the line. The excavation will be backfilled upon completion.
- Cooling water supply and return - access cooling water supply and return lines (one line for each) by excavating one trench up to eight (8) feet deep on the north corner of the Building 15A. Each cooling water line will be physically isolated using a blank placed in the line. The excavation will be backfilled upon completion.
- Steam line, condensate line and fuel gas line – access the steam, condensate and fuel gas lines (one line for each) using a manlift to the high line on the north side of Building 15A. Each line will be physically isolated using a blank placed in the line.
- Fire water line - access fire water line by excavating two trenches up to eight (8) feet deep (one on the north side and one on the west side) at Building 15A. The fire water line will be physically isolated using a blank placed in each of the two line locations. The excavations will be backfilled upon completion.
- Sanitary Sewer – access each sanitary sewer (5 feeds) by excavating five trenches up to eight (8) feet deep (one for each sewer line). Each sanitary sewer line will be physically isolated using a blank placed in the line. Each excavation will be backfilled upon completion.
- Electric – air gap all lines feeding into the building and the two 13.2Kv supply lines to Building 15A located in the electrical manholes. Air gap the entire substation located in the northwest corner of the Building 15A basement. Access the 480 volt overhead line located on the north side of Building 15A using a manlift. Air gap the 480 volt line.

- Fuel Gas – not applicable.
- Air line – not applicable.

Building 15B

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – not applicable.
- Fuel Gas – not applicable.
- Air line – not applicable.

Building 15C

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – not applicable.
- Fuel Gas – not applicable.
- Air line – not applicable.

At the completion of facility isolation activities a Facility Isolation Turnover package will be prepared documenting the location of all utility isolations.

8.2) Quantification – Facility Isolation – Laboratory

The duration of Facility Isolation activities is identified in Section 2.0.

Planning of Facility Isolation activities will be by the appropriate Electrical, Civil, and Piping Engineer. Facility Isolation field work will be conducted by FAT&LC personnel, such as carpenters, electricians, Hazwat laborers, Millwrights, and pipefitters as applicable, with the appropriate H&S technician, QA/QC technician, Rad technician, and managerial supervision. Those personnel that are projectized or matrixed to support the project and the estimated FTEs are identified in Section 3.0.

Material, Equipment, and Other Direct Costs (ODCs) for this task is identified in Table 5.

Table 5
Materials, Equipment, and Services

DESCRIPTION	BASIS	COST FOR PROJECT
Material	Miscellaneous Allowance @ $2,000/Structure	$ 2,000
Equipment	None or FEMP owned	$ 0
ODCs	Allotted in Control Account BFDP	$ 0

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9) Task #9 – Facility Isolation – Administration (Includes Electrical Complex)

R1-F02-047

9.1) Plan/Scope – Facility Isolation – Administration (Includes Electrical Complex)

R1-F02-047

Facility Isolation will begin after the building or component is vacated and prior to D&D activities. The Administration Complex Facility Isolation consists of Buildings 11, 14A, 14B, Component 20K, Buildings 53A, ~~and~~ 53B, 31A and 46.

Building 11

- Domestic water – access domestic water by excavating one trench on the north center side of the Building 11. The domestic water line will be physically isolated using a blank placed in the line. The excavation will be backfilled upon completion.
- Cooling water supply and return - access cooling water supply and return lines (one line for each) by excavating one trench on the south center of the Building 11. Each cooling water line will be physically isolated using a blank placed in the line. The excavation will be backfilled upon completion.
- Steam and condensate line – access the steam and condensate lines (one line for each) using a manlift to the high line on the west side of Building 11. Each line will be physically isolated using a blank placed in the line.
- Fire water line - access fire water line by excavating two trenches (one on the west side and one on the northeast corner) at Building 11. The fire water line will be physically isolated using a blank placed in each of the two line locations. The excavations will be backfilled upon completion.
- Air Line – access airline on the north center side of Building 11. The airline will be physically isolated using a blank placed in the line.
- Sanitary sewer – Each sanitary sewer line will be physically isolated using a blank placed in the line. Access north side line through Manhole 184 and east side line from the pump room basement in Building 53A.
- Electric – air gap, all lines feeding into the building and the 13.2Kv supply line to Building 11 located in the electrical manholes. Airgap the feeds into Building 11.
- Fuel Gas - not applicable.

Building 14A

- Domestic water – access domestic water by excavating one trench on the west side of Building 14A. The domestic water line will be physically isolated using a blank placed in the line. The excavation will be backfilled upon completion.
- Cooling water supply and return - access cooling water supply and return lines (two lines for each) by excavating one trench on the northeast corner of Building 14A (for the first pair of lines) and by excavating one trench on the northwest corner of Building 14A (for the second pair of lines). Each cooling water line will be physically isolated using a blank placed in the line. The excavations will be backfilled upon completion.
- Steam and condensate line – access the steam and condensate lines (one line for each) using a manlift to the high line on the northwest side of Building 14A. Each line will be physically isolated using a blank placed in the line.
- Fire water line - access fire water line by excavating one trench on the west side of Building 14A. The fire water line will be physically isolated using a blank placed in each of the two line locations. The excavations will be backfilled upon completion.
- Fuel gas line – access the fuel gas line on the west side of Building 14A. The fuel gas line will be physically isolated using a blank placed in the line.
- Sanitary sewer – access each sanitary sewer line (qty:2) by excavating two trenches on the north side of Building 14A. Each sanitary sewer line will be physically isolated using a blank placed in the line. The excavations will be backfilled upon completion.
- Electric – air gap, all lines feeding into building, and the 13.2Kv supply line to Building 11 located in the electrical manholes. Building 14A electric feeds out of Building 11. Airgap the feeds into Building 14A.
- Air – not applicable.

Building 14B

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam and condensate line – not applicable.
- Fire water line – not applicable.
- Fuel gas line – access the fuel gas line on the west side of Building 14B. The fuel gas line will be physically isolated using a blank placed in the line.
- Sanitary sewer – not applicable.
- Electric – air gap, all lines feeding into building, and the 13.2Kv supply line to Building 11 located in the electrical manholes. Building 14B electric feeds out of Building 11. Airgap the feeds into Building 14B.
- Air – not applicable.

Component 20K

- Domestic water – access domestic water by excavating one trench on the north side of the Building 53A. The domestic water line will be physically isolated using a blank placed in the line. The excavation will be backfilled upon completion.
- Cooling water supply and return - access cooling water supply and return lines (one line for each) by excavating one trench at the northeast corner of the Administration Building. Each cooling water line will be physically isolated using a blank placed in the line. The excavation will be backfilled upon completion.
- Steam and condensate line – not applicable.
- Fire water line – not applicable.
- Air Line – not applicable.
- Sanitary sewer – not applicable.
- Electric – Disconnect by air gap at building.
- Fuel Gas – not applicable.

Building 53B

- Domestic water – access domestic water by excavating one trench on the west side of Building 53B. The domestic water line will be physically isolated using a blank placed in the line. The excavation will be backfilled upon completion.
- Cooling water supply and return – not applicable.
- Steam and condensate line – access the steam and condensate lines (one line for each) using a manlift to the high line on the northwest side of Building 53B. Each line will be physically isolated using a blank placed in the line.
- Fire water line - access fire water line by excavating one trench on the west side of Building 53B. The fire water line will be physically isolated using a blank placed in each of the two line locations. The excavations will be backfilled upon completion.
- Nitrogen gas line – access the nitrogen gas line on the west side of Building 53B. The nitrogen gas line will be physically isolated using a blank placed in the line.
- Sanitary sewer – access each sanitary sewer line (qty:2) by excavating two trenches on the north side of Building 53B. Each sanitary sewer line will be physically isolated using a blank placed in the line. The excavations will be backfilled upon completion.
- Electric – air gap, all lines into building, and the 13.2Kv supply line to Building 11 located in the electrical manholes. Building 53B electric feeds out of Building 11. Airgap the feeds into Building 53B.
- Air – not applicable.

Building 46

- Domestic water – access domestic water by excavating a trench up to eight (8) feet deep at Building 46. The domestic water line will be physically isolated using a blank placed in the line. The excavation will be backfilled upon completion.
- Steam and condensate line – access the steam and condensate lines (one line for each) using a manlift to the high line on Building 46. Each line will be physically isolated using a blank placed in the line.
- Fire water line - access fire water line by excavating a trench up to eight (8) feet deep at Building 46. The fire water line will be physically isolated using a blank placed in the line. The excavation will be backfilled upon completion.
- Sanitary sewer – access the sanitary sewer line by excavating a trench up to eight (8) feet deep at Building 46. The sanitary sewer line will be physically isolated using a blank placed in the line. The excavation will be backfilled upon completion.
- Electric – isolate the electric conduit line feeding out of Building 31A to Building 46 and air gap all lines into building.

Building 31A

- Domestic water – access domestic water by excavating one trench up to eight (8) feet deep on the east side of the Building 31A. The domestic water line will be physically isolated using a blank placed in the line. The excavation will be backfilled upon completion.
- Steam and condensate line – access the steam and condensate lines (one line for each) using a manlift to the high line on Building 31A. Each line will be physically isolated using a blank placed in the line.
- Fire water line - access fire water line by excavating one trench up to eight (8) feet deep on the east side of Building 31A. The fire water line will be physically isolated using a blank placed in the line. The excavation will be backfilled upon completion.
- Sanitary sewer – The sanitary sewer line will be physically isolated using a blank placed in the line. Access the line through Manhole 103.
- Normal Electric – air gap all lines feeding into Building 31A HPG located in the electrical manholes from the Building 11 substation.
- Emergency Power – air gap all lines and control cables feeding out of Building 31A electric into electrical manholes.

At the completion of facility isolation activities a Facility Isolation Turnover package will be prepared documenting the location of all utility isolations.

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9.2) Quantification – Facility Isolation – Administration (Includes Electrical Complex)

The duration of Facility Isolation activities is identified in Section 2.0.

Planning of Facility Isolation activities will be by the appropriate Electrical, Civil, and Piping Engineer. Facility Isolation field work will be conducted by FAT&LC personnel, such as carpenters, electricians, Hazwat laborers, Millwrights, and pipefitters as applicable, with the appropriate H&S technician, QA/QC technician, Rad technician, and managerial supervision. Those personnel that are projectized or matrixed to support the project and the estimated FTEs are identified in Section 3.0.

Material, Equipment, and Other Direct Costs (ODCs) for this task is identified in Table 5.

Table 5
Materials, Equipment, and Services

R1-F02-047

DESCRIPTION	BASIS	COST FOR PROJECT
Material	Miscellaneous Allowance @ $2,000/Structure	$ 12,000
Equipment	None or FEMP owned	$ 0
ODCs	Allotted in Control Account BFDP	$ 0

10) Task #10 – Facility Isolation – East Warehouse

10.1) Plan/Scope – Facility Isolation – East Warehouse

Facility Isolation will begin after the building or component is vacated and prior to D&D activities. The East Warehouse Complex Facility Isolation consists of Component 20D and Buildings 77, 79, and 82A.

Component 20D

- Domestic water – access domestic water by excavating one trench on the west side of the tower. The domestic water line will be physically isolated using a blank placed in the line. The excavation will be backfilled upon completion.
- Cooling water supply and return – not applicable.
- Steam and Condensate line – not applicable.
- Fire Water line - access fire water by excavating one trench on the west side of the tower. The fire water line will be physically isolated using a blank placed in the line. The excavation will be backfilled upon completion.
- Air line – not applicable.
- Sanitary Sewer – not applicable.

- Electric – Air gap at manhole and all feeds to component.
- Fuel Gas – not applicable.

Building 77

- Domestic water – access domestic water by excavating one trench on the west side of the tower. The domestic water line will be physically isolated using a blank placed in the line. The excavation will be backfilled upon completion.
- Cooling water supply and return – not applicable.
- Steam and Condensate line – not applicable.
- Fire Water line - access fire water by excavating one trench on the west side of the tower. The fire water line will be physically isolated using a blank placed in the line. The excavation will be backfilled upon completion.
- Air line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – Air gap at manhole and all feeds to component.
- Fuel Gas – not applicable.

Building 79

- Domestic water – access domestic water by excavating one trench on the west side of the tower. The domestic water line will be physically isolated using a blank placed in the line. The excavation will be backfilled upon completion.
- Cooling water supply and return – not applicable.
- Steam and Condensate line – not applicable.
- Fire Water line - access fire water by excavating one trench on the west side of the tower. The fire water line will be physically isolated using a blank placed in the line. The excavation will be backfilled upon completion.
- Air line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – Air gap at manhole and all feeds to component.
- Fuel Gas – not applicable.

Building 82A

- Steam and condensate line – access the steam and condensate lines (one line for each) using a manlift to the high line on Building 82A. Each line will be physically isolated using a blank placed in the line.
- Domestic water – access domestic water by excavating one trench on the south side of Building 82A. The domestic water line will be physically isolated using a blank placed in the line. The excavation will be backfilled upon completion.
- Fire water line - access fire water lines (two lines) by excavating trenches (two trenches) on the north and south side of Building 82A. The fire water lines will

be physically isolated using a blank placed in each line. The excavations will be backfilled upon completion.

- Sanitary sewer – access the sanitary sewer line by excavating a trench on the south side of Building 82A. The sanitary sewer line will be physically isolated using a blank placed in the line. The excavation will be backfilled upon completion.
- Air line – not applicable.
- Fuel Gas – not applicable.
- Electric – Air gap at manhole and air gap all feeds into building.

At the completion of facility isolation activities a Facility Isolation Turnover package will be prepared documenting the location of all utility isolations.

10.2) Quantification – Facility Isolation – East Warehouse

The duration of Facility Isolation activities is identified in Section 2.0.

Planning of Facility Isolation activities will be by the appropriate Electrical, Civil, and Piping Engineer. Facility Isolation field work will be conducted by FAT&LC personnel, such as carpenters, electricians, Hazwat laborers, Millwrights, and pipefitters as applicable, with the appropriate H&S technician, QA/QC technician, Rad technician, and managerial supervision. Those personnel that are projectized or matrixed to support the project and the estimated FTEs are identified in Section 3.0.

Material, Equipment, and Other Direct Costs (ODCs) for this task is identified in Table 4.

Table 4
Materials, Equipment, and Services

DESCRIPTION	BASIS	COST FOR PROJECT
Material	Miscellaneous Allowance @ $2,000/Structure	$ 8,000
Equipment	None or FEMP owned	$ 0
ODCs	Allotted in Control Account BFDP	$ 0

11) Task #11 – Facility Isolation – Miscellaneous Structures

11.1) Plan/Scope – Facility Isolation – Miscellaneous Structures

Facility Isolation will begin after the building or component is vacated and prior to D&D activities.

Component 5F (Plant 5 Covered Storage Pad)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – Isolated.

Building 12E (Maintenance Storage Shed)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – not applicable.

Building 12F (Maintenance Storage Shed)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – not applicable.

Building 12G (Restored Area Maintenance Building)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering building.

Component 16B (Electrical Substation)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.

- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering building.

Component 16C (Electrical Panels & Transformer)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering building.

Component 16F (Trailer Substation #1)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering building.

Component 16G (Trailer Substation #2)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering building.

Component 20E (Well House #1)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering building.

Component 20F (Well House #2)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.

- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering building.

Component 20G (Well House #3)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering building.

Component 22B (Storm Sewer Lift Station)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering building.

Component 22D (Scale House & Weigh Scale)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering building.

Component 23 (Meteorological Tower)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering building.

Component 25C (Sewer Lift Station Building)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer –access each sanitary sewer (5 feeds) by excavating two trenches up to eight (8) feet deep (one for each sewer line). Each sanitary sewer line will be physically isolated using a blank placed in the line. Each excavation will be backfilled upon completion.
- Electric – air gap all lines entering building.

Component 26C (Main Electrical Substation Riser/Strainer House)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – access fire water line by excavating two trenches up to eight (8) feet. The fire water line will be physically isolated using a blank placed in each of the two line locations. The excavations will be backfilled upon completion.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering building.

Buildings 28E (Guard Post at OSDF South Entrance)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering building.

Building 28G (Guard Post NW of Building 45)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering building.

Building 28H (Guard Post South of K-65 Area)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering building.

Building 28J (Security Checkpoint – South Access Road)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering building.

Building 28K (Security Checkpoint – E. Parking Lot)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering building.

Building 28L (Guard Post – N. Construction Access Road)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering building.

Building 28M (Guard Post on "F" Street)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.

- Electric – air gap all lines entering building.

Building 30D (Sampling Line Processing)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering building.

Building 50 (Maintenance Storage Building)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – not applicable.

Building 52A (RTRAK Building)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering building.

Building 52B (ASTD SCEP Building)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – not applicable.

Building 60 (Quonset Hut #1)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.

- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering building.

Building 61 (Quonset Hut #2)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering building.

Building 62 (Quonset Hut #3)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering building.

Building 68 (Pilot Plant Warehouse)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering building.

Building 93A (Southwest Boiler House)

- Domestic water – not applicable.
- Cooling water supply and return – access cooling water supply and return lines (one line for each) by excavating one trench up to eight (8) feet deep. Each cooling water line will be physically isolated using a blank placed in the line. The excavation will be backfilled upon completion.
- Steam line, condensate line and fuel gas line – access the steam, condensate and fuel gas lines (one line for each) using a manlift to the high line. Each line will be physically isolated using a blank placed in the line.
- Fire water line – access fire water line by excavating two trenches up to eight (8) feet. The fire water line will be physically isolated using a blank placed in

each of the two line locations. The excavations will be backfilled upon completion.

- Fuel Gas – purge fuel gas line with inert gas, test, and air gap line entering building.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering building.

Component G-008 (Pipe Bridges)

- Domestic water – access domestic water by excavating one trench up to eight (8) feet deep. The domestic water line will be physically isolated using a blank placed in the line. The excavation will be backfilled upon completion.
- Cooling water supply and return – access cooling water supply and return lines (one line for each) by excavating one trench up to eight (8) feet deep. Each cooling water line will be physically isolated using a blank placed in the line. The excavation will be backfilled upon completion.
- Steam line, condensate line and fuel gas line – access the steam, condensate and fuel gas lines (one line for each) using a manlift to the high line. Each line will be physically isolated using a blank placed in the line.
- Fire water line – access fire water line by excavating two trenches up to eight (8) feet. The fire water line will be physically isolated using a blank placed in each of the two line locations. The excavations will be backfilled upon completion.
- Fuel Gas – purge fuel gas line with inert gas, test, and air gap line entering building.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering pipebridge.

Building TS-08 (Environ. Monitor. Equip. Storage)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – access fire water line by excavating two trenches up to eight (8) feet. The fire water line will be physically isolated using a blank placed in each of the two line locations. The excavations will be backfilled upon completion.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering building.

Trailer T1 (FF)

- Domestic water – access domestic water by excavating one trench up to eight (8) feet deep. The domestic water line will be physically isolated using a blank placed in the line. The excavation will be backfilled upon completion.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – access fire water line by excavating two trenches up to eight (8) feet. The fire water line will be physically isolated using a blank placed in each of the two line locations. The excavations will be backfilled upon completion.
- Sanitary Sewer – access each sanitary sewer (5 feeds) by excavating two trenches up to eight (8) feet deep (one for each sewer line). Each sanitary sewer line will be physically isolated using a blank placed in the line. Each excavation will be backfilled upon completion.
- Electric – air gap all lines entering trailer.

Trailer T2 (Rad Safety)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T3 (Wise Construction)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T4 (Multimedia Visual Storage)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T5 (FF Construction)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T6 (Restrooms)

- Domestic water – access domestic water by excavating one trench up to eight (8) feet deep. The domestic water line will be physically isolated using a blank placed in the line. The excavation will be backfilled upon completion.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – access each sanitary sewer (5 feeds) by excavating two trenches up to eight (8) feet deep (one for each sewer line). Each sanitary sewer line will be physically isolated using a blank placed in the line. Each excavation will be backfilled upon completion.
- Electric – air gap all lines entering trailer.

Trailer T7 (FF)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T8 (Wise Construction)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T12 (CRU4-DLS)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T17 (FF)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T18 (Break Trailer)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T19 (Rad Safety)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T23 (10 Plex)

- Domestic water – access domestic water by excavating one trench up to eight (8) feet deep. The domestic water line will be physically isolated using a blank placed in the line. The excavation will be backfilled upon completion.
- Cooling water supply and return – not applicable.

- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – access fire water line by excavating two trenches up to eight (8) feet. The fire water line will be physically isolated using a blank placed in each of the two line locations. The excavations will be backfilled upon completion.
- Sanitary Sewer – access each sanitary sewer (5 feeds) by excavating two trenches up to eight (8) feet deep (one for each sewer line). Each sanitary sewer line will be physically isolated using a blank placed in the line. Each excavation will be backfilled upon completion.
- Electric – air gap all lines entering trailer.

Trailer T24 (7 Plex - North)

- Domestic water – access domestic water by excavating one trench up to eight (8) feet deep. The domestic water line will be physically isolated using a blank placed in the line. The excavation will be backfilled upon completion.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – access fire water line by excavating two trenches up to eight (8) feet. The fire water line will be physically isolated using a blank placed in each of the two line locations. The excavations will be backfilled upon completion.
- Sanitary Sewer – access each sanitary sewer (5 feeds) by excavating two trenches up to eight (8) feet deep (one for each sewer line). Each sanitary sewer line will be physically isolated using a blank placed in the line. Each excavation will be backfilled upon completion.
- Electric – air gap all lines entering trailer.

Trailer T25 (7 Plex - South)

- Domestic water – access domestic water by excavating one trench up to eight (8) feet deep. The domestic water line will be physically isolated using a blank placed in the line. The excavation will be backfilled upon completion.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – access fire water line by excavating two trenches up to eight (8) feet. The fire water line will be physically isolated using a blank placed in each of the two line locations. The excavations will be backfilled upon completion.
- Sanitary Sewer – access each sanitary sewer (5 feeds) by excavating two trenches up to eight (8) feet deep (one for each sewer line). Each sanitary sewer line will be physically isolated using a blank placed in the line. Each excavation will be backfilled upon completion.
- Electric – air gap all lines entering trailer.

Trailer T26 (Waste Management)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T29 (Computer)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T30 (Computer)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T33 (Shipping Office)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T34 (FF)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.

- Electric – air gap all lines entering trailer.

Trailer T35 (FF)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T36 (Heavy Equipment Operators)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T40 (Thorium Overpack)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T41 (Waste Certification - OA)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T42 (Respirator Washing Facility)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.

- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T43 (Restoration)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – access fire water line by excavating two trenches up to eight (8) feet. The fire water line will be physically isolated using a blank placed in each of the two line locations. The excavations will be backfilled upon completion.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T44 (FF Maintenance)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – access fire water line by excavating two trenches up to eight (8) feet. The fire water line will be physically isolated using a blank placed in each of the two line locations. The excavations will be backfilled upon completion.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T45 (Environmental Monitoring)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – access fire water line by excavating two trenches up to eight (8) feet. The fire water line will be physically isolated using a blank placed in each of the two line locations. The excavations will be backfilled upon completion.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T46 (Environmental Monitoring)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.

- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – access fire water line by excavating two trenches up to eight (8) feet. The fire water line will be physically isolated using a blank placed in each of the two line locations. The excavations will be backfilled upon completion.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T49 (Bio-Assay Semi-Trailer)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T50 (Rad Safety)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T57 (Rad Safety)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T58 (Construction Office)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T59 (FF Waste Management)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T60 (Environmental Monitoring)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T61 (Startup Group)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T62 (Startup Group)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T65 (Plant 1 Pad MC&A Office)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.

- Electric – air gap all lines entering trailer.

Trailer T66 (RIMIA Tri-Plex)

- Domestic water – access domestic water by excavating one trench up to eight (8) feet deep. The domestic water line will be physically isolated using a blank placed in the line. The excavation will be backfilled upon completion.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – access fire water line by excavating two trenches up to eight (8) feet. The fire water line will be physically isolated using a blank placed in each of the two line locations. The excavations will be backfilled upon completion.
- Sanitary Sewer – access each sanitary sewer (5 feeds) by excavating two trenches up to eight (8) feet deep (one for each sewer line). Each sanitary sewer line will be physically isolated using a blank placed in the line. Each excavation will be backfilled upon completion.
- Electric – air gap all lines entering trailer.

Trailer T67 (Rad. Tech.)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T68 (CRU1 Office)

- Domestic water – access domestic water by excavating one trench up to eight (8) feet deep. The domestic water line will be physically isolated using a blank placed in the line. The excavation will be backfilled upon completion.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – access fire water line by excavating two trenches up to eight (8) feet. The fire water line will be physically isolated using a blank placed in each of the two line locations. The excavations will be backfilled upon completion.
- Sanitary Sewer – access each sanitary sewer (5 feeds) by excavating two trenches up to eight (8) feet deep (one for each sewer line). Each sanitary sewer line will be physically isolated using a blank placed in the line. Each excavation will be backfilled upon completion.
- Electric – air gap all lines entering trailer.

Trailer T69 (Control Point - RIMIA)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T71 (Safe Shutdown)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T72 (Safe Shutdown)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T74 (ARASA Changeout Facility)

- Domestic water – access domestic water by excavating one trench up to eight (8) feet deep. The domestic water line will be physically isolated using a blank placed in the line. The excavation will be backfilled upon completion.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – access fire water line by excavating two trenches up to eight (8) feet. The fire water line will be physically isolated using a blank placed in each of the two line locations. The excavations will be backfilled upon completion.
- Sanitary Sewer – access each sanitary sewer (5 feeds) by excavating two trenches up to eight (8) feet deep (one for each sewer line). Each sanitary sewer line will be physically isolated using a blank placed in the line. Each excavation will be backfilled upon completion.
- Electric – air gap all lines entering trailer.

Trailer T75 (Multimedia Services)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T82 (Capital Project)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – access fire water line by excavating two trenches up to eight (8) feet. The fire water line will be physically isolated using a blank placed in each of the two line locations. The excavations will be backfilled upon completion.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T83 (Capital Project)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – access fire water line by excavating two trenches up to eight (8) feet. The fire water line will be physically isolated using a blank placed in each of the two line locations. The excavations will be backfilled upon completion.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T84 (Capital Project)

- Domestic water – access domestic water by excavating one trench up to eight (8) feet deep. The domestic water line will be physically isolated using a blank placed in the line. The excavation will be backfilled upon completion.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – access fire water line by excavating two trenches up to eight (8) feet. The fire water line will be physically isolated using a blank placed in each of the two line locations. The excavations will be backfilled upon completion.

- Sanitary Sewer – access each sanitary sewer (5 feeds) by excavating two trenches up to eight (8) feet deep (one for each sewer line). Each sanitary sewer line will be physically isolated using a blank placed in the line. Each excavation will be backfilled upon completion.
- Electric – air gap all lines entering trailer.

Trailer T85 (Capital Project)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T86 (Capital Project)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T87 (Capital Project)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T89 (WPA Men's Changeout)

- Domestic water – access domestic water by excavating one trench up to eight (8) feet deep. The domestic water line will be physically isolated using a blank placed in the line. The excavation will be backfilled upon completion.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – access each sanitary sewer (5 feeds) by excavating two trenches up to eight (8) feet deep (one for each sewer line). Each sanitary sewer

line will be physically isolated using a blank placed in the line. Each excavation will be backfilled upon completion.

- Electric – air gap all lines entering trailer.

Trailer T90 (WPA Women's Changeout)

- Domestic water – access domestic water by excavating one trench up to eight (8) feet deep. The domestic water line will be physically isolated using a blank placed in the line. The excavation will be backfilled upon completion.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – access each sanitary sewer (5 feeds) by excavating two trenches up to eight (8) feet deep (one for each sewer line). Each sanitary sewer line will be physically isolated using a blank placed in the line. Each excavation will be backfilled upon completion.
- Electric – air gap all lines entering trailer.

Trailer T91 (WPA Men's Changeout)

- Domestic water – access domestic water by excavating one trench up to eight (8) feet deep. The domestic water line will be physically isolated using a blank placed in the line. The excavation will be backfilled upon completion.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – access each sanitary sewer (5 feeds) by excavating two trenches up to eight (8) feet deep (one for each sewer line). Each sanitary sewer line will be physically isolated using a blank placed in the line. Each excavation will be backfilled upon completion.
- Electric – air gap all lines entering trailer.

Trailer T92 (WPA Breakroom)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T93 (Radiation Control Unit Quad)

- Domestic water – access domestic water by excavating one trench up to eight (8) feet deep. The domestic water line will be physically isolated using a blank placed in the line. The excavation will be backfilled upon completion.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – access fire water line by excavating two trenches up to eight (8) feet. The fire water line will be physically isolated using a blank placed in each of the two line locations. The excavations will be backfilled upon completion.
- Sanitary Sewer – access each sanitary sewer (5 feeds) by excavating two trenches up to eight (8) feet deep (one for each sewer line). Each sanitary sewer line will be physically isolated using a blank placed in the line. Each excavation will be backfilled upon completion.
- Electric – air gap all lines entering trailer.

Trailer T94 (Radiation Control Unit Quad)

- Domestic water – access domestic water by excavating one trench up to eight (8) feet deep. The domestic water line will be physically isolated using a blank placed in the line. The excavation will be backfilled upon completion.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – access fire water line by excavating two trenches up to eight (8) feet. The fire water line will be physically isolated using a blank placed in each of the two line locations. The excavations will be backfilled upon completion.
- Sanitary Sewer – access each sanitary sewer (5 feeds) by excavating two trenches up to eight (8) feet deep (one for each sewer line). Each sanitary sewer line will be physically isolated using a blank placed in the line. Each excavation will be backfilled upon completion.
- Electric – air gap all lines entering trailer.

Trailer T95 (Radiation Control Unit Quad)

- Domestic water – access domestic water by excavating one trench up to eight (8) feet deep. The domestic water line will be physically isolated using a blank placed in the line. The excavation will be backfilled upon completion.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – access fire water line by excavating two trenches up to eight (8) feet. The fire water line will be physically isolated using a blank placed in

each of the two line locations. The excavations will be backfilled upon completion.

- Sanitary Sewer – access each sanitary sewer (5 feeds) by excavating two trenches up to eight (8) feet deep (one for each sewer line). Each sanitary sewer line will be physically isolated using a blank placed in the line. Each excavation will be backfilled upon completion.
- Electric – air gap all lines entering trailer.

Trailer T96 (Radiation Control)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T97 (FF Office – CRU4)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T98 (OSDF)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T100 (FF Office)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T103 (Storage)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T108 (IAWWTF)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T109 (IAWWTF)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T117 (CRU4 Construction Support Office)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T118 (CRU4 Support Office)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.

- Electric – air gap all lines entering trailer.

Trailer T119 (Restrooms)

- Domestic water – access domestic water by excavating one trench up to eight (8) feet deep. The domestic water line will be physically isolated using a blank placed in the line. The excavation will be backfilled upon completion.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – access each sanitary sewer (5 feeds) by excavating two trenches up to eight (8) feet deep (one for each sewer line). Each sanitary sewer line will be physically isolated using a blank placed in the line. Each excavation will be backfilled upon completion.
- Electric – air gap all lines entering trailer.

Trailer T121 (FF Office)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T122 (Storage)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T127 (OEPA – Part of T68)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T128 (Mixed Waste)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T129 (OEPA – Part of T68)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T130 (Breakroom)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T131 (Breakroom)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T132 (Kelchner Office)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.

- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T135 (Boiler Maintenance)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T138 (Southern Waste Unit Site Prep. Grp.)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.\
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T139 (Southern Waste Unit Site Prep. Grp.)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T141 (Maintenance Storage)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T142 (Maintenance Storage)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.

- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T164 (FF Training)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – access fire water line by excavating two trenches up to eight (8) feet. The fire water line will be physically isolated using a blank placed in each of the two line locations. The excavations will be backfilled upon completion.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T165 (FF Training)

- Domestic water – access domestic water by excavating one trench up to eight (8) feet deep. The domestic water line will be physically isolated using a blank placed in the line. The excavation will be backfilled upon completion.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – access fire water line by excavating two trenches up to eight (8) feet. The fire water line will be physically isolated using a blank placed in each of the two line locations. The excavations will be backfilled upon completion.
- Sanitary Sewer – access each sanitary sewer (5 feeds) by excavating two trenches up to eight (8) feet deep (one for each sewer line). Each sanitary sewer line will be physically isolated using a blank placed in the line. Each excavation will be backfilled upon completion.
- Electric – air gap all lines entering trailer.

Trailer T166 (Industrial Relations)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – access fire water line by excavating two trenches up to eight (8) feet. The fire water line will be physically isolated using a blank placed in each of the two line locations. The excavations will be backfilled upon completion.
- Sanitary Sewer – not applicable.

- Electric – air gap all lines entering trailer.

Trailer T167 (Industrial Relations)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – access fire water line by excavating two trenches up to eight (8) feet. The fire water line will be physically isolated using a blank placed in each of the two line locations. The excavations will be backfilled upon completion.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T168 (ARASA Contractor)

- Domestic water – access domestic water by excavating one trench up to eight (8) feet deep. The domestic water line will be physically isolated using a blank placed in the line. The excavation will be backfilled upon completion.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – access fire water line by excavating two trenches up to eight (8) feet. The fire water line will be physically isolated using a blank placed in each of the two line locations. The excavations will be backfilled upon completion.
- Sanitary Sewer – access each sanitary sewer (5 feeds) by excavating two trenches up to eight (8) feet deep (one for each sewer line). Each sanitary sewer line will be physically isolated using a blank placed in the line. Each excavation will be backfilled upon completion.
- Electric – air gap all lines entering trailer.

Trailer T169 (ARASA Contractor)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – access fire water line by excavating two trenches up to eight (8) feet. The fire water line will be physically isolated using a blank placed in each of the two line locations. The excavations will be backfilled upon completion.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T170 (ARASA Contractor)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – access fire water line by excavating two trenches up to eight (8) feet. The fire water line will be physically isolated using a blank placed in each of the two line locations. The excavations will be backfilled upon completion.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T171 (ARASA Contractor)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – access fire water line by excavating two trenches up to eight (8) feet. The fire water line will be physically isolated using a blank placed in each of the two line locations. The excavations will be backfilled upon completion.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T172 (FCNDP)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – access fire water line by excavating two trenches up to eight (8) feet. The fire water line will be physically isolated using a blank placed in each of the two line locations. The excavations will be backfilled upon completion.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T173 (FCNDP)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – access fire water line by excavating two trenches up to eight (8) feet. The fire water line will be physically isolated using a blank placed in each of the two line locations. The excavations will be backfilled upon completion.

- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T174 (FCNDP)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – access fire water line by excavating two trenches up to eight (8) feet. The fire water line will be physically isolated using a blank placed in each of the two line locations. The excavations will be backfilled upon completion.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T175 (FCNDP)

- Domestic water – access domestic water by excavating one trench up to eight (8) feet deep. The domestic water line will be physically isolated using a blank placed in the line. The excavation will be backfilled upon completion.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – access fire water line by excavating two trenches up to eight (8) feet. The fire water line will be physically isolated using a blank placed in each of the two line locations. The excavations will be backfilled upon completion.
- Sanitary Sewer – access each sanitary sewer (5 feeds) by excavating two trenches up to eight (8) feet deep (one for each sewer line). Each sanitary sewer line will be physically isolated using a blank placed in the line. Each excavation will be backfilled upon completion.
- Electric – air gap all lines entering trailer.

Trailer T176 (FCNDP)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – access fire water line by excavating two trenches up to eight (8) feet. The fire water line will be physically isolated using a blank placed in each of the two line locations. The excavations will be backfilled upon completion.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T177 (FCNDP)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – access fire water line by excavating two trenches up to eight (8) feet. The fire water line will be physically isolated using a blank placed in each of the two line locations. The excavations will be backfilled upon completion.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T178 (FCNDP)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – access fire water line by excavating two trenches up to eight (8) feet. The fire water line will be physically isolated using a blank placed in each of the two line locations. The excavations will be backfilled upon completion.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T179 (FCNDP)

- Domestic water – access domestic water by excavating one trench up to eight (8) feet deep. The domestic water line will be physically isolated using a blank placed in the line. The excavation will be backfilled upon completion.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – access fire water line by excavating two trenches up to eight (8) feet. The fire water line will be physically isolated using a blank placed in each of the two line locations. The excavations will be backfilled upon completion.
- Sanitary Sewer – access each sanitary sewer (5 feeds) by excavating two trenches up to eight (8) feet deep (one for each sewer line). Each sanitary sewer line will be physically isolated using a blank placed in the line. Each excavation will be backfilled upon completion.
- Electric – air gap all lines entering trailer.

Trailer T181 (FF Office)

- Domestic water – not applicable.

- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – access fire water line by excavating two trenches up to eight (8) feet. The fire water line will be physically isolated using a blank placed in each of the two line locations. The excavations will be backfilled upon completion.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T182 (FF Office)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – access fire water line by excavating two trenches up to eight (8) feet. The fire water line will be physically isolated using a blank placed in each of the two line locations. The excavations will be backfilled upon completion.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T183 (FF Office)

- Domestic water – access domestic water by excavating one trench up to eight (8) feet deep. The domestic water line will be physically isolated using a blank placed in the line. The excavation will be backfilled upon completion.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – access fire water line by excavating two trenches up to eight (8) feet. The fire water line will be physically isolated using a blank placed in each of the two line locations. The excavations will be backfilled upon completion.
- Sanitary Sewer – access each sanitary sewer (5 feeds) by excavating two trenches up to eight (8) feet deep (one for each sewer line). Each sanitary sewer line will be physically isolated using a blank placed in the line. Each excavation will be backfilled upon completion.
- Electric – air gap all lines entering trailer.

Trailer T186 (OSDF Office Trailer)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.

- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T191 (Breakroom/Cooldown)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T301 (IT Corp.)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T305 (Environmental Monitoring)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T306 (Environmental Monitoring)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T312 (Cell 1 Personal Cool Down)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.

- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T313 (ARASA Admin. Office "A")

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T314 (ARASA Admin. Office "B")

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T315 (ARASA Laboratory Office)

- Domestic water – access domestic water by excavating one trench up to eight (8) feet deep. The domestic water line will be physically isolated using a blank placed in the line. The excavation will be backfilled upon completion.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – access each sanitary sewer (5 feeds) by excavating two trenches up to eight (8) feet deep (one for each sewer line). Each sanitary sewer line will be physically isolated using a blank placed in the line. Each excavation will be backfilled upon completion.
- Electric – air gap all lines entering trailer.

Trailer T316 (ARASA Laboratory "A")

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.

- Electric – air gap all lines entering trailer.

Trailer T317 (ARASA Laboratory "B")

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T318 (ARASA MHB/RCLO Pow. Mod. Bld)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T319 (ARASA Breakroom)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T320 (ARASA Laun./Resp. wash facility)

- Domestic water – access domestic water by excavating one trench up to eight (8) feet deep. The domestic water line will be physically isolated using a blank placed in the line. The excavation will be backfilled upon completion.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – access each sanitary sewer (5 feeds) by excavating two trenches up to eight (8) feet deep (one for each sewer line). Each sanitary sewer line will be physically isolated using a blank placed in the line. Each excavation will be backfilled upon completion.
- Electric – air gap all lines entering trailer.

Trailer T321 (ARASA MHB Rad. Cont. Trailer)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T322 (ARASA Supervisor's Office)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T323 (ARASA Control Room)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T325 (ARASA GCS/WTS Pow. Mod. Bldg)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T326 (ARASA Cont. Emissions Mon. Tr.)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.

- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T327 (Weigh Scale Ticket Office)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T330 (Doffing Trailer)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T502 (IT Corp. ARASA)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T505 (Facilities Shutdown Break Trailer)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T506 (Office)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.

- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T512 (Break- M. Ravenscraft)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T513 (Construction Coordinators)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T514 (Construction – Conference Room)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T520 (S&W Office)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T529 (Storage)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T540 (Triplex – Porter Breakroom)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T603 (Storage – Semi Trailer)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T604 (Maintenance Storage Semi Trailer)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

Trailer T608 (Break Trailer – Waste Management)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.

- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering trailer.

At the completion of facility isolation activities a Facility Isolation Turnover package will be prepared documenting the location of all utility isolations.

11.2) Quantification – Facility Isolation – Miscellaneous Structures

The duration of Facility Isolation activities is identified in Section 2.0.

Planning of Facility Isolation activities will be by the appropriate Electrical, Civil, and Piping Engineer. Facility Isolation field work will be conducted by FAT&LC personnel, such as carpenters, electricians, Hazwat laborers, Millwrights, and pipefitters as applicable, with the appropriate H&S technician, QA/QC technician, Rad technician, and managerial supervision. Those personnel that are projectized or matrixed to support the project and the estimated FTEs are identified in Section 3.0.

Material, Equipment, and Other Direct Costs (ODCs) for this task is identified in Table 5.

Table 5
Materials, Equipment, and Services

DESCRIPTION	BASIS	COST FOR PROJECT
Material	Miscellaneous Allowance @ $500 per Structure (170 structures)	$ 34,000
Equipment	None or FEMP owned	$ 0
ODCs	Allotted in Control Account BFDP	$ 0

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12) Task #12 – Facility Isolation – Building 64/65

12.1) Plan/Scope – Facility Isolation – Building 64/65

Building 64 (Thorium Warehouse)

- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering building.

Building 65 (Old Plant 5 Warehouse)

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- Domestic water – not applicable.
- Cooling water supply and return – not applicable.
- Steam line, condensate line and fuel gas line – not applicable.
- Fire water line – not applicable.
- Sanitary Sewer – not applicable.
- Electric – air gap all lines entering building.

12.2) Quantification – Facility Isolation – Building 64/65

The duration of Facility Isolation activities is identified in Section 2.0.

Planning of Facility Isolation activities will be by the appropriate Electrical, Civil, and Piping Engineer. Facility Isolation field work will be conducted by FAT&LC personnel, such as carpenters, electricians, Hazwat laborers, Millwrights, and pipefitters as applicable, with the appropriate H&S technician, QA/QC technician, Rad technician, and managerial supervision. Those personnel that are projectized or matrixed to support the project and the estimated FTEs are identified in Section 3.0.

Material, Equipment, and Other Direct Costs (ODCs) for this task is identified in Table 5.

Table 5
Materials, Equipment, and Services

DESCRIPTION	BASIS	COST FOR PROJECT
Material	Miscellaneous Allowance @ $1,000/Structure	$ 2,000
Equipment	None or FEMP owned	$ 0
ODCs	Allotted in Control Account BFDP	$ 0

13) Task #13 – Facility Isolation – Plant 1, Phase II

13.1) Plan/Scope – Facility Isolation – Plant 1, Phase II

Facility Isolation will begin after the building or component is vacated and prior to D&D activities.

The duration of Facility Isolation activities is identified in Section 2.0.

Planning of Facility Isolation activities will be by the appropriate Electrical, Civil, and Piping Engineer. Facility Isolation field work will be conducted by FAT&LC personnel, such as carpenters, electricians, Hazwat laborers, Millwrights, and pipefitters as applicable, with the appropriate H&S technician, QA/QC technician,

Rad technician, and managerial supervision. Those personnel that are projectized or matrixed to support the project and the estimated FTEs are identified in Section 3.0.

At the completion of facility isolation activities a Facility Isolation Turnover package will be prepared documenting the location of all utility isolations.

Building 1B

- Potable water – not applicable
- Treated water – not applicable
- Fire water – not applicable
- Steam and Condensate – not applicable
- Air – not applicable
- Cooling water supply and Return – not applicable
- Sanitary sewers – not applicable
- Electric – air gap the supply line to Building 1B located in Building 20A.
- Fuel Gas – not applicable
- Miscellaneous process lines on high line – not applicable

Building 20A

- Potable water – not applicable
- Treated water – not applicable
- Steam and Condensate – not applicable
- Air – not applicable
- Cooling water supply and Return – not applicable
- Sanitary sewers – not applicable
- Electric – air gap all lines feeding into the building and the supply line to Building 20A located in the electrical manholes.
- Fuel Gas – not applicable
- Miscellaneous process lines on high line - not applicable

Building 30A

- Treated water – not applicable
- Fire water – not applicable
- Steam and condensate line – access the steam and condensate lines using a manlift to the highline. Each line will be physically isolated using a blank placed in the line.
- Air – not applicable
- Cooling water supply and Return – not applicable
- Sanitary sewers – each sanitary sewer line will be physically isolated using a blank placed in the line. Access each line through area manholes.

- Electric – air gap all lines feeding into the building and the supply line to Building 30A located in the electric manholes.
- Fuel Gas – not applicable
- Miscellaneous process lines on high line - not applicable

Component 56A

- Potable water – not applicable
- Treated water - not applicable
- Fire water – access the fire water line by excavating a trench up to eight (8) feet deep. The line will be physically isolated using a blank placed in the line. The excavation will be backfilled upon completion.
- Steam and Condensate – not applicable
- Air – not applicable
- Cooling water supply and Return – not applicable
- Sanitary Sewers – not applicable
- Electric – air gap all lines feeding into the building and the supply line to Building 56A located in the electric manholes.
- Fuel Gas – not applicable
- Miscellaneous process lines on high line - not applicable

Building 71

- Potable water – not applicable
- Treated water – not applicable
- Fire water – access the fire water line by excavating a trench up to eight (8) feet deep. The line will be physically isolated using a blank placed in the line. The excavation will be backfilled upon completion.
- Steam and condensate line & air – access the steam and condensate & air lines using a manlift to the highline. Each line will be physically isolated using a blank placed in the line.
- Air – not applicable
- Cooling water supply and Return – not applicable
- Sanitary sewers – not applicable
- Electric – air gap all lines feeding into the building and the supply line to Building 71 located in the electric manholes.
- Fuel Gas – not applicable
- Miscellaneous process lines on high line - not applicable

Components TS-04, TS-05 and TS-06

- Potable water – not applicable
- Treated water – not applicable
- Fire water – not applicable

- Steam and condensate line & air – not applicable
- Air – not applicable
- Cooling water supply and Return – not applicable
- Sanitary sewers – not applicable
- Electric –air gap all lines feeding into the building and the supply line to Components TS-04, Ts-05 and TS-06 located in the electric manholes.
- Fuel Gas – not applicable
- Miscellaneous process lines on high line - not applicable

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Component 16N

- Potable water – not applicable
- Treated water – not applicable
- Fire water – not applicable
- Steam and condensate line & air – not applicable
- Air – not applicable
- Cooling water supply and Return – not applicable
- Sanitary sewers – not applicable
- Electric –Air gap at manhole
- Fuel Gas – not applicable
- Miscellaneous process lines on high line - not applicable

13.2) Quantification – Facility Isolation – Plant 1, Phase II

The duration of Facility Isolation activities is identified in Section 2.0.

Planning of Facility Isolation activities will be by the appropriate Electrical, Civil, and Piping Engineer. Facility Isolation field work will be conducted by FAT&LC personnel, such as carpenters, electricians, Hazwat laborers, Millwrights, and pipefitters as applicable, with the appropriate H&S technician, QA/QC technician, Rad technician, and managerial supervision. Those personnel that are projectized or matrixed to support the project and the estimated FTEs are identified in Section 3.0.

Material, Equipment, and Other Direct Costs (ODCs) for this task is identified in Table 4.

Table 4
Materials, Equipment, and Services

DESCRIPTION	BASIS	COST FOR PROJECT
Material	Miscellaneous Allowance @ $2,000/Structure	$ 12,000
Equipment	None or FEMP owned	$ 0
ODCs	Allotted in Control Account BFDP	$ 0

14) Task #14 – Facility Isolation – Plant 5

14.1) Plan/Scope – Facility Isolation – Plant 5

Facility Isolation work is completed. The status is as follows:

Building 5A

- Domestic water – Isolated
- Cooling water supply and return – Isolated
- Steam line, condensate line and fuel gas line –Isolated
- Fire water line – Isolated
- Sanitary Sewer – Isolated
- Electric – Isolated
- Fuel Gas – Isolated.
- Air line – Isolated.

Building 5D

- Domestic water – Isolated
- Cooling water supply and return – Isolated
- Steam line, condensate line and fuel gas line – Isolated
- Fire water line – Isolated
- Sanitary Sewer – Isolated
- Electric – Isolated
- Fuel Gas – Isolated.
- Air line – Isolated.

At the completion of facility isolation activities a Facility Isolation Turnover package was prepared documenting the location of all utility isolations.

14.2) Quantification – Facility Isolation – Plant 5

No Facility Isolation is required.

15) Task #15 – Facility Isolation – Plant 6

15.1) Plan/Scope – Facility Isolation – Plant 6

No facility Isolation is required. The status of the Plant 6 utilities are as follows:

Building 6A

- Domestic water – Isolated
- Fire water – Isolated
- Steam and Condensate – Isolated
- Air – Isolated
- Cooling water supply and Return – Isolated
- Sanitary Sewers – Isolated
- Electric – Isolated
- Fuel Gas – Isolated.
- Air line – Isolated.

Building 6B

- Domestic water – Isolated
- Fire water – Isolated
- Steam and Condensate – Isolated
- Air – Isolated
- Cooling water supply and Return – Isolated
- Sanitary Sewers – Isolated
- Electric – Isolated
- Fuel Gas – Isolated.
- Air line – Isolated.

Building 6C

- Domestic water – Isolated
- Fire water – Isolated
- Steam and Condensate – Isolated
- Air – Isolated
- Cooling water supply and Return – Isolated
- Sanitary Sewers – Isolated
- Electric – Isolated
- Fuel Gas – Isolated.
- Air line – Isolated.

Building 6D

- Domestic water – Isolated
- Fire water – Isolated
- Steam and Condensate – Isolated
- Air – Isolated
- Cooling water supply and Return – Isolated
- Sanitary Sewers – Isolated

- Electric – Isolated
- Fuel Gas – Isolated.
- Air line – Isolated.

Building 6E

- Domestic water – Isolated
- Fire water – Isolated
- Steam and Condensate – Isolated
- Air – Isolated
- Cooling water supply and Return – Isolated
- Sanitary Sewers – Isolated
- Electric – Isolated
- Fuel Gas – Isolated.
- Air line – Isolated.

Building 6F

- Domestic water – Isolated
- Fire water – Isolated
- Steam and Condensate – Isolated
- Air – Isolated
- Cooling water supply and Return – Isolated
- Sanitary Sewers – Isolated
- Electric – Isolated
- Fuel Gas – Isolated.
- Air line – Isolated.

Building 6G

- Domestic water – Isolated
- Fire water – Isolated
- Steam and Condensate – Isolated
- Air – Isolated
- Cooling water supply and Return – Isolated
- Sanitary Sewers – Isolated
- Electric – Isolated
- Fuel Gas – Isolated.
- Air line – Isolated.

At the completion of facility isolation activities a Facility Isolation Turnover package was prepared documenting the location of all utility isolations.

ty Isolation – Plant 6

required.

tion – Area 3A

solation – Area 3A

ea 3A will begin after all structures in the excavation area are

isolated
p at excavation perimeter
isolated
t excavation perimeter

y Isolation – Area 3A

Isolation activities is identified in Section 2.0.

ation activities will be by the appropriate Electrical, Civil, and
y Isolation field work will be conducted by FAT&LC
enters, electricians, Hazwat laborers, Millwrights, and
, with the appropriate H&S technician, QA/QC technician,
nagerial supervision. Those personnel that are projectized or
project and the estimated FTEs are identified in Section 3.0.

d Other Direct Costs (ODCs) for this task is identified in

Table 4
Materials, Equipment, and Services

BASIS	COST FOR PROJECT
Miscellaneous Allowance @ $2,000/Excavation Area	$ 2,000
None or FEMP owned	$ 0
Allotted in Control Account BFDP	$ 0

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17) Task #17 – Facility Isolation – Area 3B

17.1) Plan/Scope – Facility Isolation – Area 3B

Facility Isolation of Area 3B will begin after all structures in the excavation area are isolated.

Area 3B

- Domestic Water – air gap at excavation perimeter
- Fire Water – air gap at excavation perimeter
- Sanitary Sewers – air gap at excavation perimeter
- Electric – air gap at excavation perimeter

17.2) Quantification – Facility Isolation – Area 3B

The duration of Facility Isolation activities is identified in Section 2.0.

Planning of Facility Isolation activities will be by the appropriate Electrical, Civil, and Piping Engineer. Facility Isolation field work will be conducted by FAT&LC personnel, such as carpenters, electricians, Hazwat laborers, Millwrights, and pipefitters as applicable, with the appropriate H&S technician, QA/QC technician, Rad technician, and managerial supervision. Those personnel that are projectized or matrixed to support the project and the estimated FTEs are identified in Section 3.0.

Material, Equipment, and Other Direct Costs (ODCs) for this task is identified in Table 4.

Table 4
Materials, Equipment, and Services

DESCRIPTION	BASIS	COST FOR PROJECT
Material	Miscellaneous Allowance @ $2,000/Excavation Area	$ 2,000
Equipment	None or FEMP owned	$ 0
ODCs	Allotted in Control Account BFDP	$ 0

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18) Task #18 – Facility Isolation – Area 4A

18.1) Plan/Scope – Facility Isolation – Area 4A

Facility Isolation of Area 4A will begin after all structures in the excavation area are isolated.

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Area 4A

- Domestic Water – air gap at excavation perimeter
- Fire Water – air gap at excavation perimeter
- Sanitary Sewers – air gap at excavation perimeter
- Electric – air gap at excavation perimeter

18.1) Quantification – Facility Isolation – Area 4A

The duration of Facility Isolation activities is identified in Section 2.0.

Planning of Facility Isolation activities will be by the appropriate Electrical, Civil, and Piping Engineer. Facility Isolation field work will be conducted by FAT&LC personnel, such as carpenters, electricians, Hazwat laborers, Millwrights, and pipefitters as applicable, with the appropriate H&S technician, QA/QC technician, Rad technician, and managerial supervision. Those personnel that are projectized or matrixed to support the project and the estimated FTEs are identified in Section 3.0.

Material, Equipment, and Other Direct Costs (ODCs) for this task is identified in Table 4.

Table 4
Materials, Equipment, and Services

DESCRIPTION	BASIS	COST FOR PROJECT
Material	Miscellaneous Allowance @ $2,000/Excavation Area	$ 2,000
Equipment	None or FEMP owned	$ 0
ODCs	Allotted in Control Account BFDP	$ 0

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19) Task #19 – Facility Isolation – Area 4B

19.1) Plan/Scope – Facility Isolation – Area 4B

Facility Isolation of Area 4B will begin after all structures in the excavation area are isolated.

Area 4B

- Domestic Water – air gap at excavation perimeter
- Fire Water – air gap at excavation perimeter
- Sanitary Sewers – air gap at excavation perimeter
- Electric – air gap at excavation perimeter

ation – Area 4B

ion activities is identified in Section 2.0.

activities will be by the appropriate Electrical, Civil, and
ation field work will be conducted by FAT&LC
s, electricians, Hazwat laborers, Millwrights, and
the appropriate H&S technician, QA/QC technician,
al supervision. Those personnel that are projectized or
ct and the estimated FTEs are identified in Section 3.0.

er Direct Costs (ODCs) for this task is identified in

Table 4
erials, Equipment, and Services

BASIS	COST FOR PROJECT
ellaneous Allowance @ 00/Excavation Area	$ 2,000
or FEMP owned	$ 0
ted in Control Account	$ 0

Area 5

n – Area 5

ill begin after all structures in the excavation area are

at excavation perimeter
cavation perimeter
at excavation perimeter
vation perimeter

tion – Area 5

on activities is identified in Section 2.0.

ctivities will be by the appropriate Electrical, Civil, and
tion field work will be conducted by FAT&LC
electricians, Hazwat laborers, Millwrights, and
the appropriate H&S technician, QA/QC technician,

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Rad technician, and managerial supervision. Those personnel that are projectized or matrixed to support the project and the estimated FTEs are identified in Section 3.0.

Material, Equipment, and Other Direct Costs (ODCs) for this task is identified in Table 4.

Table 4
Materials, Equipment, and Services

DESCRIPTION	BASIS	COST FOR PROJECT
Material	Miscellaneous Allowance @ $2,000/Excavation Area	$ 2,000
Equipment	None or FEMP owned	$ 0
ODCs	Allotted in Control Account BFDP	$ 0

1.5.2 BFUD2 - Utility Redistribution

1) Task #1 - Utility Redistribution - Plant 2

1.1) Plan/Scope – Utility Redistribution – Plant 2

No utility redistribution is required.

1.2) Quantification – Utility Redistribution – Plant 2

No utility redistribution is required.

2) Task #2 - Utility Redistribution - Plant 3

2.1) Plan/Scope – Utility Redistribution – Plant 3

No utility redistribution is required.

2.2) Quantification – Utility Redistribution – Plant 3

No utility redistribution is required.

3) Task #3 - Utility Redistribution – General Sump

3.1) Plan/Scope – Utility Redistribution – General Sump

No utility redistribution is required for the General Sump.

3.2) Quantification – Utility Redistribution – General Sump

No utility redistribution is required for the General Sump.

4) Task #4 - Utility Redistribution - Plant 8

4.1) Plan/Scope – Utility Redistribution – Plant 8

No utility redistribution is required.

4.2) Quantification – Utility Redistribution – Plant 8

No utility redistribution is required.

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5) Task #5 - Utility Redistribution – Health and Safety Building

5.1) Plan/Scope – Utility Redistribution – Health and Safety Building

- Reroute telephone feed to Building 82A.
- Reroute telephone fiber optic to Hut #1.
- Reroute telephone and fiber optic to Building 53B (Invivo).
- Convert Building 53B to electric heat.
- Reroute power to T71 and T72.
- Reroute fire alarms to Hut #6.

Provide portable generator hook-up at Building 25C to provide emergency electrical power for sewage lift station. Provide a manual throwover switch.

5.2) Quantification – Utility Redistribution – Health and Safety Building

The duration of Utility Redistribution activities are identified in Section 2.0.

Planning of Utility Redistribution activities will be by the appropriate Electrical, Civil, and Piping Engineer. Facility Isolation field work will be conducted by Building Trades personnel, such as carpenters, electricians, Hazwat laborers, Millwrights, and pipefitters as applicable, with the appropriate H&S technician, QA/QC technician, Rad technician, and managerial supervision. Those personnel that are projectized or matrixed to support the project and the estimated FTEs are identified in Section 3.0.

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Utility Redistribution activities will be conducted by projectized and matrixed Fluor Fernald personnel as identified in Section 3.0.

ODC's are provided in the Project Management Facility D&D Control Account BFDP. The materials and services that are required to support the Utility Redistribution are identified in Table 4.

Table 4
Utility Redistribution

ITEM	BASIS	COST
Building 53A		
800 Square Foot Pre-Fab Building	$10,000	$10,000
600 Pair Cable	3,000 Feet @ $5/Foot	$15,000
15 – 45 Foot Poles	15 @ $700/Pole	$10,500
100 Pair Cable	600 Feet @ $2/Foot	$ 1,200
1,000 Feet 480v Wire	1,000 Feet @ $2/Foot	$ 2,000
Miscellaneous Materials	Assume $5,000	$ 5,000

6) Task #6 - Utility Redistribution – Liquid Storage

6.1) Plan/Scope – Utility Redistribution – Liquid Storage

Utility Redistribution and Facility Isolation consists of tasks that are performed prior to D&D of a building or component.

Refeed the electric panel west of Building 45A from 13.2 kv transformer feeding extraction well. Reroute telephone cables out of Building 45A and into T58 and redistribute to other trailers. Install fire alarm panel in T58 and reroute cables from trailers to this panel.

6.2) Quantification – Utility Redistribution – Liquid Storage

The duration of Utility Redistribution activities are identified in Section 2.0.

Planning of Utility Redistribution activities will be by the appropriate Electrical, Civil, and Piping Engineer. Facility Isolation field work will be conducted by Building Trades personnel, such as carpenters, electricians, Hazwat laborers, Millwrights, and pipefitters as applicable, with the appropriate H&S technician, QA/QC technician, Rad technician, and managerial supervision. Those personnel that are projectized or matrixed to support the project and the estimated FTEs are identified in Section 3.0. Utility Redistribution activities will be conducted by projectized and matrixed Fluor Fernald personnel as identified in Section 3.0.

ODC's are provided in the Project Management Facility D&D Control Account BFDP. The materials and services that are required to support the Utility Redistribution are identified in Table 4.

Table 4
Utility Redistribution

ITEM	BASIS	COST
13.2 Transformer Bank	$6,000	$6,000
Switches	$2,500	$2,500
Power Pole (1)	$ 700	$ 700
Misc. Materials	$5,000	$5,000

7) Task #7 - Utility Redistribution – Pilot Plant

7.1) Plan/Scope – Utility Redistribution – Pilot Plant

No utility redistribution is required.

7.2) Quantification – Utility Redistribution – Pilot Plant

No utility redistribution is required.

8) Task #8 - Utility Redistribution - Laboratory

8.1) Plan/Scope – Utility Redistribution – Laboratory

Reroute fire alarms cables from trailers to fire alarm panel in T-76.

8.2) Quantification – Utility Redistribution – Laboratory

The duration of Utility Redistribution activities are identified in Section 2.0.

Planning of Utility Redistribution activities will be by the appropriate Electrical, Civil, and Piping Engineer. Facility Isolation field work will be conducted by Building Trades personnel, such as carpenters, electricians, Hazwat laborers, Millwrights, and pipefitters as applicable, with the appropriate H&S technician, QA/QC technician, Rad technician, and managerial supervision. Those personnel that are projectized or matrixed to support the project and the estimated FTEs are identified in Section 3.0. Utility Redistribution activities will be conducted by projectized and matrixed Fluor Fernald personnel as identified in Section 3.0.

ODC's are provided in the Project Management Facility D&D Control Account BFDP. The materials and services that are required to support the Utility Redistribution are identified in Table 4.

Table 4
Utility Redistribution

ITEM	BASIS	COST
6 pair cable	800 feet @ $2	$ 1,600
Miscellaneous Hardware	Assume $200	$ 200

9) Task #9 - Utility Redistribution – Administration (Includes Electrical Complex)

9.1) Plan/Scope – Utility Redistribution – Administration (Includes Electrical Complex)

Utility Redistribution and Facility Isolation consists of tasks that are performed prior to D&D of a building or component.

Building 11 (Service Building) Utility Redistribution

To maintain T-24, T-25, T-43, T-45, T-46 operational:

- Reroute electric from cooling tower overhead transformer feed
- Reroute telephone from new telecommunications building
- Reroute alarm from T-77 to maintain 25C (sewage lift station) operational:
- Reroute electric feed to Building 25C (Sewage Lift Station) from Main Substation transformer
- Reroute electricity to met tower.

Building 14A (Administration Building) Utility Redistribution

To maintain site telephone service install new Telephone room (incoming and outgoing cable):

- Reroute to support AWWT and Area 7 trailers/buildings.
- Install new self contain pre-fab building located north of T-77.
- Reroute incoming cable via overhead poles from north entrance road to new splice box west of 14A. 15 new poles needed.
- Reroute outgoing cable via overhead from new building to closest overhead tie points (approximately 6 points) located north of T-77.

- Reroute incoming fiberoptic cable from 14A to new building.
- Reroute satellite equipment wiring to new building.
- New building requires electric, fire alarm,
- Reroute telecommunications to support Silos and ARASA. Reroute 600 pair 24-gauge wire and 12-strand fiberoptic cable from new building by existing poles along 30/45 building access road to existing Hut #3 in Silos area.
- Splice cable out of 14A and splice into new building.

To maintain Taco trailers operational:

- Domestic Water needs cross tie outside southwest corner of Admin. Building. (coordinate with Facility Shutdown)

To maintain T-23 operational:

- Reroute electric from cooling tower overhead transformer feed
- Reroute telephone from new telecommunications building
- Reroute alarm from new telephone building
- Reroute signals and equipment from weather station met tower to new telephone building.

9.2) Quantification – Utility Redistribution – Administration (Includes Electrical Complex)

The duration of Utility Redistribution activities are identified in Section 2.0.

Planning of Utility Redistribution activities will be by the appropriate Electrical, Civil, and Piping Engineer. Facility Isolation field work will be conducted by Building Trades personnel, such as carpenters, electricians, Hazwat laborers, Millwrights, and pipefitters as applicable, with the appropriate H&S technician, QA/QC technician, Rad technician, and managerial supervision. Those personnel that are projectized or matrixed to support the project and the estimated FTEs are identified in Section 3.0. Utility Redistribution activities will be conducted by projectized and matrixed Fluor Fernald personnel as identified in Section 3.0.

ODC's are provided in the Project Management Facility D&D Control Account BFDP. The materials and services that are required to support the Utility Redistribution are identified in Table 4.

Table 4
Utility Redistribution

ITEM	BASIS	COST
Building 14A		
800 Square Foot Pre-Fab Building	$10,000	$10,000
600 Pair Cable	3,000 Feet @ $5/Foot	$15,000
15 – 45 Foot Poles	15 @ $700/Pole	$10,500
100 Pair Cable	600 Feet @ $2/Foot	$ 1,200
1,000 Feet 480v Wire	1,000 Feet @ $2/Foot	$ 2,000
Miscellaneous Materials	Assume $5,000	$ 5,000
Building 11		
1,000 Feet 480v Wire	1,000 Feet @ $2/Foot	$ 2,000
Miscellaneous Materials	Assume $1,500	$ 1,500
Building 53B		
Electric Heaters	$2,000	$ 2,000
4 – 45 Foot Poles	4 @ $700/Pole	$ 2,800
Water Heater	$700	$ 700
Miscellaneous Materials	Assume $1,500	$ 1,500
Building 31A		
Transfer Switch	$1,000	$ 1,000
Miscellaneous Switch	$ 800	$ 800
Miscellaneous Materials	$ 500	$ 500

10) Task #10 - Utility Redistribution – East Warehouse

10.1) Plan/Scope – Utility Redistribution – East Warehouse

No utility redistribution required.

10.2) Quantification – Utility Redistribution – East Warehouse

No utility redistribution required.

11) Task #11 - Utility Redistribution – Miscellaneous Structures

11.1) Plan/Scope – Utility Redistribution – Miscellaneous Structures

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Utility redistribution is required prior to D&D of Buildings 22B, 25C, 16B, and 93C ~~and soil excavation of Area 4A~~. No other utility redistribution is necessary.

Prior to demolition of Building 22B sewerage lift station, install new lift station north of Taco Trailers to collect sewerage from remaining Area 5 Trailers and pump into existing line to the sewerage treatment plant.

Prior to demolition of Building 25C sewerage lift station, install new lift station to collect sewerage from Silo Area and AWWT and pump to Sewerage Treatment Plant.

Prior to D&D of Building 16B (Substation), refeed the electrical power supply to the main parking lot lights and main entrance road lighting system.

Prior to D&D of Building 93C (Boiler House), refeed electrical power to two (2) air compressors.

11.2) Quantification – Utility Redistribution – Miscellaneous Structures

The duration of Utility Redistribution activities are identified in Section 2.0.

Planning of Utility Redistribution activities will be by the appropriate Electrical, Civil, and Piping Engineer. Facility Isolation field work will be conducted by Building Trades personnel, such as carpenters, electricians, Hazwat laborers, Millwrights, and pipefitters as applicable, with the appropriate H&S technician, QA/QC technician, Rad technician, and managerial supervision. Those personnel that are projectized or matrixed to support the project and the estimated FTEs are identified in Section 3.0. Utility Redistribution activities will be conducted by projectized and matrixed Fluor Fernald personnel as identified in Section 3.0.

ODC's are provided in the Project Management Facility D&D Control Account BFDP. The materials and services that are required to support the Utility Redistribution are identified in Table 5.

Table 5
Utility Redistribution

ITEM	BASIS	ITEM COST
Building 22B		
Sewerage Lift Station	$ 5,000	$ 5,000
13.2 kv Transformer Bank	$ 6,000	$ 6,000
Switches	$ 2,500	$ 2,500
400A Disc. Switch	$ 800	$ 800
Miscellaneous Hardware	Assume $ 2,000	$ 2,000
300 feet 4 inch HPDE	300 feet @ $8/Foot	$ 2,400
Building 25C		
Sewerage Lift Station	$ 5,000	$ 5,000
Disc. Switch	$ 800	$ 800
200 feet 4 inch HPDE	200 feet @ $8/Foot	$ 1,600
Miscellaneous Hardware	$ 2,000	$ 2,000
Building 26C		
Miscellaneous Material	$ 800	$ 800
Building 93A		
Disc. Switch	$ 2,000	$ 2,000
Miscellaneous Material	$ 1,000	$ 1,000

R1-F02-047

12) Task #12 - Utility Redistribution – Building 64/65

12.1) Plan/Scope – Utility Redistribution – Building 64/65

No utility redistribution is required.

12.2) Quantification – Utility Redistribution – Building 64/65

No utility redistribution is required.

13) Task #13 - Utility Redistribution – Plant 1, Phase II

13.1) Plan/Scope – Utility Redistribution – Plant 1, Phase II

No utility redistribution is required.

13.2) Quantification – Utility Redistribution – Plant 1, Phase II

No utility redistribution is required.

14) Task #14 - Utility Redistribution - Plant 5

14.1) Plan/Scope – Utility Redistribution – Plant 5

No utility redistribution is required.

14.2) Quantification – Utility Redistribution – Plant 5

No utility redistribution is required.

15) Task #15 - Utility Redistribution - Plant 6

15.1) Plan/Scope – Utility Redistribution – Plant 6

No utility redistribution is required.

15.2) Quantification – Utility Redistribution – Plant 6

No utility redistribution is required.

R1-F02-027

16) Task #16 - Utility Redistribution – Area 3A

16.1) Plan/Scope – Utility Redistribution – Area 3A

No utility redistribution is required.

16.2) Quantification – Utility Redistribution – Area 3A

No utility redistribution is required.

17) Task #17 - Utility Redistribution – Area 3B

17.1) Plan/Scope – Utility Redistribution – Area 3B

No utility redistribution is required.

17.2) Quantification – Utility Redistribution – Area 3B

No utility redistribution is required.

R1-F02-027

18) Task #18 - Utility Redistribution – Area 4A

18.1) Plan/Scope – Utility Redistribution – Area 4A

Prior to excavation in Area 4A (if Plant 1 Pad is still required), refeed substation in Building 20A via overhead 13.2 kv pole line.

18.2) Quantification – Utility Redistribution – Area 4A

The duration of Utility Redistribution activities are identified in Section 2.0.

Planning of Utility Redistribution activities will be by the appropriate Electrical, Civil, and Piping Engineer. Facility Isolation field work will be conducted by Building Trades personnel, such as carpenters, electricians, Hazwat laborers, Millwrights, and pipefitters as applicable, with the appropriate H&S technician, QA/QC technician, Rad technician, and managerial supervision. Those personnel that are projectized or matrixed to support the project and the estimated FTEs are identified in Section 3.0. Utility Redistribution activities will be conducted by projectized and matrixed Fluor Fernald personnel as identified in Section 3.0.

ODC's are provided in the Project Management Facility D&D Control Account BFDP. The materials and services that are required to support the Utility Redistribution are identified in Table 5.

Table 5
Utility Redistribution

ITEM	BASIS	ITEM COST
Excavation Area 4A		
9 Power Poles	9 @ $700 each	$ 6,300
12 Crossarms	12 @ $58 each	$ 600
3 Fuse Cut Switches	3 @ $800 each	$ 2,400
1 set 3 Φ OVHD Switch	$ 4,000	$ 4,000
5,000 feet OVHD #2 ACSR - Sparrow	5,000 @ $.60/foot	$ 3,000
4 Anchor + 60 Y	4 @ $100 each	$ 400
3 13.2 kv underground cable	3 @ $500 eacg	$ 1,500
300 feet 13.2 kv UND cable	300 feet @ $2/foot	$ 600
3 Cable Splices	3 @ $200 each	$ 600
Miscellaneous Material	$ 5,000	$ 5,000

R1-F02-027

19) Task #19 - Utility Redistribution – Area 4B

19.1) Plan/Scope – Utility Redistribution – Area 4B

No utility redistribution is required.

19.2) Quantification – Utility Redistribution – Area 4B

No utility redistribution is required.

20) Task #20 - Utility Redistribution – Area 5

20.1) Plan/Scope – Utility Redistribution – Area 5

No utility redistribution is required.

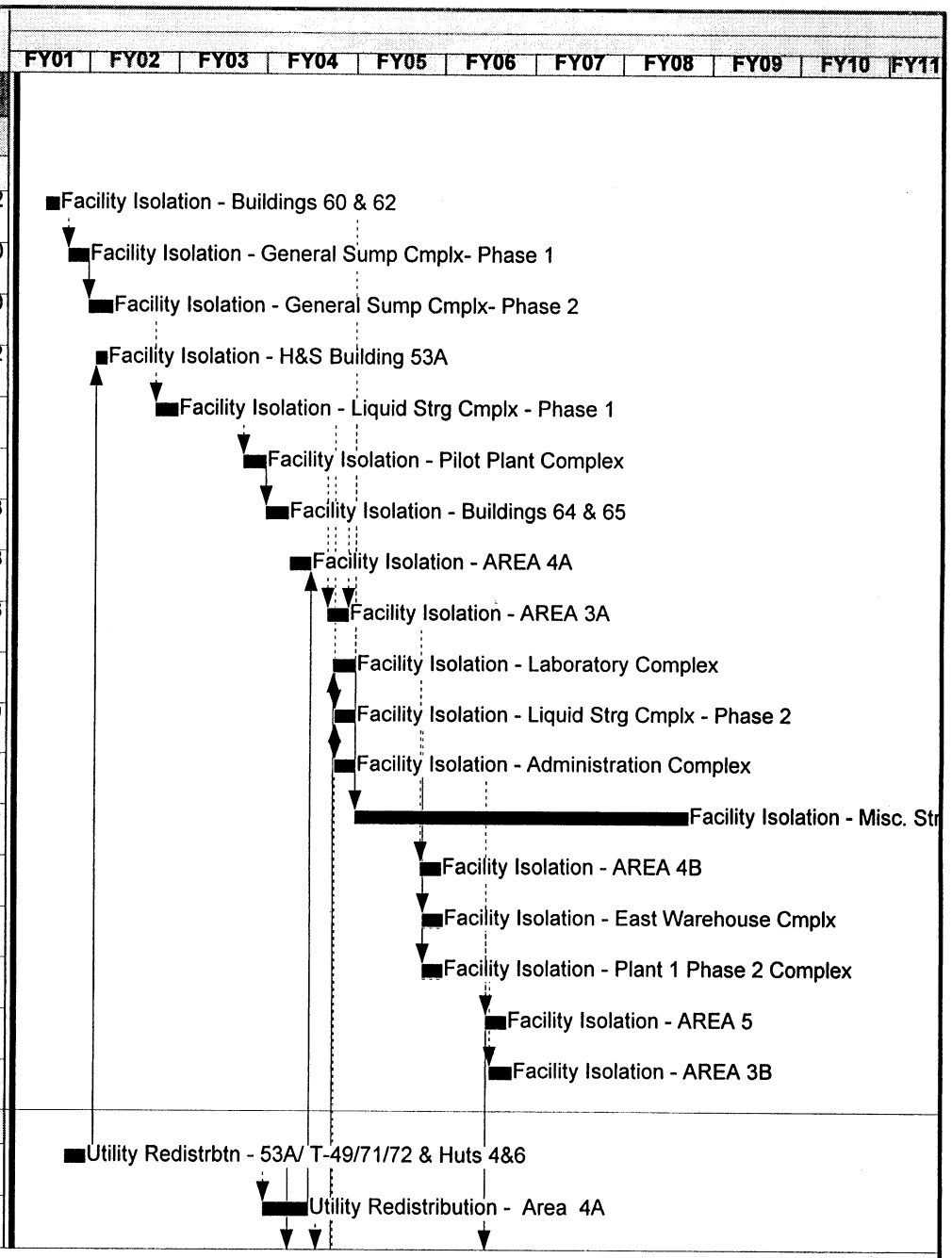
20.2) Quantification – Utility Redistribution – Area 5

No utility redistribution is required.

SECTION 1

2.0 SCHEDULE

Activity ID	Activity Description	Early Start	Early Finish	Orig Dur
B PBS 02 - FACILITY D&D				
1.1.B.B FACILITY ISOLATION & UTILITY REDISTRIBUTION				
BFUD1 FACILITY ISOLATION				
BDMSSC0130	Facility Isolation - Buildings 60 & 62	04APR01*	30MAY01	32
BDGSPC0130	Facility Isolation - General Sump Cmplx- Phase 1	02JUL01*	27SEP01	50
BDGSPC0135	Facility Isolation - General Sump Cmplx- Phase 2	01OCT01	02JAN02	50
BDADM01135	Facility Isolation - H&S Building 53A	01NOV01	12DEC01	22
BDLQS71120	Facility Isolation - Liquid Strg Cmplx - Phase 1	01JUL02*	30SEP02	51
BDPPCX1230	Facility Isolation - Pilot Plant Complex	01JUL03*	29SEP03	51
BDMNTF0130	Facility Isolation - Buildings 64 & 65	01OCT03	30DEC03	48
BDXAR4A130	Facility Isolation - AREA 4A	06JAN04	30MAR04	48
BDXAR3A130	Facility Isolation - AREA 3A	09JUN04	01SEP04	48
BDLABC1030	Facility Isolation - Laboratory Complex	01JUL04	30SEP04	51
BDLQS71125	Facility Isolation - Liquid Strg Cmplx - Phase 2	06JUL04	30SEP04	50
BDADM01130	Facility Isolation - Administration Complex	12JUL04	30SEP04	47
BDMSSC0008	Facility Isolation - Misc. Structures D&D	04OCT04	01JUL08	754
BDXAR4B130	Facility Isolation - AREA 4B	27JUN05	22SEP05	50
BDEWHC0130	Facility Isolation - East Warehouse Cmplx	05JUL05	29SEP05	50
BDP1P22130	Facility Isolation - Plant 1 Phase 2 Complex	05JUL05	29SEP05	50
BDXAR50130	Facility Isolation - AREA 5	27MAR06	15JUN06	47
BDXAR3B130	Facility Isolation - AREA 3B	12APR06	11JUL06	50
BFUD2 UTILITY REDISTRIBUTION				
BDADM01112	Utility Redistrbtn - 53A/ T-49/71/72 & Huts 4&6	02JUL01*	27SEP01	50
BDMSS90009	Utility Redistribution - Area 4A	01OCT03	30MAR04	98



FLUOR FERNALD

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Start Date	01DEC00
Finish Date	11DEC08
Data Date	01DEC00
Run Date	10SEP01 15:20

BLCF - BD01

Sheet 1 of 2

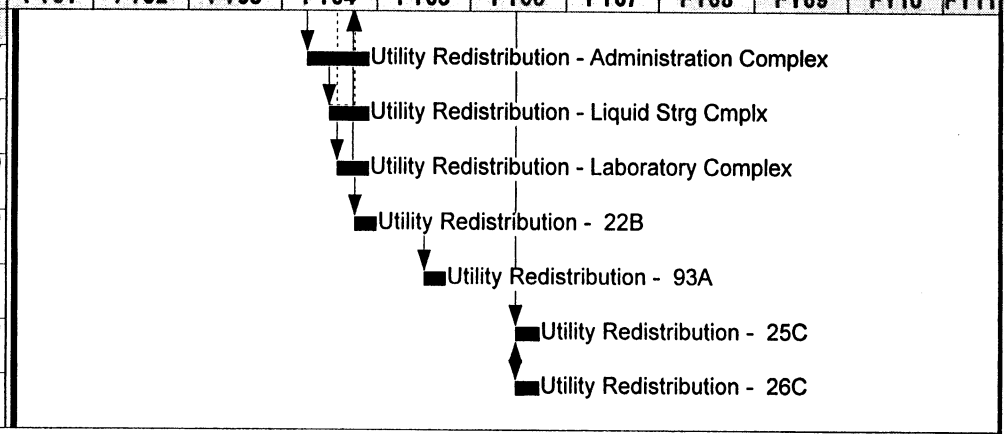
FACILITY D&D

1.1.B.B FACILITY ISOLATION & UTILITY REDISTRIBUTION

Early Bar
Progress Bar
Critical Activity

Date	Revision	hecked	Approved
	D-705		
	D-861		
	R1-F02-047		

Activity ID	Activity Description	Early Start	Early Finish	Orig Dur
BFUD2 UTILITY REDISTRIBUTION				
BDADM01110	Utility Redistribution - Administration Complex	05JAN04	02SEP04	137
BDLQS71115	Utility Redistribution - Liquid Strg Cmplx	01APR04	02SEP04	87
BDLABC1010	Utility Redistribution - Laboratory Complex	03MAY04	02SEP04	70
BDMSS90006	Utility Redistribution - 22B	06JUL04	30SEP04	50
BDMSS90003	Utility Redistribution - 93A	04APR05	30JUN05	51
BDMSS90015	Utility Redistribution - 25C	27MAR06	21JUN06	50
BDMSS90012	Utility Redistribution - 26C	27MAR06	22JUN06	51



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Start Date	01DEC00
Finish Date	11DEC08
Data Date	01DEC00
Run Date	10SEP01 15:20

BLCF - BD01

Sheet 2 of 2

FACILITY D&D

1.1.B.B FACILITY ISOLATION & UTILITY REDISTRIBUTION

Early Bar
Progress Bar
Critical Activity

Date	Revision	hecked	Approved
	D-705		
	D-861		
	R1-F02-047		

SECTION 1

3.0 MANPOWER PLANS

Manpower Planning Sheet (CR2)

MPS # 1BB01 FACILITY ISOLATION

DRIVERS	START DATE	END DATE	TOT	FY 2001 Q1	FY 2001 Q2	FY 2001 Q3	FY 2001 Q4	FY 2002 Q1	FY 2002 Q2	FY 2002 Q3	FY 2002 Q4	FY 2003 Q1	FY 2003 Q2	FY 2003 Q3	FY 2003 Q4	FY 2004 Q1	FY 2004 Q2	FY 2004 Q3	FY 2004 Q4	FY 2005 Q1	FY 2005 Q2	FY 2005 Q3	FY 2005 Q4	FY 2006 Q1	FY 2006 Q2	FY 2006 Q3	FY 2006 Q4
203 PLANT 6 D&D	10/02/2000	04/09/2002		xxx	xxx	xxx	xxx	xxx	xxx	x																	
206 ADMIN COMPLEX D&D	10/01/2004	07/03/2006																		xxx	xxx	xxx	xxx	xxx	xxx	xxx	x
207 EAST WAREHOUSE D&D	10/04/2004	12/14/2004																		xxx							
209 PLANT 1 PHASE II D&D	10/04/2004	10/12/2005																		xxx	xxx	xxx	xxx	x			
216 Electrical Station (Garage/Heavy Equip. Bldg.)	01/10/2005	03/28/2005																			xxx						
217 Electrical Station (Main Electrical/Substations)	07/10/2006	09/28/2006																									xxx
218 General Sump Complex D&D	10/01/2001	01/07/2003						xxx	xxx	xxx	xxx	xxx	x														
219 General Sump (Elec. Power Center Bldg.)	04/01/2004	07/19/2004																xxx	x								
220 Plant 2 Complex D&D	10/01/2001	04/01/2004						xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	x									
221 Plant 3 Complex D&D	10/01/2001	12/10/2002						xxx	xxx	xxx	xxx	xxx															
222 Plant 8 Complex D&D	10/01/2001	06/26/2003						xxx	xxx	xxx	xxx	xxx	xxx	xxx													
223 Liquid Storage D&D	10/01/2002	03/31/2005										xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx						
224 Lab Complex D&D	10/01/2004	10/31/2005																		xxx	xxx	xxx	xxx	x			
225 Pilot Plant Complex D&D	10/01/2003	09/27/2005														xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx				
Craft Labor	Carpenter		1.50	0	0	0.1	0.1	0.1	0	0	0.1	0	0	0	0.1	0.2	0.1	0	0.2	0	0	0	0.2	0	0	0	0.1
Administration	Clerks		1.50	0	0	0.1	0.1	0.1	0	0	0.1	0	0	0	0.1	0.2	0.1	0	0.2	0	0	0	0.2	0	0	0	0.1
Project Controls	Cost Analyst		1.50	0	0	0.1	0.1	0.1	0	0	0.1	0	0	0	0.1	0.2	0.1	0	0.2	0	0	0	0.2	0	0	0	0.1
Engineering & Design	Drafter/CAD Operator		1.60	0	0	0.1	0.1	0.1	0	0	0.1	0	0	0	0.1	0.2	0.1	0	0.2	0	0	0	0.3	0	0	0	0.1
Craft Labor	Electrician		5.40	0	0	0.3	0.3	0.3	0	0	0.3	0	0	0	0.3	0.6	0.3	0	0.6	0	0	0	1.5	0	0	0	0.3
Engineering & Design	Engineer		1.60	0	0	0.1	0.1	0.1	0	0	0.1	0	0	0	0.1	0.2	0.1	0	0.2	0	0	0	0.3	0	0	0	0.1
Engineering & Design	Engineer Electrical		1.60	0	0	0.1	0.1	0.1	0	0	0.1	0	0	0	0.1	0.2	0.1	0	0.2	0	0	0	0.3	0	0	0	0.1
Engineering & Design	Engineer Piping/Mechanic		1.60	0	0	0.1	0.1	0.1	0	0	0.1	0	0	0	0.1	0.2	0.1	0	0.2	0	0	0	0.3	0	0	0	0.1
General Labor	Hazwat		4.80	0	0	0.3	0.3	0.3	0	0	0.3	0	0	0	0.3	0.6	0.3	0	0.6	0	0	0	0.9	0	0	0	0.3
Environmental Safety & H	Industrial Hygienist Tech.		1.60	0	0	0.1	0.1	0.1	0	0	0.1	0	0	0	0.1	0.2	0.1	0	0.2	0	0	0	0.3	0	0	0	0.1
Lab	Lab Tech.		1.60	0	0	0.1	0.1	0.1	0	0	0.1	0	0	0	0.1	0.2	0.1	0	0.2	0	0	0	0.3	0	0	0	0.1
Craft Labor	Millwright		4.50	0	0	0.3	0.3	0.3	0	0	0.3	0	0	0	0.3	0.6	0.3	0	0.6	0	0	0	0.6	0	0	0	0.3
Craft Labor	Pipefitter		4.80	0	0	0.3	0.3	0.3	0	0	0.3	0	0	0	0.3	0.6	0.3	0	0.6	0	0	0	0.9	0	0	0	0.3
QA/QC	QA/QC Tech.		1.60	0	0	0.1	0.1	0.1	0	0	0.1	0	0	0	0.1	0.2	0.1	0	0.2	0	0	0	0.3	0	0	0	0.1
Environmental Safety & H	Rad Engineer		1.60	0	0	0.1	0.1	0.1	0	0	0.1	0	0	0	0.1	0.2	0.1	0	0.2	0	0	0	0.3	0	0	0	0.1
Environmental Safety & H	Rad Tech		7.10	0	0	0.5	0.5	0.5	0	0	0.5	0	0	0	0.5	0.8	0.5	0	0.8	0	0	0	1	0	0	0	0.5
Environmental Safety & H	Safety Tech.		1.60	0	0	0.1	0.1	0.1	0	0	0.1	0	0	0	0.1	0.2	0.1	0	0.2	0	0	0	0.3	0	0	0	0.1
Project Controls	Scheduler		1.50	0	0	0.1	0.1	0.1	0	0	0.1	0	0	0	0.1	0.2	0.1	0	0.2	0	0	0	0.2	0	0	0	0.1
		Sheet Totals:	47.00	0.00	0.00	3.00	3.00	3.00	0.00	0.00	3.00	0.00	0.00	0.00	3.00	5.80	3.00	0.00	5.80	0.00	0.00	0.00	8.40	0.00	0.00	0.00	3.00

Manpower Planning Sheet (CR2)

MPS # 1BB01 FACILITY ISOLATION

DRIVERS	START DATE	END DATE
203 PLANT 6 D&D	10/02/2000	04/09/2002
206 ADMIN COMPLEX D&D	10/01/2004	07/03/2006
207 EAST WAREHOUSE D&D	10/04/2004	12/14/2004
209 PLANT 1 PHASE II D&D	10/04/2004	10/12/2005
216 Electrical Station (Garage/Heavy Equip. Bld	01/10/2005	03/28/2005
217 Electrical Station (Main Electrical/Substation	07/10/2006	09/28/2006
218 General Sump Complex D&D	10/01/2001	01/07/2003
219 General Sump (Elec. Power Center Bldg.)	04/01/2004	07/19/2004
220 Plant 2 Complex D&D	10/01/2001	04/01/2004
221 Plant 3 Complex D&D	10/01/2001	12/10/2002
222 Plant 8 Complex D&D	10/01/2001	06/26/2003
223 Liquid Storage D&D	10/01/2002	03/31/2005
224 Lab Complex D&D	10/01/2004	10/31/2005
225 Pilot Plant Complex D&D	10/01/2003	09/27/2005

		FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Craft Labor	Carpenter	0	0	0	0.1	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0
Administration	Clerks	0	0	0	0.1	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0
Project Controls	Cost Analyst	0	0	0	0.1	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0
Engineering & Design	Drafter/CAD Operator	0	0	0	0.1	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0
Craft Labor	Electrician	0	0	0	0.3	0	0	0	0.3	0	0	0	0	0	0	0	0	0	0	0	0
Engineering & Design	Engineer	0	0	0	0.1	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0
Engineering & Design	Engineer Electrical	0	0	0	0.1	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0
Engineering & Design	Engineer Piping/Mechanic	0	0	0	0.1	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0
General Labor	Hazwat	0	0	0	0.3	0	0	0	0.3	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & Health	Industrial Hygienist Tech.	0	0	0	0.1	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0
Lab	Lab Tech.	0	0	0	0.1	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0
Craft Labor	Millwright	0	0	0	0.3	0	0	0	0.3	0	0	0	0	0	0	0	0	0	0	0	0
Craft Labor	Pipefitter	0	0	0	0.3	0	0	0	0.3	0	0	0	0	0	0	0	0	0	0	0	0
QA/QC	QA/QC Tech.	0	0	0	0.1	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & Health	Rad Engineer	0	0	0	0.1	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & Health	Rad Tech	0	0	0	0.5	0	0	0	0.5	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & Health	Safety Tech.	0	0	0	0.1	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0
Project Controls	Scheduler	0	0	0	0.1	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0
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Manpower Planning Sheet (CR2)

MPS # 1BB02 UTILITY REDISTRIBUTION

DRIVERS	START DATE	END DATE	FY 2001 Q1	FY 2001 Q2	FY 2001 Q3	FY 2001 Q4	FY 2002 Q1	FY 2002 Q2	FY 2002 Q3	FY 2002 Q4	FY 2003 Q1	FY 2003 Q2	FY 2003 Q3	FY 2003 Q4	FY 2004 Q1	FY 2004 Q2	FY 2004 Q3	FY 2004 Q4	FY 2005 Q1	FY 2005 Q2	FY 2005 Q3	FY 2005 Q4	FY 2006 Q1	FY 2006 Q2	FY 2006 Q3	FY 2006 Q4
203 PLANT 6 D&D	10/02/2000	04/09/2002	xxx	xxx	xxx	xxx	xxx	xxx	x																	
206 ADMIN COMPLEX D&D	10/01/2004	07/03/2006																	xxx	xxx	xxx	xxx	xxx	xxx	xxx	x
207 EAST WAREHOUSE D&D	10/04/2004	12/14/2004																	xxx							
209 PLANT 1 PHASE II D&D	10/04/2004	10/12/2005																	xxx	xxx	xxx	xxx	x			
216 Electrical Station (Garage/Heavy Equip. Bldg.)	01/10/2005	03/28/2005																		xxx						
217 Electrical Station (Main Electrical/Substations)	07/10/2006	09/28/2006																								xxx
218 General Sump Complex D&D	10/01/2001	01/07/2003					xxx	xxx	xxx	xxx	xxx	x														
219 General Sump (Elec. Power Center Bldg.)	04/01/2004	07/19/2004															xxx	x								
220 Plant 2 Complex D&D	10/01/2001	04/01/2004					xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	x									
221 Plant 3 Complex D&D	10/01/2001	12/10/2002					xxx	xxx	xxx	xxx	xxx															
222 Plant 8 Complex D&D	10/01/2001	06/26/2003					xxx	xxx	xxx	xxx	xxx	xxx	xxx													
223 Liquid Storage D&D	10/01/2002	03/31/2005									xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx						
224 Lab Complex D&D	10/01/2004	10/31/2005																	xxx	xxx	xxx	xxx	x			
225 Pilot Plant Complex D&D	10/01/2003	09/27/2005													xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx				

		TOT	FY 2001 Q1	FY 2001 Q2	FY 2001 Q3	FY 2001 Q4	FY 2002 Q1	FY 2002 Q2	FY 2002 Q3	FY 2002 Q4	FY 2003 Q1	FY 2003 Q2	FY 2003 Q3	FY 2003 Q4	FY 2004 Q1	FY 2004 Q2	FY 2004 Q3	FY 2004 Q4	FY 2005 Q1	FY 2005 Q2	FY 2005 Q3	FY 2005 Q4	FY 2006 Q1	FY 2006 Q2	FY 2006 Q3	FY 2006 Q4
Procurement	Buyer/Contracts Administrator	1.10	0	0	0.1	0.1	0	0	0	0	0	0	0	0	0.1	0.2	0.2	0.2	0	0	0.1	0	0	0	0.1	0
Administration	Clerks	1.10	0	0	0.1	0.1	0	0	0	0	0	0	0	0	0.1	0.2	0.2	0.2	0	0	0.1	0	0	0	0.1	0
Construction	Construction Coordinator	11.00	0	0	1	1	0	0	0	0	0	0	0	0	1	2	2	2	0	0	1	0	0	0	1	0
Construction	Construction Engineer	5.50	0	0	0.5	0.5	0	0	0	0	0	0	0	0	0.5	1	1	1	0	0	0.5	0	0	0	0.5	0
Construction	Construction Mgr.	1.10	0	0	0.1	0.1	0	0	0	0	0	0	0	0	0.1	0.2	0.2	0.2	0	0	0.1	0	0	0	0.1	0
Project Controls	Cost Analyst	1.10	0	0	0.1	0.1	0	0	0	0	0	0	0	0	0.1	0.2	0.2	0.2	0	0	0.1	0	0	0	0.1	0
Engineering & Design	Drafter/CAD Operator	1.10	0	0	0.1	0.1	0	0	0	0	0	0	0	0	0.1	0.2	0.2	0.2	0	0	0.1	0	0	0	0.1	0
Engineering & Design	Engineer	5.50	0	0	0.5	0.5	0	0	0	0	0	0	0	0	0.5	1	1	1	0	0	0.5	0	0	0	0.5	0
Engineering & Design	Engineer Electrical	1.10	0	0	0.1	0.1	0	0	0	0	0	0	0	0	0.1	0.2	0.2	0.2	0	0	0.1	0	0	0	0.1	0
Engineering & Design	Engineer Civil	1.10	0	0	0.1	0.1	0	0	0	0	0	0	0	0	0.1	0.2	0.2	0.2	0	0	0.1	0	0	0	0.1	0
Engineering & Design	Engineer Piping/Mechanic	1.10	0	0	0.1	0.1	0	0	0	0	0	0	0	0	0.1	0.2	0.2	0.2	0	0	0.1	0	0	0	0.1	0
Environmental Safety & H	Industrial Hygienist Tech.	1.10	0	0	0.1	0.1	0	0	0	0	0	0	0	0	0.1	0.2	0.2	0.2	0	0	0.1	0	0	0	0.1	0
QA/QC	QA/QC Tech.	1.10	0	0	0.1	0.1	0	0	0	0	0	0	0	0	0.1	0.2	0.2	0.2	0	0	0.1	0	0	0	0.1	0
Environmental Safety & H	Rad Engineer	1.10	0	0	0.1	0.1	0	0	0	0	0	0	0	0	0.1	0.2	0.2	0.2	0	0	0.1	0	0	0	0.1	0
Environmental Safety & H	Rad Tech	5.50	0	0	0.5	0.5	0	0	0	0	0	0	0	0	0.5	1	1	1	0	0	0.5	0	0	0	0.5	0
Environmental Safety & H	Safety Tech.	1.30	0	0	0.1	0.1	0	0	0	0	0	0	0	0	0.1	0.2	0.2	0.2	0	0	0.2	0	0	0	0.2	0
Project Controls	Scheduler	1.10	0	0	0.1	0.1	0	0	0	0	0	0	0	0	0.1	0.2	0.2	0.2	0	0	0.1	0	0	0	0.1	0
	Sheet Totals:	42.00	0.00	0.00	3.80	3.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.80	7.60	7.60	7.60	0.00	0.00	3.90	0.00	0.00	0.00	3.90	0.00

Manpower Planning Sheet (CR2)

MPS # 1BB02 UTILITY REDISTRIBUTION

DRIVERS	START DATE	END DATE
203 PLANT 6 D&D	10/02/2000	04/09/2002
206 ADMIN COMPLEX D&D	10/01/2004	07/03/2006
207 EAST WAREHOUSE D&D	10/04/2004	12/14/2004
209 PLANT 1 PHASE II D&D	10/04/2004	10/12/2005
216 Electrical Station (Garage/Heavy Equip. Bld	01/10/2005	03/28/2005
217 Electrical Station (Main Electrical/Substation	07/10/2006	09/28/2006
218 General Sump Complex D&D	10/01/2001	01/07/2003
219 General Sump (Elec. Power Center Bldg.)	04/01/2004	07/19/2004
220 Plant 2 Complex D&D	10/01/2001	04/01/2004
221 Plant 3 Complex D&D	10/01/2001	12/10/2002
222 Plant 8 Complex D&D	10/01/2001	06/26/2003
223 Liquid Storage D&D	10/01/2002	03/31/2005
224 Lab Complex D&D	10/01/2004	10/31/2005
225 Pilot Plant Complex D&D	10/01/2003	09/27/2005

		FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Procurement	Buyer/Contracts Administrator	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Administration	Clerks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construction	Construction Coordinator	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construction	Construction Engineer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construction	Construction Mgr.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Controls	Cost Analyst	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Engineering & Design	Drafter/CAD Operator	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Engineering & Design	Engineer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Engineering & Design	Engineer Electrical	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Engineering & Design	Engineer Civil	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Engineering & Design	Engineer Piping/Mechanic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & Health	Industrial Hygienist Tech.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QA/QC	QA/QC Tech.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & Health	Rad Engineer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & Health	Rad Tech	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Safety & Health	Safety Tech.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Project Controls	Scheduler	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sheet Totals:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

SECTION 1

4.0 ESTIMATE

BFUD1

FACILITY ISOLATION

09/07/2001
10:16 AM

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

PBS: OHFN02 FACILITY D&D
WBS: 1.1.B.B FACILITY ISOLATION & UTILITY REDISTRIBUTION
CTRL ACCT: BFUD FACILITY ISOLATION & UTILITY REDISTRIBUTION
CHARGE NO: BFUD1 FACILITY ISOLATION
COMMENT NO: D-213, D-216, D-705, D-861, F02-029, F02-047

DATE: 06-Sep-01
PROJECT MGR: JM STEVENS
CAM: JM STEVENS
PREPARED BY:
FISCAL YEAR: 2000-2010

Resource: CLERKS **CLERKS** **EOC:** LABOR
Res Dept: **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	70.5	104.9	43.2	155.4	52.1	78.0	47.6	44.8	0.0	0.0
Cum Hours:	70.5	175.5	218.6	374.0	426.2	504.2	551.8	596.6	596.6	596.6
Yr Total Cost:	1,685	2,638	1,150	4,383	1,558	2,489	1,647	1,634	0	0
Cum Total Cost:	1,685	4,324	5,474	9,857	11,415	13,904	15,551	17,185	17,185	17,185

Resource: CNSENG **CONSTRUCTION ENG** **EOC:** LABOR
Res Dept: **Overtime:** 1 **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	34.2	40.0	30.0	120.0	69.1	40.3	40.3	40.5	0.0	0.0
Cum Hours:	34.2	74.2	104.2	224.2	293.3	333.6	373.9	414.4	414.4	414.4
Yr Total Cost:	1,864	2,295	1,823	7,721	4,707	2,936	3,183	3,367	0	0
Cum Total Cost:	1,864	4,159	5,981	13,703	18,410	21,346	24,529	27,895	27,895	27,895

Resource: CRPNTR **CARPENTER** **EOC:** LABOR
Res Dept: **Overtime:** **Class:** HOU

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	70.5	104.9	43.2	155.4	52.1	78.0	47.6	44.8	0.0	0.0
Cum Hours:	70.5	175.5	218.6	374.0	426.2	504.2	551.8	596.6	596.6	596.6
Yr Total Cost:	2,185	3,420	1,491	5,682	2,020	3,227	2,135	2,118	0	0
Cum Total Cost:	2,185	5,605	7,096	12,778	14,798	18,024	20,160	22,278	22,278	22,278

INCLUDES ESCALATION COSTS

Resource: CSTANL **COST ANALYST** **EOC:** LABOR
Res Dept: **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	70.5	104.9	43.2	155.4	52.1	78.0	47.6	44.8	0.0	0.0
Cum Hours:	70.5	175.5	218.6	374.0	426.2	504.2	551.8	596.6	596.6	596.6
Yr Total Cost:	2,744	4,296	1,872	7,137	2,537	4,053	2,682	2,661	0	0
Cum Total Cost:	2,744	7,040	8,912	16,050	18,587	22,640	25,322	27,982	27,982	27,982

Resource: DRFCAD **DRAFTER/CAD OPERATOR** **EOC:** LABOR
Res Dept: **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	70.5	104.9	43.2	155.4	78.2	93.2	47.6	44.8	0.0	0.0
Cum Hours:	70.5	175.5	218.6	374.0	452.3	545.4	593.0	637.8	637.8	637.8
Yr Total Cost:	2,200	3,445	1,501	5,723	3,051	3,883	2,150	2,133	0	0
Cum Total Cost:	2,200	5,645	7,146	12,869	15,920	19,802	21,953	24,086	24,086	24,086

Resource: ELECTN **ELECTRICIAN** **EOC:** LABOR
Res Dept: **Overtime:** **Class:** HOU

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	275.8	394.8	189.5	646.2	511.0	430.3	202.5	213.9	0.0	0.0
Cum Hours:	275.8	670.5	860.0	1,506.3	2,017.2	2,447.6	2,650.1	2,864.0	2,864.0	2,864.0
Yr Total Cost:	9,647	14,342	7,670	27,241	22,376	19,270	10,548	12,138	0	0
Cum Total Cost:	9,647	23,989	31,659	58,900	81,275	100,546	111,094	123,232	123,232	123,232

Resource: ENGELE **ENGINEER ELECTRICAL** **EOC:** LABOR
Res Dept: **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	70.5	104.9	43.2	155.4	78.2	93.2	47.6	44.8	0.0	0.0
Cum Hours:	70.5	175.5	218.6	374.0	452.3	545.4	593.0	637.8	637.8	637.8
Yr Total Cost:	3,693	5,782	2,520	9,605	5,121	6,517	3,609	3,581	0	0
Cum Total Cost:	3,693	9,474	11,994	21,599	26,720	33,237	36,846	40,427	40,427	40,427

Resource: ENGINR **ENGINEER** **EOC:** LABOR
Res Dept: **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	70.5	104.9	43.2	155.4	78.2	93.2	47.6	44.8	0.0	0.0
Cum Hours:	70.5	175.5	218.6	374.0	452.3	545.4	593.0	637.8	637.8	637.8
Yr Total Cost:	4,850	7,594	3,309	12,616	6,726	8,559	4,741	4,703	0	0
Cum Total Cost:	4,850	12,444	15,754	28,370	35,096	43,655	48,396	53,099	53,099	53,099

Resource: ENGMEC **ENGINEER MECH/PIPING** **EOC:** LABOR
Res Dept: **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	70.5	104.9	43.2	155.4	78.2	93.2	47.6	44.8	0.0	0.0
Cum Hours:	70.5	175.5	218.6	374.0	452.3	545.4	593.0	637.8	637.8	637.8
Yr Total Cost:	4,386	6,867	2,993	11,409	6,083	7,740	4,287	4,253	0	0
Cum Total Cost:	4,386	11,253	14,246	25,655	31,737	39,478	43,765	48,018	48,018	48,018

Resource: GLMNT **GEN LABOR MAINT** **EOC:** LABOR
Res Dept: **Overtime:** 1.5 **Class:** HOU

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	0.0	20.0	0.0	0.0	79.5	79.3	79.3	79.5	0.0	0.0
Cum Hours:	0.0	20.0	20.0	20.0	99.5	178.8	258.1	337.6	337.6	337.6
Yr Total Cost:	0	772	0	0	3,643	3,885	4,211	4,451	0	0
Cum Total Cost:	0	772	772	772	4,415	8,300	12,511	16,962	16,962	16,962

Resource: HAZWAT **HAZWAT** **EOC:** LABOR
Res Dept: **Overtime:** **Class:** HOU

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	275.8	374.8	189.5	646.2	294.7	279.5	142.8	134.4	0.0	0.0
Cum Hours:	275.8	650.5	840.0	1,486.3	1,780.9	2,060.4	2,203.2	2,337.6	2,337.6	2,337.6
Yr Total Cost:	8,862	12,266	7,046	25,024	11,690	10,752	5,955	5,907	0	0
Cum Total Cost:	8,862	21,128	28,174	53,198	64,888	75,639	81,594	87,502	87,502	87,502

Resource: INHTEC **INDUST HYGIENIST TEC** **EOC:** LABOR
Res Dept: **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	70.5	104.9	43.2	155.4	78.2	93.2	47.6	44.8	0.0	0.0
Cum Hours:	70.5	175.5	218.6	374.0	452.3	545.4	593.0	637.8	637.8	637.8
Yr Total Cost:	2,659	4,163	1,814	6,915	3,687	4,692	2,599	2,578	0	0
Cum Total Cost:	2,659	6,821	8,635	15,550	19,237	23,929	26,528	29,106	29,106	29,106

Resource: LABTEC **LAB TECH** **EOC:** LABOR
Res Dept: **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	70.5	104.9	43.2	155.4	78.2	93.2	47.6	44.8	0.0	0.0
Cum Hours:	70.5	175.5	218.6	374.0	452.3	545.4	593.0	637.8	637.8	637.8
Yr Total Cost:	1,960	3,069	1,338	5,099	2,719	3,459	1,916	1,901	0	0
Cum Total Cost:	1,960	5,029	6,367	11,466	14,184	17,644	19,560	21,461	21,461	21,461

Resource: MAT300 **MATERIAL OBJCLASS300** **EOC:** MATERIAL
Res Dept: **Overtime:** **Class:** MAT

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Units:	10,000.0	2,000.0	2,000.0	18,000.0	32,119.8	14,119.8	10,119.8	7,640.6	0.0	0.0
Cum Units:	10,000.0	12,000.0	14,000.0	32,000.0	64,119.8	78,239.6	88,359.4	96,000.0	96,000.0	96,000.0
Yr Total Cost:	10,000	2,054	2,109	19,517	35,801	16,195	11,943	9,279	0	0
Cum Total Cost:	10,000	12,054	14,163	33,680	69,482	85,676	97,620	106,899	106,899	106,899

Resource: MILWRT **MILLWRIGHT** **EOC:** LABOR
Res Dept: **Overtime:** **Class:** HOU

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	211.6	314.8	129.5	441.3	156.4	233.9	142.8	134.4	0.0	0.0
Cum Hours:	211.6	526.4	655.9	1,097.2	1,253.7	1,487.6	1,630.4	1,764.8	1,764.8	1,764.8
Yr Total Cost:	6,613	10,354	4,512	16,282	6,114	9,768	6,464	6,412	0	0
Cum Total Cost:	6,613	16,967	21,479	37,762	43,876	53,643	60,107	66,520	66,520	66,520

09/07/2001
10:16 AM

Resource: PIPFTR **PIPE FITTER** **EOC:** LABOR
Res Dept: **Overtime:** **Class:** HOU

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	275.8	394.8	189.5	621.3	374.1	358.8	222.1	213.9	0.0	0.0
Cum Hours:	275.8	670.5	860.0	1,481.4	1,855.5	2,214.3	2,436.4	2,650.3	2,650.3	2,650.3
Yr Total Cost:	9,613	14,292	7,643	26,227	17,335	16,627	11,841	12,095	0	0
Cum Total Cost:	9,613	23,905	31,548	57,775	75,110	91,737	103,579	115,674	115,674	115,674

Resource: PJCSCH **SCHEDULERS** **EOC:** LABOR
Res Dept: **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	70.5	104.9	43.2	155.4	52.1	78.0	47.6	44.8	0.0	0.0
Cum Hours:	70.5	175.5	218.6	374.0	426.2	504.2	551.8	596.6	596.6	596.6
Yr Total Cost:	3,730	5,840	2,545	9,702	3,449	5,509	3,646	3,617	0	0
Cum Total Cost:	3,730	9,570	12,115	21,818	25,266	30,776	34,422	38,039	38,039	38,039

Resource: QACTEC **QA/QC TECH** **EOC:** LABOR
Res Dept: **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	70.5	104.9	43.2	155.4	78.2	93.2	47.6	44.8	0.0	0.0
Cum Hours:	70.5	175.5	218.6	374.0	452.3	545.4	593.0	637.8	637.8	637.8
Yr Total Cost:	2,178	3,410	1,486	5,666	3,021	3,844	2,129	2,112	0	0
Cum Total Cost:	2,178	5,589	7,075	12,741	15,762	19,606	21,735	23,847	23,847	23,847

Resource: RADENG **RAD ENGINEER** **EOC:** LABOR
Res Dept: **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	70.5	104.9	43.2	155.4	78.2	93.2	47.6	44.8	0.0	0.0
Cum Hours:	70.5	175.5	218.6	374.0	452.3	545.4	593.0	637.8	637.8	637.8
Yr Total Cost:	3,330	5,213	2,272	8,660	4,617	5,876	3,254	3,228	0	0
Cum Total Cost:	3,330	8,542	10,814	19,474	24,091	29,967	33,221	36,450	36,450	36,450

INCLUDES ESCALATION COSTS

09/07/2001
10:16 AM

Resource: RADTEC **RAD TECH** **EOC:** LABOR
Res Dept: **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	344.2	520.4	202.7	711.6	339.6	440.0	288.1	274.3	0.0	0.0
Cum Hours:	344.2	864.6	1,067.3	1,778.9	2,118.5	2,558.5	2,846.6	3,120.9	3,120.9	3,120.9
Yr Total Cost:	12,312	19,386	8,271	30,443	16,154	21,177	15,460	15,577	0	0
Cum Total Cost:	12,312	31,697	39,968	70,412	86,566	107,743	123,203	138,781	138,781	138,781

Resource: S&HTEC **SAFETY TECH** **EOC:** LABOR
Res Dept: **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	70.5	104.9	43.2	155.4	78.2	93.2	47.6	44.8	0.0	0.0
Cum Hours:	70.5	175.5	218.6	374.0	452.3	545.4	593.0	637.8	637.8	637.8
Yr Total Cost:	2,039	3,193	1,391	5,304	2,828	3,599	1,993	1,977	0	0
Cum Total Cost:	2,039	5,232	6,624	11,928	14,756	18,355	20,348	22,325	22,325	22,325

Resource: SERVSUB **SUBS** **EOC:** SUBCONTRACTORS
Res Dept: **Overtime:** **Class:** SUB

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Units:	1,092.0	1,860.0	1,114.0	13,801.0	9,513.1	4,353.1	4,353.1	3,286.7	0.0	0.0
Cum Units:	1,092.0	2,952.0	4,066.0	17,867.0	27,380.1	31,733.2	36,086.3	39,373.0	39,373.0	39,373.0
Yr Total Cost:	1,092	1,910	1,175	14,964	10,603	4,993	5,138	3,991	0	0
Cum Total Cost:	1,092	3,002	4,177	19,141	29,745	34,737	39,875	43,866	43,866	43,866

GRAND TOTALS:

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	2,334.3	3,423.5	1,492.0	5,207.0	2,736.9	3,012.6	1,736.8	1,673.3	0.0	0.0
Cum Hours:	2,334.3	5,757.8	7,249.7	12,456.7	15,193.6	18,206.2	19,943.0	21,616.2	21,616.2	21,616.2
Yr Total Cost:	97,643	136,600	65,932	265,320	175,840	169,049	111,534	109,714	0	0
Cum Total Cost:	97,643	234,243	300,175	565,495	741,335	910,384	1,021,918	1,131,632	1,131,632	1,131,632

CAM_____ CONTROL TEAM_____

INCLUDES ESCALATION COSTS

BFUD2

UTILITY REDISTRIBUTION

09/07/2001
10:16 AM

Fluor Fernald, Inc.

ESTIMATE SUPPORT WORKSHEET
FOR ACTIVITY BASED ESTIMATING
(1 FTE EQUALS 1747 HOURS)

PBS: OHFN02 FACILITY D&D
WBS: 1.1.B.B FACILITY ISOLATION & UTILITY REDISTRIBUTION
CTRL ACCT: BFUD FACILITY ISOLATION & UTILITY REDISTRIBUTION
CHARGE NO: BFUD2 UTILITY ISOLATION
COMMENT NO: D-213, D-216, D-705, D-861, F02-029, F02-047

DATE: 06-Sep-01
PROJECT MGR: JM STEVENS
CAM: JM STEVENS
PREPARED BY:
FISCAL YEAR: 2000-2010

Resource: BUYCON **BUYER/CONTRACTS ADMN** **EOC:** LABOR
Res Dept: **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	42.8	0.0	0.0	281.6	20.7	49.1	0.0	0.0	0.0	0.0
Cum Hours:	42.8	42.8	42.8	324.3	345.0	394.1	394.1	394.1	394.1	394.1
Yr Total Cost:	1,791	0	0	13,928	1,082	2,751	0	0	0	0
Cum Total Cost:	1,791	1,791	1,791	15,720	16,802	19,553	19,553	19,553	19,553	19,553

Resource: CLERKS **CLERKS** **EOC:** LABOR
Res Dept: **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	42.8	0.0	0.0	281.6	20.7	49.1	0.0	0.0	0.0	0.0
Cum Hours:	42.8	42.8	42.8	324.3	345.0	394.1	394.1	394.1	394.1	394.1
Yr Total Cost:	1,021	0	0	7,941	617	1,569	0	0	0	0
Cum Total Cost:	1,021	1,021	1,021	8,963	9,580	11,148	11,148	11,148	11,148	11,148

Resource: CNSCOD **CONSTRUCTION COORD** **EOC:** LABOR
Res Dept: **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	427.5	0.0	0.0	2,811.1	206.5	598.3	0.0	0.0	0.0	0.0
Cum Hours:	427.5	427.5	427.5	3,238.6	3,445.1	4,043.5	4,043.5	4,043.5	4,043.5	4,043.5
Yr Total Cost:	13,569	0	0	105,341	8,197	25,375	0	0	0	0
Cum Total Cost:	13,569	13,569	13,569	118,911	127,108	152,483	152,483	152,483	152,483	152,483

INCLUDES ESCALATION COSTS

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Resource: CNSENG **CONSTRUCTION ENG** **EOC:** LABOR
Res Dept: **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	213.8	0.0	0.0	1,367.2	20.7	160.2	0.0	0.0	0.0	0.0
Cum Hours:	213.8	213.8	213.8	1,581.0	1,601.6	1,761.8	1,761.8	1,761.8	1,761.8	1,761.8
Yr Total Cost:	11,650	0	0	87,972	1,407	11,666	0	0	0	0
Cum Total Cost:	11,650	11,650	11,650	99,622	101,029	112,695	112,695	112,695	112,695	112,695

Resource: CNSMGR **CONSTRUCTION MGR** **EOC:** LABOR
Res Dept: **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	42.8	0.0	0.0	281.6	20.7	49.1	0.0	0.0	0.0	0.0
Cum Hours:	42.8	42.8	42.8	324.3	345.0	394.1	394.1	394.1	394.1	394.1
Yr Total Cost:	2,651	0	0	20,613	1,601	4,072	0	0	0	0
Cum Total Cost:	2,651	2,651	2,651	23,264	24,866	28,938	28,938	28,938	28,938	28,938

Resource: CSTANL **COST ANALYST** **EOC:** LABOR
Res Dept: **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	42.8	0.0	0.0	281.6	20.7	49.1	0.0	0.0	0.0	0.0
Cum Hours:	42.8	42.8	42.8	324.3	345.0	394.1	394.1	394.1	394.1	394.1
Yr Total Cost:	1,663	0	0	12,931	1,005	2,554	0	0	0	0
Cum Total Cost:	1,663	1,663	1,663	14,594	15,599	18,153	18,153	18,153	18,153	18,153

Resource: DRFCAD **DRAFTER/CAD OPERATOR** **EOC:** LABOR
Res Dept: **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	42.8	0.0	0.0	281.6	20.7	49.1	0.0	0.0	0.0	0.0
Cum Hours:	42.8	42.8	42.8	324.3	345.0	394.1	394.1	394.1	394.1	394.1
Yr Total Cost:	1,333	0	0	10,368	805	2,048	0	0	0	0
Cum Total Cost:	1,333	1,333	1,333	11,702	12,507	14,555	14,555	14,555	14,555	14,555

INCLUDES ESCALATION COSTS

09/07/2001
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Resource: ENGCVL **ENGINEER CIVIL** **EOC:** LABOR
Res Dept: **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	42.8	0.0	0.0	281.6	20.7	49.1	0.0	0.0	0.0	0.0
Cum Hours:	42.8	42.8	42.8	324.3	345.0	394.1	394.1	394.1	394.1	394.1
Yr Total Cost:	2,325	0	0	18,077	1,404	3,571	0	0	0	0
Cum Total Cost:	2,325	2,325	2,325	20,402	21,806	25,377	25,377	25,377	25,377	25,377

Resource: ENGELE **ENGINEER ELECTRICAL** **EOC:** LABOR
Res Dept: **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	42.8	0.0	0.0	281.6	20.7	49.1	0.0	0.0	0.0	0.0
Cum Hours:	42.8	42.8	42.8	324.3	345.0	394.1	394.1	394.1	394.1	394.1
Yr Total Cost:	2,238	0	0	17,402	1,352	3,437	0	0	0	0
Cum Total Cost:	2,238	2,238	2,238	19,640	20,992	24,430	24,430	24,430	24,430	24,430

Resource: ENGINR **ENGINEER** **EOC:** LABOR
Res Dept: **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	213.8	0.0	0.0	1,407.8	103.3	352.6	0.0	0.0	0.0	0.0
Cum Hours:	213.8	213.8	213.8	1,621.6	1,724.8	2,077.4	2,077.4	2,077.4	2,077.4	2,077.4
Yr Total Cost:	14,698	0	0	114,286	8,879	32,396	0	0	0	0
Cum Total Cost:	14,698	14,698	14,698	128,984	137,862	170,259	170,259	170,259	170,259	170,259

Resource: ENGMEC **ENGINEER MECH/PIPING** **EOC:** LABOR
Res Dept: **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	42.8	0.0	0.0	281.6	20.7	49.1	0.0	0.0	0.0	0.0
Cum Hours:	42.8	42.8	42.8	324.3	345.0	394.1	394.1	394.1	394.1	394.1
Yr Total Cost:	2,658	0	0	20,670	1,606	4,083	0	0	0	0
Cum Total Cost:	2,658	2,658	2,658	23,328	24,934	29,017	29,017	29,017	29,017	29,017

INCLUDES ESCALATION COSTS

Resource: FIELDSUB **FIELD SUBS** **EOC:** SUBCONTRACTORS
Res Dept: **Overtime:** **Class:** SUB

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Units:	261,950.0	0.0	0.0	1,441,790.0	35,550.0	125,380.0	0.0	0.0	0.0	0.0
Cum Units:	261,950.0	261,950.0	261,950.0	1,703,740.0	1,739,290.0	1,864,670.0	1,864,670.0	1,864,670.0	1,864,670.0	1,864,670.0
Yr Total Cost:	261,950	0	0	1,563,277	39,625	143,804	0	0	0	0
Cum Total Cost:	261,950	261,950	261,950	1,825,227	1,864,852	2,008,656	2,008,656	2,008,656	2,008,656	2,008,656

Resource: INHTEC **INDUST HYGIENIST TEC** **EOC:** LABOR
Res Dept: **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	42.8	0.0	0.0	321.6	20.7	49.1	0.0	0.0	0.0	0.0
Cum Hours:	42.8	42.8	42.8	364.3	385.0	434.1	434.1	434.1	434.1	434.1
Yr Total Cost:	1,611	0	0	14,309	973	2,475	0	0	0	0
Cum Total Cost:	1,611	1,611	1,611	15,920	16,893	19,368	19,368	19,368	19,368	19,368

Resource: MAT300 **MATERIAL OBJCLASS300** **EOC:** MATERIAL
Res Dept: **Overtime:** **Class:** MAT

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Units:	7,000.0	0.0	0.0	85,720.0	11,260.0	22,520.0	0.0	0.0	0.0	0.0
Cum Units:	7,000.0	7,000.0	7,000.0	92,720.0	103,980.0	126,500.0	126,500.0	126,500.0	126,500.0	126,500.0
Yr Total Cost:	7,000	0	0	92,943	12,551	25,829	0	0	0	0
Cum Total Cost:	7,000	7,000	7,000	99,943	112,494	138,323	138,323	138,323	138,323	138,323

Resource: PJCSCH **SCHEDULERS** **EOC:** LABOR
Res Dept: **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	42.8	0.0	0.0	281.6	20.7	49.1	0.0	0.0	0.0	0.0
Cum Hours:	42.8	42.8	42.8	324.3	345.0	394.1	394.1	394.1	394.1	394.1
Yr Total Cost:	2,261	0	0	17,578	1,366	3,472	0	0	0	0
Cum Total Cost:	2,261	2,261	2,261	19,839	21,205	24,677	24,677	24,677	24,677	24,677

INCLUDES ESCALATION COSTS

Resource: QACTEC **QA/QC TECH** **EOC:** LABOR
Res Dept: **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	42.8	0.0	0.0	281.6	20.7	49.1	0.0	0.0	0.0	0.0
Cum Hours:	42.8	42.8	42.8	324.3	345.0	394.1	394.1	394.1	394.1	394.1
Yr Total Cost:	1,320	0	0	10,265	797	2,028	0	0	0	0
Cum Total Cost:	1,320	1,320	1,320	11,585	12,383	14,410	14,410	14,410	14,410	14,410

Resource: RADENG **RAD ENGINEER** **EOC:** LABOR
Res Dept: **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	42.8	0.0	0.0	281.6	20.7	49.1	0.0	0.0	0.0	0.0
Cum Hours:	42.8	42.8	42.8	324.3	345.0	394.1	394.1	394.1	394.1	394.1
Yr Total Cost:	2,018	0	0	15,690	1,219	3,099	0	0	0	0
Cum Total Cost:	2,018	2,018	2,018	17,708	18,927	22,026	22,026	22,026	22,026	22,026

Resource: RADTEC **RAD TECH** **EOC:** LABOR
Res Dept: **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	213.8	0.0	0.0	1,447.8	103.3	245.7	0.0	0.0	0.0	0.0
Cum Hours:	213.8	213.8	213.8	1,661.6	1,764.8	2,010.5	2,010.5	2,010.5	2,010.5	2,010.5
Yr Total Cost:	7,285	0	0	59,058	4,401	11,189	0	0	0	0
Cum Total Cost:	7,285	7,285	7,285	66,343	70,744	81,933	81,933	81,933	81,933	81,933

Resource: S&HTEC **SAFETY TECH** **EOC:** LABOR
Res Dept: **Overtime:** **Class:** SAL

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	42.8	0.0	0.0	321.6	20.7	76.2	0.0	0.0	0.0	0.0
Cum Hours:	42.8	42.8	42.8	364.3	385.0	461.1	461.1	461.1	461.1	461.1
Yr Total Cost:	1,236	0	0	10,976	747	2,943	0	0	0	0
Cum Total Cost:	1,236	1,236	1,236	12,211	12,958	15,901	15,901	15,901	15,901	15,901

09/07/2001
10:16 AM

Resource: SERVSUB **SUBS** **EOC:** SUBCONTRACTORS
Res Dept: **Overtime:** TELE **Class:** SUB

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Units:	0.0	0.0	0.0	1,000,000.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum Units:	0.0	0.0	0.0	1,000,000.0	1,000,000.0	1,000,000.0	1,000,000.0	1,000,000.0	1,000,000.0	1,000,000.0
Yr Total Cost:	0	0	0	1,084,261	0	0	0	0	0	0
Cum Total Cost:	0	0	0	1,084,261	1,084,261	1,084,261	1,084,261	1,084,261	1,084,261	1,084,261

GRAND TOTALS:

	Oct 00-Sep 01	Oct 01-Sep 02	Oct 02-Sep 03	Oct 03-Sep 04	Oct 04-Sep 05	Oct 05-Sep 06	Oct 06-Sep 07	Oct 07-Sep 08	Oct 08-Sep 09	Oct 09-Sep 10
Yr Hours:	1,624.6	0.0	0.0	10,774.2	702.1	2,022.8	0.0	0.0	0.0	0.0
Cum Hours:	1,624.6	1,624.6	1,624.6	12,398.8	13,100.9	15,123.7	15,123.7	15,123.7	15,123.7	15,123.7
Yr Total Cost:	340,279	0	0	3,297,888	89,634	288,362	0	0	0	0
Cum Total Cost:	340,279	340,279	340,279	3,638,167	3,727,801	4,016,162	4,016,162	4,016,162	4,016,162	4,016,162

CAM_____ CONTROL TEAM_____

INCLUDES ESCALATION COSTS

Fluor Fernald, Inc.
PROJECTS CONTROLS
ESTIMATING SERVICES

May 10, 2001

PROJECT DESCRIPTION: Electrical Station Utility Redistribution
WBS NUMBER: ~~1.1.B.C~~ 1.1.B.B Facility Isolation & Utility Redistribution
PROJECT ENGINEER: Harry Gear
ESTIMATOR: Ed Lumbert
ESTIMATE NUMBER: C3-2001-05-003

BASIS OF ESTIMATE

SUPPORTING DOCUMENTATION:

Verbal Scope	☐	P & ID's	☐	Work Plan	☐
Drawings	☐	Equipment List	☐	Site Walk	☒
Sketches	☐	Specifications	☐	Eng. Mtg.	☐
Flow Diagrams	☐	Written Scope	☒	Estimate	☐

TYPE OF ESTIMATE:

Change Proposal	☐	Government	☐
Plan/Feasibility	☐	Conceptual	☐
Construction	☐	Title I Design	☐
Budget	☒	Independent	☐

BASIS OF ESTIMATE:

Prepare a control estimate to determine the cost of Utility Redistribution for Building 25C – Sewage Lift Station. Estimate to include manhours, labor, material, equipment, and subcontract costs for the following scope of work:

Portable generator hook-up to provide emergency electrical power for sewage lift station. D&D of Building 31A – Vehicle Repair Garage Emergency Power Generator requires this modification.

Fluor Fernald, Inc.
PROJECTS CONTROLS
ESTIMATING SERVICES

May 10, 2001

PROJECT DESCRIPTION: Electrical Station Utility Redistribution
WBS NUMBER: ~~1.1.B.C~~ 1.1.B.B
PROJECT ENGINEER: Harry Gear
ESTIMATOR: Ed Lumbert
ESTIMATE NUMBER: C3-2001-05-003

ESTIMATE ASSUMPTIONS

EXECUTION:

- ☒ This project is to be performed on a 40-hour week, 10 hours a day.
- ☐ This project is to be performed on a 40-hour week, 8 hours a day.
- ☐ Premium time allowed.

WAGE RATES:

- ☐ Wage rates within this estimate are based on Project Labor Agreement rates, effective October 2000 and are considered FY01 dollars for estimating.
- ☒ Wage rates within this estimate are based on FF Support Contractor FSC 599 wage rates, effective October 1999 have been escalated 3% and are considered FY01 dollars for estimating.
- ☐ Wage rates within this estimate are based on FF FTE Planning Labor Rates FY01.

ENGINEERING:

- ☒ N/A
- ☐ Engineering dollars provided by the Project Engineer.
- ☐ Engineering dollars have been factored in at the standard 12% of the total direct and indirect field costs as per request of Project Engineer.

CONSTRUCTION MANAGEMENT:

- ☒ N/A
- ☐ Construction Management dollars provided by the Project Engineer.
- ☐ Construction Management dollars have been factored in at the standard 30% of the total direct and indirect field costs as per request of Project Engineer.

PROJECT MANAGEMENT:

- ☒ N/A
- ☐ Project Management dollars provided by the Project Engineer.
- ☐ Project Management dollars have been factored in at the standard 30% of the total direct and indirect field costs as per request of Project Engineer.

WASTE PROGRAM MANAGEMENT:

- ☒ N/A
- ☐ Waste Program Management dollars provided by the Project Engineer.

Fluor Fernald, Inc.
PROJECTS CONTROLS
ESTIMATING SERVICES

May 10, 2001

PROJECT DESCRIPTION: Electrical Station Utility Redistribution
WBS NUMBER: ~~1.1.B.C~~ 1.1.B.B
PROJECT ENGINEER: Harry Gear
ESTIMATOR: Ed Lumbert
ESTIMATE NUMBER: C3-2001-05-003

PRODUCTIVITY:

A productivity factor has been developed and applied to the unit man-hours derived from MEANS, Richardson, NECA, and or any other published estimating source. See attachment APPENDIX "A" and APPENDIX "B".

ESCALATION:

Escalation costs are excluded from the target estimate. The escalation costs are calculated within the Micro-Frame computer system according to the plan for rebaselining.

UNIT RATES:

Unit man-hours, equipment and material dollars are based on Richardson, MEANS, NECA, and or other published rates.

G & A (HO EXPENSE):

G & A are excluded from the target estimate. The G & A cost are calculated within the Micro-Frame computer system according to the plan for rebaselining.

HEALTH PHYSICS:

See attached APPENDIX "C".

RISK BUDGET:

A cost element, based on a Risk Analysis calculated for this estimate to cover a statistical probability of a 50% chance of overrun/under run to the project. The target estimate is the sum of the base estimate and the risk budget.

CONTINGENCY:

An amount budgeted to cover costs that may result from incomplete design, unforeseen and unpredictable conditions, or uncertainties. Contingency is calculated as the delta between the 50% chance of overrun and the 5% chance of overrun, indicated on the risk analysis.

Fluor Fernald, Inc.

PROJECTS CONTROLS
ESTIMATING SERVICES

May 10, 2001

PROJECT DESCRIPTION: Electrical Station Utility Redistribution
WBS NUMBER: 1.~~1.B.C~~ 1.1.B.B
PROJECT ENGINEER: Harry Gear
ESTIMATOR: Ed Lumbert
ESTIMATE NUMBER: C3-2001-05-003

ESTIMATE INCLUSIONS & EXCLUSIONS

INCLUSIONS:

- Premobilization & Mobilization.
- Demobilization.
- Labor hours.
- Material dollars.
- Equipment dollars.

EXCLUSIONS:

- Premium time.
- Permits and fees.
- FF G & A (Home Office Expense).
- Construction Management.
- Any second tier subcontract costs.
- Project Management dollars.
- Waste Management dollars.

SUPPORT CONTRACTOR ESTIMATE SUMMARY SHEET

Fluor Fernald, Inc.

PROJECT: Electrical Station Utility Redistributio
ESTIMATE NO.: C3-2001-05-003
CLIENT: DOE
WBS NO.: 1.1.B.~~C~~ B

DATE: 10-May-01
ESTIMATOR: Ed Lumbert
LOCATION: FERNALD
TASK NO: BFLD2~~BELE2~~

	DESCRIPTION	M/H	AVG. RATE	SPT.CONT. LABOR $	FERNALD S/C / OTHER	MAT'L $	EQUIP $	TOTAL $
	Mobilization & Demobilization	192		$7,330				
	25C - Sewage Lift Station	158		$5,630		$2,750		$2,750
SUPPORT CONT. / FF D. F. COST TOTAL		350	$37.02	$12,960		$2,750		$2,750
SUPERVISION		67		$3,500				
SMALL TOOLS & CONSUMABLES						$1,400		$1,400
MISC. EQUIP.RENTAL								
JOB CLEAN-UP		16		$600		$200		$200
SAFETY		8		$300		$100		$100
HEALTH PHYSICS S/C		27		$1,000				
JOB SPECIFIC TRAINING								
SUPPORT CONT. INDIRECT FIELD COST TOTAL		118		$5,400				
SUPPORT CONT. TOTAL BILLABLE COSTS		468	$39.27	$18,360				
TEMPORARY FACILITIES								
TEMPORARY UTILITY HOOK-UP								
FD FERNALD SALES TAX						$300		$300
FF INDIRECT FIELD COSTS TOTAL						$2,000		$2,000
FF DIRECT & INDIRECT FIELD COSTS TOTAL						$4,750		$4,750
FF and SUPT.CONT. DIRECT & INDIRECT FIELD COST TOTAL				$18,360		$4,750		$23,110
SUB-TOTAL (BASE ESTIMATE)								$23,110
TARGET ESTIMATE	**(FY 01 DOLLARS)**							$23,110

ESTIMATE PERFORMED E

SUPPORT CONTRACTOR ESTIMATE SUMMARY SHEET

PROJECT: Electrical Station Utility Redistributi

ESTIMATE NO.: C3-2001-05-003

CLIENT: DOE

WBS NO.: 1.1.B.~~C~~ B

FACTORS

DATE: 10-May-01

ESTIMATOR: Ed Lumbert

LOCATION: FERNALD

TASK NO.: ~~BELE2~~ RFU02

	SUPT.CONT	FD FERNALD					PROJECT
	LABOR $	LABOR $	S/C $	MAT'L. $	EQUIP. $	PPE $	TOTAL $
DFC DOLLARS	$12,960			$2,750			$15,710
IFC COST FACTOR	1.4167	1.0000		1.6182		-	
SALES TAX COST FACTOR	-	-	-	1.0600	1.0600	1.0600	
BOND + OVERHEAD & PROFIT COST FACTOR	N/A	N/A	N/A	N/A	N/A	N/A	
DIRECT FIELD COST FACTOR =	1.4167	1.0000		1.7153		1.0600	
DIRECT BASE ESTIMATE $'s	$18,360			$4,717			$23,077
RISK BUDGET FACTOR	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
DIRECT TARGET ESTIMATE FACTOR	1.4167	1.0000		1.7153		1.0600	
DIRECT TARGET ESTIMATE (FY00 DOLLARS)	$18,360			$4,717			$23,077

NOTE:

1.) If there are no equipment rental costs in the "Directs" (0 $'s in I20) and the default allowance of $3.50 per MH has been used in the "indirects", input the indirect Equip. $'s in H62 and put a dash in H63. This will treat the Equip. $'s as direct cost and apply the sales tax factor. On page 3 below, insert the equipment $'s in any pay items that apply.

SUPPORT CONTRACTOR ESTIMATE SUMMARY SHEET

PROJECT: Electrical Station Utility Redistributi

ESTIMATE NO.: C3-2001-05-003

CLIENT: DOE

WBS NO.: 1.1.B.~~C~~ B

Direct Field Cost w/FACTORS

DATE: 10-May-01

ESTIMATOR: Ed Lumbert

LOCATION: FERNALD

TASK NO.: ~~BELE2~~ BFWD2

PAY ITEM NO.	DESCRIPTION	SUPPORT CONT. LABOR $	FF LABOR $	S/C $	MAT'L. $	EQUIP. $	PPE $	PROJECT TOTAL $
	PPE							
	Mobilization & Demobilization	7330 $10,380			-	-		$10,380
					-	-	-	
	25C - Sewage Lift Station	5630 $7,980			2,750 $4,720	-		$12,700
					-	-	-	
					-	-		
					-	-	-	
					-	-		
						-		
SUB-TOTAL - SUPPORT CONTRACTOR		$18,360						$18,360
SUB-TOTAL - FF					$4,720			$4,720
TOTAL DIRECT FIELD COSTS w/FACTORS								$23,080

NOTE: The above costs exclude any FD Fernald support costs that may appear on page 1 & 2, such as Waste Disposition, Engineering, Project Management, or Construction Management.

PROJECT: Electrical Station Utility Redistribution
ESTIMATE NO.: C3-2001-05-003
CLIENT: DOE
WBS NO.: 1.1.B.~~C~~ B

Fluor Fernald, Inc.

DATE: 10-May-01
ESTIMATO Ed Lumbert
LOCATION: FERNALD
TASK NO.: ~~BELE2~~ BFUD2

	DIRECT COST SUMMARY	QTY	UNIT	MAN-HOURS			COST / UNIT				LABOR	S/C	MAT'L	EQUIP	TOTAL
				Unit	Total	Rate	Labor	S/C	Mat'l	Equip					
	Mobilization & Demobilization				192						$7,330				$7,330
	25C - Sewage Lift Station				158						$5,630		$2,750		$8,380
	DIRECT COST SUMMARY	1	LOT		350	$37.02					$12,960		$2,750		$15,710

SUPPORT CONTRACTOR - Stated in FY01 DOLLARS

PROJECT: Electrical Station Utility Redistribution
ESTIMATE NO.: C3-2001-05-003
CLIENT: DOE
WBS NO.: 1.1.B.~~E~~ B

Fluor Fernald, Inc.

DATE: 10-May-01
ESTIMATO Ed Lumbert
LOCATION: FERNALD
TASK NO.: ~~BELE2~~ BFUD2

PPE LEVEL	Mobilization & Demobilization	QTY	UNIT	MAN-HOURS Unit	MAN-HOURS Total	MAN-HOURS Rate	COST/UNIT Labor	COST/UNIT S/C	COST/UNIT Mat'l	COST/UNIT Equip	LABOR	S/C	MAT'L	EQUIP	TOTAL
	Mobilization														
mD	Install Temporary Utilities	40	hr	1.000	55	38.12				by FDF	$2,100				$2,100
	Demobilization														
mD	Remove Temporary Utilities	40	hr	1.000	55	38.12				by FDF	$2,100				$2,100
mD	Complete Punch List Items	60	hr	1.000	82	38.12				by FDF	$3,130				$3,130
	Mobilization & Demobilization				192	$38.18					$7,330				$7,330

PROJECT: Electrical Station Utility Redistribution
ESTIMATE NO.: C3-2001-05-003
CLIENT: DOE
WBS NO.: 1.1.B~~A~~ B

Fluor Fernald, Inc.

DATE: 10-May-01
ESTIMATO Ed Lumbert
LOCATION: FERNALD
TASK NO.: ~~BELE2~~ BFUD2

PPE LEVEL	25C - Sewage Lift Station	QTY	UNIT	MAN-HOURS Unit	MAN-HOURS Total	MAN-HOURS Rate	COST / UNIT Labor	COST / UNIT S/C	COST / UNIT Mat'l	COST / UNIT Equip	LABOR	S/C	MAT'L	EQUIP	TOTAL
	Provide portable generator hook-up with throwover switch.														
mD	Survey and Layout	20	hr	1.000	27	35.60			0.50		$975		$10		$985
mD	Disconnect Switch, 480v 3ph	1	ea	8.000	11	35.60			250.00		$390		$250		$640
mD	Duplex Receptacle w/ GFCI	1	ea	1.690	2	35.60			57.83		$82		$58		$140
mD	1/C #12 THHN Wire	200	lf	0.007	2	35.60			0.05		$68		$10		$78
mD	Conduit, 1 1/2" dia, RGS	50	lf	0.100	7	35.60			0.40		$244		$20		$264
mD	Conduit Fittings, 1 1/2" dia	2	ls	8.000	22	35.60			100.00		$780		$200		$980
mD	Transfer Switch, 480v 3 pole ma	1	ea	1.300	2	35.60			1,375.00		$63		$1,375		$1,438
mD	Lock and Tag	2	hr	1.000	3	38.12					$104				$104
mD	Electrical Tie-in	20	hr	1.000	27	35.60			1.25		$975		$25		$1,000
mD	Allowance for Hardware	40	hr	1.000	55	35.60			20.00		$1,950		$800		$2,750
	25C - Sewage Lift Station				**158**	$35.62					**$5,630**		**$2,750**		**$8,380**

APPENDIX " A"

PROJECT: Electrical Station Utility Redistribution
ESTIMATE NO C3-2001-05-003
CLIENT: DOE
WBS NO.: 1.1.B.~~C~~ B

SITE SPECIFIC

EFFICIENCY / MULTIPLIER ANALYSIS

DATE: 10-May-01
ESTIMATOR: Ed Lumbert
LOCATION: FERNALD
TASK NO.: ~~BEL22~~ BFU02

PERCENT OF INFLUENCE ON CHART MANHOURS

	40%	50%	60%	70%	80%	90%	100%	105%	110%	% OF INFLUENCE	WT'D VALUE	PROD. RESULT
CRAFT SKILL (NOTE 1)	POOR			FAIR			STD	V.GOOD	EXCELLENT	100.0%	12.0%	0.12
CRAFT AVAIL.(NOTE 1)		POOR		FAIR			STD			100.0%	8.0%	0.08
CLIMATE (NOTE 2)	SEVERE	ICE/SNOW			RAIN		+40 TO +85			90.0%	20.0%	0.18
PLANT ELEVATION		OVER 10,000FT			5,000' TO 10,000 FT		UNDER 5,000 FT			100.0%	5.0%	0.05
WORK SPACE				200 SF	250 SF	300 SF	350 SF			100.0%	10.0%	0.1
	<--- MULTIPLE SHIFTS-											
WORK WEEK							4-10s / 5-8s			100.0%	15.0%	0.15
50 HOUR WORK WEEK	//// MULTIPLE-SHIFT ////			OVER 7 WEEKS	3 TO 7 WEEKS	UP TO 3 WEEKS						
60 HOUR WORK WEEK			OVER 7 WEEKS	3 TO 7 WEEKS	UP TO 3 WEEKS							
SHIFTWORK 2ND SHIFT 3RD SHIFT			 3RD SHIFT		2ND SHIFT		OR ONE SHIFT ONLY			 100.0% 100.0%	 3.0% 5.0%	 0.03 0.05
PROJECT SIZE					400M MH AND UP	300M TO 400M MH	200M TO 300M MH	200M MH OR LESS		105.0%	4.0%	0.042
PLANT TYPE				REVAMP ONLY	REVAMP & NEW	NEW IN EXIST PLT	GRASS ROOTS			80.0%	8.0%	0.064
AREA/UNION INFLUENCE	STRONG		MILD		SOME		NONE			70.0%	10.0%	0.07
											100.0%	93.6%

NOTES.....
1. TURNOVER HAS BEEN CONSIDERED
2. FOR EXTERIOR WORK ONLY

EFFICIENCY (AS A % OFF CHART MANHOURS) 93.6%

MULTIPLIER - (TO BE APPLIED TO CHART M.H.'S TO OBTAIN SITE M.H.'S) 1.07

EFFICIENCY FACTORS

PROJECT: Electrical Station Utility Redistribution
ESTIMATE NO. C3-2001-05-003
CLIENT: DOE
WBS NO.: 1.1.B.~~E~~ B

DATE: 10-May-01
ESTIMATOR: Ed Lumbert
LOCATION: FERNALD
TASK NO.: ~~BELE2~~ BFUD2

Fluor Fernald, Inc.

EXAMPLE:

STANDARD CHART MANHOURS =	NET	100
EFFICIENCY FACTORS:	-	
* SITE SPECIFIC (SEE APPENDIX A	7%	7.0
S/T = BASE UNIT MANHOURS		107
OVERTIME PRODUCTIVITY FACTOR	0.00%	0
(SEE DETAIL WORKSHEET BACK-UP)		107
* TASK SPECIFIC (confined space,	0.0%	0
high elevation, congestion, etc.)		107
* PPE SPECIFIC (Based on current data and estimating knowledge)		

	PPE LEVEL											
	D		Mod.'D'		Mod. "C"		C		C+		B	
PRODUCTIVITY HOURS		MH's	MULTIPLIER	MH's	MULTIPLIER	MH's	MULTIPLIER	MH's	MULTIPLIER	MH's	MULTIPLIER	MH's
(AS A %) / ADD MH's	4.00%	4	28.00%	30	66.00%	71	74.00%	79	96.00%	103	110.00%	118
MULTIPLIER)/TOTAL HRS	1.04	111.3	1.28	137	1.66	177.6	1.74	186.2	1.96	209.7	2.10	224.7
TOTAL MULT. * SITE PROD.	1.1128		1.3696		1.7762		1.8618		2.0972		2.0972	

NOTE : Use the Default Productivity Factor of 'mC' for working in a contaminated area if the Safety Level cannot be determined.

(SEE FD FERNALD ESTIMATING SERVICES REFERENCE MANUAL IM-6006 8.10)

Total hours worked in a specific PPE level divided by 10 hour working days = (PPE) ManDays to determine material cost of PPE's.
(SEE APPENDIX C - HEALTH PHYSICS)

	11.0	Man Days	14.0	Man Days	18.0	Man Days	19.0	Man Days	21.0	Man Days	22.0	Man Days

THESE EFFICIENCY FACTORS WERE APPLIED INDIVIDUALLY THROUGHOUT THE ESTIMATE AT A TASK SPECIFIC LEVEL, TO OBTAIN A MORE ACCURATE ACCOUNT OF OVERALL EFFICIENCY IMPACT DUE TO PPE REQUIREMENTS IN HANDLING CONTAMINATED AND HAZARDOUS WASTE.

EFFICIENCY FACTORS

PROJECT: Electrical Station Utility Redistribution
ESTIMATE NO. C3-2001-05-003
CLIENT: DOE
WBS NO.: 1.1.B.~~2~~ B

DATE: 10-May-01
ESTIMATOR: Ed Lumbert
LOCATION: FERNALD
TASK NO.: ~~BELE2~~ BFUD2

PPE MULTIPLIER DEVELOPEMENT

	D	mD	mC	C	C+	B
CREW SIZE & MAKE-U STANDARD	7	7	7	7	7	7
WORKER-BUDDY	0	0	0	0	0	0
SUPPORT TEAM	0	0	0	0	0	0
TOTAL CREW	7	7	7	7	7	7
CREW SIZE RATIO	1.00	1.00	1.00	1.00	1.00	1.00
AVAILABLE WORK TIME FACTOR	0.96	0.78	0.70	0.70	0.68	0.68
PPE LABOR PRODUCTIVITY FACTOR	1	1	0.86	0.82	0.75	0.70
NET PRODUCTIVITY RATIO	0.96	0.78	0.602	0.574	0.51	0.476
NET PRODUCTIVITY MULTIPLIER	**1.04**	**1.28**	**1.66**	**1.74**	**1.96**	**2.10**

These factors were based on Tables 6.1 and 6.2, Moderate Work Efforts, 66F to 85F temperature of 'Hazardous Waste Cost Control' by R.A.Selg.
Modifications were made to reflect a 10 hour work day and no buddy system or support team for levels D, mC and C.
The worker-buddy and support team members, if required, may be covered under Construction Mgmt. (Rad Techs).

AVAILABLE WORK TIME FACTOR		D	mD	mC	C	C+	B
TOTAL WORK MINUTI 4 - 10's		600	600	600	600	600	600
ADDITN'L.SITE SAFETY MEETINGS	QUANTITY	1	1	1	1	1	1
	MINUTES	25	25	25	25	25	25
TOTAL		25	25	25	25	25	25
PPE DON & DOFFING	QUANTITY	0	0	3	3	3	3
(ADJUST LEVEL D per WORK PLAN	MINUTES	0	0	15	15	20	20
TOTAL			0	45	45	60	60
WORK BREAKS	QUANTITY	N/A	2	2	2	2	2
(ADJUST LEVEL D per WORK PLAN	MINUTES	N/A	15	15	15	15	15
TOTAL			30	30	30	30	30
MOBILIZATION - ROUND TRIPS	QUANTITY	N/A	4	4	4	4	4
(ADJUST LEVEL D per WORK PLAN	MINUTES	N/A	15	15	15	15	15
TOTAL			60	60	60	60	60
COOLDOWNS PER DAY	QUANTITY	N/A	4	4	4	4	4
** (4 OUT OF 12 MON 33.33%	MINUTES	N/A	15	15	15	15	15
TOTAL			20	20	20	20	20
AIR TANK REPLACEMENT	QUANTITY	N/A	N/A	N/A	N/A	N/A	N/A
	MINUTES	N/A	N/A	N/A	N/A	N/A	N/A
TOTAL							
AVAILABLE WORK TIME		575	465	420	420	405	405
AVAILABLE WORK TIME FACTOR		**0.96**	**0.78**	**0.7**	**0.7**	**0.68**	**0.68**

NOTE: Adjust 'Work Minutes per Day' basis to: 5 - 8's, or leave as 4 - 10's . Any other circumstances, over-ride the minutes per day.

** Assumption based on work performed in May, June, July & August, pro-rating cost over one year. Adjust % to individual circumstances.

APPENDIX "C"

HEALTH PHYSICS

PROJECT: Electrical Station Utility Redistribution
ESTIMATE NO C3-2001-05-003
CLIENT: DOE
WBS NO.: 1.1.B.~~2~~ B

Fluor Fernald, Inc.

DATE: 10-May-01
ESTIMATOR: Ed Lumbert
LOCATION: FERNALD
TASK NO.: ~~BELE2~~ BFUD2

PPE's - PERSONAL PROTECTIVE EQUIPMENT

DESCRIPTION	UNIT	UNIT COST	* NO. OF CHANGE OUTS PER WORKER PER DAY	Man Days (TOTAL HOURS worked in PPE's Div. by WORK HOURS/DAY)	MAT'L.$'s	LEVEL
PPE LEVEL C / C+		$'s	*	MAN DAYS	MAT'L.$'s	LEVEL
LAUNDRY COST per CHANGE	SET	1.96	1	0	$0	C/B
TYVEK COVER-ALL w/HOOD & BOOTIES - DIS	EA	4.46	3	0	$0	C/B
TYVEK COVER-ALL w/HOOD & BOOTIES - DIS	EA	4.46	3	0	$0	C/B
GLOVE LINER - DISPOSABLE	PR	0.24	3	0	$0	C/B
GLOVE, LASTEX - DISPOSABLE	PR	0.26	3	0	$0	C/B
GLOVE, WORK - DISPOSABLE	PR	1.02	3	0	$0	C/B
APR CARTRIDGES - DISPOSABLE, CLEANING	PR	9.38	3	0	$0	C/B
SUB-TOTAL				0	$0	
				$/MD =	#DIV/0!	
PPE LEVEL mC						
)RESS w/ FACE SHIELD		$'s		MAN DAYS	MAT'L.$'s	LEVEL
LAUNDRY COST per CHANGE	SET	1.96	1	0	$0	mC
LT.WT. DISPOSABLE COVERALLS W/HOOD &	PR	4.46	3	0	$0	mC
GLOVE LINER - DISPOSABLE	PR	0.24	3	0	$0	mC
GLOVE, LASTEX - DISPOSABLE	PR	0.26	3	0	$0	mC
GLOVE, WORK - DISPOSABLE	PR	1.02	3	0	$0	mC
SUB-TOTAL				0	$0	mC
				$/MD =	#DIV/0!	
PPE LEVEL D						
LAUNDRY COST per CHANGE	SET	1.96	1	0	$0	D

SUBCONTRACTOR REQUIRED PURCHASES	UNIT		QTY. PER WKR.	NO. OF WORKERS	MAT'L. $'s	LEVEL
RUBBER BOOT COVERS-(1)PR.PER WORKER	PR	12.70	6	0	$0	D/C/B
APR w/HALF FACE MASK - (1) PER WORKER	EA	22.30	6	0	$0	C
APR w/FULL FACE MASK - (1) PER WORKER	EA	174.00	6	0	$0	C
SCBA	EA	1894.00	2	0	$0	B
COOL VESTS	EA	137.50	6	0	$0	C/B
THERMO STRIPS	EA	50.00	6	0	$0	C/B
SUB-TOTAL					$0	C/B

Total PPE Matl $ and Laundry $	$0

(FORWARD TO PAGE 2 OF 2)

OTHER PPE's SUCH AS HARD HAT, SAFETY GLASSES/GOGGLES, STEEL TOED SAFETY SHOES, HEARING PROTECTION, ARE CONSIDERED THE SUBCONTRACTORS RESPONSIBILITY AND ARE COVERED IN HIS OVERHEAD EXPENSE. FD FERNALD SUPPLIED PPE's, SUCH AS COTTON COVERALLS, EXCHANGE OF RUBBER BOOT COVERS AND RESPIRATORS FOR CHANGEOUTS AND CLEANING OF SAME IS INCLUDED.

APPENDIX "C"

HEALTH PHYSICS

PROJECT: Electrical Station Utility Redistribution
ESTIMATE NO C3-2001-05-003
CLIENT: DOE
WBS NO.: 1.1.B.~~8~~ B

DATE: 10-May-01
ESTIMATOR: Ed Lumbert
LOCATION: FERNALD
TASK NO.: ~~BELE2~~ BFUD2

--MEDICAL MONITORING --

MEDICAL - PHYSICAL and IN-VIVO MONITORING - LOST WORKER TIME for RAD II WORKERS ONLY

DESC. PHYSICAL (3hrs), IN-VIVO (1hr)	QTY	HRS	WKR	TOTAL HOURS	AVG. LABOR RATE	TOTAL LABOR $
BASELINE PHYSICALS	1	4	3	12	$37.02	$440
ANNUAL PHYSICALS	0	4	3	0	$37.02	$0
EXIT (TERMINATION) PHYSICALS (IN-VIVO)	1	1	3	3	$37.02	$110
SUB-TOTAL						$550

RADIATION IN-VITRO SURVEILLANCE - LOST WORKER TIME for RAD II WORKERS ONLY

DESC.	QTY	HRS	WKR	TOTAL HOURS	AVG. LABOR RATE	TOTAL LABOR $
BI-MONTHLY BIOASSAY	0	1	3	1	$37.02	$50
SUB-TOTAL						$50

RANDOM DRUG TESTING

	TESTS	HRS	TOTAL HRS	AVG. RATE	LABOR $'s	
	0	2	0	$37.02	$0	
NO. OF WKRS. TESTED	TESTING DAYS PER YR.	AVG. NO. OF TESTS PER DAY	CHANCE/ DAY FOR TEST	NO. OF WKRS. FOR THIS ESTIMATE	CHANCES /DAY FOR TEST for this PROJECT	CONSTR WORKING DAYS
2500	226	11	0.0044	3	0.0132	20

		LABOR $'s THRU SAFETY	LABOR $'s
WORK DELAYS CAUSED BY MONITORING	1.0%	$17,360	$200
			LABOR $'s
WORK DELAYS CAUSED BY RAD CHECKING	1.0%	$17,360	$200

	TOTAL LABOR	TOTAL MAT'L.	GRAND TOTAL
TOTAL HEALTH PHYSICS - FORWARD TO ESTIMATE SUMMARY SHEET	$1,000	$0	$1,000

APPENDIX "D"

ACTIVITY DURATIONS

PROJECT: Electrical Station Utility Redistribution
ESTIMATE N C3-2001-05-003
CLIENT: DOE
WBS NO.: 1.1.B.~~8~~ B

Fluor Fernald, Inc.

DATE: 10-May-01
ESTIMATOR: Ed Lumbert
LOCATION: FERNALD
TASK NO.: ~~BELE2~~ BFUD2

ACTIVITY	EST. DATE	START DATE	MID POINT	COMPL. DATE	ACTIVITY	DURATION
CONSTRUCTION:	08-May-01	01-Sep-02	16-Sep-02	01-Oct-02	1.0	MONTHS
					0	MONTHS
TOTAL					1.0	MONTHS

	DATE of EST. to MID-POINT ACTIVITY DURATION	
a.	16.3	MONTHS
b.	0	MONTHS

ACTIVITY	EST. DATE	START DATE	MID POINT	COMPL. DATE	ACTIVITY	DURATION
OPERATIONS					0	MONTHS

DATE of EST. to MID-POINT ACTIVITY DURATION	
0	MONTHS

ACTIVITY DURATION IS USED IN DETERMINING NUMBER of WORKERS for CERCLA/SAT TRAINING HOURS and HEALTH PHYSICS COSTS.

COST IMPACT MATRIX SHEET

Estimate No.: C3-2001-05-003
Project: Electrical Station Utility Redistribution
Client: DOE
WBS: 1.1.B.CB

Fluor Fernald, Inc.

Est. Chg. No: ~~BELE2~~ BFUD2
Date: 10-May-01
Estimator: Ed Lumbert
Location: FERNALD

Base Estimate Total	Cost Element		Cost Element		Cost Element		Cost Element		Cost Element		Cost Element	
	obilization & Demobilizati		obilization & Demobilizati		obilization & Demobilizati		obilization & Demobilizati		obilization & Demobilizati			
$23,080	LABOR $		S/C $		MAT'L. $		EQUIP. $		PPE $			
Cost	Base $	$10,380	Base $	$0	Base $	$0	Base $		Base $	$0	Base $	$0
Drivers	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
Productivity	-1%	8%										
Unit Pricing					-1%	8%	-1%	8%	-1%	8%		
Contamination												
Technology												
Regulations/Laws												
Quantity Variation												
Project Definition	-1%	5%										
Other												
Range - %	-2%	13%	0%	0%	-1%	8%	-1%	8%	-1%	8%	0%	0%
Range - $	$10,172	$11,729	$0	$0	$0	$0	#VALUE!	#VALUE!	$0	$0	$0	$0
Distribution	U											
Correlation Rank												

	Cost Element		Cost Element		Cost Element		Cost Element		Cost Element		Cost Element	
	0		0		0		0		0			
	LABOR $		S/C $		MAT'L. $		EQUIP. $		PPE $			
Cost	Base $	$0	Base $	$0	Base $	$0	Base $		Base $	$0	Base $	$0
Drivers	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
Productivity	-1%	15%										
Unit Pricing					-1%	12%	-1%	10%	-1%	8%		
Contamination							-1%	10%				
Technology												
Regulations/Laws												
Quantity Variation					-1%	5%						
Project Definition	-1%	5%										
Other												
Range - %	-2%	20%	0%	0%	-2%	17%	-2%	20%	-1%	8%	0%	0%
Range - $	$0	$0	$0	$0	$0	$0	#VALUE!	#VALUE!	$0	$0	$0	$0
Distribution												
Correlation Rank												

Analyst: _____

Client: _____

COST IMPACT MATRIX SHEET

Estimate No.: C3-2001-05-003
Project: Electrical Station Utility Redistribution
Client: DOE
WBS: 1.1.B.~~2~~ B

Fluor Fernald, Inc.

Est. Chg. No: ~~BEL53~~ BFUD2
Date: 10-May-01
Estimator: Ed Lumbert
Location: FERNALD

	Cost Element		Cost Element		Cost Element		Cost Element		Cost Element		Cost Element	
	25C - Sewage Lift Station LABOR $		25C - Sewage Lift Station S/C $		25C - Sewage Lift Station MAT'L. $		25C - Sewage Lift Station EQUIP. $		25C - Sewage Lift Station PPE $			
Cost Drivers	Base $	$7,980	Base $	$0	Base $	$4,720	Base $		Base $	$0	Base $	$0
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
Productivity	-1%	15%										
Unit Pricing					-1%	10%	-1%	10%	-1%	8%		
Contamination	-1%	8%							-1%	8%		
Technology												
Regulations/Laws												
Quantity Variation					-1%	5%						
Project Definition	-1%	5%										
Other												
Range - %	-3%	28%	0%	0%	-2%	15%	-1%	10%	-2%	16%	0%	0%
Range - $	$7,741	$10,214	$0	$0	$4,626	$5,428	#VALUE!	#VALUE!	$0	$0	$0	$0
Distribution												
Correlation Rank												

	Cost Element		Cost Element		Cost Element		Cost Element		Cost Element		Cost Element	
	0 LABOR $		0 S/C $		0 MAT'L. $		0 EQUIP. $		0 PPE $			
Cost Drivers	Base $	$0	Base $		Base $	$0	Base $		Base $	$0	Base $	$0
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
Productivity	-1%	12%										
Unit Pricing					-1%	8%	-1%	12%	-1%	8%		
Contamination	-1%	10%										
Technology												
Regulations/Laws												
Quantity Variation	-1%	5%			-1%	5%	-1%	5%				
Project Definition												
Other												
Range - %	-3%	27%	0%	0%	-2%	13%	-2%	17%	-1%	8%	0%	0%
Range - $	$0	$0	$0	$0	$0	$0	#VALUE!	#VALUE!	$0	$0	$0	$0
Distribution												
Correlation Rank												

Analyst: _____

Client: _____

COST ESTIMATE CHECKLIST - 5700.2D

ESTIMATOR:	Ed Lumbert		DATE	05/09/01
WBS # 1.1.B.~~C~~ B	CHARGE # ~~BELE2~~ BFUD2		ESTIMATE #	C3-2001-05-003

The Cost Estimate Checklist is to be used as a guide to the content of the estimate files. After the preliminary estimate has been completed, the estimator will fill out the checklist form. The completed checklist form will be attached to the cost estimate prior to the peer or supervisor review and will remain with the estimate. A copy of the approved estimate and checklist will be filed in the Estimating Services' files.

Which one of the six cost estimating methods was used in the preparation of the cost estimate? Please check one.

Bottoms-Up Technique	☒	Cost Review & Update Technique	☐
Specific Analogy Technique	☐	Trend Analysis Technique	☐
Parametric Technique	☐	Expert Opinion Technique	☐

Identify the cost guideline(s) used when performing the estimate.

FERMCO	☒	Historical Data	☒
Means	☒	Richardson's	☒
Page	☐	Estimator's Judgment	☐
Walker's	☐	Hazardous Waste Cost Control	☐
MCA	☐	Other:	☐

		YES	NO
1.	Has a copy of the cost estimate been filed with the official baseline project estimate and previous estimates?		
2.	Each cost estimate should include the basis for the estimate. Does the cost estimate basis describe the:		
	a. Purpose of the project?	X	
	b. General design criteria?	X	
	c. State of design at the time of the estimate?	X	
	d. Significant features and components?	X	
	e. Proposed methods of accomplishment?	X	
	f. Proposed construction schedule?	X	
	g. Research and development requirements?	X	
	h. Pertinent facts that may impact costs?	X	
	i. Type of estimate?	X	

COST ESTIMATE CHECKLIST - 5700.2D

ESTIMATOR:	Ed Lumbert	DATE	05/09/01
WBS # 1.1.B~~E~~B	CHARGE # ~~BELE2~~ BFU02	ESTIMATE #	C3-2001-05-003

3.	Has the cost estimate been performed in constant-year dollars?	X	
4.	Was a check estimate requested by the internal or external client?		X
	If so, was the check estimate performed to validate the cost estimate?		
5.	Does the cost estimating method used reflect the project's phase of acquisition and degree of definition, the state-of-the-art of the project, the availability of the data bases, and the work breakdown structure?	X	
6.	Was a standardized list of cost categories/codes used in the estimate?	X	
7.	Does the cost estimate show the basis for:		
	a. Estimating quantities of materials not yet detailed in drawings?	X	
	b. Wage rates?	X	
	c. Productivity factors?	X	
	d. Installation unit man-hours?	X	
8.	Was the cost estimate performed per the Project Control System Application Guide Procedure, PCS-002?	X	
9.	If a construction project estimate was performed, did the estimate include a contingency/risk analysis ?	X	
10.	Has the cost estimate been reviewed by someone other than the estimator?	X	
	Were the comments recorded and signed by the reviewer and re-posited?	X	
11.	Does the estimate include the following documentation?		
	a. The technical description and the scope of the project being estimated.	X	
	b. The technical constraints, ground rules, and assumptions.	X	
	c. A detailed traceable recording of how the estimate was performed and who performed it.	X	
	d. A supporting schedule.	X	

Fluor Fernald, Inc.
PROJECTS CONTROLS
ESTIMATING SERVICES

May 8, 2001

PROJECT DESCRIPTION: Liquid Storage Utility Redistribution
WBS NUMBER: 1.1.B.~~F~~ B
PROJECT ENGINEER: Harry Gear
ESTIMATOR: Ed Lumbert
ESTIMATE NUMBER: C3-2001-05-006

BASIS OF ESTIMATE

SUPPORTING DOCUMENTATION:

Verbal Scope	☒	P & ID's	☐	Work Plan	☐
Drawings	☐	Equipment List	☐	Site Walk	☒
Sketches	☐	Specifications	☐	Eng. Mtg.	☐
Flow Diagrams	☐	Written Scope	☒	Estimate	☐

TYPE OF ESTIMATE:

Change Proposal	☐	Government	☐
Plan/Feasibility	☐	Conceptual	☐
Construction	☐	Title I Design	☐
Budget	☒	Independent	☐

BASIS OF ESTIMATE:

Prepare a control estimate to determine the cost of Utility Redistribution for Building 45A – Maintenance Machine Shop. Estimate to include manhours, labor, material, equipment, and subcontract costs for the following scope of work:

Refeed electric panel west of 45A from 13.2kv transformer feeding extraction well.

Reroute telephone cables out of 45A and into T58 and redistribute to other trailers.

Install fire alarm panel in T58 and reroute cables from trailers to new panel.

Fluor Fernald, Inc.
PROJECTS CONTROLS
ESTIMATING SERVICES

May 8, 2001

PROJECT DESCRIPTION: Liquid Storage Utility Redistribution
WBS NUMBER: 1.1.B.~~F~~B
PROJECT ENGINEER: Harry Gear
ESTIMATOR: Ed Lumbert
ESTIMATE NUMBER: C3-2001-05-006

ESTIMATE ASSUMPTIONS

EXECUTION:

- ☒ This project is to be performed on a 40-hour week, 10 hours a day.
- ☐ This project is to be performed on a 40-hour week, 8 hours a day.
- ☐ Premium time allowed.

WAGE RATES:

- ☐ Wage rates within this estimate are based on Project Labor Agreement rates, effective October 2000 and are considered FY01 dollars for estimating.
- ☒ Wage rates within this estimate are based on FF Support Contractor FSC 599 wage rates, effective October 1999 have been escalated 3% and are considered FY01 dollars for estimating.
- ☐ Wage rates within this estimate are based on FF FTE Planning Labor Rates FY01.

ENGINEERING:

- ☒ N/A
- ☐ Engineering dollars provided by the Project Engineer.
- ☐ Engineering dollars have been factored in at the standard 12% of the total direct and indirect field costs as per request of Project Engineer.

CONSTRUCTION MANAGEMENT:

- ☒ N/A
- ☐ Construction Management dollars provided by the Project Engineer.
- ☐ Construction Management dollars have been factored in at the standard 30% of the total direct and indirect field costs as per request of Project Engineer.

PROJECT MANAGEMENT:

- ☒ N/A
- ☐ Project Management dollars provided by the Project Engineer.
- ☐ Project Management dollars have been factored in at the standard 30% of the total direct and indirect field costs as per request of Project Engineer.

WASTE PROGRAM MANAGEMENT:

- ☒ N/A
- ☐ Waste Program Management dollars provided by the Project Engineer.

Fluor Fernald, Inc.
PROJECTS CONTROLS
ESTIMATING SERVICES

May 8, 2001

PROJECT DESCRIPTION: Liquid Storage Utility Redistribution
WBS NUMBER: 1.1.B.~~F~~ B
PROJECT ENGINEER: Harry Gear
ESTIMATOR: Ed Lumbert
ESTIMATE NUMBER: C3-2001-05-006

PRODUCTIVITY:

A productivity factor has been developed and applied to the unit man-hours derived from MEANS, Richardson, NECA, and or any other published estimating source. See attachment APPENDIX "A" and APPENDIX "B".

ESCALATION:

Escalation costs are excluded from the target estimate. The escalation costs are calculated within the Micro-Frame computer system according to the plan for rebaselining.

UNIT RATES:

Unit man-hours, equipment and material dollars are based on Richardson, MEANS, NECA, and or other published rates.

G & A (HO EXPENSE):

G & A are excluded from the target estimate. The G & A cost are calculated within the Micro-Frame computer system according to the plan for rebaselining.

HEALTH PHYSICS:

See attached APPENDIX "C".

RISK BUDGET:

A cost element, based on a Risk Analysis calculated for this estimate to cover a statistical probability of a 50% chance of overrun/under run to the project. The target estimate is the sum of the base estimate and the risk budget.

CONTINGENCY:

An amount budgeted to cover costs that may result from incomplete design, unforeseen and unpredictable conditions, or uncertainties. Contingency is calculated as the delta between the 50% chance of overrun and the 5% chance of overrun, indicated on the risk analysis.

Fluor Fernald, Inc.
PROJECTS CONTROLS
ESTIMATING SERVICES

May 8, 2001

PROJECT DESCRIPTION: Liquid Storage Utility Redistribution
WBS NUMBER: 1.1.B.~~F~~ B
PROJECT ENGINEER: Harry Gear
ESTIMATOR: Ed Lumbert
ESTIMATE NUMBER: C3-2001-05-006

ESTIMATE INCLUSIONS & EXCLUSIONS

INCLUSIONS:

- Premobilization & Mobilization.
- Demobilization.
- Labor hours.
- Material dollars.
- Equipment dollars.

EXCLUSIONS:

- Premium time.
- Permits and fees.
- FF G & A (Home Office Expense).
- Construction Management.
- Any second tier subcontract costs.
- Project Management dollars.
- Waste Management dollars.

SUPPORT CONTRACTOR ESTIMATE SUMMARY SHEET

PROJECT: Liquid Storage Utility Redistribution
ESTIMATE NO.: C3-2001-05-006
CLIENT: DOE
WBS NO.: 1.1.B~~F~~B

Fluor Fernald, Inc.

DATE: 10-May-01
ESTIMATOR: Ed Lumbert
LOCATION: FERNALD
TASK NO: ~~BLQB2~~ BFUD2

	DESCRIPTION	M/H	AVG. RATE	SPT.CONT. LABOR $	FERNALD S/C / OTHER	MAT'L $	EQUIP $	TOTAL $
	Mobilization & Demobilization	174		$6,600		$30		$30
	45A - Maint. Machine Shop	344		$12,400		$18,100	$1,600	$19,700
SUPPORT CONT. / FF D. F. COST TOTAL		519	$36.64	$19,000		$18,130	$1,600	$19,730
SUPERVISION		99		$5,100				
SMALL TOOLS & CONSUMABLES						$2,100		$2,100
MISC. EQUIP.RENTAL								
JOB CLEAN-UP		25		$900		$300		$300
SAFETY		11		$400		$200		$200
HEALTH PHYSICS S/C		38		$1,400				
JOB SPECIFIC TRAINING								
SUPPORT CONT. INDIRECT FIELD COST TOTAL		173		$7,800				
SUPPORT CONT. TOTAL BILLABLE COSTS		691	$38.78	$26,800				
TEMPORARY FACILITIES								
TEMPORARY UTILITY HOOK-UP								
FD FERNALD SALES TAX						$1,200	$100	$1,300
FF INDIRECT FIELD COSTS TOTAL						$3,800	$100	$3,900
FF DIRECT & INDIRECT FIELD COSTS TOTAL						$21,930	$1,700	$23,630
FF and SUPT.CONT. DIRECT & INDIRECT FIELD COST TOTAL				$26,800		$21,930	$1,700	$50,430
SUB-TOTAL (BASE ESTIMATE)								$50,430
TARGET ESTIMATE	**(FY 01 DOLLARS)**							$50,430

ESTIMATE PERFORMED E

SUPPORT CONTRACTOR ESTIMATE SUMMARY SHEET

PROJECT: Liquid Storage Utility Redistribution

DATE: 10-May-01

ESTIMATE NO.: C3-2001-05-006

FACTORS

ESTIMATOR: Ed Lumbert

CLIENT: DOE

LOCATION: FERNALD

WBS NO.: 1.1.B.~~F~~ B

TASK NO.: ~~BL002~~ BFUD2

	SUPT.CONT	FD FERNALD					PROJECT
	LABOR $	LABOR $	S/C $	MAT'L. $	EQUIP. $	PPE $	TOTAL $
DFC DOLLARS	$19,000			$18,130	$1,600		$38,730
IFC COST FACTOR	1.4105	1.0000		1.1434	1.0000	--	
SALES TAX COST FACTOR	--	--	--	1.0600	1.0600	1.0600	
BOND + OVERHEAD & PROFIT COST FACTOR	N/A	N/A	N/A	N/A	N/A	N/A	
DIRECT FIELD COST FACTOR =	1.4105	1.0000		1.2120	1.0600	1.0600	
DIRECT BASE ESTIMATE $'s	$26,800			$21,974	$1,696		$50,470
RISK BUDGET FACTOR	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
DIRECT TARGET ESTIMATE FACTOR	1.4105	1.0000		1.2120	1.0600	1.0600	
DIRECT TARGET ESTIMATE (FY00 DOLLARS)	$26,800			$21,974	$1,696		$50,470

NOTE:

1.) If there are no equipment rental costs in the "Directs" (0 $'s in I20) and the default allowance of $3.50 per MH has been used in the "indirects", input the indirect Equip. $'s in H62 and put a dash in H63. This will treat the Equip. $'s as direct cost and apply the sales tax factor. On page 3 below, insert the equipment $'s in any pay items that apply.

SUPPORT CONTRACTOR ESTIMATE SUMMARY SHEET

PROJECT: Liquid Storage Utility Redistribution
DATE: 10-May-01
ESTIMATE NO.: C3-2001-05-006
ESTIMATOR: Ed Lumbert
CLIENT: DOE
LOCATION: FERNALD
WBS NO.: 1.1.B.~~F~~ B
TASK NO.: ~~B1OD2~~ BFUD2

Direct Field Cost w/FACTORS

PAY ITEM NO.	DESCRIPTION	SUPPORT CONT. LABOR $	FF LABOR $	S/C $	MAT'L. $	EQUIP. $	PPE $	PROJECT TOTAL $
	PPE							
	Mobilization & Demobilization	6600			30	-		
		$9,310			$40			$9,350
					-	-	-	
	45A - Maint. Machine Shop	12400			18,100	1,600		
		$17,490			$21,940	$1,700		$41,130
					-	-	-	
					-	-		
					-	-	-	
					-	-		
						-		
SUB-TOTAL - SUPPORT CONTRACTOR		$26,800						$26,800
SUB-TOTAL - FF					$21,980	$1,700		$23,680
TOTAL DIRECT FIELD COSTS w/FACTORS								$50,480

NOTE: The above costs exclude any FD Fernald support costs that may appear on page 1 & 2, such as Waste Disposition, Engineering, Project Management, or Construction Management.

PROJECT: Liquid Storage Utility Redistribution
ESTIMATE NO.: C3-2001-05-006
CLIENT: DOE
WBS NO.: 1.1.B~~F~~B

Fluor Fernald, Inc.

DATE: 10-May-01
ESTIMATO Ed Lumbert
LOCATION: FERNALD
TASK NO.: ~~BLOB2~~ BFUD2

DIRECT COST SUMMARY	QTY	UNIT	MAN-HOURS Unit	MAN-HOURS Total	MAN-HOURS Rate	COST / UNIT Labor	COST / UNIT S/C	COST / UNIT Mat'l	COST / UNIT Equip	LABOR	S/C	MAT'L	EQUIP	TOTAL
Mobilization & Demobilization				174						$6,600		$30		$6,630
45A - Maint. Machine Shop				344						$12,400		$18,100	$1,600	$32,100
DIRECT COST SUMMARY	**1**	**LOT**		**519**	**$36.64**					**$19,000**		**$18,130**	**$1,600**	**$38,730**

PROJECT: Liquid Storage Utility Redistribution
ESTIMATE NO.: C3-2001-05-006
CLIENT: DOE
WBS NO.: 1.1.B.~~F~~B

Fluor Fernald, Inc.

DATE: 10-May-01
ESTIMATO Ed Lumbert
LOCATION: FERNALD
TASK NO.: ~~BLGD2~~ BF4D2

PPE LEVEL	Mobilization & Demobilization	QTY	UNIT	MAN-HOURS Unit	MAN-HOURS Total	MAN-HOURS Rate	COST/UNIT Labor	COST/UNIT S/C	COST/UNIT Mat'l	COST/UNIT Equip	LABOR	S/C	MAT'L	EQUIP	TOTAL
	Mobilization														
mD	Install Temporary Utilities	60	hr	1.000	82	38.12				by FDF	$3,130				$3,130
	Demobilization														
mD	Remove Temporary Utilities	60	hr	1.000	82	38.12				by FDF	$3,130				$3,130
C+	Decontaminate Equipment.	10	hr	0.500	10	33.34			3.00		$350		$30		$380
	Mobilization & Demobilization				174	$37.83					$6,600		$30		$6,630

PROJECT: Liquid Storage Utility Redistribution
ESTIMATE NO.: C3-2001-05-006
CLIENT: DOE
WBS NO.: 1.1.B/B

Fluor Fernald, Inc.

DATE: 10-May-01
ESTIMATO Ed Lumbert
LOCATION: FERNALD
TASK NO.: ~~BL002~~ BFUD2

PPE LEVEL	45A - Maint. Machine Shop	QTY	UNIT	MAN-HOURS Unit	MAN-HOURS Total	MAN-HOURS Rate	COST / UNIT Labor	COST / UNIT S/C	COST / UNIT Mat'l	COST / UNIT Equip	LABOR	S/C	MAT'L	EQUIP	TOTAL
	Refeed electric panel west of 45A from 13.2kv transformer feeding extraction														
mD	Survey and Layout	40	hr	1.000	55	35.60			0.50		$1,950		$20		$1,970
mD	Transformer, 13.2kv	1	ea	29.00	40	38.12			7,100.00		$1,514		$7,100		$8,614
mD	Power Pole	1	ea	11.765	16	35.60			525.00		$574		$525		$1,099
mD	Guy Wire, Anchor, Hardware fo	1	ea			35.60			375.00				$375		$375
mD	480v Overhead Cable	200	lf	0.080	22	35.60			20.75		$780		$4,150		$4,930
mD	Disconnect Switch, 480v 3ph	1	ea	8.000	11	35.60			250.00		$390		$250		$640
mD	Electrical Tie-in	20	hr	1.000	27	35.60					$975				$975
mD	Allowance for Hardware	40	hr	1.000	55	35.60			20.00		$1,950		$800		$2,750
mD	Auger/Bucket Truck Rental w/O	20	hr							80.00				$1,600	$1,600
mD	Lock and Tag	2	hr	1.000	3	38.12					$104				$104
	Reroute telephone cables out of 45A and into T58 and redistribute to other trailers.														
mD	Overhead Comm/Phone Line	500	lf	0.023	16	35.60			3.65		$558		$1,825		$2,383
mD	Telephone Tie-in	20	hr	1.000	27	35.60			2.50		$975		$50		$1,025
	Install fire alarm panel in T58 and reroute cables from trailers to new panel.														
mD	Fire Alarm Panel	1	ea	5.000	7	35.60			1,125.00		$244		$1,125		$1,369
mD	Overhead Honeywell Cab	500	lf	0.016	11	35.60			2.81		$390		$1,405		$1,795
mD	Honeywell Tie-in	20	hr	1.000	27	35.60			2.50		$975		$50		$1,025
mD	Allowance for Hardware	20	hr	1.000	27	35.60			20.00		$975		$400		$1,375
	45A - Maint. Machine Shop				**344**	$36.04					**$12,400**		**$18,100**	**$1,600**	**$32,100**

APPENDIX " A"

PROJECT: Liquid Storage Utility Redistribution
ESTIMATE NO C3-2001-05-006
CLIENT: DOE
WBS NO.: 1.1.B.1/B

SITE SPECIFIC

EFFICIENCY / MULTIPLIER ANALYSIS

DATE: 10-May-01
ESTIMATOR: Ed Lumbert
LOCATION: FERNALD
TASK NO.: ~~BL002~~ GFUD2

PERCENT OF INFLUENCE ON CHART MANHOURS

	40%	50%	60%	70%	80%	90%	100%	105%	110%	% OF INFLUENCE	WT'D VALUE	PROD. RESULT
CRAFT SKILL (NOTE 1)	POOR			FAIR			STD	V.GOOD	EXCELLENT	100.0%	12.0%	0.12
CRAFT AVAIL.(NOTE 1)		POOR		FAIR			STD			100.0%	8.0%	0.08
CLIMATE (NOTE 2)	SEVERE	ICE/SNOW			RAIN		+40 TO +85			90.0%	20.0%	0.18
PLANT ELEVATION		OVER 10,000FT			5,000' TO 10,000 FT		UNDER 5,000 FT			100.0%	5.0%	0.05
WORK SPACE				200 SF	250 SF	300 SF	350 SF			100.0%	10.0%	0.1
	<---- MULTIPLE SHIFTS-											
WORK WEEK							4-10s / 5-8s			100.0%	15.0%	0.15
50 HOUR WORK WEEK	//////// MULTIPLE-SHIFT ////////			OVER 7 WEEKS	3 TO 7 WEEKS	UP TO 3 WEEKS						
60 HOUR WORK WEEK			OVER 7 WEEKS	3 TO 7 WEEKS	UP TO 3 WEEKS							
SHIFTWORK							OR					
2ND SHIFT					2ND SHIFT		ONE SHIFT ONLY			100.0%	3.0%	0.03
3RD SHIFT			3RD SHIFT							100.0%	5.0%	0.05
PROJECT SIZE					400M MH AND UP	300M TO 400M MH	200M TO 300M MH	200M MH OR LESS		105.0%	4.0%	0.042
PLANT TYPE				REVAMP ONLY	REVAMP & NEW	NEW IN EXIST PLT	GRASS ROOTS			80.0%	8.0%	0.064
AREA/UNION INFLUENCE	STRONG		MILD		SOME		NONE			70.0%	10.0%	0.07
											100.0%	93.6%

NOTES.....
1. TURNOVER HAS BEEN CONSIDERED
2. FOR EXTERIOR WORK ONLY

EFFICIENCY (AS A % OFF CHART MANHOURS) 93.6%

MULTIPLIER - (TO BE APPLIED TO CHART M.H.'S TO OBTAIN SITE M.H.'S) 1.07

APPENDIX " A"

PROJECT:	Utility Redistribution - Lab Complex	SITE SPECIFIC	DATE: 10-May-01
ESTIMATE NO.:	C3-2001-05-005		ESTIMATOR: Ed Lumbert
CLIENT:	DOE	EFFICIENCY / MULTIPLIER ANALYSIS	LOCATION: FERNALD
WBS NO.:	1.1.B.~~2~~ B		TASK NO.: ~~BLAB2~~ B FUD2

PERCENT OF INFLUENCE ON CHART MANHOURS

	40%	50%	60%	70%	80%	90%	100%	105%	110%	% OF INFLUENCE	WT'D VALUE	PROD. RESULT
CRAFT SKILL (NOTE 1)	POOR			FAIR			STD	V.GOOD	EXCELLENT	100.0%	12.0%	0.12
CRAFT AVAIL.(NOTE 1)		POOR		FAIR			STD			100.0%	8.0%	0.08
CLIMATE (NOTE 2)	SEVERE	ICE/SNOW			RAIN		+40 TO +85			90.0%	20.0%	0.18
PLANT ELEVATION		OVER 10,000FT			5,000' TO 10,000 FT		UNDER 5,000 FT			100.0%	5.0%	0.05
WORK SPACE				200 SF	250 SF	300 SF	350 SF			100.0%	10.0%	0.1
	<---- MULTIPLE SHIFTS-											
WORK WEEK							4-10s / 5-8s			100.0%	15.0%	0.15
50 HOUR WORK WEEK	////////// //// MULTIPLE-SHIFT ////	//////////	//////////	OVER 7 WEEKS	3 TO 7 WEEKS	UP TO 3 WEEKS						
60 HOUR WORK WEEK	//////////	//////////	OVER 7 WEEKS	3 TO 7 WEEKS	UP TO 3 WEEKS							
SHIFTWORK							OR					
2ND SHIFT					2ND SHIFT		ONE SHIFT			100.0%	3.0%	0.03
3RD SHIFT			3RD SHIFT				ONLY			100.0%	5.0%	0.05
PROJECT SIZE					400M MH AND UP	300M TO 400M MH	200M TO 300M MH	200M MH OR LESS		105.0%	4.0%	0.042
PLANT TYPE				REVAMP ONLY	REVAMP & NEW	NEW IN EXIST PLT	GRASS ROOTS			80.0%	8.0%	0.064
AREA/UNION INFLUENCE	STRONG		MILD		SOME		NONE			70.0%	10.0%	0.07
											100.0%	93.6%

NOTES.....
1. TURNOVER HAS BEEN CONSIDERED

2. FOR EXTERIOR WORK ONLY

EFFICIENCY (AS A % OFF CHART MANHOURS) 93.6%

MULTIPLIER - (TO BE APPLIED TO CHART M.H.'S TO OBTAIN SITE M.H.'S) 1.07

APPENDIX "B"

EFFICIENCY FACTORS

PROJECT: Utility Redistribution - Lab Complex
ESTIMATE NO.: C3-2001-05-005
CLIENT: DOE
WBS NO.: 1.1.B.~~E~~B

Fluor Fernald, Inc.

DATE: 10-May-01
ESTIMATOR: Ed Lumbert
LOCATION: FERNALD
TASK NO.: ~~BLAB2~~ BFUD2

EXAMPLE:

STANDARD CHART MANHOURS =	NET	100
EFFICIENCY FACTORS:		
• SITE SPECIFIC (SEE APPENDIX A)	7%	7.0
S/T = BASE UNIT MANHOURS		107
OVERTIME PRODUCTIVITY FACTOR	0.00%	0
(SEE DETAIL WORKSHEET BACK-UP)		107
• TASK SPECIFIC (confined space,	0.0%	0
high elevation, congestion, etc.)		107

• PPE SPECIFIC (Based on current data and estimating knowledge)

	PPE LEVEL											
	D		Mod.'D'		Mod. "C"		C		C+		B	
PRODUCTIVITY HOURS		MH's	MULTIPLIER	MH's	MULTIPLIER	MH's	MULTIPLIER	MH's	MULTIPLIER	MH's	MULTIPLIER	MH's
(AS A %) / ADD MH's	4.00%	4	28.00%	30	66.00%	71	74.00%	79	96.00%	103	110.00%	118
MULTIPLIER)/TOTAL HRS	1.04	111.3	1.28	137	1.66	177.6	1.74	186.2	1.96	209.7	2.10	224.7
TOTAL MULT. * SITE PROD.	1.1128		1.3696		1.7762		1.8618		2.0972		2.0972	

NOTE : Use the Default Productivity Factor of 'mC' for working in a contaminated area if the Safety Level cannot be determined.

(SEE FD FERNALD ESTIMATING SERVICES REFERENCE MANUAL IM-5006 2.10)

Total hours worked in a specific PPE level divided by 10 hour working days = (PPE) ManDays to determine material cost of PPE's.
(SEE APPENDIX C - HEALTH PHYSICS)

	11.0	Man Days	14.0	Man Days	18.0	Man Days	19.0	Man Days	21.0	Man Days	22.0	Man Days

THESE EFFICIENCY FACTORS WERE APPLIED INDIVIDUALLY THROUGHOUT THE ESTIMATE AT A TASK SPECIFIC LEVEL, TO OBTAIN A MORE ACCURATE ACCOUNT OF OVERALL EFFICIENCY IMPACT DUE TO PPE REQUIREMENTS IN HANDLING CONTAMINATED AND HAZARDOUS WASTE.

EFFICIENCY FACTORS

PROJECT: Utility Redistribution - Lab Complex
ESTIMATE NO.: C3-2001-05-005
CLIENT: DOE
WBS NO.: 1.1.B.~~E~~ B

Fluor Fernald, Inc.

DATE: ########
ESTIMATOR d Lumbert
LOCATION: FERNALD
TASK NO.: ~~BLAB2~~ BFUD2

PPE MULTIPLIER DEVELOPEMENT

		D	mD	mC	C	C+	B
CREW SIZE & MAKE-UP	STANDARD	7	7	7	7	7	7
	WORKER-BUDDY	0	0	0	0	0	0
	SUPPORT TEAM	0	0	0	0	0	0
	TOTAL CREW	7	7	7	7	7	7
CREW SIZE RATIO		1.00	1.00	1.00	1.00	1.00	1.00
AVAILABLE WORK TIME FACTOR		0.96	0.78	0.70	0.70	0.68	0.68
PPE LABOR PRODUCTIVITY FACTOR		1	1	0.86	0.82	0.75	0.70
NET PRODUCTIVITY RATIO		0.96	0.78	0.602	0.574	0.51	0.476
NET PRODUCTIVITY MULTIPLIER		1.04	1.28	1.66	1.74	1.96	2.10

These factors were based on Tables 6.1 and 6.2, Moderate Work Efforts, 66F to 85F temperature of 'Hazardous Waste Cost Control' by R.A.Selg.
Modifications were made to reflect a 10 hour work day and no buddy system or support team for levels D, mC and C.
The worker-buddy and support team members, if required, may be covered under Construction Mgmt. (Rad Techs).

AVAILABLE WORK TIME FACTOR			D	mD	mC	C	C+	B
TOTAL WORK MINUTES per D	4 - 10's		600	600	600	600	600	600
ADDITN'L.SITE SAFETY MEETINGS NOT INCLD.		QUANTITY	1	1	1	1	1	1
		MINUTES	25	25	25	25	25	25
	TOTAL		25	25	25	25	25	25
PPE DON & DOFFING		QUANTITY	0	0	3	3	3	3
(ADJUST LEVEL D per WORK PLAN)		MINUTES	0	0	15	15	20	20
	TOTAL			0	45	45	60	60
WORK BREAKS		QUANTITY	N/A	2	2	2	2	2
(ADJUST LEVEL D per WORK PLAN)		MINUTES	N/A	15	15	15	15	15
	TOTAL			30	30	30	30	30
MOBILIZATION - ROUND TRIPS		QUANTITY	N/A	4	4	4	4	4
(ADJUST LEVEL D per WORK PLAN)		MINUTES	N/A	15	15	15	15	15
	TOTAL			60	60	60	60	60
COOLDOWNS PER DAY		QUANTITY	N/A	4	4	4	4	4
** (4 OUT OF 12 MONTHS)	33.33%	MINUTES	N/A	15	15	15	15	15
	TOTAL			20	20	20	20	20
AIR TANK REPLACEMENT		QUANTITY	N/A	N/A	N/A	N/A	N/A	N/A
		MINUTES	N/A	N/A	N/A	N/A	N/A	N/A
	TOTAL							
AVAILABLE WORK TIME			575	465	420	420	405	405
AVAILABLE WORK TIME FACTOR			0.96	0.78	0.7	0.7	0.68	0.68

NOTE: Adjust 'Work Minutes per Day' basis to: 5 - 8's, or leave as 4 - 10's. Any other circumstances, over-ride the minutes per day.

** Assumption based on work performed in May, June, July & August, pro-rating cost over one year. Adjust % to individual circumstances.

APPENDIX "C"

HEALTH PHYSICS

PROJECT:	Utility Redistribution - Lab Complex	DATE:	10-May-01
ESTIMATE NO.:	C3-2001-05-005	ESTIMATOR:	Ed Lumbert
CLIENT:	DOE	LOCATION:	FERNALD
WBS NO.:	1.1.B.~~E~~ B	TASK NO.:	~~BLAB2~~ BFUD2

Fluor Fernald, Inc.

PPE's - PERSONAL PROTECTIVE EQUIPMENT

DESCRIPTION	UNIT	UNIT COST	* NO. OF CHANGE OUTS PER WORKER PER DAY / Man Days (TOTAL HOURS worked in PPE's Div. by WORK HOURS/DAY)			
PPE LEVEL C / C+		$'s	*	MAN DAYS	MAT'L.$'s	LEVEL
LAUNDRY COST per CHANGE	SET	1.96	1	0	$0	C/B
TYVEK COVER-ALL w/HOOD & BOOTIES - DISPOSABLE	EA	4.46	3	0	$0	C/B
TYVEK COVER-ALL w/HOOD & BOOTIES - DISPOSABLE	EA	4.46	3	0	$0	C/B
GLOVE LINER - DISPOSABLE	PR	0.24	3	0	$0	C/B
GLOVE, LASTEX - DISPOSABLE	PR	0.26	3	0	$0	C/B
GLOVE, WORK - DISPOSABLE	PR	1.02	3	0	$0	C/B
APR CARTRIDGES - DISPOSABLE, CLEANING	PR	9.38	3	0	$0	C/B
SUB-TOTAL				0	$0	
				$/MD =	#DIV/0!	
PPE LEVEL mC						
L DRESS w/ FACE SHIELD		$'s		MAN DAYS	MAT'L.$'s	LEVEL
LAUNDRY COST per CHANGE	SET	1.96	1	0	$0	mC
LT.WT. DISPOSABLE COVERALLS W/HOOD & BOOTIES	PR	4.46	3	0	$0	mC
GLOVE LINER - DISPOSABLE	PR	0.24	3	0	$0	mC
GLOVE, LASTEX - DISPOSABLE	PR	0.26	3	0	$0	mC
GLOVE, WORK - DISPOSABLE	PR	1.02	3	0	$0	mC
SUB-TOTAL				0	$0	mC
				$/MD =	#DIV/0!	
PPE LEVEL D						
LAUNDRY COST per CHANGE	SET	1.96	1	0	$0	D

SUBCONTRACTOR REQUIRED PURCHASES	UNIT		QTY. PER WKR.	NO. OF WORKERS	MAT'L. $'s	LEVEL
RUBBER BOOT COVERS-(1)PR.PER WORKER	PR	12.70	6	0	$0	D/C/B
APR w/HALF FACE MASK - (1) PER WORKER	EA	22.30	6	0	$0	C
APR w/FULL FACE MASK - (1) PER WORKER	EA	174.00	6	0	$0	C
SCBA	EA	1894.00	2	0	$0	B
COOL VESTS	EA	137.50	6	0	$0	C/B
THERMO STRIPS	EA	50.00	6	0	$0	C/B
SUB-TOTAL					$0	C/B

Total PPE Matl $ and Laundry $	$0

(FORWARD TO PAGE 2 OF 2)

OTHER PPE's SUCH AS HARD HAT, SAFETY GLASSES/GOGGLES, STEEL TOED SAFETY SHOES, HEARING PROTECTION, ARE CONSIDERED THE SUBCONTRACTORS RESPONSIBILITY AND ARE COVERED IN HIS OVERHEAD EXPENSE. FD FERNALD SUPPLIED PPE's, SUCH AS COTTON COVERALLS, EXCHANGE OF RUBBER BOOT COVERS AND RESPIRATORS FOR CHANGEOUTS AND CLEANING OF SAME IS INCLUDED.

APPENDIX "C"

HEALTH PHYSICS

PROJECT: Utility Redistribution - Lab Complex
ESTIMATE NO.: C3-2001-05-005
CLIENT: DOE
WBS NO.: 1.1.B/E B

DATE: 10-May-01
ESTIMATOR: Ed Lumbert
LOCATION: FERNALD
TASK NO.: ~~BLAB2~~ BFUD2

-MEDICAL MONITORING -

MEDICAL - PHYSICAL and IN-VIVO MONITORING - LOST WORKER TIME for RAD II WORKERS ONLY

DESC. PHYSICAL (3hrs), IN-VIVO (1hr)	QTY	HRS	WKR	TOTAL HOURS	AVG. LABOR RATE	TOTAL LABOR $	
BASELINE PHYSICALS	1	4	1	4	$36.65	$150	
ANNUAL PHYSICALS	0	4	1	0	$36.65	$0	
EXIT (TERMINATION) PHYSICALS (IN-VIVO)	1	1	1	1	$36.65	$40	
SUB-TOTAL						$190	

RADIATION IN-VITRO SURVEILLANCE - LOST WORKER TIME for RAD II WORKERS ONLY

DESC.	QTY	HRS	WKR	TOTAL HOURS	AVG. LABOR RATE	TOTAL LABOR $	
BI-MONTHLY BIOASSAY	0	1	1	0	$36.65	$20	
SUB-TOTAL						$20	

RANDOM DRUG TESTING

	TESTS	HRS	TOTAL HRS	AVG. RATE	LABOR $'s	
	0	2	0	$36.65	$0	
NO. OF WKRS. TESTED	TESTING DAYS PER YR.	AVG. NO. OF TESTS PER DAY	CHANCE/ DAY FOR TEST	NO. OF WKRS. FOR THIS ESTIMATE	CHANCES /DAY FOR TEST for this PROJECT	CONSTR WORKING DAYS
2500	226	11	0.0044	1	0.0044	20

		LABOR $'s THRU SAFETY	LABOR $'s	
WORK DELAYS CAUSED BY MONITORING	1.0%	$6,130	$100	
			LABOR $'s	
WORK DELAYS CAUSED BY RAD CHECKING	1.0%	$6,130	$100	

	TOTAL LABOR	TOTAL MAT'L.	GRAND TOTAL
TOTAL HEALTH PHYSICS - FORWARD TO ESTIMATE SUMMARY SHEET	$400	$0	$400

APPENDIX "D"

ACTIVITY DURATIONS

Fluor Fernald, Inc.

PROJECT: Utility Redistribution - Lab Complex
ESTIMATE NO.: C3-2001-05-005
CLIENT: DOE
WBS NO.: 1.1.B.~~E~~ B

DATE: 10-May-01
ESTIMATOR: Ed Lumbert
LOCATION: FERNALD
TASK NO.: ~~BLAB2~~ BFUD2

ACTIVITY	EST. DATE	START DATE	MID POINT	COMPL. DATE	ACTIVITY	DURATION
CONSTRUCTION:	08-May-01	01-Sep-04	16-Sep-04	01-Oct-04	1.0	MONTHS
					0	MONTHS
TOTAL					1.0	MONTHS

	DATE of EST. to MID-POINT CTIVITY DURATION	
a.	40.4	MONTHS
b.	0	MONTHS

ACTIVITY	EST. DATE	START DATE	MID POINT	COMPL. DATE	ACTIVITY	DURATION
OPERATIONS					0	MONTHS

DATE of EST. to MID-POINT CTIVITY DURATION	
0	MONTHS

ACTIVITY DURATION IS USED IN DETERMINING NUMBER of WORKERS for CERCLA/SAT TRAINING HOURS and HEALTH PHYSICS COSTS.

COST IMPACT MATRIX SHEET

BFUD2

Estimate No.: C3-2001-05-005
Project: Utility Redistribution - Lab Complex
Client: DOE
WBS: 1.1.B,~~E~~ B

Fluor Fernald, Inc.

Est. Chg. No.: ~~BLAB2~~
Date: 10-May-01
Estimator: Ed Lumbert
Location: FERNALD

Base Estimate Total	Cost Element		Cost Element		Cost Element		Cost Element		Cost Element		Cost Element	
	Mobilization & Demobilization		Mobilization & Demobilization		Mobilization & Demobilization		Mobilization & Demobilization		Mobilization & Demobilization			
$10,030	LABOR $		S/C $		MAT'L. $		EQUIP. $		PPE $			
Cost	Base $	$2,910	Base $	$0	Base $	$0	Base $		Base $	$0	Base $	$0
Drivers	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
Productivity	-1%	8%										
Unit Pricing					-1%	8%	-1%	8%	-1%	8%		
Contamination												
Technology												
Regulations/Laws												
Quantity Variation												
Project Definition	-1%	5%										
Other												
Range - %	-2%	13%	0%	0%	-1%	8%	-1%	8%	-1%	8%	0%	0%
Range - $	$2,852	$3,288	$0	$0	$0	$0	#VALUE!	#VALUE!	$0	$0	$0	$0
Distribution	U											
Correlation Rank												

	Cost Element		Cost Element		Cost Element		Cost Element		Cost Element		Cost Element	
	0		0		0		0		0			
	LABOR $		S/C $		MAT'L. $		EQUIP. $		PPE $			
Cost	Base $	$0	Base $	$0	Base $	$0	Base $		Base $	$0	Base $	$0
Drivers	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
Productivity	-1%	15%										
Unit Pricing					-1%	12%	-1%	10%	-1%	8%		
Contamination							-1%	10%				
Technology												
Regulations/Laws												
Quantity Variation					-1%	5%						
Project Definition	-1%	5%										
Other												
Range - %	-2%	20%	0%	0%	-2%	17%	-2%	20%	-1%	8%	0%	0%
Range - $	$0	$0	$0	$0	$0	$0	#VALUE!	#VALUE!	$0	$0	$0	$0
Distribution												
Correlation Rank												

Analyst: _____

Client: _____

COST IMPACT MATRIX SHEET

Fluor Fernald, Inc.

Estimate No.:	C3-2001-05-005	Est. Chg. No.:	~~BLAB2~~ BFUD2
Project:	Utility Redistribution - Lab Complex	Date:	10-May-01
Client:	DOE	Estimator:	Ed Lumbert
WBS:	1.1.B.~~2~~ B	Location:	FERNALD

	Cost Element		Cost Element		Cost Element		Cost Element		Cost Element		Cost Element	
	15A - Laboratory LABOR $		15A - Laboratory S/C $		15A - Laboratory MAT'L. $		15A - Laboratory EQUIP. $		15A - Laboratory PPE $			
Cost Drivers	Base $	$3,620	Base $	$0	Base $	$3,500	Base $		Base $	$0	Base $	$0
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
Productivity	-1%	15%										
Unit Pricing					-1%	10%	-1%	10%	-1%	8%		
Contamination	-1%	8%							-1%	8%		
Technology												
Regulations/Laws												
Quantity Variation					-1%	5%						
Project Definition	-1%	5%										
Other												
Range - %	-3%	28%	0%	0%	-2%	15%	-1%	10%	-2%	16%	0%	0%
Range - $	$3,511	$4,634	$0	$0	$3,430	$4,025	#VALUE!	#VALUE!	$0	$0	$0	$0
Distribution												
Correlation Rank												

	Cost Element		Cost Element		Cost Element		Cost Element		Cost Element		Cost Element	
	0 LABOR $		0 S/C $		0 MAT'L. $		0 EQUIP. $		0 PPE $			
Cost Drivers	Base $	$0	Base $		Base $	$0	Base $		Base $	$0	Base $	$0
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
Productivity	-1%	12%										
Unit Pricing					-1%	8%	-1%	12%	-1%	8%		
Contamination	-1%	10%										
Technology												
Regulations/Laws												
Quantity Variation	-1%	5%			-1%	5%	-1%	5%				
Project Definition												
Other												
Range - %	-3%	27%	0%	0%	-2%	13%	-2%	17%	-1%	8%	0%	0%
Range - $	$0	$0	$0	$0	$0	$0	#VALUE!	#VALUE!	$0	$0	$0	$0
Distribution												
Correlation Rank												

Analyst: _____

Client: _____

COST ESTIMATE CHECKLIST - 5700.2D

ESTIMATOR:	Ed Lumbert			DATE	05/08/01
WBS #	1.1.B.E3	CHARGE #	~~BLAB2~~ BFUD2	ESTIMATE #	C3-2001-05-005

The Cost Estimate Checklist is to be used as a guide to the content of the estimate files. After the preliminary estimate has been completed, the estimator will fill out the checklist form. The completed checklist form will be attached to the cost estimate prior to the peer or supervisor review and will remain with the estimate. A copy of the approved estimate and checklist will be filed in the Estimating Services' files.

Which one of the six cost estimating methods was used in the preparation of the cost estimate? Please check one.

Bottoms-Up Technique	☒	Cost Review & Update Technique	☐
Specific Analogy Technique	☐	Trend Analysis Technique	☐
Parametric Technique	☐	Expert Opinion Technique	☐

Identify the cost guideline(s) used when performing the estimate.

FERMCO	☒	Historical Data	☒
Means	☒	Richardson's	☒
Page	☐	Estimator's Judgment	☐
Walker's	☐	Hazardous Waste Cost Control	☐
MCA	☐	Other:	☐

		YES	NO
1.	Has a copy of the cost estimate been filed with the official baseline project estimate and previous estimates?		
2.	Each cost estimate should include the basis for the estimate. Does the cost estimate basis describe the:		
	a. Purpose of the project?	X	
	b. General design criteria?	X	
	c. State of design at the time of the estimate?	X	
	d. Significant features and components?	X	
	e. Proposed methods of accomplishment?	X	
	f. Proposed construction schedule?	X	
	g. Research and development requirements?	X	
	h. Pertinent facts that may impact costs?	X	
	i. Type of estimate?	X	

COST ESTIMATE CHECKLIST - 5700.2D

ESTIMATOR:	Ed Lumbert	DATE	05/08/01
WBS # 1.1.B.~~E~~ B	CHARGE # B~~LAB2~~ BFUD2	ESTIMATE #	C3-2001-05-005

3.	Has the cost estimate been performed in constant-year dollars?	X	
4.	Was a check estimate requested by the internal or external client?		X
	If so, was the check estimate performed to validate the cost estimate?		
5.	Does the cost estimating method used reflect the project's phase of acquisition and degree of definition, the state-of-the-art of the project, the availability of the data bases, and the work breakdown structure?	X	
6.	Was a standardized list of cost categories/codes used in the estimate?	X	
7.	Does the cost estimate show the basis for:		
	a. Estimating quantities of materials not yet detailed in drawings?	X	
	b. Wage rates?	X	
	c. Productivity factors?	X	
	d. Installation unit man-hours?	X	
8.	Was the cost estimate performed per the Project Control System Application Guide Procedure, PCS-002?	X	
9.	If a construction project estimate was performed, did the estimate include a contingency/risk analysis ?	X	
10.	Has the cost estimate been reviewed by someone other than the estimator?	X	
	Were the comments recorded and signed by the reviewer and re-posited?	X	
11.	Does the estimate include the following documentation?		
	a. The technical description and the scope of the project being estimated.	X	
	b. The technical constraints, ground rules, and assumptions.	X	
	c. A detailed traceable recording of how the estimate was performed and who performed it.	X	
	d. A supporting schedule.	X	

COST IMPACT MATRIX SHEET

Estimate No.: C3-2001-05-005
Project: Lab Complex Utility Redistribution
Client: DOE
WBS: 1.1.B~~E~~ B

Fluor Fernald, Inc.

Est. Chg. No. ~~BLAB2~~ BFUD2
Date: 10-May-01
Estimator: Ed Lumbert
Location: FERNALD

Base Estimate Total	Cost Element		Cost Element		Cost Element		Cost Element		Cost Element		Cost Element	
	obilization & Demobilizati		obilization & Demobilizati		obilization & Demobilizati		obilization & Demobilizati		obilization & Demobilizati			
$10,030	LABOR $		S/C $		MAT'L. $		EQUIP. $		PPE $			
Cost Drivers	Base $	$2,910	Base $	$0	Base $	$0	Base $		Base $	$0	Base $	$0
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
Productivity	-1%	8%										
Unit Pricing					-1%	8%	-1%	8%	-1%	8%		
Contamination												
Technology												
Regulations/Laws												
Quantity Variation												
Project Definition	-1%	5%										
Other												
Range - %	-2%	13%	0%	0%	-1%	8%	-1%	8%	-1%	8%	0%	0%
Range - $	$2,852	$3,288	$0	$0	$0	$0	#VALUE!	#VALUE!	$0	$0	$0	$0
Distribution	U											
Correlation Rank												

	Cost Element		Cost Element		Cost Element		Cost Element		Cost Element		Cost Element	
	0		0		0		0		0			
	LABOR $		S/C $		MAT'L. $		EQUIP. $		PPE $			
Cost Drivers	Base $	$0	Base $	$0	Base $	$0	Base $		Base $	$0	Base $	$0
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
Productivity	-1%	15%										
Unit Pricing					-1%	12%	-1%	10%	-1%	8%		
Contamination							-1%	10%				
Technology												
Regulations/Laws												
Quantity Variation					-1%	5%						
Project Definition	-1%	5%										
Other												
Range - %	-2%	20%	0%	0%	-2%	17%	-2%	20%	-1%	8%	0%	0%
Range - $	$0	$0	$0	$0	$0	$0	#VALUE!	#VALUE!	$0	$0	$0	$0
Distribution												
Correlation Rank												

Analyst: _____

Client: _____

COST IMPACT MATRIX SHEET

Estimate No.: C3-2001-05-005
Project: Lab Complex Utility Redistribution
Client: DOE
WBS: 1.1.B.~~E~~B

Fluor Fernald, Inc.

Est. Chg. No. ~~BLAB2~~ BFUD2
Date: 10-May-01
Estimator: Ed Lumbert
Location: FERNALD

	Cost Element		Cost Element		Cost Element		Cost Element		Cost Element		Cost Element	
	15A - Laboratory LABOR $		15A - Laboratory S/C $		15A - Laboratory MAT'L. $		15A - Laboratory EQUIP. $		15A - Laboratory PPE $			
Cost Drivers	Base $	$3,620	Base $	$0	Base $	$3,500	Base $		Base $	$0	Base $	$0
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
Productivity	-1%	15%										
Unit Pricing					-1%	10%	-1%	10%	-1%	8%		
Contamination	-1%	8%							-1%	8%		
Technology												
Regulations/Laws												
Quantity Variation					-1%	5%						
Project Definition	-1%	5%										
Other												
Range - %	-3%	28%	0%	0%	-2%	15%	-1%	10%	-2%	16%	0%	0%
Range - $	$3,511	$4,634	$0	$0	$3,430	$4,025	#VALUE!	#VALUE!	$0	$0	$0	$0
Distribution												
Correlation Rank												

	Cost Element		Cost Element		Cost Element		Cost Element		Cost Element		Cost Element	
	0 LABOR $		0 S/C $		0 MAT'L. $		0 EQUIP. $		0 PPE $			
Cost Drivers	Base $	$0	Base $		Base $	$0	Base $		Base $	$0	Base $	$0
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
Productivity	-1%	12%										
Unit Pricing					-1%	8%	-1%	12%	-1%	8%		
Contamination	-1%	10%										
Technology												
Regulations/Laws												
Quantity Variation	-1%	5%			-1%	5%	-1%	5%				
Project Definition												
Other												
Range - %	-3%	27%	0%	0%	-2%	13%	-2%	17%	-1%	8%	0%	0%
Range - $	$0	$0	$0	$0	$0	$0	#VALUE!	#VALUE!	$0	$0	$0	$0
Distribution												
Correlation Rank												

Analyst: _____

Client: _____

COST IMPACT MATRIX SHEET

Estimate No.: C3-2001-05-005
Project: Lab Complex Utility Redistribution
Client: DOE
WBS: 1.1.B.E B

Fluor Fernald, Inc.

Est. Chg. No: ~~BLAB2~~ BFUD2
Date: 08-May-01
Estimator: Ed Lumbert
Location: FERNALD

Base Estimate Total ~~$10,200~~	Cost Element		Cost Element		Cost Element		Cost Element		Cost Element		Cost Element	
	obilization & Demobilizati		obilization & Demobilizati		obilization & Demobilizati		obilization & Demobilizati		obilization & Demobilizati			
	LABOR $		S/C $		MAT'L. $		EQUIP. $		PPE $			
Cost	Base $	$2,990	Base $	$0	Base $	$0	Base $		Base $	$0	Base $	$0
Drivers	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
Productivity	-1%	8%										
Unit Pricing					-1%	8%	-1%	8%	-1%	8%		
Contamination												
Technology												
Regulations/Laws												
Quantity Variation												
Project Definition	-1%	5%										
Other												
Range - %	-2%	13%	0%	0%	-1%	8%	-1%	8%	-1%	8%	0%	0%
Range - $	$2,930	$3,379	$0	$0	$0	$0	#VALUE!	#VALUE!	$0	$0	$0	$0
Distribution	U											
Correlation Rank												

	Cost Element		Cost Element		Cost Element		Cost Element		Cost Element		Cost Element	
	0		0		0		0		0			
	LABOR $		S/C $		MAT'L. $		EQUIP. $		PPE $			
Cost	Base $	$0	Base $	$0	Base $	$0	Base $		Base $	$0	Base $	$0
Drivers	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
Productivity	-1%	15%										
Unit Pricing					-1%	12%	-1%	10%	-1%	8%		
Contamination							-1%	10%				
Technology												
Regulations/Laws												
Quantity Variation					-1%	5%						
Project Definition	-1%	5%										
Other												
Range - %	-2%	20%	0%	0%	-2%	17%	-2%	20%	-1%	8%	0%	0%
Range - $	$0	$0	$0	$0	$0	$0	#VALUE!	#VALUE!	$0	$0	$0	$0
Distribution												
Correlation Rank												

Analyst: 5/9/01

Client: _____

Fluor Fernald, Inc.

PROJECTS CONTROLS
ESTIMATING SERVICES

May 10, 2001

PROJECT DESCRIPTION: Miscellaneous Structures Utility Redistribution
WBS NUMBER: 1.1.B.~~V~~ B
PROJECT ENGINEER: Harry Gear
ESTIMATOR: Ed Lumbert
ESTIMATE NUMBER: C3-2001-05-012

BASIS OF ESTIMATE

SUPPORTING DOCUMENTATION:

Verbal Scope	☐	P & ID's	☐	Work Plan	☐
Drawings	☐	Equipment List	☐	Site Walk	☒
Sketches	☐	Specifications	☐	Eng. Mtg.	☐
Flow Diagrams	☐	Written Scope	☒	Estimate.	☐

TYPE OF ESTIMATE:

Change Proposal	☐	Government	☐
Plan/Feasibility	☐	Conceptual	☐
Construction	☐	Title I Design	☐
Budget	☒	Independent	☐

BASIS OF ESTIMATE:

Prepare a control estimate to determine the cost of Utility Redistribution for Miscellaneous Structures. Estimate to include manhours, labor, material, equipment, and subcontract costs for the following scope of work:

Install new lift station north of Taco trailers.
Install new lift station to collect sewerage from Silo Area and AWWT.
Refeed electrical power supply to main parking lot lighting.
Refeed electrical power to two (2) air compressors.
Refeed substation in Building 20A vie overhead 13.2kv pole line.

Fluor Fernald, Inc.
PROJECTS CONTROLS
ESTIMATING SERVICES

May 10, 2001

PROJECT DESCRIPTION: Miscellaneous Structures Utility Redistribution
WBS NUMBER: 1.1.B.4B
PROJECT ENGINEER: Harry Gear
ESTIMATOR: Ed Lumbert
ESTIMATE NUMBER: C3-2001-05-012

ESTIMATE ASSUMPTIONS

EXECUTION:

- ☒ This project is to be performed on a 40-hour week, 10 hours a day.
- ☐ This project is to be performed on a 40-hour week, 8 hours a day.
- ☐ Premium time allowed.

WAGE RATES:

- ☐ Wage rates within this estimate are based on Project Labor Agreement rates, effective October 2000 and are considered FY01 dollars for estimating.
- ☒ Wage rates within this estimate are based on FF Support Contractor FSC 599 wage rates, effective October 1999 have been escalated 3% and are considered FY01 dollars for estimating.
- ☐ Wage rates within this estimate are based on FF FTE Planning Labor Rates FY01.

ENGINEERING:

- ☒ N/A
- ☐ Engineering dollars provided by the Project Engineer.
- ☐ Engineering dollars have been factored in at the standard 12% of the total direct and indirect field costs as per request of Project Engineer.

CONSTRUCTION MANAGEMENT:

- ☒ N/A
- ☐ Construction Management dollars provided by the Project Engineer.
- ☐ Construction Management dollars have been factored in at the standard 30% of the total direct and indirect field costs as per request of Project Engineer.

PROJECT MANAGEMENT:

- ☒ N/A
- ☐ Project Management dollars provided by the Project Engineer.
- ☐ Project Management dollars have been factored in at the standard 30% of the total direct and indirect field costs as per request of Project Engineer.

WASTE PROGRAM MANAGEMENT:

- ☒ N/A
- ☐ Waste Program Management dollars provided by the Project Engineer.

Fluor Fernald, Inc.
PROJECTS CONTROLS
ESTIMATING SERVICES

May 10, 2001

PROJECT DESCRIPTION: Miscellaneous Structures Utility Redistribution
WBS NUMBER: 1.1.B.~~U~~B
PROJECT ENGINEER: Harry Gear
ESTIMATOR: Ed Lumbert
ESTIMATE NUMBER: C3-2001-05-012

PRODUCTIVITY:

A productivity factor has been developed and applied to the unit man-hours derived from MEANS, Richardson, NECA, and or any other published estimating source. See attachment APPENDIX "A" and APPENDIX "B".

ESCALATION:

Escalation costs are excluded from the target estimate. The escalation costs are calculated within the Micro-Frame computer system according to the plan for rebaselining.

UNIT RATES:

Unit man-hours, equipment and material dollars are based on Richardson, MEANS, NECA, and or other published rates.

G & A (HO EXPENSE):

G & A are excluded from the target estimate. The G & A cost are calculated within the Micro-Frame computer system according to the plan for rebaselining.

HEALTH PHYSICS:

See attached APPENDIX "C".

RISK BUDGET:

A cost element, based on a Risk Analysis calculated for this estimate to cover a statistical probability of a 50% chance of overrun/under run to the project. The target estimate is the sum of the base estimate and the risk budget.

CONTINGENCY:

An amount budgeted to cover costs that may result from incomplete design, unforeseen and unpredictable conditions, or uncertainties. Contingency is calculated as the delta between the 50% chance of overrun and the 5% chance of overrun, indicated on the risk analysis.

Fluor Fernald, Inc.

PROJECTS CONTROLS
ESTIMATING SERVICES

May 10, 2001

PROJECT DESCRIPTION: Miscellaneous Structures Utility Redistribution
WBS NUMBER: 1.1.B.~~U~~B
PROJECT ENGINEER: Harry Gear
ESTIMATOR: Ed Lumbert
ESTIMATE NUMBER: C3-2001-05-012

ESTIMATE INCLUSIONS & EXCLUSIONS

INCLUSIONS:

- Premobilization & Mobilization.
- Demobilization.
- Labor hours.
- Material dollars.
- Equipment dollars.

EXCLUSIONS:

- Premium time.
- Permits and fees.
- FF G & A (Home Office Expense).
- Construction Management.
- Any second tier subcontract costs.
- Project Management dollars.
- Waste Management dollars.

PROJECT: Misc Structural Utility Redistribution
ESTIMATE NO.: C3-2001-05-012
CLIENT: DOE
WBS NO.: 1.1.B.~~U~~ B

Fluor Fernald, Inc.

DATE: 10-May-01
ESTIMATOR: Ed Lumbert
LOCATION: FERNALD
TASK NO.: ~~BMSC2~~ BFU02

	DIRECT COST SUMMARY	QTY	UNIT	MAN-HOURS			COST / UNIT				LABOR	S/C	MAT'L	EQUIP	TOTAL
				Unit	Total	Rate	Labor	S/C	Mat'l	Equip					
	Misc Structures				4,488						$159,340	$10,000	$122,000	$8,840	$300,180
	DIRECT COST SUMMARY	**1**	**LOT**		**4,488**	**$35.51**					**$159,340**	**$10,000**	**$122,000**	**$8,840**	**$300,180**

s:\estdept\project estimates\c3\utility rebaseline 2001 pbs-02\12 misc structures\c3 200105012 misc struct sub support 200105

SUPPORT CONTRACTOR - Stated in FY01 DOLLARS

PROJECT: Misc Structural Utility Redistribution
ESTIMATE NO.: C3-2001-05-012
CLIENT: DOE
WBS NO.: 1.1.B.~~V~~ B

Fluor Fernald, Inc.

DATE: 10-May-01
ESTIMATOR: Ed Lumbert
LOCATION: FERNALD
TASK NO.: ~~BMSC2~~ BFU02

PPE LEVEL	Misc Structures pt 1/4	QTY	UNIT	MAN-HOURS Unit	MAN-HOURS Total	MAN-HOURS Rate	COST/UNIT Labor	COST/UNIT S/C	COST/UNIT Mat'l	COST/UNIT Equip	LABOR	S/C	MAT'L	EQUIP	TOTAL
	Building 25C D&D-														
	Install new list station north of														
	Taco trailers.														
mD	Survey, Layout	20	mh	1.000	27	33.93			0.50		$929		$10		$939
mD	Excavation	375	cy	0.107	55	33.93					$1,862				$1,862
mD	Bedding Material	8	cy	0.249	3	33.93			17.00		$93		$136		$229
mD	Install 6" Sanitary	200	lf	0.076	21	41.55			6.65		$865		$1,330		$2,195
mD	Concrete for Lift Station	15	cy	2.942	60	33.93			75.00		$2,051		$1,125		$3,176
mD	Lift Station	1	ea	20.000	27	33.93			15,000.00		$929		$15,000		$15,929
mD	Backfill	352	cy	0.895	431	33.93					$14,640				$14,640
mD	480v Overhead Cable	200	lf	0.080	22	38.12			20.75		$835		$4,150		$4,985
mD	Service Entrance Cap, 1 1/2" dia	1	ea	1.200	2	38.12			11.25		$63		$11		$74
mD	Conduit, 1 1/2" dia, RGS	50	lf	0.100	7	38.12			1.70		$261		$85		$346
mD	Conduit fittings, 1 1/2" dia	1	ls	8.000	11	38.12			100.00		$418		$100		$518
mD	#1/0 AL Power cable	1	clf	2.000	3	38.12			42.62		$104		$43		$147
mD	Ground Wire, Copper	100	lf	0.050	7	38.12			0.44		$261		$44		$305
mD	Disconnect Switch 480v 3ph	1	ea	8.000	11	38.12			250.00		$418		$250		$668
mD	Crane Rental w/Operator	20	hr							96.00				$1,920	$1,920
C+	Decontaminate Equipment	40	hr	0.500	42	33.34			3.00		$1,400		$130		$1,530
mD	Electrical Tie-In	40	hr	1.000	55	38.12					$2,088				$2,088
mD	Plumbing Tie in	160	hr	1.000	219	26.40			5.00		$5,784		$800		$6,584
mD	Allowance for Hardware	120	hr	1.000	164	38.12			20.00		$6,264		$2,400		$8,664
mD	Install Temporary Utilities	40	hr	1.000	55	38.12				by FDF	$2,100				$2,100
mD	Remove Temporary Utilities	40	hr	1.000	55	38.12				by FDF	$2,100				$2,100
mD	Complete Punch List Items	20	hr	1.000	27	38.12				by FDF	$1,030				$1,030
	Misc Structures pt 1/4														

PROJECT: Misc Structural Utility Redistribution
ESTIMATE NO.: C3-2001-05-012
CLIENT: DOE
WBS NO.: 1.1.B.~~U~~ B

Fluor Fernald, Inc.

DATE: 10-May-01
ESTIMATOR: Ed Lumbert
LOCATION: FERNALD
TASK NO.: ~~BMSC2~~ BFUD2

PPE LEVEL	Misc Structures pt 2/4	QTY	UNIT	MAN-HOURS Unit	MAN-HOURS Total	MAN-HOURS Rate	COST / UNIT Labor	COST / UNIT S/C	COST / UNIT Mat'l	COST / UNIT Equip	LABOR	S/C	MAT'L	EQUIP	TOTAL
	Building 25C D&D-														
	Install new lift station to collect														
	sewerage from Silo Area and AWWT.														
mD	Survey, Layout	20	mh	1.000	27	33.93			0.50		$929		$10		$939
mD	Excavation	730	cy	0.107	107	33.93				1.21	$3,630			$883	$4,513
mD	Bedding Material	16	cy	0.249	5	33.93			17.00	1.21	$185		$272	$19	$476
mD	Install 6" Sanitary	400	lf	0.076	42	41.55			6.65		$1,730		$2,660		$4,390
mD	Concrete for Lift Station	15	cy	2.942	60	33.93			75.00	1.05	$2,051		$1,125	$16	$3,192
mD	Lift Station	1	ea	20.000	27	33.93			15,000.00		$929		$15,000		$15,929
mD	Backfill	352	cy	0.895	431	33.93					$14,640				$14,640
mD	480v Overhead Cable	200	lf	0.080	22	38.12			20.75		$835		$4,150		$4,985
mD	Service Entrance Cap, 1 1/2" dia	1	ea	1.200	2	38.12			11.25		$63		$11		$74
mD	Conduit, 1 1/2" dia, RGS	50	lf	0.100	7	38.12			1.70		$261		$85		$346
mD	Conduit fittings, 1 1/2" dia	1	ls	8.000	11	38.12			100.00		$418		$100		$518
mD	#1/0 AL Power cable	1	clf	2.000	3	38.12			42.62		$104		$43		$147
mD	Ground Wire, Copper	100	lf	0.050	7	38.12			0.44		$261		$44		$305
mD	Disconnect Switch 480v 3ph	1	ea	8.000	11	38.12			250.00		$418		$250		$668
mD	Crane Rental w/Operator	20	hr							96.00				$1,920	$1,920
C+	Decontaminate Equipment	40	hr	0.500	42	33.34			3.00		$1,400		$130		$1,530
mD	Electrical Tie-In	40	hr	1.000	55	38.12					$2,088				$2,088
mD	Plumbing Tie in	160	hr	1.000	219	26.40			5.00		$5,784		$800		$6,584
mD	Allowance for Hardware	120	hr	1.000	164	38.12			20.00		$6,264		$2,400		$8,664
mD	Install Temporary Utilities	40	hr	1.000	55	38.12				by FDF	$2,100				$2,100
mD	Remove Temporary Utilities	40	hr	1.000	55	38.12				by FDF	$2,100				$2,100
mD	Complete Punch List Items	20	hr	1.000	27	38.12				by FDF	$1,030				$1,030
	Misc Structures pt 2/4														

PROJECT: Misc Structural Utility Redistribution
ESTIMATE NO.: C3-2001-05-012
CLIENT: DOE
WBS NO.: 1.1.B~~U~~B

Fluor Fernald, Inc.

DATE: 10-May-01
ESTIMATOR: Ed Lumbert
LOCATION: FERNALD
TASK NO.: ~~BMSC2~~ BFUD2

PPE LEVEL	Misc Structures pt 3/4	QTY	UNIT	MAN-HOURS Unit	MAN-HOURS Total	MAN-HOURS Rate	COST / UNIT Labor	COST / UNIT S/C	COST / UNIT Mat'l	COST / UNIT Equip	LABOR	S/C	MAT'L	EQUIP	TOTAL
	Building 16B D&D-														
	Refeed electrical power supply to the Main Parking Lot lights and Main Entrance Road lighting system.														
mD	Survey, Layout	20	mh	1.000	27	33.93			0.50		$929		$10		$939
mD	Install Power Poles	2	ea	11.765	32	38.12			525.00		$1,228		$1,050		$2,278
mD	Guy Wire, Anchor, Hardware for	2	ea	4.000	11	36.72			375.00		$402		$750		$1,152
mD	480v Overhead Cable	1,000	lf	0.080	110	38.12			20.75		$4,176		$20,750		$24,926
mD	Service Entrance Cap, 1 1/2" dia	1	ea	1.200	2	38.12			11.25		$63		$11		$74
mD	Conduit, 1 1/2" dia, RGS	50	lf	0.100	7	38.12			1.70	0.40	$261		$85	$20	$366
mD	Conduit fittings, 1 1/2" dia	1	ls	8.000	11	38.12			100.00		$418		$100		$518
mD	#1/0 AL Power cable	1	clf	2.000	3	38.12			42.62		$104		$43		$147
mD	Ground Wire, Copper	100	lf	0.050	7	38.12			0.44		$261		$44		$305
mD	Disconnect Switch 480v 3ph	1	ea	8.000	11	38.12			250.00		$418		$250		$668
mD	Allowance for Hardware	23	hr	1.000	31	38.12			20.00		$1,175		$450		$1,625
mD	Electrical Tie-In	10	hr	1.000	14	38.12					$522				$522
mD	Paving Repair Allowance	1	ls					10,000.00				$10,000			$10,000
mD	Auger/Bucket Truck Rental w/O	10	hr							80.00				$800	$800
mD	Lock and Tag	2	hr	1.000	3	38.12					$104				$104
mD	Install Temporary Utilities	40	hr	1.000	55	38.12				by FDF	$2,100				$2,100
mD	Remove Temporary Utilities	40	hr	1.000	55	38.12				by FDF	$2,100				$2,100
mD	Complete Punch List Items	40	hr	1.000	55	38.12				by FDF	$2,100				$2,100
C+	Decontaminate Equipment	40	hr	0.500	42	33.34			3.00		$1,400		$130		$1,530
	Building 93A D&D-														
	Refeed electical power toair compressors.														
mD	480v Overhead Cable	1,000	lf	0.080	110	38.12			20.75		$4,176		$20,750		$24,926
mD	Service Entrance Cap, 1 1/2" dia	1	ea	1.200	2	38.12			11.25		$63		$11		$74
mD	Conduit, 1 1/2" dia, RGS	50	lf	0.100	7	38.12			1.70	0.40	$261		$85	$20	$366
mD	Conduit fittings, 1 1/2" dia	1	ls	8.000	11	38.12			100.00		$418		$100		$518
mD	#1/0 AL Power cable	1	clf	2.000	3	38.12			42.62		$104		$43		$147
mD	Ground Wire, Copper	100	lf	0.050	7	38.12			0.44		$261		$44		$305
mD	Disconnect Switch 480v 3ph	1	ea	8.000	11	38.12			250.00		$418		$250		$668
mD	Allowance for Hardware	23	hr	1.000	31	38.12			20.00		$1,175		$450		$1,625
mD	Electrical Tie-In	10	hr	1.000	14	38.12					$522				$522
mD	Lock and Tag	2	hr	1.000	3	38.12					$104				$104
mD	Install Temporary Utilities	40	hr	1.000	55	38.12				by FDF	$2,100				$2,100
mD	Remove Temporary Utilities	40	hr	1.000	55	38.12				by FDF	$2,100				$2,100
mD	Complete Punch List Items	40	hr	1.000	55	38.12				by FDF	$2,100				$2,100
	Misc Structures pt 3/4														

PROJECT: Misc Structural Utility Redistribution
ESTIMATE NO.: C3-2001-05-012
CLIENT: DOE
WBS NO.: 1.1.B.~~8~~ B

Fluor Fernald, Inc.

DATE: 10-May-01
ESTIMATOR: Ed Lumbert
LOCATION: FERNALD
TASK NO.: ~~BMSC2~~ BFUD2

PPE LEVEL	Misc Structures pt4/4	QTY	UNIT	MAN-HOURS Unit	MAN-HOURS Total	MAN-HOURS Rate	COST / UNIT Labor	COST / UNIT S/C	COST / UNIT Mat'l	COST / UNIT Equip	LABOR	S/C	MAT'L	EQUIP	TOTAL
	Area 4A Excavation- Refeed Substation in 20A via overhead 13.2kv pole line.														
mD	Survey, Layout	60	mh	1.000	82	33.93			0.50		$2,788		$30		$2,818
mD	Install Power Poles	9	ea	11.765	145	38.12			525.00		$5,528		$4,725		$10,253
mD	Guy Wire, Anchor, Hardware for	4	ea	4.000	22	36.72			375.00		$805		$1,500		$2,305
mD	Overhead #2 ACSR "Sparrow" \	5,000	lf	0.008	55	38.12			0.60		$2,088		$3,000		$5,088
mD	Switch, Fuse Cut	3	ea	12.500	51	38.12			800.00		$1,958		$2,400		$4,358
mD	3ph Overhead Switch	1	ls	40.000	55	38.12			4,000.00		$2,088		$4,000		$6,088
mD	13.2 kv U/G Cable Termination	3	ea	1.739	7	38.12			500.00		$272		$1,500		$1,772
mD	U/G Cable	300	lf	0.080	33	38.12			2.00		$1,253		$600		$1,853
mD	Cable Splice	3	ea	2.759	11	38.12			600.00		$432		$1,800		$2,232
mD	Allowance for Hardware	80	hr	1.000	110	38.12			50.00		$4,176		$4,000		$8,176
mD	Electrical Tie-In	80	hr	1.000	110	38.12					$4,176				$4,176
mD	Survey, Layout	20	mh	1.000	27	33.93			0.50		$929		$10		$939
mD	Excavation, hand	8	cy	2.000	22	33.93				1.21	$744			$10	$754
mD	Bedding Material	1	cy	0.249	0	33.93			17.00	1.21	$12		$17	$1	$30
mD	Conduit, 1 1/2" dia, RGS	50	lf	0.100	7	38.12			1.70	0.40	$261		$85	$20	$366
mD	Conduit fittings, 1 1/2" dia	1	ls	8.000	11	38.12			100.00		$418		$100		$518
mD	Backfill	8	cy	0.895	10	33.93				0.72	$333			$6	$339
mD	Auger/Bucket Truck Rental w/O	40	hr							80.00				$3,200	$3,200
mD	Lock and Tag	2	hr	1.000	3	38.12					$104				$104
mD	Install Temporary Utilities	40	hr	1.000	55	38.12				by FDF	$2,100				$2,100
mD	Remove Temporary Utilities	40	hr	1.000	55	38.12				by FDF	$2,100				$2,100
mD	Complete Punch List Items	40	hr	1.000	55	38.12				by FDF	$2,100				$2,100
C+	Decontaminate Equipment	40	hr	0.500	42	33.34			3.00		$1,400		$130		$1,530
	Misc Structures pt4/4				**4,488**						**$159,340**	**$10,000**	**$122,000**	**$8,840**	**$300,180**

SUPPORT CONTRACTOR ESTIMATE SUMMARY SHEET

Fluor Fernald, Inc.

PROJECT: Misc Structural Utility Redistribution
ESTIMATE NO.: C3-2001-05-012
CLIENT: DOE
WBS NO.: 1.1.B.~~U~~B

DATE: 10-May-01
ESTIMATOR: Ed Lumbert
LOCATION: FERNALD
TASK NO: ~~BMSC2~~ BFUD2

	DESCRIPTION	M/H	AVG. RATE	SPT.CONT. LABOR $	FERNALD S/C / OTHER	MAT'L $	EQUIP $	TOTAL $
	Misc Structures	4,488		$159,340	$10,000	$122,000	$8,840	$140,840
SUPPORT CONT. / FF D. F. COST TOTAL		4,488	$35.51	$159,340	$10,000	$122,000	$8,840	$140,840
SUPERVISION		853		$43,100				
SMALL TOOLS & CONSUMABLES						$17,500		$17,500
MISC. EQUIP.RENTAL								
JOB CLEAN-UP		203		$7,200		$2,400		$2,400
SAFETY		87		$3,100		$1,700		$1,700
HEALTH PHYSICS S/C		169		$6,000				
JOB SPECIFIC TRAINING								
SUPPORT CONT. INDIRECT FIELD COST TOTAL		1,312		$59,400				
SUPPORT CONT. TOTAL BILLABLE COSTS		5,799	$37.72	$218,740				
TEMPORARY FACILITIES								
TEMPORARY UTILITY HOOK-UP								
FD FERNALD SALES TAX						$8,600	$500	$9,100
FF INDIRECT FIELD COSTS TOTAL						$30,200	$500	$30,700
FF DIRECT & INDIRECT FIELD COSTS TOTAL					$10,000	$152,200	$9,340	$171,540
FF and SUPT.CONT. DIRECT & INDIRECT FIELD COST TOTAL				$218,740	$10,000	$152,200	$9,340	$390,280
SUB-TOTAL (BASE ESTIMATE)								$390,280
TARGET ESTIMATE	**(FY 01 DOLLARS)**							$390,280

ESTIMATE PERFORMED BY

SUPPORT CONTRACTOR ESTIMATE SUMMARY SHEET

PROJECT: Misc Structural Utility Redistributior
ESTIMATE NO.: C3-2001-05-012
CLIENT: DOE
WBS NO.: 1.1.B.~~5~~ B

DATE: 10-May-01
ESTIMATOR: Ed Lumbert
LOCATION: FERNALD
TASK NO.: ~~BMSC2~~ BFU02

FACTORS

	SUPT.CONT.	FD FERNALI					PROJECT
	LABOR $	LABOR $	S/C $	MAT'L. $	EQUIP. $	PPE $	TOTAL $
DFC DOLLARS	$159,340		$10,000	$122,000	$8,840		$300,180
IFC COST FACTOR	1.3728	1.0000	1	1.1770	1.0000	--	
SALES TAX COST FACTOR	--	--	--	1.0600	1.0600	1.0600	
BOND + OVERHEAD & PROFIT COST FACTOR	N/A	N/A	N/A	N/A	N/A	N/A	
DIRECT FIELD COST FACTOR =	1.3728	1.0000	1.0000	1.2477	1.0600	1.0600	
DIRECT BASE ESTIMATE $'s	$218,740		10000	$152,220	$9,370		$390,330
RISK BUDGET FACTOR	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
DIRECT TARGET ESTIMATE FACTOR	1.3728	1.0000	1	1.2477	1.0600	1.0600	
DIRECT TARGET ESTIMATE (FY00 DOLLARS)	$218,740		10000	$152,220	$9,370		$390,330

NOTE:

1.) If there are no equipment rental costs in the "Directs" (0 $'s in I20) and the default allowance of $3.50 per MH has been used in the "indirects", input the indirect Equip. $'s in H62 and put a dash in H63. This will treat the Equip. $'s as direct cost and apply the sales tax factor. On page 3 below, insert the equipment $'s in any pay items that apply.

SUPPORT CONTRACTOR ESTIMATE SUMMARY SHEET

PROJECT: Misc Structural Utility Redistributior
DATE: 10-May-01
ESTIMATE NO.: C3-2001-05-012
ESTIMATOR: Ed Lumbert
CLIENT: DOE
LOCATION: FERNALD
WBS NO.: 1.1.B.~~U~~ B
TASK NO.: ~~BMSC2~~ BFUD2

Direct Field Cost w/FACTORS

PAY ITEM NO.	DESCRIPTION	SUPPORT CONT. LABOR $	FF LABOR $	S/C $	MAT'L. $	EQUIP. $	PPE $	PROJECT TOTAL $
	PPE							
	Misc Structures	159340		10000	122,000	8,840		
		$218,740		$10,000	$152,220	$9,370		$390,330
SUB-TOTAL - SUPPORT CONTRACTOR		$218,740						$218,740
SUB-TOTAL - FF				$10,000	$152,220	$9,370		$171,590
TOTAL DIRECT FIELD COSTS w/FACTORS								$390,330

NOTE: The above costs exclude any FD Fernald support costs that may appear on page 1 & 2, such as Waste Disposition, Engineering, Project Management, or Construction Management.

APPENDIX " A"

PROJECT: Misc Structural Utility Redistribution
ESTIMATE NO C3-2001-05-012
CLIENT: DOE
WBS NO.: 1.1.B~~U~~B

SITE SPECIFIC

EFFICIENCY / MULTIPLIER ANALYSIS

DATE: 10-May-01
ESTIMATOR: Ed Lumbert
LOCATION: FERNALD
TASK NO.: ~~BM302~~ BFUD2

PERCENT OF INFLUENCE ON CHART MANHOURS

	40%	50%	60%	70%	80%	90%	100%	105%	110%	% OF INFLUENCE	WT'D VALUE	PROD. RESULT
CRAFT SKILL (NOTE 1)	POOR			FAIR			STD	V.GOOD	EXCELLENT	100.0%	12.0%	0.12
CRAFT AVAIL.(NOTE 1)		POOR		FAIR			STD			100.0%	8.0%	0.08
CLIMATE (NOTE 2)	SEVERE	ICE/SNOW			RAIN		+40 TO +85			90.0%	20.0%	0.18
PLANT ELEVATION		OVER 10,000FT			5,000' TO 10,000 FT		UNDER 5,000 FT			100.0%	5.0%	0.05
WORK SPACE				200 SF	250 SF	300 SF	350 SF			100.0%	10.0%	0.1
WORK WEEK	<---- MULTIPLE SHIFTS-						4-10s / 5-8s			100.0%	15.0%	0.15
50 HOUR WORK WEEK	//////// MULTIPLE-SHIFT ////////			OVER 7 WEEKS	3 TO 7 WEEKS	UP TO 3 WEEKS						
60 HOUR WORK WEEK			OVER 7 WEEKS	3 TO 7 WEEKS	UP TO 3 WEEKS							
SHIFTWORK 2ND SHIFT 3RD SHIFT			3RD SHIFT		2ND SHIFT		OR ONE SHIFT ONLY			100.0% 100.0%	3.0% 5.0%	0.03 0.05
PROJECT SIZE					400M MH AND UP	300M TO 400M MH	200M TO 300M MH	200M MH OR LESS		105.0%	4.0%	0.042
PLANT TYPE				REVAMP ONLY	REVAMP & NEW	NEW IN EXIST PLT	GRASS ROOTS			80.0%	8.0%	0.064
AREA/UNION INFLUENCE	STRONG		MILD		SOME		NONE			70.0%	10.0%	0.07
											100.0%	93.6%

NOTES.....
1. TURNOVER HAS BEEN CONSIDERED
2. FOR EXTERIOR WORK ONLY

EFFICIENCY (AS A % OFF CHART MANHOURS) 93.6%

MULTIPLIER - (TO BE APPLIED TO CHART M.H.'S TO OBTAIN SITE M.H.'S) 1.07

APPENDIX "B"

EFFICIENCY FACTORS

PROJECT Misc Structural Utility Redistribution
ESTIMATE C3-2001-05-012
CLIENT: DOE
WBS NO.: 1.1.B.~~5~~ B

Fluor Fernald, Inc.

DATE: 10-May-01
ESTIMATOI Ed Lumbert
LOCATION: FERNALD
TASK NO.: ~~BMSC2~~ BFUD2

EXAMPLE:

STANDARD CHART MANHOURS =	NET	100
EFFICIENCY FACTORS:		
* SITE SPECIFIC (SEE APPENDIX A	7%	7.0
S/T = BASE UNIT MANHOURS		107
OVERTIME PRODUCTIVITY FACTOF	0.00%	0
(SEE DETAIL WORKSHEET BACK-UP)		107
* TASK SPECIFIC (confined space,	0.0%	0
high elevation, congestion, etc.)		107
* PPE SPECIFIC (Based on current data and estimating knowledge)		

	PPE LEVEL											
	D		Mod.'D'		Mod. "C"		C		C+		B	
PRODUCTIVITY HOURS		MH's	MULTIPLIER	MH's	MULTIPLIER	MH's	MULTIPLIER	MH's	MULTIPLIER	MH's	MULTIPLIER	MH's
(AS A %) / ADD MH's	4.00%	4	28.00%	30	66.00%	71	74.00%	79	96.00%	103	110.00%	118
LTIPLIER)/TOTAL HRS	1.04	111.3	1.28	137	1.66	177.6	1.74	186.2	1.96	209.7	2.10	224.7
TAL MULT. * SITE PRC	1.1128		1.3696		1.7762		1.8618		2.0972		2.0972	

NOTE : Use the Default Productivity Factor of 'mC' for working in a contaminated area if the Safety Level cannot be determined.

(SEE FD FERNALD ESTIMATING SERVICES REFERENCE MANUAL IM-6006 8.10)

Total hours worked in a specific PPE level divided by 10 hour working days = (PPE) ManDays to determine material cost of PPE's.
(SEE APPENDIX C - HEALTH PHYSICS)

	11.0	Man Days	14.0	Man Days	18.0	Man Days	19.0	Man Days	21.0	Man Days	22.0	Man Days

THESE EFFICIENCY FACTORS WERE APPLIED INDIVIDUALLY THROUGHOUT THE ESTIMATE AT A TASK SPECIFIC LEVEL, TO OBTAIN A MORE ACCURATE ACCOUNT OF OVERALL EFFICIENCY IMPACT DUE TO PPE REQUIREMENTS IN HANDLING CONTAMINATED AND HAZARDOUS WASTE.

APPENDIX "B"

EFFICIENCY FACTORS

PROJECT Misc Structural Utility Redistribution
ESTIMATE C3-2001-05-012
CLIENT: DOE
WBS NO.: 1.1.B.~~5~~ B

DATE: 10-May-01
ESTIMATOI Ed Lumbert
LOCATION FERNALD
TASK NO.: ~~BMSC2~~ BFUD2

PPE MULTIPLIER DEVELOPEMENT

	D	mD	mC	C	C+	B
CREW SIZE & MAKE-I STANDARD	7	7	7	7	7	7
WORKER-BUDDY	0	0	0	0	0	0
SUPPORT TEAM	0	0	0	0	0	0
TOTAL CREW	7	7	7	7	7	7
CREW SIZE RATIO	1.00	1.00	1.00	1.00	1.00	1.00
AVAILABLE WORK TIME FACTOR	0.96	0.78	0.70	0.70	0.68	0.68
PPE LABOR PRODUCTIVITY FACTOR	1	1	0.86	0.82	0.75	0.70
NET PRODUCTIVITY RATIO	0.96	0.78	0.602	0.574	0.51	0.476
NET PRODUCTIVITY MULTIPLIER	**1.04**	**1.28**	**1.66**	**1.74**	**1.96**	**2.10**

These factors were based on Tables 6.1 and 6.2, Moderate Work Efforts, 66F to 85F temperature of 'Hazardous Waste Cost Control' by R.A.Selg.
Modifications were made to reflect a 10 hour work day and no buddy system or support team for levels D, mC and C.
The worker-buddy and support team members, if required, may be covered under Construction Mgmt. (Rad Techs).

AVAILABLE WORK TIME FACTOR		D	mD	mC	C	C+	B
TOTAL WORK MINUTI 4 - 10's		600	600	600	600	600	600
ADDITN'L.SITE SAFETY MEETINGS	QUANTITY	1	1	1	1	1	1
	MINUTES	25	25	25	25	25	25
TOTAL		25	25	25	25	25	25
PPE DON & DOFFING	QUANTITY	0	0	3	3	3	3
(ADJUST LEVEL D per WORK PLAN	MINUTES	0	0	15	15	20	20
TOTAL			0	45	45	60	60
WORK BREAKS	QUANTITY	N/A	2	2	2	2	2
(ADJUST LEVEL D per WORK PLAN	MINUTES	N/A	15	15	15	15	15
TOTAL			30	30	30	30	30
MOBILIZATION - ROUND TRIPS	QUANTITY	N/A	4	4	4	4	4
(ADJUST LEVEL D per WORK PLAN	MINUTES	N/A	15	15	15	15	15
TOTAL			60	60	60	60	60
COOLDOWNS PER DAY	QUANTITY	N/A	4	4	4	4	4
** (4 OUT OF 12 MONT 33.33%	MINUTES	N/A	15	15	15	15	15
TOTAL			20	20	20	20	20
AIR TANK REPLACEMENT	QUANTITY	N/A	N/A	N/A	N/A	N/A	N/A
	MINUTES	N/A	N/A	N/A	N/A	N/A	N/A
TOTAL							
AVAILABLE WORK TIME		575	465	420	420	405	405
AVAILABLE WORK TIME FACTOR		**0.96**	**0.78**	**0.7**	**0.7**	**0.68**	**0.68**

NOTE: Adjust 'Work Minutes per Day' basis to: 5 - 8's, or leave as 4 - 10's . Any other circumstances, over-ride the minutes per day.

** Assumption based on work performed in May, June, July & August, pro-rating cost over one year. Adjust % to individual circumstances.

APPENDIX "C"

HEALTH PHYSICS

PROJECT: Misc Structural Utility Redistribution
ESTIMATE NO C3-2001-05-012
CLIENT: DOE
WBS NO.: 1.1.B~~U~~ B

Fluor Fernald, Inc.

DATE: 10-May-01
ESTIMATOR: Ed Lumbert
LOCATION: FERNALD
TASK NO.: ~~BMSC2~~ BFUD2

PPE's - PERSONAL PROTECTIVE EQUIPMENT

DESCRIPTION	UNIT	UNIT COST	* NO. OF CHANGE OUTS PER WORKER PER DAY / Man Days (TOTAL HOURS worked in PPE's Div. by WORK HOURS/DAY)			
PPE LEVEL C / C+		$'s	*	MAN DAYS	MAT'L.$'s	LEVEL
LAUNDRY COST per CHANGE	SET	1.96	1	0	$0	C/B
TYVEK COVER-ALL w/HOOD & BOOTIES - DIS	EA	4.46	3	0	$0	C/B
TYVEK COVER-ALL w/HOOD & BOOTIES - DIS	EA	4.46	3	0	$0	C/B
GLOVE LINER - DISPOSABLE	PR	0.24	3	0	$0	C/B
GLOVE, LASTEX - DISPOSABLE	PR	0.26	3	0	$0	C/B
GLOVE, WORK - DISPOSABLE	PR	1.02	3	0	$0	C/B
APR CARTRIDGES - DISPOSABLE, CLEANING	PR	9.38	3	0	$0	C/B
SUB-TOTAL				0	$0	
				$/MD =	#DIV/0!	

PPE LEVEL mC

RESS w/ FACE SHIELD		$'s		MAN DAYS	MAT'L.$'s	LEVEL
LAUNDRY COST per CHANGE	SET	1.96	1	0	$0	mC
LT.WT. DISPOSABLE COVERALLS W/HOOD &	PR	4.46	3	0	$0	mC
GLOVE LINER - DISPOSABLE	PR	0.24	3	0	$0	mC
GLOVE, LASTEX - DISPOSABLE	PR	0.26	3	0	$0	mC
GLOVE, WORK - DISPOSABLE	PR	1.02	3	0	$0	mC
SUB-TOTAL				0	$0	mC
				$/MD =	#DIV/0!	

PPE LEVEL D

LAUNDRY COST per CHANGE	SET	1.96	1	0	$0	D

SUBCONTRACTOR REQUIRED PURCHASES	UNIT		QTY. PER WKR.	NO. OF WORKERS	MAT'L. $'s	LEVEL
RUBBER BOOT COVERS-(1)PR.PER WORKER	PR	12.70	6	0	$0	D/C/B
APR w/HALF FACE MASK - (1) PER WORKER	EA	22.30	6	0	$0	C
APR w/FULL FACE MASK - (1) PER WORKER	EA	174.00	6	0	$0	C
SCBA	EA	1894.00	2	0	$0	B
COOL VESTS	EA	137.50	6	0	$0	C/B
THERMO STRIPS	EA	50.00	6	0	$0	C/B
SUB-TOTAL					$0	C/B

Total PPE Matl $ and Laundry $	$0

(FORWARD TO PAGE 2 OF 2)

OTHER PPE's SUCH AS HARD HAT, SAFETY GLASSES/GOGGLES, STEEL TOED SAFETY SHOES, HEARING PROTECTION, ARE CONSIDERED THE SUBCONTRACTORS RESPONSIBILITY AND ARE COVERED IN HIS OVERHEAD EXPENSE.
FD FERNALD SUPPLIED PPE's, SUCH AS COTTON COVERALLS, EXCHANGE OF RUBBER BOOT COVERS AND RESPIRATORS FOR CHANGEOUTS AND CLEANING OF SAME IS INCLUDED.

APPENDIX "C"

HEALTH PHYSICS

PROJECT: Misc Structural Utility Redistribution
ESTIMATE NO C3-2001-05-012
CLIENT: DOE
WBS NO.: 1.1.B.~~0~~ B

DATE: 10-May-01
ESTIMATOR: Ed Lumbert
LOCATION: FERNALD
TASK NO.: ~~BMSC2~~ BFUD2

--MEDICAL MONITORING --

MEDICAL - PHYSICAL and IN-VIVO MONITORING - LOST WORKER TIME for RAD II WORKERS ONLY

DESC. PHYSICAL (3hrs), IN-VIVO (1hr)	QTY	HRS	WKR	TOTAL HOURS	AVG. LABOR RATE	TOTAL LABOR $
BASELINE PHYSICALS	1	4	3	12	$35.51	$430
ANNUAL PHYSICALS	1	4	3	12	$35.51	$430
EXIT (TERMINATION) PHYSICALS (IN-VIVO)	1	1	3	3	$35.51	$110
SUB-TOTAL						$970

RADIATION IN-VITRO SURVEILLANCE - LOST WORKER TIME for RAD II WORKERS ONLY

DESC.	QTY	HRS	WKR	TOTAL HOURS	AVG. LABOR RATE	TOTAL LABOR $
BI-MONTHLY BIOASSAY	6	1	3	18	$35.51	$640
SUB-TOTAL						$640

RANDOM DRUG TESTING

	TESTS	HRS	TOTAL HRS	AVG. RATE	LABOR $'s
	3	2	6	$35.51	$200

NO. OF WKRS. TESTED	TESTING DAYS PER YR.	AVG. NO. OF TESTS PER DAY	CHANCE/ DAY FOR TEST	NO. OF WKRS. FOR THIS ESTIMATE	CHANCES /DAY FOR TEST for this PROJECT	CONSTR WORKING DAYS
2500	226	11	0.0044	3	0.0132	227

		LABOR $'s THRU SAFETY	LABOR $'s
WORK DELAYS CAUSED BY MONITORING	1.0%	$212,740	$2,100
			LABOR $'s
WORK DELAYS CAUSED BY RAD CHECKING	1.0%	$212,740	$2,100

	TOTAL LABOR	TOTAL MAT'L.	GRAND TOTAL
TOTAL HEALTH PHYSICS - FORWARD TO ESTIMATE SUMMARY SHEET	$6,000	$0	$6,000

APPENDIX "D"

ACTIVITY DURATIONS

PROJECT: Misc Structural Utility Redistribution
ESTIMATE N C3-2001-05-012
CLIENT: DOE
WBS NO.: 1.1.B.~~H~~ B

Fluor Fernald, Inc.

DATE: 10-May-01
ESTIMATOR: Ed Lumbert
LOCATION: FERNALD
TASK NO.: ~~BMSG2~~ BFUD2

ACTIVITY	EST. DATE	START DATE	MID POINT	COMPL. DATE	ACTIVITY	DURATION
CONSTRUCTION:	08-May-01	01-Oct-02	01-Apr-03	01-Oct-03	12.0	MONTHS
					0	MONTHS
TOTAL					12.0	MONTHS

	DATE of EST. to MID-POINT ACTIVITY DURATION	
a.	22.8	MONTHS
b.	0	MONTHS

ACTIVITY	EST. DATE	START DATE	MID POINT	COMPL. DATE	ACTIVITY	DURATION
OPERATIONS					0	MONTHS

DATE of EST. to MID-POINT ACTIVITY DURATION	
0	MONTHS

ACTIVITY DURATION IS USED IN DETERMINING NUMBER of WORKERS for CERCLA/SAT TRAINING HOURS and HEALTH PHYSICS COSTS.

COST IMPACT MATRIX SHEET

Estimate No.: C3-2001-05-012
Project: Misc Structural Utility Redistribution
Client: DOE
WBS: 1.1.B.~~U~~ B

Fluor Fernald, Inc.

Est. Chg. No.: B~~MSC2~~ BFUD2
Date: 10-May-01
Estimator: Ed Lumbert
Location: FERNALD

Base Estimate Total	Cost Element		Cost Element		Cost Element		Cost Element		Cost Element		Cost Element	
$390,330	Misc Structures LABOR $		Misc Structures S/C $		Misc Structures MAT'L. $		Misc Structures EQUIP. $		Misc Structures PPE $			
Cost Drivers	Base $	$218,740	Base $	$10,000	Base $	$152,220	Base $	$9,370	Base $	$0	Base $	$0
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
Productivity	-1%	8%	-1%	8%								
Unit Pricing					-1%	8%	-1%	8%	-1%	8%		
Contamination												
Technology												
Regulations/Laws												
Quantity Variation												
Project Definition	-1%	5%	-1%	5%								
Other												
Range - %	-2%	13%	-2%	13%	-1%	8%	-1%	8%	-1%	8%	0%	0%
Range - $	$214,365	$247,176	$9,800	$11,300	$150,698	$164,398	$9,276	$10,120	$0	$0	$0	$0
Distribution	U											
Correlation Rank												

	Cost Element		Cost Element		Cost Element		Cost Element		Cost Element		Cost Element	
	0 LABOR $		0 S/C $		0 MAT'L. $		0 EQUIP. $		0 PPE $			
Cost Drivers	Base $	$0	Base $	$0	Base $	$0	Base $	$0	Base $	$0	Base $	$0
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
Productivity	-1%	15%										
Unit Pricing					-1%	12%	-1%	10%	-1%	8%		
Contamination							-1%	10%				
Technology												
Regulations/Laws												
Quantity Variation					-1%	5%						
Project Definition	-1%	5%										
Other												
Range - %	-2%	20%	0%	0%	-2%	17%	-2%	20%	-1%	8%	0%	0%
Range - $	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Distribution												
Correlation Rank												

Analyst: _____

Client: _____

Fluor Fernald, Inc.
PROJECTS CONTROLS
ESTIMATING SERVICES

May 10, 2001

PROJECT DESCRIPTION: Hut 6 and Hut 4 Utility Redistribution
WBS NUMBER: 1.1.B.B
PROJECT ENGINEER: Tom Jesse
ESTIMATOR: Ed Lumbert
ESTIMATE NUMBER: C3-2001-05-017

BASIS OF ESTIMATE

SUPPORTING DOCUMENTATION:

Verbal Scope	☐	P & ID's	☐	Work Plan	☐
Drawings	☐	Equipment List	☐	Site Walk	☒
Sketches	☐	Specifications	☐	Eng. Mtg.	☐
Flow Diagrams	☐	Written Scope	☒	Estimate	☐

TYPE OF ESTIMATE:

Change Proposal	☐	Government	☐
Plan/Feasibility	☐	Conceptual	☐
Construction	☐	Title I Design	☐
Budget	☒	Independent	☐

BASIS OF ESTIMATE:

Prepare a control estimate to determine the cost of Utility Redistribution for 53A – Health & Safety. Estimate to include manhours, labor, material, equipment, and subcontract costs for the following scope of work:

Reroute power to Hut #6 and Hut#4 (East Trailer Park).

Fluor Fernald, Inc.
PROJECTS CONTROLS
ESTIMATING SERVICES

May 10, 2001

PROJECT DESCRIPTION: Hut 6 and Hut 4 Utility Redistribution
WBS NUMBER: 1.1.B.B
PROJECT ENGINEER: Tom Jesse
ESTIMATOR: Ed Lumbert
ESTIMATE NUMBER: C3-2001-05-017

ESTIMATE ASSUMPTIONS

EXECUTION:

- ☒ This project is to be performed on a 40-hour week, 10 hours a day.
- ☐ This project is to be performed on a 40-hour week, 8 hours a day.
- ☐ Premium time allowed.

WAGE RATES:

- ☒ Wage rates within this estimate are based on Project Labor Agreement rates, effective October 2000 and are considered FY01 dollars for estimating.
- ☐ Wage rates within this estimate are based on FF Support Contractor FSC 599 wage rates, effective October 1999 have been escalated 3% and are considered FY01 dollars for estimating.
- ☐ Wage rates within this estimate are based on FF FTE Planning Labor Rates FY01.

ENGINEERING:

- ☒ N/A
- ☐ Engineering dollars provided by the Project Engineer.
- ☐ Engineering dollars have been factored in at the standard 12% of the total direct and indirect field costs as per request of Project Engineer.

CONSTRUCTION MANAGEMENT:

- ☒ N/A
- ☐ Construction Management dollars provided by the Project Engineer.
- ☐ Construction Management dollars have been factored in at the standard 30% of the total direct and indirect field costs as per request of Project Engineer.

PROJECT MANAGEMENT:

- ☒ N/A
- ☐ Project Management dollars provided by the Project Engineer.
- ☐ Project Management dollars have been factored in at the standard 30% of the total direct and indirect field costs as per request of Project Engineer.

WASTE PROGRAM MANAGEMENT:

- ☒ N/A
- ☐ Waste Program Management dollars provided by the Project Engineer.

Fluor Fernald, Inc.
PROJECTS CONTROLS
ESTIMATING SERVICES

May 10, 2001

PROJECT DESCRIPTION: Hut 6 and Hut 4 Utility Redistribution
WBS NUMBER: 1.1.B.B
PROJECT ENGINEER: Tom Jesse
ESTIMATOR: Ed Lumbert
ESTIMATE NUMBER: C3-2001-05-017

PRODUCTIVITY:

A productivity factor has been developed and applied to the unit man-hours derived from MEANS, Richardson, NECA, and or any other published estimating source. See attachment APPENDIX "A" and APPENDIX "B".

ESCALATION:

Escalation costs are excluded from the target estimate. The escalation costs are calculated within the Micro-Frame computer system according to the plan for rebaselining.

UNIT RATES:

Unit man-hours, equipment and material dollars are based on Richardson, MEANS, NECA, and or other published rates.

G & A (HO EXPENSE):

G & A are excluded from the target estimate. The G & A cost are calculated within the Micro-Frame computer system according to the plan for rebaselining.

HEALTH PHYSICS:

See attached APPENDIX "C".

RISK BUDGET:

A cost element, based on a Risk Analysis calculated for this estimate to cover a statistical probability of a 50% chance of overrun/under run to the project. The target estimate is the sum of the base estimate and the risk budget.

CONTINGENCY:

An amount budgeted to cover costs that may result from incomplete design, unforeseen and unpredictable conditions, or uncertainties. Contingency is calculated as the delta between the 50% chance of overrun and the 5% chance of overrun, indicated on the risk analysis.

Fluor Fernald, Inc.

PROJECTS CONTROLS
ESTIMATING SERVICES

May 10, 2001

PROJECT DESCRIPTION: Hut 6 and Hut 4 Utility Redistribution
WBS NUMBER: 1.1.B.B
PROJECT ENGINEER: Tom Jesse
ESTIMATOR: Ed Lumbert
ESTIMATE NUMBER: C3-2001-05-017

ESTIMATE INCLUSIONS & EXCLUSIONS

INCLUSIONS:

- Premobilization & Mobilization.
- Demobilization.
- Labor hours.
- Material dollars.
- Equipment dollars.

EXCLUSIONS:

- Premium time.
- Permits and fees.
- FF G & A (Home Office Expense).
- Construction Management.
- Any second tier subcontract costs.
- Project Management dollars.
- Waste Management dollars.

ESTIMATE SUMMARY SHEET

Fluor Fernald, Inc.

PROJECT:	Hut #6 and Hut #4 utility Redistribut	DATE:	10-May-01
ESTIMATE #:	C3-2001-05-017	ESTIMATOR:	Ed Lumbert
CLIENT:	DOE	LOCATION:	Fernald
WBS #:	1.1.B.B	TASK NO.:	~~BADM2~~ BFUD2

ITEM DESCRIPTION	M/H	RATE	LABOR $	S/C $	MAT'L $	EQUIP. $	TOTAL $
PREMOBILIZATION	120		$3,620				$3,620
MOBILIZATION	80		$1,400	$3,000	$1,000	$1,000	$6,400
Reroute power to Hut#6 and Hut#4	378		$8,540	$6,400	$11,940	$420	$27,300
DEMOBILIZATION	140		$3,200				$3,200
DIRECT FIELD COSTS TOTAL	**718**	**$23.35**	**$16,760**	**$9,400**	**$12,940**	**$1,420**	**$40,520**
SUPERVISION - CONTRACTOR	138						
SMALL TOOLS & CONSUMABLES	-	-	-		$1,000		$1,000
MISC. EQUIP. RENTAL	-	-	-			$2,500	$2,500
TEMPORARY FACILITIES	22		$500		$500		$1,000
TEMPORARY UTILITY HOOK-UP	14		$300		$200		$500
JOB CLEAN-UP	32		$800		$300		$1,100
PER DIEM / SUBSISTANCE	-	-	-				
HEALTH PHYSICS S/C	17		$400		$100		$500
CERCLA - TRAINING	75		$1,800				$1,800
GET/SITE ACCESS & JOB SPECIFIC TRAINING	126		$2,900				$2,900
PAYROLL BURDENS & BENEFITS	-	-	$13,400				$13,400
OVERHEAD & PROFIT	-	-	-	$13,000			$13,000
BOND	-	-	-	$1,000			$1,000
SALES TAX	-	-	-		$900	$200	$1,100
INDIRECT FIELD COSTS TOTAL	**424**		**$20,100**	**$14,000**	**$3,000**	**$2,700**	**$39,800**
DIRECT & INDIRECT FIELD COSTS TOTAL	**1,141**	**$32.29**	**$36,860**	**$23,400**	**$15,940**	**$4,120**	**$80,320**
TARGET ESTIMATE			**(FY 01 DOLLARS)**				**$80,320**

ESTIMATE PERFORMED BY ESTIMATING SERVICES

ESTIMATE SUMMARY SHEET

PROJECT: Hut #6 and Hut #4 utility Redistribution

DATE: 10-May-01

ESTIMATE NO. C3-2001-05-017

FACTORS

ESTIMATOR: Ed Lumbert

CLIENT: DOE

LOCATION: Fernald

WBS NO.: 1.1.B.B

TASK NO.: ~~BADM2~~ BFUD2

FIXED PRICE $	LABOR $	S/C $	MAT'L. $	EQUIP. $	PPE $	TOTAL $
DFC DOLLARS	$16,760	$9,400	$12,940	$1,420	$100	$40,620
IFC COST FACTOR	2.1993	–	1.1546	2.7606	–	
BOND + OVERHEAD & PROFIT COST FACTOR	1.2111	1.2111	1.2111	1.2111	1.2111	
SALES TAX	-	-	1.0600	1.0600	1.0600	
DIRECT FIELD COST FACTOR =	**2.6635**	**1.2111**	**1.4822**	**3.5439**	**1.2838**	
BASE ESTIMATE $'s	$44,641	$11,384	$19,179	$5,032	$128	$80,366
BASE FACTOR	1.0000	1.0000	1.0000	1.0000	1.0000	
TARGET ESTIMATE FACTOR	**2.6635**	**1.2111**	**1.4822**	**3.5439**	**1.2838**	
FPS TARGET ESTIMATE (FY01 $)	$44,641	$11,384	$19,179	$5,032	$128	$80,366

NOTE:

If there are no DFC Equip. $, enter The IFC Equip. $'s into the direct field cost TOTAL and delete IFC Factor in G65.

ESTIMATE SUMMARY SHEET

PROJECT: Hut #6 and Hut #4 utility Redistribution
ESTIMATE NO. C3-2001-05-017
CLIENT: DOE
WBS NO.: 1.1.B.B

Direct Field Cost w/FACTORS

DATE: 10-May-01
ESTIMATOR: Ed Lumbert
LOCATION: Fernald
TASK NO.: ~~BADM2~~ BFUD

PAY ITEM NO.	DESCRIPTION	LABOR $	S/C $	MAT'L. $	EQUIP. $	PPE $	TOTAL $
		(ASSIGN OR PRORATE PPE MAT'L.$'s)-->>				100	
	PREMOBILIZATION	3,620				100	3,720
		$9,640				$130	$9,770
	MOBILIZATION	1,400	3,000	1,000	1,000		6,400
		$3,730	$3,630	$1,480	$3,540		$12,380
	DEMOBILIZATION	3,200					3,200
		$8,520					$8,520
	Reroute power to Hut#6 and Hut#4	8,540	6,400	11,940	420		27,300
		$22,750	$7,750	$17,700	$1,490		$49,690
TOTAL DIRECT		$44,640	$11,380	$19,180	$5,030	$130	$80,360

DETAIL ESTIMATE WORKSHEETS

PROJECT: Hut #6 and Hut #4 utility Redistribution
ESTIMATE NO.: C3-2001-05-017
CLIENT: DOE
WBS NO.: 1.1.B.B

Fluor Fernald, Inc.

DATE: 10-May-01
ESTIMATOR: Ed Lumbert
LOCATION: Fernald
TASK NO.: ~~BADM2~~ BFUD2

ITEM NO.	SUMMARY	QTY	UNIT	MAN-HOURS Unit	MAN-HOURS Total	MAN-HOURS Rate	COST / UNIT Labor	COST / UNIT S/C	COST / UNIT Mat'l	COST / UNIT Equip	LABOR	S/C	MAT'L	EQUIP	TOTAL
	PREMOBILIZATION				120						$3,620				$3,620
	MOBILIZATION				80						$1,400	$3,000	$1,000	$1,000	$6,400
	DEMOBILIZATION				140						$3,200				$3,200
	Reroute power to Hut#6 and Hut#4				378						$8,540	$6,400	$11,940	$420	$27,300
	Subtotal Direct Cost	**1**	**LOT**		**718**	**$23.35**					**$16,760**	**$9,400**	**$12,940**	**$1,420**	**$40,520**

DETAIL ESTIMATE WORKSHEETS

PROJECT: Hut #6 and Hut #4 utility Redistribution
ESTIMATE NO.: C3-2001-05-017
CLIENT: DOE
WBS NO.: 1.1.B.B

Fluor Fernald, Inc.

DATE: 10-May-01
ESTIMATOR: Ed Lumbert
LOCATION: Fernald
TASK NO.: ~~BADM2~~ BFUD2

ITEM NO.		QTY	UNIT	MAN-HOURS Unit	MAN-HOURS Total	MAN-HOURS Rate	COST/UNIT Labor	COST/UNIT S/C	COST/UNIT Mat'l	COST/UNIT Equip	LABOR	S/C	MAT'L	EQUIP	TOTAL
	PREMOBILIZATION														
	A. Insurance Certificates, List of Sub-Tier Contractors Procurement Documents, Safe Work Plans, QA/QC Plan, Project Execution Plan, Construction and Engineering Documentation, Acceptable baseline Schedules														
	Duration 1 wks	1	LS	120	120	30.18					$3,620				$3,620
	MOBILIZATION														
	S/C Office Trailer		mo			23.57		300							
	Survey and Engineering Controls	1	LS	20	20			3,000	500	500		$3,000	$500	$500	$4,000
D	Install Utilities		LS			22.69									
D	Other misc. requirements as required.	1	LS	60	60	22.69			500	500	$1,400		$500	$500	$2,400
D			mo							6,360					
	Total				80						$1,400	$3,000	$1,000	$1,000	$6,400
	DEMOBILIZATION														
mD	Complete Punch List Items.	1	LS	40	40	22.69					$900				$900
D	Remove Trailer and Change Facilities.		LS			22.69									
D	Remove all Utilities.		LS			22.69									
mC	Decontaminate Equipment.	1	LS	40	40	22.69					$900				$900
D	Loadout contractors equipment.	1	LS	20	20	22.69					$500				$500
D	Other area requirements.	1	LS	40	40	22.69					$900				$900
	Total				140						$3,200				$3,200

DETAIL ESTIMATE WORKSHEETS

PROJECT: Hut #6 and Hut #4 utility Redistribution
ESTIMATE NO.: C3-2001-05-017
CLIENT: DOE
WBS NO.: 1.1.B.B

Fluor Fernald, Inc.

DATE: 10-May-01
ESTIMATOR: Ed Lumbert
LOCATION: Fernald
TASK NO.: ~~BADM2~~ BFUD2

ITEM NO.	Reroute power to Hut#6 and Hut#4	QTY	UNIT	MAN-HOURS Unit	MAN-HOURS Total	MAN-HOURS Rate	COST/UNIT Labor	COST/UNIT S/C	COST/UNIT Mat'l	COST/UNIT Equip	LABOR	S/C	MAT'L	EQUIP	TOTAL
mD	Survey, Layout	23	mh	1.000	32	21.49			0.50		$681		$11		$692
mD	Install Power Poles	1	ea	11.765	17	22.69			525.00		$376		$525		$901
mD	Guy Wire, Anchor, Hardware for pole	1	ea	4.000	6	22.69			375.00		$128		$375		$503
mD	8 pr Cable	1,250	lf	0.044	78	22.66			1.60		$1,771		$2,000		$3,771
mD	End Line Resistor	1	ls	2.250	3	22.66			200.00		$72		$200		$272
mD	Service Entrance Cap, 1 1/2" dia	1	ea	1.200	2	22.66			11.25		$38		$11		$49
mD	Conduit, 1 1/2" dia, RGS	50	lf	0.100	7	22.66			1.70	0.40	$160		$85	$20	$265
mD	Conduit fittings, 1 1/2" dia	1	ls	8.000	11	22.66			100.00		$255		$100		$355
mD	#1/0 AL Power cable	1	clf	2.000	3	22.66			42.62		$64		$43		$107
mD	Ground Wire, Copper	100	lf	0.050	7	22.66			0.44		$160		$40		$200
mD	Lightning Arrestor	5	ea	2.999	21	22.66			250.00		$480		$1,250		$1,730
mD	6 Strand Fiber	1,500	lf	0.030	63	22.66			1.00		$1,440		$1,500		$2,940
mD	3/8" Messenger Wire	500	lf	0.006	4	22.66			6.00		$100		$3,000		$3,100
mD	O.H. Comm/Phone Lines	275	lf	0.023	9	22.66			3.65		$200		$1,000		$1,200
mD	4 pr Cable	625	lf	0.035	31	22.66			1.60		$700		$1,000		$1,700
mD	Auger/Bucket Truck w/Oper	80	hr					80.00				$6,400			$6,400
mD	Lasher Rental	80	hr						5.00	5.00			$400	$400	$800
mD	Allowance for Hardware	40	hr	1.000	56	22.66			10.00		$1,280		$400		$1,680
mD	Lock and Tag	20	hr	1.000	28	22.66					$638				$638
	Subtotal Direct Cost				378						$8,540	$6,400	$11,940	$420	$27,300

DETAIL ESTIMATE WORKSHEETS

PROJECT: Hut #6 and Hut #4 utility Redistribution
ESTIMATE NO.: C3-2001-05-017
CLIENT: DOE
WBS NO.: 1.1.B.B

Fluor Fernald, Inc.

DATE: 10-May-01
ESTIMATOR: Ed Lumbert
LOCATION: Fernald
TASK NO.: ~~BADM2~~ BFUD2

ITEM NO.			QTY	UNIT	MAN-HOURS Unit	MAN-HOURS Total	MAN-HOURS Rate	COST/UNIT Labor	COST/UNIT S/C	COST/UNIT Mat'l	COST/UNIT Equip	LABOR	S/C	MAT'L	EQUIP	TOTAL
	Project Staffing															
		Each														
	1. Project Manager	0.12	20	hr	1	20	54.42					$1,080				$1,080
	2. Project Superintendent	0.12	20	hr	1	20	37.85					$750				$750
	3. Project Engineer	0.12	20	hr	1	20	33.19					$660				$660
	4. Safety Engineer	0.1	17	hr	1	17	30.34					$500				$500
	5. Industrial Hygiene Tech.	0.05	8	hr	1	8	28.33					$230				$230
	6. QA/QC Engineer	0.12	20	hr	1	20	28.05					$560				$560
	7. Office Administration	0.05	8	hr	1	8	19.31					$160				$160
	8. Contract Administration/ Scheduler	0.1	17	hr	1	17	25.58					$420				$420
	9. Clerical	0.05	8	hr	1	8	14.58					$120				$120
	TOTAL					138										

APPENDIX " A"

PROJECT: Hut #6 and Hut #4 utility Redistribution
ESTIMATE NC C3-2001-05-017
CLIENT: DOE
WBS NO.: 1.1.B.B

SITE SPECIFIC

EFFICIENCY / MULTIPLIER ANALYSIS

DATE: 10-May-01
ESTIMATOR: Ed Lumbert
LOCATION: Fernald
TASK NO.: ~~BADM2~~ BFUD2

PERCENT OF INFLUENCE ON CHART MANHOURS	40%	50%	60%	70%	80%	90%	100%	105%	110%	% OF INFLUENCE	WT'D VALUE	PROD. RESULT
CRAFT SKILL (NOTE 1)	POOR			FAIR			STD	V.GOOD	EXCELLENT	100.0%	12.0%	0.12
CRAFT AVAIL.(NOTE 1)		POOR		FAIR			STD			100.0%	8.0%	0.08
CLIMATE (NOTE 2)	SEVERE	ICE/SNOW			RAIN		+40 TO +85			90.0%	20.0%	0.18
PLANT ELEVATION		OVER 10,000FT			5,000' TO 10,000 FT		UNDER 5,000 FT			100.0%	5.0%	0.05
WORK SPACE				200 SF	250 SF	300 SF	350 SF			100.0%	10.0%	0.1
	<---- MULTIPLE SHIFTS-											
WORK WEEK							4-10s / 5-8s			100.0%	15.0%	0.15
50 HOUR WORK WEEK	////////////// //// MULTIPLE-SHIFT //////////	//////////////	//////////////	OVER 7 WEEKS	3 TO 7 WEEKS	UP TO 3 WEEKS				0.0%	0.0%	0
60 HOUR WORK WEEK	////////////// //////////////	//////////////	OVER 7 WEEKS	3 TO 7 WEEKS	UP TO 3 WEEKS					0.0%	0.0%	0
SHIFTWORK 2ND SHIFT 3RD SHIFT			 3RD SHIFT		 2ND SHIFT		OR ONE SHIFT ONLY			 100.0% 100.0%	 3.0% 5.0%	 0.03 0.05
PROJECT SIZE					400M MH AND UP	300M TO 400M MH	200M TO 300M MH	200M MH OR LESS		100.0%	4.0%	0.04
PLANT TYPE				REVAMP ONLY	REVAMP & NEW	NEW IN EXIST PLT	GRASS ROOTS			90.0%	8.0%	0.072
AREA/UNION INFLUENCE	STRONG		MILD		SOME		NONE			40.0%	10.0%	0.04
											100.0%	91.2%

NOTES.....
1. TURNOVER HAS BEEN CONSIDERED
2. FOR EXTERIOR WORK ONLY

EFFICIENCY (AS A % OFF CHART MANHOURS) 91.2%

MULTIPLIER - (TO BE APPLIED TO CHART M.H.'S TO OBTAIN SITE M.H.'S) 1.10

EFFICIENCY FACTORS

PROJECT: Hut #6 and Hut #4 utility Redistribution
ESTIMATE NO. C3-2001-05-017
CLIENT: DOE
WBS NO.: 1.1.B.B

Fluor Fernald, Inc.

DATE: 10-May-01
ESTIMATOR: Ed Lumbert
LOCATION: Fernald
TASK NO.: ~~BADM2~~ BFUD2

EXAMPLE:

STANDARD CHART MANHOURS =	NET	100
EFFICIENCY FACTORS:		
* SITE SPECIFIC (SEE APPENDIX A)	[redacted]	10.0
S/T = BASE UNIT MANHOURS		110
OVERTIME PRODUCTIVITY FACTOR (SEE DETAIL WORKSHEET BACK-UP)	0.00%	0
		110
* TASK SPECIFIC (confined space, high elevation, congestion, etc.)	0.0%	0
		110

* PPE SPECIFIC (Based on current data and estimating knowledge)

	PPE LEVEL									
	D		Mod.'D'		Mod. "C"		C		C+	
PRODUCTIVITY HOURS		MH's	MULTIPLIER	MH's	MULTIPLIER	MH's	MULTIPLIER	MH's	MULTIPLIER	MH's
(AS A %) / ADD MH's	4.00%	4	28.00%	31	66.00%	73	74.00%	81	96.00%	106
(AS A MULTIPLIER)/TOTAL HRS	1.04	114.4	1.28	140.8	1.66	182.6	1.74	191.4	1.96	215.6
TOTAL MULTIPLIER w/SITE PROD.	1.144		1.408		1.826		1.914		2.156	

NOTE : Use the Default Productivity Factor of 'mC' for working in a contaminated area if the Safety Level cannot be determined.

(SEE FD FERNALD ESTIMATING SERVICES REFERENCE MANUAL IM-6006 8.10)

Total hours worked in a specific PPE level divided by 10 hour working days = (PPE) ManDays to determine material cost of PPE's.
(SEE APPENDIX C - HEALTH PHYSICS)

	11.0	Man Days	14.0	Man Days	18.0	Man Days	19.0	Man Days	22.0	Man Days

THESE EFFICIENCY FACTORS WERE APPLIED INDIVIDUALLY THROUGHOUT THE ESTIMATE AT A TASK SPECIFIC LEVEL, TO OBTAIN A MORE ACCURATE ACCOUNT OF OVERALL EFFICIENCY IMPACT DUE TO PPE REQUIREMENTS IN HANDLING CONTAMINATED AND HAZARDOUS WASTE.

EFFICIENCY FACTORS

PROJECT: Hut #6 and Hut #4 utility Redistribution
ESTIMATE NO. C3-2001-05-017
CLIENT: DOE
WBS NO.: 1.1.B.B

DATE: 10-May-01
ESTIMATOR: Ed Lumbert
LOCATION: Fernald
TASK NO.: ~~BADM2~~ BFUD2

PPE MULTIPLIER DEVELOPEMENT

		D	mD	mC	C	C+
CREW SIZE & MAKE-UP	STANDARD	7	7	7	7	7
	WORKER-BUDDY	0	0	0	0	0
	SUPPORT TEAM	0	0	0	0	0
	TOTAL CREW	7	7	7	7	7
CREW SIZE RATIO		1.00	1.00	1.00	1.00	1.00
AVAILABLE WORK TIME FACTOR		0.96	0.78	0.7	0.7	0.68
PPE LABOR PRODUCTIVITY FACTOR		1	1	0.86	0.82	0.75
NET PRODUCTIVITY RATIO		0.96	0.78	0.602	0.574	0.51
NET PRODUCTIVITY MULTIPLIER		**1.04**	**1.28**	**1.66**	**1.74**	**1.96**

These factors were based on Tables 6.1 and 6.2, Moderate Work Efforts, 66F to 85F temperature of 'Hazardous Waste Cost Control' by R.A.Selg. Modifications were made to reflect a 10 hour work day and no buddy system or support team for levels D, mC and C. The worker-buddy and support team members, if required, may be covered under Construction Mgmt. (Rad Techs).

AVAILABLE WORK TIME FACTOR		D	mD	mC	C	C+
TOTAL WORK MINUTES per [4 - 10's		600	600	600	600	600
ADDITN'L.SITE SAFETY MEETINGS NOT INCLD. IN BAS	QUANTITY	1	1	1	1	1
	MINUTES	25	25	25	25	25
TOTAL		25	25	25	25	25
PPE DON & DOFFING	QUANTITY	0	0	3	3	3
(ADJUST LEVEL D per WORK PLAN)	MINUTES	0	0	15	15	20
TOTAL			0	45	45	60
WORK BREAKS	QUANTITY	N/A	2	2	2	2
(ADJUST LEVEL D per WORK PLAN)	MINUTES	N/A	15	15	15	15
TOTAL			30	30	30	30
MOBILIZATION - ROUND TRIPS	QUANTITY	N/A	4	4	4	4
(ADJUST LEVEL D per WORK PLAN)	MINUTES	N/A	15	15	15	15
TOTAL			60	60	60	60
COOLDOWNS PER DAY	QUANTITY	N/A	4	4	4	4
** (4 OUT OF 12 MONTHS) 33.33%	MINUTES	N/A	15	15	15	15
TOTAL			20	20	20	20
AIR TANK REPLACEMENT	QUANTITY	N/A	N/A	N/A	N/A	N/A
	MINUTES	N/A	N/A	N/A	N/A	N/A
TOTAL						
AVAILABLE WORK TIME		575	465	420	420	405
AVAILABLE WORK TIME FACTOR		**0.96**	**0.78**	**0.7**	**0.7**	**0.68**

NOTE: Adjust 'Work Minutes per Day' basis to: 5 - 8's, or leave as 4 - 10's . Any other circumstances, over-ride the minutes per day.

** Assumption based on work performed in May, June, July & August, pro-rating cost over one year. Adjust % to individual circumstances.

APPENDIX "C"

HEALTH PHYSICS

PROJECT: Hut #6 and Hut #4 utility Redistribution
ESTIMATE NO. C3-2001-05-017
CLIENT: DOE
WBS NO.: 1.1.B.B

DATE: 10-May-01
ESTIMATOR: Ed Lumbert
LOCATION: Fernald
TASK NO.: ~~BADM2~~ BFUD2

Fluor Fernald, Inc.

PPE"s - PERSONAL PROTECTIVE EQUIPMENT

DESCRIPTION	UNIT	UNIT COST	* NO. OF CHANGE OUTS PER WORKER PER DAY Man Days (TOTAL HOURS worked in PPE's Div. by WORK HOURS / DAY)				
PPE LEVEL C / C+ / B : F/HF MASK w/RESP.&CART.			*	MAN DAYS	MAT'L.$'s	PPE LEVEL	
TYVEK COVER-ALL w/HOOD & BOOTIES - DISPOSABLE	EA	$4.46	3	0	$0	C / C+	
TYVEK COVER-ALL w/HOOD & BOOTIES - DISPOSABLE	EA	$4.46	3	0	$0	C / C+	(DOUBLE PPE)
GLOVE LINER - DISPOSABLE	PR	$0.24	3	0	$0	C / C+	
GLOVE, LASTEX - DISPOSABLE	PR	$0.26	3	0	$0	C / C+	
GLOVE, WORK - DISPOSABLE	PR	$1.02	3	0	$0	C / C+	
APR CARTRIDGES - DISPOSABLE	PR	$6.98	3	0	$0	C / C+	
SUB-TOTAL		$17.42	3		$0		
				$/MD =	$0.00		

PPE LEVEL mC : FULL DRESS w/ FACE SHIELD				MAN DAYS	MAT'L.$'s	PPE LEVEL
LT.WT. DISPOSABLE COVERALLS W/HOOD & BOOTIE	PR	$4.46	3	4	$54	mC
GLOVE LINER - DISPOSABLE	PR	$0.24	3	4	$3	mC
GLOVE, LASTEX - DISPOSABLE	PR	$0.26	3	4	$3	mC
GLOVE, WORK - DISPOSABLE	PR	$1.02	3	4	$12	mC
SUB-TOTAL		$5.98	3		$72	
				$/MD =	$18.00	

SUBCONTRACTOR REQUIRED PURCHASES			QTY. PER WKR.	NO. OF WORKERS	MAT'L.$'s	PPE LEVEL
RUBBER BOOT COVERS-(1)PR.PER WORKER	PR	$12.70	6	0	$0	D/C/B
APR w/HALF FACE MASK - (1) PER WORKER	EA	$22.30	6	0	$0	C
APR w/FULL FACE MASK - (1) PER WORKER	EA	$174.00	6	0	$0	C
SCBA	EA	$1,894.00	2	0	$0	B
COOL VESTS	EA	$137.50	6	0	$0	C/B
THERMO STRIPS	EA	$50.00	6	0	$0	C/B
SUB-TOTAL					$0	

	MAT'L.$'s
TOTAL PPE's =	$100

(FORWARD TO PAGE 2 OF 2)

OTHER PPE's SUCH AS HARD HAT, SAFETY GLASSES/GOGGLES, STEEL TOED SAFETY SHOES, HEARING PROTECTION, ARE CONSIDERED THE SUBCONTRACTORS RESPONSIBILITY AND ARE COVERED IN HIS OVERHEAD EXPENSE.
COSTS OF FD FERNALD SUPPLIED PPE's, SUCH AS COTTON COVERALLS, EXCHANGE OF RUBBER BOOT COVERS AND RESPIRATORS FOR CHANGEOUTS AND CLEANING OF SAME IS INCURRED BY FD FERNALD AND COSTS ARE NOT INCLUDED AS PART OF PROJECT COSTS AT THIS TIME.

APPENDIX "C"

HEALTH PHYSICS

PROJECT: Hut #6 and Hut #4 utility Redistribution
ESTIMATE NO. C3-2001-05-017
CLIENT: DOE
WBS NO.: 1.1.B.B

DATE: 10-May-01
ESTIMATOR: Ed Lumbert
LOCATION: Fernald
TASK NO.: ~~BADM2~~ BFUD2

--MEDICAL MONITORING --

MEDICAL - PHYSICAL and IN-VIVO MONITORING - LOST WORKER TIME for RAD II WORKERS ONLY

DESCRIPTION PHYSICAL (3hrs), IN-VIVO (1hr)	QTY	HRS	WKR	TOTAL HOURS	AVG. LABOR RATE	TOTAL LABOR $
BASELINE PHYSICALS	1	4	3	12	$23.35	$280
ANNUAL PHYSICALS	0	4	3	0	$23.35	$0
EXIT (TERMINATION) PHYSICALS (IN-VIVO)	1	1	3	3	$23.35	$70
SUB-TOTAL						$350

RADIATION IN-VITRO SURVEILLANCE - LOST WORKER TIME for RAD II WORKERS ONLY

DESCRIPTION	QTY	HRS	WKR	TOTAL HOURS	AVG. LABOR RATE	TOTAL LABOR $
BI-MONTHLY BIOASSAY	0	1	3	1	$23.35	$30
SUB-TOTAL						$30

RANDOM DRUG TESTING

	TESTS	HRS	TOTAL HOURS	AVG. RATE	LABOR $'s
	1	2	2	$23.35	$0

NO. OF WKRS. TESTED	TESTING DAYS PER YR.	AVG. NO. OF TESTS PER DAY	CHANCE/ DAY FOR TEST	NO. OF WKRS. FOR THIS ESTIMATE	CHANCES /DAY FOR TEST FOR PROJECT	CONSTR WORKING DAYS
2340	226	10	0.0042735	7	0.0299	20

		LABOR $'s THRU SAFETY	LABOR $'s
WORK DELAYS CAUSED BY MONITORING	0.0%	$18,360	$0
			LABOR $'s
WORK DELAYS CAUSED BY RAD CHECKING	0.0%	$18,360	$0

	TOTAL LABOR	TOTAL MAT'L.	GRAND TOTAL
TOTAL HEALTH PHYSICS	$400	$100	$500

(FORWARD TO ESTIMATE SUMMARY SHEET)

ACTIVITY DURATIONS

Fluor Fernald, Inc.

PROJECT: Hut #6 and Hut #4 utility Redistribution
ESTIMATE NO. C3-2001-05-017
CLIENT: DOE
WBS NO.: 1.1.B.B

DATE: 10-May-01
ESTIMATOR: Ed Lumbert
LOCATION: Fernald
TASK NO.: ~~BADM2~~ BFUD2

ACTIVITY	EST. DATE	START DATE	MID POINT	COMPL. DATE	ACTIVITY	DURATION
CONSTRUCTION:	29-Jan-01	01-Jun-01	16-Jun-01	01-Jul-01	1.0	MONTHS
					0	MONTHS
TOTAL					1.0	MONTHS

Note: Duration of activity was stated in ROM at ~~6~~ 4 weeks. Actual start/finish dates may change.

	DATE of EST. to MID-POINT ACTIVITY DURATION	
a.	4.5	MONTHS
b.	0	MONTHS

ACTIVITY	EST. DATE	START DATE	MID POINT	COMPL. DATE	ACTIVITY	DURATION
OPERATIONS					0	MONTHS

DATE of EST. to MID-POINT ACTIVITY DURATION	
0	MONTHS

ACTIVITY DURATION IS USED IN DETERMINING NUMBER of WORKERS for CERCLA/SAT TRAINING HOURS and HEALTH PHYSICS COSTS.

COST IMPACT MATRIX SHEET

Estimate No.:	C3-2001-05-017	Date:	10-May-01
Project:	Hut #6 and Hut #4 utility Redistribution	Estimator:	Ed Lumbert
Client:	DOE	Location:	Fernald
WBS:	1.1.B.B	TASK NO.:	~~BADM2~~ BFUD2

Fluor Fernald, Inc.

Base Estimate Total	Cost Element		Cost Element		Cost Element		Cost Element		Cost Element	
	PREMOBILIZATION									
$80,360	LABOR $		S/C $		MAT'L. $		EQUIP. $		PPE $	
Cost	Base $	$9,640	Base $	$0	Base $	$0	Base $	$0	Base $	$130
Drivers	Low	High	Low	High	Low	High	Low	High	Low	High
Productivity/labor										
Material Pricing										
Equipment Rental										
Subcontract $'s										
Quantity Variation										
Contamination										
Environmental										
Schedule										
Project Definition	-30%	80%	-30%	80%	-30%	80%	-30%	80%		
Range - %	-30%	80%	-30%	80%	-30%	80%	-30%	80%	0%	0%
Range - $	$6,748	$17,352	$0	$0	$0	$0	$0	$0	$130	$130
Distribution	U		U		U		U			
Correlation Rank										

	Cost Element		Cost Element		Cost Element		Cost Element		Cost Element	
	MOBILIZATION									
	LABOR $		S/C $		MAT'L. $		EQUIP. $		PPE $	
Cost	Base $	$3,730	Base $	$3,630	Base $	$1,480	Base $	$3,540	Base $	$0
Drivers	Low	High	Low	High	Low	High	Low	High	Low	High
Productivity/labor	-20%	50%								
Material Pricing										
Equipment Rental										
Subcontract $'s										
Quantity Variation										
Contamination										
Environmental										
Schedule										
Project Definition	-20%	50%								
Range - %	-40%	100%	0%	0%	0%	0%	0%	0%	0%	0%
Range - $	$2,238	$7,460	$3,630	$3,630	$1,480	$1,480	$3,540	$3,540	$0	$0
Distribution	U									
Correlation Rank										

Analyst: _____

Client: [signature] 5-14-01

COST IMPACT MATRIX SHEET

Fluor Fernald, Inc.

Estimate No.:	C3-2001-05-017	Date:	10-May-01
Project:	Hut #6 and Hut #4 utility Redistribution	Estimator:	Ed Lumbert
Client:	DOE	Location:	Fernald
WBS:	1.1.B.B	TASK NO.:	~~BADM2~~ BFUD2

	Cost Element		Cost Element		Cost Element		Cost Element		Cost Element	
	DEMOBILIZATION									
	LABOR $		S/C $		MAT'L. $		EQUIP. $		PPE $	
Cost Drivers	Base $	$8,520	Base $	$0	Base $	$0	Base $	$0	Base $	$0
	Low	High	Low	High	Low	High	Low	High	Low	High
Productivity/labor										
Material Pricing					-30%	80%				
Equipment Rental							-25%	60%		
Subcontract $'s			-30%	60%						
Quantity Variation										
Contamination										
Environmental										
Schedule										
Project Definition	-40%	100%	-10%	30%	-10%	30%	-10%	30%		
Range - %	-40%	100%	-40%	90%	-40%	110%	-35%	90%	0%	0%
Range - $	$5,112	$17,040	$0	$0	$0	$0	$0	$0	$0	$0
Distribution	U		U		U		U			
Correlation Rank										

	Cost Element		Cost Element		Cost Element		Cost Element		Cost Element	
	Reroute power to Hut#6 and Hut#4									
	LABOR $		S/C $		MAT'L. $		EQUIP. $		PPE $	
Cost Drivers	Base $	$22,750	Base $	$7,750	Base $	$17,700	Base $	$1,490	Base $	$0
	Low	High	Low	High	Low	High	Low	High	Low	High
Productivity/labor	-10%	25%								
Material Pricing					-10%	25%				
Equipment Rental							-10%	25%		
Subcontract $'s										
Quantity Variation										
Contamination										
Environmental										
Schedule										
Project Definition	-10%	25%			-10%	25%	-10%	25%		
Range - %	-20%	50%	0%	0%	-20%	50%	-20%	50%	0%	0%
Range - $	$18,200	$34,125	$7,750	$7,750	$14,160	$26,550	$1,192	$2,235	$0	$0
Distribution	U				U		U			
Correlation Rank										

Analyst: _____

Client: _____

SECTION 1

5.0 RISK PLAN

Risk/Opportunity Identification and Analysis Form

Project: Facility Isolation and Utility Redistribution		PBS Number: 02				Total Baseline Dollars (Minimum Case)			$5,147,795	
Evaluator: M. Stevens	Date: 08-13-01 R1-F02-047	WBS Number: 1.1.B.B					R1-F02-047			
CAM: M. Stevens	Date: 08-13-01	Control Account Number: BFUD								
Project Task R1-F02-047	Risk and/or Opportunity	Potential Impact	Internal Or External Driver	Impact Cost $ (Maximum Case)	Risk Impact Level	Risk Probability %	Risk Probability Level	Probable Cost $ (Likeliest Case)	Risk Critical Value	Risk Handling Strategy
Plant2	none									
Plant 3										
Utility Isolation	Delay	Escalation	Internal	$10,000	1	25	2	$2,500	1	Accept
General Sump										
Utility Isolation	Delay	Escalation	Internal	$10,000	1	25	2	$2,500	1	Accept
Plant 8	none									
Health & Safety Building										
Utility Isolation	Delay	Escalation	Internal	$2,000	1	25	2	$500	1	Accept
Utility Redistribution	Delay	Escalation	Internal	$10,000	1	25	2	$2,500	1	Accept
Liquid Storage										
Utility Isolation	Delay	Escalation	Internal	$20,000	1	25	2	$5,000	1	Accept
Utility Redistribution	Delay	Escalation	Internal	$20,000	1	25	2	$5,000	1	Accept
Pilot Plant										
Utility Isolation	Delay	Escalation	Internal	$10,000	1	25	2	$2,500	1	Accept
Laboratory										
Utility Isolation	Delay	Escalation	Internal	$20,000	1	25	2	$5,000	1	Accept
Administration (Includes Electrical Complex)										
Utility Isolation	Delay	Escalation	Internal	$68,000	1	25	2	$17,000	1	Accept
Utility Redistribution	Delay	Escalation	Internal	$120,000	1	25	2	$30,000	1	Accept
East Warehouse										
Utility Isolation	Delay	Escalation	Internal	$10,000	1	25	2	$2,500	1	Accept
Miscellaneous Structures										
Utility Isolation	Delay	Escalation	Internal	$75,000	1	25	2	$18,750	1	Accept
Utility Redistribution	Delay	Escalation	Internal	$120,000	1	25	2	$30,000	1	Accept
Building 64/65										
Utility Isolation	Delay	Escalation	Internal	$5,000	1	25	2	$1,250	1	Accept
Plant 1, Phase II										
Utility Isolation	Delay	Escalation	Internal	$10,000	1	25	2	$2,500	1	Accept
Plant 5	none									
Plant 6	none									
			Total:	$510,000			Total:	$127,500		

WBS DICTIONARY
CONTROL ACCOUNT/CHARGE NUMBER

U.S. DEPARTMENT OF ENERGY
WORK BREAKDOWN STRUCTURE DICTIONARY
PART II - ELEMENT DEFINITION

1. PROJECT TITLE	2. DATE OF CONTRACT	
FEMP (DEFENSE)	12/01/2000	
3. IDENTIFICATION NUMBER		4. INDEX LINE NO.
DE-AC24-01OH20115		11
5. WBS ELEMENT CODE	6. WBS ELEMENT TITLE	
1.1.B.C	D&D PROJECTS	
7. APPROVED CP NO.		8. DATE OF CHANGES
NEW PER CP# FY01-0115-0002-00		08/15/2001
9. SYSTEM DESIGN DESCRIPTION	10. BUDGET AND REPORTING NUMBER	
CERCLA / ACA	EW05H3020	

11. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Subcontracts

b. TECHNICAL CONTENT:

This element provides for the decontamination and dismantlement (D&D) of above-grade structures in accordance with the OU3 Integrated Remedial Design/Remedial Action Work Plan.

c. SCOPE OF WORK:

The scope of above-grade D&D includes the following:

- Plant 1 Phase II Complex D&D
- Plant 2 Complex D&D
- Plant 3 Complex D&D
- Plant 5 Complex D&D
- Plant 6 Complex D&D
- Plant 8 Complex D&D
- Administration Complex D&D
- Laboratory Complex D&D
- East Warehouse Complex D&D
- General Sump Complex D&D
- Health & Safety Bldg. D&D
- Miscellaneous Structures D&D
- Bldg. 64/65 D&D
- Pilot Plant Complex D&D
- Liquid Storage Complex D&D

WORK SCOPE DEFINITION
(Control Account)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	08/20/2001	Page 1

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.B.C	D&D PROJECTS

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
48	J. M. STEVENS/5187	J. M. STEVENS

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3020	FACILITY D&D

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
NEW PER CP #FY01-0115-0002-00	12/00 - 01/09

12. TASK IDENTIFICATION (CONTROL ACCOUNT)	13. TASK DESCRIPTION (ONE LINE)
BFDD	D&D PROJECTS

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Subcontracts

b. TECHNICAL CONTENT:

This element provides for the decontamination and dismantlement (D&D) of above-grade structures in accordance with the OU3 Integrated Remedial Design/Remedial Action Work Plan.

c. SCOPE OF WORK:

The scope of above-grade D&D includes the following:

- Plant 1 Phase II Complex D&D
- Plant 2 Complex D&D
- Plant 3 Complex D&D
- Plant 5 Complex D&D
- Plant 6 Complex D&D
- Plant 8 Complex D&D
- Administration Complex D&D
- Laboratory Complex D&D
- East Warehouse Complex D&D
- General Sump Complex D&D
- Health & Safety Bldg. D&D
- Miscellaneous Structures D&D
- Bldg. 64/65 D&D
- Pilot Plant Complex D&D
- Liquid Storage Complex D&D

Project Manager	Control Account Manager	Control Team Manager
		Rodney Whitaker

WORK SCOPE DEFINITION
(Control Account)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	08/20/2001	Page 2

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.B.C	D&D PROJECTS

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
48	J. M. STEVENS/5187	J. M. STEVENS

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3020	FACILITY D&D

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
NEW PER CP #FY01-0115-0002-00	12/00 - 01/09

12. TASK IDENTIFICATION (CONTROL ACCOUNT)	13. TASK DESCRIPTION (ONE LINE)
BFDD	D&D PROJECTS

14. ELEMENT TASK DESCRIPTION

d. WORK SPECIFICALLY EXCLUDED:

- Project Management
- Facility Isolation and Utility Redistribution
- Off-Site Debris Disposal
- At or Below grade concrete floor slabs, curbs, footers, pedestals and underground equipment or piping (except for equipment or piping located in accessible trenches, sumps, or floor openings).
- Labor
- Materials
- ODC's

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	08/20/2000	Page 1

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.B.C	D&D PROJECTS

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
48	J. M. STEVENS/5187	J. M. STEVENS

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3020	FACILITY D&D

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
NEW PER CP #FY01-0115-0002-00	12/00 - 01/09

12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
BFDD1	PLANT 1, PHASE II COMPLEX D&D

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Subcontracts

b. TECHNICAL CONTENT:

This element provides for the decontamination and dismantlement (D&D) of the Plant 1, Phase II Complex in accordance with the OU3 Integrated Remedial Design/Remedial Action Work Plan.

c. SCOPE OF WORK:

The scope includes the D&D subcontract(s) which are responsible for the D&D of the Plant 1 Complex-Phase II and any related components (i.e., pipe bridges, fencing, poles, etc.). Facilities included in the Plant 1 Complex-Phase II are 1B-Plant 1 Storage Shelter, 16N-Plant 1 Substation, 20A-Pump Station & Power Center, 30A-Chemical Warehouse, 56A-CP Storage Warehouse, 71-General In-Process Warehouse, TS-004-Tension Support Structure #4, TS-005-Tension Support Structure #5, and TS-006-Tension Support Structure #6. The scope of work for this subcontract includes, but are not limited to:

- pre-mobilization;
- mobilization;
- site preparation;
- asbestos abatement;
- debris and equipment removal;
- release cleaning;
- transite removal;
- above-grade concrete removal;
- steel removal;

Project Manager	Control Account Manager	Control Team Manager
		Rodney Whitaker

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	08/20/2000	Page 2

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.B.C	D&D PROJECTS

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
48	J. M. STEVENS/5187	J. M. STEVENS

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3020	FACILITY D&D

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
NEW PER CP #FY01-0115-0002-00	12/00 - 01/09

12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
BFDD1	PLANT 1, PHASE II COMPLEX D&D

14. ELEMENT TASK DESCRIPTION

- material segregation, cutting, and containerization;
- demobilization.

d. WORK SPECIFICALLY EXCLUDED:

- Project Management
- Facility Isolation and Utility Redistribution
- Off-Site Debris Disposal
- At or Below grade concrete floor slabs, curbs, footers, pedestals and underground equipment or piping (except for equipment or piping located in accessible trenches, sumps, or floor openings).
- Labor
- Materials
- ODC's

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	08/20/2001	Page 1

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.B.C	D&D PROJECTS

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
48	J. M. STEVENS/5187	J. M. STEVENS

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3020	FACILITY D&D

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
NEW PER CP #FY01-0115-0002-00	12/00 - 01/09

12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
BFDD2	PLANT 2 COMPLEX D&D

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Subcontractors

b. TECHNICAL CONTENT:

This element provides for the decontamination and dismantlement (D&D) of the Plant 2 Complex in accordance with the OU3 Integrated Remedial Design/Remedial Action Work Plan.

c. SCOPE OF WORK:

The scope includes the D&D subcontract(s) which are responsible for the D&D of the Plant 2 Complex and any related components (i.e., pipe bridges, fencing, poles, etc.). Facilities included in the Plant 2 Complex are 2A-Ore Refinery Plant, 2D-Metal Dissolver Building, 2F-Cold Side Ore Conveyer, and 2H-Conveyor Tunnel (from Plant 1). The scope of work for this subcontract includes, but are not limited to:

- pre-mobilization;
- mobilization;
- site preparation;
- asbestos abatement;
- system and equipment removal;
- release cleaning;
- transite roofing removal;
- acid brick removal
- above-grade concrete removal;
- steel removal;
- material segregation, cutting, and containerization;

Project Manager	Control Account Manager	Control Team Manager
		Rodney Whitaker

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3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
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5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
48	J. M. STEVENS/5187	J. M. STEVENS

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3020	FACILITY D&D

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
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12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
BFDD2	PLANT 2 COMPLEX D&D

14. ELEMENT TASK DESCRIPTION

- demobilization.

d. WORK SPECIFICALLY EXCLUDED:

- Project Management
- Facility Isolation and Utility Redistribution
- Off-Site Debris Disposal
- At or Below grade concrete floor slabs, curbs, footers, pedestals and underground equipment or piping (except for equipment or piping located in accessible trenches, sumps, or floor openings).
- Labor
- Materials
- ODC's

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3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
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5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
48	J. M. STEVENS/5187	J. M. STEVENS

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3020	FACILITY D&D

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
NEW PER CP #FY01-0115-0002-00	01/01 - 01/09

12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
BFDD3	PLANT 3 COMPLEX D&D

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Subcontractors

b. TECHNICAL CONTENT:

This element provides for the decontamination and dismantlement (D&D) of the Plant 3 Complex in accordance with the OU3 Integrated Remedial Design/Remedial Action Work Plan.

c. SCOPE OF WORK:

The scope includes the D&D subcontract(s) which are responsible for the D&D of the Plant 3 Complex and any related components (i.e., pipe bridges, fencing, poles, etc.). Facilities included in the Plant 3 Complex are 3B-Ozone Building D&D, 3C-NAR Control House D&D, Component 3D-NAR Towers D&D, 3E-Hot Raffinate Building D&D, Component 3J-Combined Raffinate Tanks D&D, Component 3K-Old Cooling Water Tower D&D, 39A-Incinerator Building D&D, and Component 22E-Utility Trench to Pit Area D&D. The scope of work for this subcontract includes, but are not limited to:

- pre-mobilization;
- mobilization;
- site preparation;
- asbestos abatement;
- release cleaning;
- debris and equipment removal;
- transite removal;
- above-grade concrete removal;
- steel removal;

Project Manager	Control Account Manager	Control Team Manager
		Rodney Whitaker

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5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
48	J. M. STEVENS/5187	J. M. STEVENS

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3020	FACILITY D&D

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
NEW PER CP #FY01-0115-0002-00	01/01 - 01/09

12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
BFDD3	PLANT 3 COMPLEX D&D

14. ELEMENT TASK DESCRIPTION

- material segregation, cutting, and containerization;
- demobilization.

d. WORK SPECIFICALLY EXCLUDED:

- Project Management
- Facility Isolation and Utility Redistribution
- Off-Site Debris Disposal
- At or Below grade concrete floor slabs, curbs, footers, pedestals and underground equipment or piping (except for equipment or piping located in accessible trenches, sumps, or floor openings).
- Labor
- Materials
- ODC's

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3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
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5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
48	J. M. STEVENS/5187	J. M. STEVENS

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3020	FACILITY D&D

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
NEW PER CP #FY01-0115-0002-00	12/00 - 08/01

12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
BFDD5	PLANT 5 COMPLEX D&D

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Subcontracts

b. TECHNICAL CONTENT:

This element provides for the decontamination and dismantlement (D&D) of the Plant 5 Complex in accordance with the OU3 Integrated Remedial Design/Remedial Action Work Plan.

c. SCOPE OF WORK:

The scope includes the D&D subcontract(s) which are responsible for the D&D of the Plant 5 Complex and any related components (i.e., pipe bridges, fencing, poles, etc.). Facilities included in the Plant 5 Complex are 5A-Metal Production Plant, and 5D-West Derby Breakout/Slag Milling. The scope of work for this subcontract includes, but are not limited to:

- pre-mobilization;
- mobilization;
- site preparation;
- asbestos abatement;
- debris and equipment removal;
- release cleaning;
- transite removal;
- above-grade concrete removal;
- steel removal;
- material segregation, cutting, and containerization;
- demobilization.

Project Manager	Control Account Manager	Control Team Manager
		Rodney Whitaker

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5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
48	J. M. STEVENS/5187	J. M. STEVENS

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3020	FACILITY D&D

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
NEW PER CP #FY01-0115-0002-00	12/00 - 08/01

12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
BFDD5	PLANT 5 COMPLEX D&D

14. ELEMENT TASK DESCRIPTION

d. WORK SPECIFICALLY EXCLUDED:

- Project Management
- Facility Isolation and Utility Redistribution
- Off-Site Debris Disposal
- At or Below grade concrete floor slabs, curbs, footers, pedestals and underground equipment or piping (except for equipment or piping located in accessible trenches, sumps, or floor openings).
- Labor
- Materials
- ODC's

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5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
48	J. M. STEVENS/5187	J. M. STEVENS

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3020	FACILITY D&D

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
NEW PER CP #FY01-0115-0002-00	12/00 - 01/02

12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
BFDD6	PLANT 6 COMPLEX D&D

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Subcontractor

b. TECHNICAL CONTENT:

This element provides for the decontamination and dismantlement (D&D) of the Plant 6 Complex in accordance with the OU3 Integrated Remedial Design/Remedial Action Work Plan.

c. SCOPE OF WORK:

The scope includes the D&D subcontract(s) which are responsible for the D&D of the Plant 6 Complex and any related components (i.e., pipe bridges, fencing, poles, etc.). Facilites included in the Plant 6 Complex are 6A-Metal Fabrication Plant and 6G-Plant 6 Sump Building. The scope of work for this subcontract includes, but are not limited to:

- premobilization;
- mobilization;
- site preparation;
- asbestos abatement;
- debris and equipment removal;
- release cleaning;
- transite removal;
- above-grade concrete removal;
- steel removal;
- material segregration, cutting, and containerization;
- demobilization.

Project Manager	Control Account Manager	Control Team Manager
		Rodney Whitaker

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3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.B.C	D&D PROJECTS

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
48	J. M. STEVENS/5187	J. M. STEVENS

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3020	FACILITY D&D

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
NEW PER CP #FY01-0115-0002-00	12/00 - 01/02

12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
BFDD6	PLANT 6 COMPLEX D&D

14. ELEMENT TASK DESCRIPTION

d. WORK SPECIFICALLY EXCLUDED:

- Project Management
- Facility Isolation and Utility Redistribution
- Off-Site Debris Disposal
- At or Below grade concrete floor slabs, curbs, footers, pedestals and underground equipment or piping (except for equipment or piping located in accessible trenches, sumps, or floor openings).
- Labor
- Materials
- ODC's

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5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
48	J. M. STEVENS/5187	J. M. STEVENS
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3020	FACILITY D&D	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
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12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
BFDD8	PLANT 8 COMPLEX D&D	

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Subcontractor

b. TECHNICAL CONTENT:

This element provides for the decontamination and dismantlement (D&D) of the Plant 8 Complex in accordance with the OU3 Integrated Remedial Design/Remedial Action Work Plan.

c. SCOPE OF WORK:

The scope includes the D&D subcontract(s) which are responsible for the D&D of the Plant 8 Complex and any related components (i.e., pipe bridges, fencing, poles, etc.). Facilites included in the Plant 8 Complex are 8A-Recovery Plant, 8B-Plant 8 Maintenance Building, 8C-Rotary Kiln/Drum Reconditioning Building, 8D-Plant 8 Railroad Filter Building, 8E-Drum Conveyer Shelter, 8G-Trash Compactor Area, and 8H-Soil Washing Building. The scope of work for this subcontract includes, but are not limited to:

- premobilization;
- mobilization;
- site preparation;
- asbestos abatement;
- debris and equipment removal;
  release cleaning;
- transite removal;
- above-grade concrete removal;
- steel removal;
- material segregration, cutting, and containerization;

Project Manager	Control Account Manager	Control Team Manager
		Rodney Westmoreland

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5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
48	J. M. STEVENS/5187	J. M. STEVENS
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3020	FACILITY D&D	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
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12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
BFDD8	PLANT 8 COMPLEX D&D	

14. ELEMENT TASK DESCRIPTION

- demobilization.

d. WORK SPECIFICALLY EXCLUDED:

- Project Management
- Facility Isolation and Utility Redistribution
- Off-Site Debris Disposal
- At or Below grade concrete floor slabs, curbs, footers, pedestals and underground equipment or piping (except for equipment or piping located in accessible trenches, sumps, or floor openings).
- Labor
- Materials
- ODC's

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5. PERFORMING DIV/DEPARTMENT CODE	**6. ORIGINATOR NAME/PHONE**	**7. WBS ELEMENT MANAGER**
48	J. M. STEVENS/5187	J. M. STEVENS
8. BUDGET AND REPORTING NUMBER	**9. BUDGET TITLE**	
EW05H3020	FACILITY D&D	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		**11. ESTIMATED START / COMPLETION DATE**
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12. TASK IDENTIFICATION (WORK PACKAGE)	**13. TASK DESCRIPTION (ONE LINE)**	
BFDDA	ADMINISTRATION COMPLEX D&D	

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Subcontractor

b. TECHNICAL CONTENT:

This element provides for the decontamination and dismantlement (D&D) of the Administration Complex in accordance with the OU3 Integrated Remedial Design/Remedial Action Work Plan.

c. SCOPE OF WORK:

The scope includes the D&D subcontract(s) which are responsible for the D&D of the Administration Complex and any related components (i.e., pipe bridges, fencing, poles, etc.). Facilites included in the Administration Complex are 11-Services Building, 14A-Administration Building, 14B-EOC Generator Set, 31a-Vehicle Repair Garage, 46-Heavy Equipment Building, 53B-INVIVO Building, and 20K-New Admin. Area Cooling Towers. The scope of work for this subcontract includes, but are not limited to:

- premobilization;
- mobilization;
- site preparation;
- asbestos abatement;
- debris and equipment removal;
  release cleaning;
- transite removal;
- above-grade concrete removal;
- steel removal;
- material segregration, cutting, and containerization;

Project Manager	Control Account Manager	Control Team Manager
[signature]	[signature]	Rodney Whitaker

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3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
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5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
48	J. M. STEVENS/5187	J. M. STEVENS

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3020	FACILITY D&D

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
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12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
BFDDA	ADMINISTRATION COMPLEX D&D

14. ELEMENT TASK DESCRIPTION

- demobilization.

d. WORK SPECIFICALLY EXCLUDED:

- Project Management
- Facility Isolation and Utility Redistribution
- Off-Site Debris Disposal
- At or Below grade concrete floor slabs, curbs, footers, pedestals and underground equipment or piping (except for equipment or piping located in accessible trenches, sumps, or floor openings).
- Labor
- Materials
- ODC's

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5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
48	J. M. STEVENS/5187	J. M. STEVENS

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3020	FACILITY D&D

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
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12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
BFDDB	LABORATORY COMPLEX D&D

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Subcontractor

b. TECHNICAL CONTENT:

This element provides for the decontamination and dismantlement (D&D) of the Laboratory Complex in accordance with the OU3 Integrated Remedial Design/Remedial Action Work Plan.

c. SCOPE OF WORK:

The scope includes the D&D subcontract(s) which are responsible for the D&D of the Laboratory Complex and any related components (i.e., pipe bridges, fencing, poles, etc.). Facilites included in the Laboratory Complex are 15A-Laboratory Building, 15B-Laboratory Chemical Storage, and 15C-Laboratory Garage. The scope of work for this subcontract includes, but are not limited to:

- premobilization;
- mobilization;
- site preparation;
- asbestos abatement;
- debris and equipment removal;
- release cleaning;
- transite removal;
- above-grade concrete removal;
- steel removal;
- material segregration, cutting, and containerization;
- demobilization.

Project Manager	Control Account Manager	Control Team Manager
		Rodney L Whitehead

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1.1.B.C	D&D PROJECTS	
5. PERFORMING DIV/DEPARTMENT CODE	**6. ORIGINATOR NAME/PHONE**	**7. WBS ELEMENT MANAGER**
48	J. M. STEVENS/5187	J. M. STEVENS
8. BUDGET AND REPORTING NUMBER	**9. BUDGET TITLE**	
EW05H3020	FACILITY D&D	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		**11. ESTIMATED START / COMPLETION DATE**
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12. TASK IDENTIFICATION (WORK PACKAGE)	**13. TASK DESCRIPTION (ONE LINE)**	
BFDDB	LABORATORY COMPLEX D&D	

14. ELEMENT TASK DESCRIPTION

d. WORK SPECIFICALLY EXCLUDED:

- Project Management
- Facility Isolation and Utility Redistribution
- Off-Site Debris Disposal
- At or Below grade concrete floor slabs, curbs, footers, pedestals and underground equipment or piping (except for equipment or piping located in accessible trenches, sumps, or floor openings).
- Labor
- Materials
- ODC's

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5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
48	J. M. STEVENS/5187	J. M. STEVENS
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3020	FACILITY D&D	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
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12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
BFDDE	EAST WAREHOUSE COMPLEX D&D	

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Subcontractors

b. TECHNICAL CONTENT:

This element provides for the decontamination and dismantlement (D&D) of the East Warehouse Complex in accordance with the OU3 Integrated Remedial Design/Remedial Action Work Plan.

c. SCOPE OF WORK:

The scope includes the D&D subcontract(s) which are responsible for the D&D of the East Warehouse Complex and any related components (i.e., pipe bridges, fencing, poles, etc.). Facilites included in the East Warehouse Complex are 20D-Elevated Potable Storage Tank, 77-Finished Products Warehouse, 79-Plant 6 Warehouse, and 82A-RIMIA. The scope of work for this subcontract includes, but are not limited to:

- premobilization;
- mobilization;
- site preparation;
- asbestos abatement;
- debris and equipment removal;
- release cleaning;
- transite removal;
- above-grade concrete removal;
- steel removal;
- material segregration, cutting, and containerization;
- demobilization.

Project Manager	Control Account Manager	Control Team Manager
		Rodney Whitaker

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1.1.B.C	D&D PROJECTS

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
48	J. M. STEVENS/5187	J. M. STEVENS

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3020	FACILITY D&D

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
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12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
BFDDE	EAST WAREHOUSE COMPLEX D&D

14. ELEMENT TASK DESCRIPTION

d. WORK SPECIFICALLY EXCLUDED:

- Project Management
- Facility Isolation and Utility Redistribution
- Off-Site Debris Disposal
- At or Below grade concrete floor slabs, curbs, footers, pedestals and underground equipment or piping (except for equipment or piping located in accessible trenches, sumps, or floor openings).
- Labor
- Materials
- ODC's

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5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
48	J. M. STEVENS/5187	J. M. STEVENS

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3020	FACILITY D&D

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
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12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
BFDDH	HEALTH & SAFETY BLDG. D&D

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Subcontractors

b. TECHNICAL CONTENT:

This element provides for the decontamination and dismantlement (D&D) of the Health & Safety Building in accordance with the OU3 Integrated Remedial Design/Remedial Action Work Plan.

c. SCOPE OF WORK:

The scope includes the D&D subcontract(s) which are responsible for the D&D of the Health & Safety Building and any related components (i.e., pipe bridges, fencing, poles, etc.). Facilities included in the Health & Safety Building are 53A-Health & Safety Building D&D. The scope of work for this subcontract includes, but are not limited to:

- pre-mobilization;
- mobilization;
- site preparation;
- asbestos abatement;
- debris and equipment removal;
- release cleaning;
- transite removal;
- above-grade concrete removal;
- steel removal;
- material segregation, cutting, and containerization;
- demobilization.

Project Manager	Control Account Manager	Control Team Manager
		Rodney Whitaker

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3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.B.C	D&D PROJECTS

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
48	J. M. STEVENS/5187	J. M. STEVENS

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3020	FACILITY D&D

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
NEW PER CP #FY01-0115-0002-00	12/00 - 01/09

12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
BFDDH	HEALTH & SAFETY BLDG. D&D

14. ELEMENT TASK DESCRIPTION

d. WORK SPECIFICALLY EXCLUDED:

- Project Management
- Facility Isolation and Utility Redistribution
- Off-Site Debris Disposal
- At or Below grade concrete floor slabs, curbs, footers, pedestals and underground equipment or piping (except for equipment or piping located in accessible trenches, sumps, or floor openings).
- Labor
- Materials
- ODC's

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
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3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.B.C	D&D PROJECTS

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
48	J. M. STEVENS/5187	J. M. STEVENS

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3020	FACILITY D&D

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
NEW PER CP FY#01-0115-0002-00	10/04 - 01/09

12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
BFDDM	MISCELLANEOUS STRUCTURES D&D

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Subcontractors

b. TECHNICAL CONTENT:

This element provides for the decontamination and dismantlement (D&D) of the Miscellaneous Structures in accordance with the OU3 Integrated Remedial Design/Remedial Action Work Plan.

c. SCOPE OF WORK:

The scope includes the D&D subcontract(s) which are responsible for the D&D of the Miscellaneous Structures and any related components (i.e., pipe bridges, fencing, poles, etc.). Facilites included in the Miscellaneous Structures are in Table 1.

TABLE 1

NO.	IDENTIFICATION	NO.	IDENTIFICATION
5F	Plant 5 Covered Storage Pad	T84	FAT&LC Union
12E	Maint. Laborer Storage Bldg.	T85	Security
12F	Maint. Laborer Storage Bldg.	T86	Utility Engineer
12G	Restored Area Maint. Bldg.	T87	D&D/Construction
16B	Electrical Substation	T89	WPA Mens Changeout
16C	Electrical Panels & Transformer	T90	WPA Womens Changeout
16F	Trailer Substation #1	T91	WPA Mens Changeout
16G	Trailer Substation #2	T92	WPA Breakroom
20E	Well House #1	T93	Rad. Control Unit Quad

Project Manager	Control Account Manager	Control Team Manager
		Rodney Whitaker

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
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3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.B.C	D&D PROJECTS

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
48	J. M. STEVENS/5187	J. M. STEVENS

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3020	FACILITY D&D

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
NEW PER CP FY#01-0115-0002-00	10/04 - 01/09

12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
BFDDM	MISCELLANEOUS STRUCTURES D&D

14. ELEMENT TASK DESCRIPTION

20F	Well House #2	T94	Rad. Control Unit Quad
20G	Well House #3	T95	Rad. Control Unit Quad
22B	Storm Sewer Lift Station	T96	Rad. Control
22D	Scale House & Weigh Scale	T97	FDF Office (CRU4)
23	Meteorological Tower		
24C	Locomotive Maintenance Bldg.	T98	OSDF
25C	Sewage Lift Station Bldg.	T100	FDF Office
26C	Main Elect. Substation Riser/Strainer House	T103	Storage
28E	Guard Post at OSDF South Entrance (formerly @T81)	T108	IAWWTF
28G	Guard Post NW of Bldg. 45 (T327)	T109	IAWWTF
28H	Guard Post South of K-65 Area	T117	CRU4 Const. Supp. Office
28J	Security Checkpoint (South Access Rd.)	T118	CRU4 Support Office
28K	Security Checkpoint (E. Park. Lot)	T119	Restrooms
28L	Guard Post (N. Const. Access Rd)	T121	FDF Office
28M	Guard Post on "F" Street	T122	Storage
30D	Sampling Line Processing	T127	OEPA (Part of T68)
50	Maintenance Storage Building	T128	Mixed Waste
52A	RTRAK Building	T129	OEPA (Part of T68)
52B	ASTD SCEP Building	T130	Breakroom
60	Quonset Hut # 1	T131	Breakroom
61	Quonset Hut # 2	T132	Kelchner Office
62	Quonset Hut # 3	T135	Boiler Maintenance
68	Pilot Plant Warehouse	T138	S. Waste Un. St. Pr. Gr.
93A	Southwest Boiler House	T139	S. Waste Un. St. Pr. Gr.
G-008	Pipe Bridges	T141	Maintenance Storage
TS-08	Environ. Monitor. Equip. Storage	T142	Maintenance Storage
		T164	FDF Training
T1	FDF	T165	FDF Training
T2	Rad Safety	T166	Industrial Relations
T3	Wise Construction	T167	Industrial Relations
T4	FDF Training	T168	ARASA Contractor

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
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3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.B.C	D&D PROJECTS

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
48	J. M. STEVENS/5187	J. M. STEVENS

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3020	FACILITY D&D

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
NEW PER CP FY#01-0115-0002-00	10/04 - 01/09

12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
BFDDM	MISCELLANEOUS STRUCTURES D&D

14. ELEMENT TASK DESCRIPTION

T5	FDF Construction	T169	ARASA Contractor
T6	Restrooms	T170	ARASA Contractor
T7	FDF	T171	ARASA Contractor
T8	Wise Construction	T172	FCNDP
T12	CRU4 (DLS)	T173	FCNDP
T17	FDF	T174	FCNDP
T18	Break Trailer	T175	FCNDP
T19	Rad Safety	T176	FCNDP
T23	10 Plex	T177	FCNDP
T24	7 Plex North	T178	FCNDP
T25	7 Plex South	T179	FCNDP
T26	Waste Management	T181	FDF Office
T29	Computer	T182	FDF Office
T30	Computer	T183	FDF Office
T33	Shipping Office	T186	OSDF Office Trailer
T34	FDF	T191	Breakroom/Cooldown
T35	FDF	T301	IT Corp.
T36	Heavy Equip. Operators	T305	Environmental Monitoring
T40	Thorium Overpack	T306	Environmental Monitoring
T41	Waste Certification (QA)	T312	Cell 1 Pers. Cool Down
T42	Respirator Washing Facility	T313	ARASA Admin. Office "A"
T43	Restoration	T314	ARASA Admin. Office "B"
T44	FDF Maintenance	T315	ARASA Laboratory Office
T45	Environmental Monitoring	T316	ARASA Laboratory "A"
T46	Environmental Monitoring	T317	ARASA Laboratory "B"
T49	Bio-Assay Semi-Trailer	T318	ARASA MHB/RCLO Pow. Mod.
T50	Rad Safety	T319	ARASA Breakroom
T57	Rad Safety	T320	ARASA Laun./Resp. Wash Fac.
T58	Construction Office	T321	ARASA MHB Rad. Cont. Trailer
T59	FDF Waste Management	T322	ARASA Supervisor's Office
T60	DOE Field Office	T323	ARASA Control Room
T61	Startup Group	T325	ARASA GCS/WTS Pow. Mod.
T62	Startup Group	T326	ARASA Cont. Emissions Mon.
T65	Plant 1 Pad MC&A Office	T327	Weigh Scale Ticket Office
T66	RIMIA Tri-Plex	T330	Doffing Trailer
T67	Rad. Tech.	T502	IT Corp. ARASA
T68	CRU1 Office	T505	Facilities Shutdown Bk. Tlr.

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
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3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.B.C	D&D PROJECTS

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
48	J. M. STEVENS/5187	J. M. STEVENS

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3020	FACILITY D&D

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
NEW PER CP FY#01-0115-0002-00	10/04 - 01/09

12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
BFDDM	MISCELLANEOUS STRUCTURES D&D

14. ELEMENT TASK DESCRIPTION

T69	Control Point - RIMIA	T506	Office
T71	Safe Shutdown	T512	Break-M. Ravenscraft
T72	Safe Shutdown	T513	Construction Coordinators
T74	ARASA Changeout Facility	T514	Construction (Conference Rm.)
T75	Multimedia Services	T520	S&W Office
T82	Capital Project	T529	Storage
T83	Capital Project	T540	Triplex - Porter Bkrm.
Railroad Tracks		T603	Storage - Semi Trailer
		T604	Maint. Storage Semi Tlr.
		T608	Break Trailer-Waste Mgt.

The scope of work for this subcontract includes, but are not limited to:

- premobilization;
- mobilization;
- site preparation;
- asbestos abatement;
- debris and equipment removal;
- release cleaning;
- transite removal;
- above-grade concrete removal;
- steel removal;
- material segregration, cutting, and containerization;
- demobilization.

d. WORK SPECIFICALLY EXCLUDED:

- Project Management
- Facility Isolation and Utility Redistribution
- Off-Site Debris Disposal
- At or Below grade concrete floor slabs, curbs, footers, pedestals and underground equipment or piping (except for equipment or piping located in accessible trenches, sumps, or floor openings).
- Labor
- Materials

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
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3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.B.C	D&D PROJECTS

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
48	J. M. STEVENS/5187	J. M. STEVENS

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3020	FACILITY D&D

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
NEW PER CP FY#01-0115-0002-00	10/04 - 01/09

12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
BFDDM	MISCELLANEOUS STRUCTURES D&D

14. ELEMENT TASK DESCRIPTION

- ODC's

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	08/20/2001	Page 1

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME	
1.1.B.C	D&D PROJECTS	
5. PERFORMING DIV/DEPARTMENT CODE	**6. ORIGINATOR NAME/PHONE**	**7. WBS ELEMENT MANAGER**
48	J. M. STEVENS/5187	J. M. STEVENS
8. BUDGET AND REPORTING NUMBER	**9. BUDGET TITLE**	
EW05H3020	FACILITY D&D	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		**11. ESTIMATED START / COMPLETION DATE**
NEW PER CP #FY01-0115-0002-00		12/00 - 01/09
12. TASK IDENTIFICATION (WORK PACKAGE)	**13. TASK DESCRIPTION (ONE LINE)**	
BFDDN	BLDG. 64/65 D&D	

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Subcontractors

b. TECHNICAL CONTENT:

This element provides for the decontamination and dismantlement (D&D) of the Building 64/65 in accordance with the OU3 Integrated Remedial Design/Remedial Action Work Plan.

c. SCOPE OF WORK:

The scope includes the D&D subcontract(s) which are responsible for the D&D of the Building 64/65 and any related components (i.e., pipe bridges, fencing, poles, etc.). Facilites included in the Building 64/65 are 64-Thorium Warehouse and 65-Old Plant 5 Warehouse. The scope of work for this subcontract includes, but are not limited to:

- premobilization;
- mobilization;
- site preparation;
- asbestos abatement;
- debris and equipment removal;
- release cleaning;
- transite removal;
- above-grade concrete removal;
- steel removal;
- material segregration, cutting, and containerization;
- demobilization.

Project Manager	Control Account Manager	Control Team Manager
[signature]	[signature]	Rodney Wartabra

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
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3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.B.C	D&D PROJECTS

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
48	J. M. STEVENS/5187	J. M. STEVENS

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3020	FACILITY D&D

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
NEW PER CP #FY01-0115-0002-00	12/00 - 01/09

12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
BFDDN	BLDG. 64/65 D&D

14. ELEMENT TASK DESCRIPTION

d. WORK SPECIFICALLY EXCLUDED:

- Project Management
- Facility Isolation and Utility Redistribution
- Off-Site Debris Disposal
- At or Below grade concrete floor slabs, curbs, footers, pedestals and underground equipment or piping (except for equipment or piping located in accessible trenches, sumps, or floor openings).
- Labor
- Materials
- ODC's

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
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3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME	
1.1.B.C	D&D PROJECTS	
5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
48	J. M. STEVENS/5187	J. M. STEVENS
8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE	
EW05H3020	FACILITY D&D	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		11. ESTIMATED START / COMPLETION DATE
NEW PER CP #FY01-0115-0002-00		12/00 - 01/09
12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)	
BFDDP	PILOT PLANT COMPLEX D&D	

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Subcontractors

b. TECHNICAL CONTENT:

This element provides for the decontamination and dismantlement (D&D) of the Pilot Plant Complex in accordance with the OU3 Integrated Remedial Design/Remedial Action Work Plan.

c. SCOPE OF WORK:

The scope includes the D&D subcontract(s) which are responsible for the D&D of the Pilot Plant Complex and any related components (i.e., pipe bridges, fencing, poles, etc.). Facilities included in the Pilot Plant Complex are 13A-Pilot Plant Wet Side, 13B-Pilot Plant Maintenance Building, 13C-Sump Pump House, 13D-Pilot Plant Thorium Tank Farm, 37-Pilot Plant Annex, 54A-6 to 4 Reduction Facility, 54B-Pilot Plant Shelter/Warehouse, and 54C Pilot Plant Dissociator Shelter. The scope of work for this subcontract includes, but are not limited to:

- pre-mobilization;
- mobilization;
- site preparation;
- asbestos abatement;
- debris and equipment removal;
- release cleaning;
- transite removal;
- above-grade concrete removal;
- steel removal;
- material segregation, cutting, and containerization;

Project Manager	Control Account Manager	Control Team Manager
		Rodney Wheeler

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
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3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.B.C	D&D PROJECTS

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
48	J. M. STEVENS/5187	J. M. STEVENS

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3020	FACILITY D&D

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
NEW PER CP #FY01-0115-0002-00	12/00 - 01/09

12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
BFDDP	PILOT PLANT COMPLEX D&D

14. ELEMENT TASK DESCRIPTION

- demobilization.

d. WORK SPECIFICALLY EXCLUDED:

- Project Management
- Facility Isolation and Utility Redistribution
- Off-Site Debris Disposal
- At or Below grade concrete floor slabs, curbs, footers, pedestals and underground equipment or piping (except for equipment or piping located in accessible trenches, sumps, or floor openings).
- Labor
- Materials
- ODC's

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
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3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME	
1.1.B.C	D&D PROJECTS	
5. PERFORMING DIV/DEPARTMENT CODE	**6. ORIGINATOR NAME/PHONE**	**7. WBS ELEMENT MANAGER**
48	J. M. STEVENS/5187	J. M. STEVENS
8. BUDGET AND REPORTING NUMBER	**9. BUDGET TITLE**	
EW05H3020	FACILITY D&D	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		**11. ESTIMATED START / COMPLETION DATE**
NEW PER CP #FY01-0115-0002-00		12/00 - 01/09
12. TASK IDENTIFICATION (WORK PACKAGE)	**13. TASK DESCRIPTION (ONE LINE)**	
BFDDQ	LIQUID STORAGE COMPLEX D&D	

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Subcontractors

b. TECHNICAL CONTENT:

This element provides for the decontamination and dismantlement (D&D) of the Liquid Storage Complex in accordance with the OU3 Integrated Remedial Design/Remedial Action Work Plan.

c. SCOPE OF WORK:

The scope includes the D&D subcontract(s) which are responsible for the D&D of the Liquid Storage Complex and any related components (i.e., pipe bridges, fencing, poles, etc.). Facilities included in the Liquid Storage Complex are 26A-Pump House-HP Fire Protection, 26B-Elevated Storage Water Tank, 28D-Guard Post on West End of 2nd Street, 45A-Maintenance (Former Rust Engineering and Construction Div. Building), and 80-Plant 8 Warehouse. The scope of work for this subcontract includes, but are not limited to:

- pre-mobilization;
- mobilization;
- site preparation;
- asbestos abatement;
- debris and equipment removal;
- release cleaning;
- transite removal;
- above-grade concrete removal;
- steel removal;
- material segregation, cutting, and containerization;

Project Manager	Control Account Manager	Control Team Manager
		Rodney Watanabe

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
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3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.B.C	D&D PROJECTS

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
48	J. M. STEVENS/5187	J. M. STEVENS

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3020	FACILITY D&D

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
NEW PER CP #FY01-0115-0002-00	12/00 - 01/09

12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
BFDDQ	LIQUID STORAGE COMPLEX D&D

14. ELEMENT TASK DESCRIPTION

- demobilization.

d. WORK SPECIFICALLY EXCLUDED:

- Project Management
- Facility Isolation and Utility Redistribution
- Off-Site Debris Disposal
- At or Below grade concrete floor slabs, curbs, footers, pedestals and underground equipment or piping (except for equipment or piping located in accessible trenches, sumps, or floor openings).
- Labor
- Materials
- ODC's

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
FEMP (DEFENSE)	08/20/2001	Page 1

3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME	
1.1.B.C	D&D PROJECTS	
5. PERFORMING DIV/DEPARTMENT CODE	**6. ORIGINATOR NAME/PHONE**	**7. WBS ELEMENT MANAGER**
48	J. M. STEVENS/5187	J. M. STEVENS
8. BUDGET AND REPORTING NUMBER	**9. BUDGET TITLE**	
EW05H3020	FACILITY D&D	
10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?		**11. ESTIMATED START / COMPLETION DATE**
NEW PER CP #FY01-0115-0002-00		12/00 - 01/09
12. TASK IDENTIFICATION (WORK PACKAGE)	**13. TASK DESCRIPTION (ONE LINE)**	
BFDDS	GENERAL SUMP COMPLEX D&D	

14. ELEMENT TASK DESCRIPTION

a. ELEMENTS OF COST:

Subcontractor

b. TECHNICAL CONTENT:

This element provides for the decontamination and dismantlement (D&D) of the General Sump Complex in accordance with the OU3 Integrated Remedial Design/Remedial Action Work Plan.

c. SCOPE OF WORK:

The scope includes the D&D subcontract(s) which are responsible for the D&D of the General Sump Complex and any related components (i.e., pipe bridges, fencing, poles, etc.). Facilites included in the General Sump Complex are 2B-General/Refinery Sump Control Building D&D, 2C-Bulk Lime Handling Building D&D, 3A-Maintenance Building D&D, Component 3H-Refinery Sump D&D, 3L-Electrical Power Center Building D&D, Component 18B-General Sump D&D, Component 18D-Biodenitrification Towers D&D, and 18H-BDN Effluent Treatment Facility. The scope of work for this subcontract includes, but are not limited to:

- premobilization;
- mobilization;
- site preparation;
- asbestos abatement;
- debris and equipment removal;
- release cleaning;
- transite removal;
- above-grade concrete removal;
- steel removal;

Project Manager	Control Account Manager	Control Team Manager
		Rodney Watanabe

WORK SCOPE DEFINITION
(Work Package)

1. PROJECT TITLE	2. DATE	
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3. WBS ELEMENT CODE	4. WBS ELEMENT TITLE/NAME
1.1.B.C	D&D PROJECTS

5. PERFORMING DIV/DEPARTMENT CODE	6. ORIGINATOR NAME/PHONE	7. WBS ELEMENT MANAGER
48	J. M. STEVENS/5187	J. M. STEVENS

8. BUDGET AND REPORTING NUMBER	9. BUDGET TITLE
EW05H3020	FACILITY D&D

10. ORIGINAL SCOPE? / CHANGE TO WORK SCOPE? / NEW SCOPE?	11. ESTIMATED START / COMPLETION DATE
NEW PER CP #FY01-0115-0002-00	12/00 - 01/09

12. TASK IDENTIFICATION (WORK PACKAGE)	13. TASK DESCRIPTION (ONE LINE)
BFDDS	GENERAL SUMP COMPLEX D&D

14. ELEMENT TASK DESCRIPTION

- material segregration, cutting, and containerization;
- demobilization.

d. WORK SPECIFICALLY EXCLUDED:

- Project Management
- Facility Isolation and Utility Redistribution
- Off-Site Debris Disposal
- At or Below grade concrete floor slabs, curbs, footers, pedestals and underground equipment or piping (except for equipment or piping located in accessible trenches, sumps, or floor openings).
- Labor
- Materials
- ODC's

SECTION 1

1.0 NARRATIVE

1. PROJECT TITLE: DEMOLITION AND DECONTAMINATION	2. DATE: 09/10/01	3. PBS#: 02
4. WBS ELEMENT CODE: 1.1.B.C.	5. WBS ELEMENT TITLE: D&D PROJECTS	
6. CAM NAME/ PHONE: MIKE STEVENS/ 5187	7. CAM SIGNATURE:	
8. ORIGINAL/ CHANGE SCOPE/ PER CP#:	9. CONTROL ACCOUNT: BFDD	

R1-F02-047

SECTION 3: BFDD – FACILITY D&D

1.0 NARRATIVE

1.1 OVERVIEW

R1-F02-047

Facility Decontamination and Demolition (D&D) includes all activities associated with the above-grade D&D of all structures identified in this plan. This work is to be performed in accordance with Operable Unit 3 (OU3) integrated Remedial Design/Remedial Action (RD/RA) Work Plan. This work consists of 15 projects as follows:

#	Project	Charge Number
1.	Plant 2 D&D	BFDD2
2.	Plant 3 D&D	BFDD3
3.	General Sump D&D	BFDDS
4.	Plant 8 D&D	BFDD8
5.	Health & Safety Building D&D	BFDDH
6.	Liquid Storage D&D	BFDDQ
7.	Pilot Plant D&D	BFDDP
8.	Laboratory D&D	BFDDB
9.	Administration (Includes Electrical Complex) D&D	BFDDA
10.	East Warehouse D&D	BFDDE
11.	Miscellaneous Structures D&D	BFDDM
12.	Building 64/65 D&D	BFDDN
13.	Plant 1, Phase II D&D	BFDD1
14.	Plant 5 D&D	BFDD5
15.	Plant 6 D&D	BFDD6

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Many of these projects are part of a single D&D Closure Project Contract that was awarded in August 2001. The value of the structures that are included in the D&D Closure Project are based on a percentage of the award value.

1.2 ASSUMPTIONS/EXCLUSIONS

1.2.1 Assumptions

Plant 2

- One single source Contractor procurement for all D&D work.
- The effluent collection containers are supplied by Fluor Fernald D&D.
- T-95 is available to the Contractor as a change/decon facility, located on the corner of 101st and "B" Street (east of Building 3A).
- T-130 is available to the Contractor as a break/lunch facility and is located on the corner of 101st and "B" Street (NE of Plant 8).
- Building 3A is available to the Contractor for use as a storage area until demolition of the building is required as defined in the General Sump Complex. Facility renovation and utility modification is not required.
- The Contractor will place their required temporary facilities in the suggested locations due to the availability of water and power. The asbestos decon trailer will be place immediately west of T-95. The lunch/break trailer will be placed on 101st Street, just south of Building 3A.
- Temporary electric to be supplied from Building 3L until demolition of the building is required as defined in the General Sump Complex.
- Water from two existing sources (a hydrant NW of 101st and "A" Street and the existing water hook-up to T-95).
- The thorium will still be the contaminant of concern in the Extraction Area of Building 2A and D&D will be performed under thorium controls.
- The existing donning/doffing room located on the exterior south side of the extraction area, will be used by the D&D Contractor for PPE exchange from thorium to uranium controls.
- The gunnite, which encases the Digestion Area "hot" side tanks, are non-ACM.
- Personnel will be required to work in supplied air during first line breaks of pipes and tanks (i.e., equipment demolition) due to the possible release of NO_2.
- No process hold-up material is expected other than that specifically identified by quantity in the SSD turnover package.
- All chemicals have been removed from this complex.
- All records have been removed from this complex.
- All salvageable equipment has been removed from this complex.
- All miscellaneous debris (i.e.: rolling stock, trash, used PPE and miscellaneous used equipment) has been removed from this complex.
- No Contractor generated change orders for changed conditions including unidentified materials, contaminated equipment (i.e. shears, skid steers) etc.
- Denitration and Digestion will be worked under U238 isotopes of concern.
- Extraction will be worked under Thorium 230 isotope of concern.
- All contaminants have been identified and levels of contaminants are adequately determined.
- The masonry/concrete removal will be performed utilizing a concrete shear.
- All utilities have been isolated by Facilities Isolation.

- Debris will be loaded directly into Fluor Fernald Waste Generator Services containers by the Contractor(s) for relocation to the OSDF.
- The sole source D&D contractor concept, to be performed by MACTEC, will be accepted by DOE by the end of July 2001 and awarded by the end of September 2001.

Plant 3

- One single source Contractor procurement for all D&D work.
- The Plant 2, Plant 3, Plant 8 and General Sump Complexes will be awarded as one contract. Since Plant 3 D&D is planned to begin second, the cost and technical scope for mobilization items (i.e.: asbestos trailer, lunch/break trailer, etc.) are included in the Plant 2 Technical Scope.
- T-95 is available to the Contractor as a change/decon facility, located on the corner of 101st and "B" Street (east of Building 3A).
- T-130 is available to the Contractor as a break/lunch facility and is located on the corner of 101st and "B" Street (NE of Plant 8).
- Building 3A is available to the Contractor for use as a storage area until demolition of the building is required as defined in the General Sump Complex. Facility renovation and utility modification is not required.
- Temporary electric to be supplied from Building 3L until demolition of the building is required as defined in the General Sump Complex.
- Water from two existing sources (a hydrant NW of 101st and "E" Street and the existing water hook-up to T-95).
- The Contractor will place T-95, T-130 and their required temporary facilities in the suggested locations due to the availability of water and power. The asbestos decon trailer will be place immediately west of T-95. The lunch/break trailer will be placed on 101st Street, just south of Building 3A.
- The effluent collection containers are supplied by Fluor Fernald D&D.
- Thorium will still be the contaminant of concern in Buildings 3E and 39A and D&D will be performed under thorium controls.
- The existing donning/doffing room located on the exterior south side of the extraction area, will be used by the D&D Contractor for PPE exchange from thorium to uranium controls.
- Personnel will be required to work in supplied air during first line breaks of pipes and tanks (i.e., equipment demolition) due to the possible release of NO_2.
- No process hold-up material is expected.
- All chemicals have been removed from this complex.
- All records have been removed from this complex.
- All salvageable equipment has been removed from this complex.
- All utilities have been isolated by Facilities Shutdown.
- All miscellaneous debris (i.e.: rolling stock, trash, used PPE and miscellaneous used equipment) has been removed from this complex.
- No Contractor generated change orders for changed conditions including unidentified materials, contaminated equipment (i.e. shears, skid steers) etc.

- Debris will be loaded directly into Fluor Fernald Waste Generator Services containers by the Contractor(s) for relocation to the OSDF.
- In accordance with the OU3 Remedial Investigation and Feasibility Study (Final, February 1996), PCBs and hazardous materials are not contaminants of concern (COCs). In addition, based on process knowledge, no process-related materials are anticipated for this complex.
- Fluor Fernald will supply a minimum of one HEPA Vacuum Cleaner for each crew working at a time and enough to replace those that are being serviced for filter integrity testing, and all attachments required to perform work under this Task Order.
- Fluor Fernald will supply air filtration devices and appurtenances required to perform work (Specification Section 15860).
- Fluor Fernald Waste Generator Services will supply all ROBs.
- No utility redistribution is required.
- Buildings 3E and 39A will be worked under Thorium 230 isotope of concern.
- Buildings 3B & 3C and Components 3D, 3J, 3K and 22E will be worked under U238 isotopes of concern.
- The sole source D&D contractor concept, to be performed by MACTEC, will be accepted by DOE by the end of July 2001 and awarded by the end of September 2001.

General Sump

- One single source Contractor procurement for all D&D work.
- T-95 is available to the Contractor as a change/decon facility, located on the corner of 101st and "B" Street (east of Building 3A).
- T-130 is available to the Contractor as a break/lunch facility and is located on the corner of 101st and "B" Street (NE of Plant 8).
- Building 3A is available to the Contractor for use as a storage area until demolition of the building is required. Facility renovation and utility modification is not required.
- Temporary electric to be supplied from Building 3L until demolition of the building is required. At that time, the Contractor should provide alternate temporary power (i.e., generator(s)).
- Water from two existing sources (a hydrant NW of 101st and "E" Street and the existing water hook-up to T-95).
- The effluent collection containers are supplied by Fluor Fernald D&D.
- No process hold-up material is expected other than that specifically identified by quantity in the SSD turnover package.
- All chemicals have been removed from this complex.
- All records have been removed from this complex.
- All salvageable equipment has been removed from this complex.
- Facility Owner has removed all miscellaneous debris (i.e.: rolling stock, trash, used PPE and miscellaneous used equipment).
- No utility redistribution is required with the exception of Hut 2.
- No Contractor generated change orders for changed conditions including unidentified materials, contaminated equipment (i.e. shears, skid steers) etc.

- All General Sump buildings and components will be worked under U238 isotopes of concern.
- All contaminants have been identified and levels of contaminants are adequately determined.
- The masonry/concrete removal will be performed utilizing a concrete shear.
- Debris will be loaded directly into Fluor Fernald Waste Generator Services containers by the Contractor(s) for relocation to the OSDF.
- The sole source D&D contractor concept, to be performed by MACTEC, will be accepted by DOE by the end of July 2001 and awarded by the end of September 2001.

Plant 8

- One single source Contractor procurement for all D&D work.
- The effluent collection containers are supplied by Fluor Fernald D&D.
- T-95 is available to the Contractor as a change/decon facility, located on the corner of 101st and "B" Street (east of Building 3A).
- T-130 is available to the Contractor as a break/lunch facility and is located on the corner of 101st and "B" Street (NE of Plant 8).
- Scabbling one inch from the second floor of Building 8A in the muffle furnace area will not require additional structural reinforcement to continue interior work in the nearby area.
- None of the floor brick on the wet side of Building 8A is acid brick.
- The Rotary Kiln pedestals will remain for below grade remediation during SCEP Area 4B excavation.
- Floor loading of the second floor of Building 8A is adequate to remove interior equipment without further structural reinforcement.
- The Contractor will place their required temporary facilities in the suggested locations due to the availability of water and power. The asbestos decon trailer will be place immediately west of T-95. The lunch/break trailer will be placed on 101st Street, just south of Building 3A.
- Temporary electric to be supplied from Building 3L until demolition of the building is required as defined in the General Sump Complex.
- The thoron readings in 8A will be below derived air concentration (DAC) action levels and will not require shortened stay times.
- Water from two existing sources (a hydrant NW of 101st and "E" Street and the existing water hook-up to T-95).
- Thorium will still be the contaminant of concern in Building 8A and D&D will be performed under thorium controls.
- The donning/doffing room will be used by the D&D Contractor for PPE exchange from thorium to uranium controls.
- Personnel will be required to work in supplied air during first line breaks of pipes and tanks (i.e., equipment demolition) due to the possible release of NO_2.
- No process hold-up material is expected other than that specifically identified by quantity in the SSD turnover package.
- All chemicals have been removed from this complex.

- All records have been removed from this complex.
- All salvageable equipment has been removed from this complex.
- All miscellaneous debris (i.e.: rolling stock, trash, used PPE and miscellaneous used equipment) has been removed from this complex.
- No Contractor generated change orders for changed conditions including unidentified materials, contaminated equipment (i.e. shears, skid steers) etc.
- All utilities have been isolated by Facilities Shutdown.
- All contaminants have been identified and levels of contaminants are adequately determined.
- Buildings 8B, 8C, & 8D and Components 8E, 8G & 8H will be worked under U238 isotopes of concern.
- Buildings 8A will be worked under Thorium 230 isotope of concern.
- Debris will be loaded directly into Fluor Fernald Waste Generator Services containers by the Contractor(s) for relocation to the OSDF.
- The sole source D&D contractor concept, to be performed by MACTEC, will be accepted by DOE by the end of July 2001 and awarded by the end of September 2001.

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Health and Safety Building

- One single source Contractor procurement for all D&D work.
- The effluent collection containers are supplied by Fluor Fernald D&D.
- No process hold-up material is expected.
- All chemicals have been removed from this complex.
- All records have been removed from this complex.
- All salvageable equipment has been removed from this complex.
- All miscellaneous debris (i.e.: rolling stock, trash, used PPE and miscellaneous used equipment) has been removed from this complex.
- No Contractor generated change orders for changed conditions including unidentified materials, contaminated equipment (i.e. shears, skid steers) etc.
- All buildings in this complex will be worked under U238 isotopes of concern.
- All contaminants have been identified and levels of contaminants are adequately determined.
- There is no process-related equipment in the complex with the exception of the laundry area located in the Services Building (11).
- Medical, dosimetry, and other facility occupants will have removed any salvageable equipment prior to turnover to the D&D project. Any remaining equipment will be handled as waste.
- Debris will be loaded directly into Fluor Fernald Waste Generator Services containers by the Contractor(s) for relocation to the OSDF.

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- Regulatory approval for the D&D of Building 53A (Health and Safety Building) will be obtained prior to the end of August 2001. An Implementation Plan letter for Building 53A will be submitted to DOE and the Regulatory Agencies prior to the end of August 2001.
- Debris will be loaded directly into Fluor Fernald Waste Generator Services containers by the Contractor(s) for relocation to the OSDF.

- In accordance with the OU3 Remedial Investigation and Feasibility Study (Final, February 1996), PCBs and hazardous materials are not contaminants of concern (COCs). In addition, based on process knowledge, no process-related materials are anticipated for this complex.
- Fluor Fernald will supply a minimum of one HEPA Vacuum Cleaner for each crew working at a time and enough to replace those that are being serviced for filter integrity testing, and all attachments required to perform work under this Task Order.
- Fluor Fernald will supply air filtration devices and appurtenances required to perform work (Specification Section 15860).
- Fluor Fernald will supply all ROBs.
- The sole source D&D contractor concept, to be performed by MACTEC, will be accepted by DOE by the end of July 2001 and awarded by the end of September 2001.

Liquid Storage

- One single source Contractor procurement for all D&D work.
- The effluent collection containers are supplied by Fluor Fernald D&D.
- No process hold-up material is expected.
- All chemicals have been removed from this complex.
- All records have been removed from this complex.
- All salvageable equipment has been removed from this complex.
- All miscellaneous debris (i.e.: rolling stock, trash, used PPE and miscellaneous used equipment) has been removed from this complex.
- No Contractor generated change orders for changed conditions including unidentified materials, contaminated equipment (i.e. shears, skid steers) etc.
- All buildings (26A, 26B, 28D, 45A, and 80) in this complex will be worked under U238 isotopes of concern.
- Contractor will use Fluor provided break and change out trailers, related support facilities and all required utilities already located at the Plant 2 Complex.
- Debris will be loaded directly into Fluor Fernald Waste Generator Services containers by the Contractor(s) for relocation to the OSDF.
- In accordance with the OU3 Remedial Investigation and Feasibility Study (Final, February 1996), PCBs and hazardous materials are not contaminants of concern (COCs). In addition, based on process knowledge, no process-related materials are anticipated for this complex.
- Fluor Fernald will supply a minimum of one HEPA Vacuum Cleaner for each crew working at a time and enough to replace those that are being serviced for filter integrity testing, and all attachments required to perform work under this Task Order.
- Fluor Fernald will supply air filtration devices and appurtenances required to perform work (Specification Section 15860).
- Fluor Fernald will supply all ROBs.
- No utility redistribution to the project or surrounding areas is needed.
- No effluent collection containers are required for the East Warehouse Complex D&D Project.

- Non structural debris will be directly loaded into containers by the Contractor(s) for relocation to the OSDF. All debris from the Liquid Storage Complex will be able to be placed in the OSDF.
- All contaminants have been identified and levels of contaminants (especially Thorium 230) are adequately determined.
- There will be no excess equipment remaining in the buildings at the start of the project; therefore, assume any equipment left behind (especially in Building 45) will be considered waste.
- The weigh scale will be abandoned in place prior to the start of the project.
- None of the components within the Liquid Storage Complex contain process-related metals.
- The Plant 2 Complex and Plant 3 Complex D&D projects have progressed to the point that the Elevated Water Storage Tank can be felled to the east (in the Plant 2/3 area).
- Water from two existing sources (a hydrant NW of 101st and "E" Street and the existing hook-up to T-95).
- The sole source D&D contractor concept, to be performed by MACTEC, will be accepted by DOE by the end of July 2001 and awarded by the end of September 2001.

Pilot Plant

- One single source Contractor procurement for all D&D work.
- The effluent collection containers are supplied by Fluor Fernald D&D.
- Personnel will be required to work in supplied air during first line breaks of pipes and tanks (i.e., equipment demolition) due to the possible release of NO_2.
- R1-F02-016 No process hold-up material is expected other than what is identified in Safe Shutdown turnover package.
- All chemicals have been removed from this complex.
- All records have been removed from this complex.
- All salvageable equipment has been removed from this complex.
- With the exception of 13B electric, all utilities have been isolated by Facilities Shutdown.
- All miscellaneous debris (i.e.: rolling stock, trash, used PPE and miscellaneous used equipment) has been removed from this complex.
- No Contractor generated change orders for changed conditions including unidentified materials, contaminated equipment (i.e. shears, skid steers) etc.
- Contractor will relocate and install Fluor provided break (T-131) and change out trailer (T-94), related support facilities and all required utilities already established and located at the Pilot Plant Complex.
- Debris will be loaded directly into Fluor Fernald Waste Generator Services containers by the Contractor(s) for relocation to the OSDF.
- In accordance with the OU3 Remedial Investigation and Feasibility Study (Final, February 1996), PCBs and hazardous materials are not contaminants of concern (COCs). In addition, based on process knowledge, no process-related materials are anticipated for this complex.

- Fluor Fernald will supply a minimum of one HEPA Vacuum Cleaner for each crew working at a time and enough to replace those that are being serviced for filter integrity testing, and all attachments required to perform work under this Task Order.
- Fluor Fernald will supply air filtration devices and appurtenances required to perform work (Specification Section 15860).
- Fluor Fernald Waste Generator Services will supply all ROBs.
- No utility redistribution is required.
- Buildings 13C, 37, 54A, 54B and 54C will be worked under U238 isotopes of concern.
- Buildings 13A, 13B, Component 13D and the Sly dust collectors will be worked under Thorium 230 and Thorium 232 isotopes of concern.
- The sole source D&D contractor concept, to be performed by MACTEC, will be accepted by DOE by the end of July 2001 and awarded by the end of September 2001.

Laboratory

- One single source Contractor procurement for all D&D work.
- The effluent collection containers are supplied by Fluor Fernald D&D.
- Thorium will be the contaminant of concern in some areas of Building 15A. Specifically, Rooms C15 & C40 for Thorium 230 and Room S43 for Thorium 232. D&D will be performed under thorium controls in these areas. Otherwise the other areas of 15A as well as 15B and 15C will be demolished under U238 controls.
- No process hold-up material is expected.
- All chemicals have been removed from this complex.
- All records have been removed from this complex.
- All salvageable equipment has been removed from this complex.
- All miscellaneous debris (i.e.: rolling stock, trash, used PPE and miscellaneous used equipment) has been removed from this complex.
- No Contractor generated change orders for changed conditions including unidentified materials, contaminated equipment (i.e. shears, skid steers) etc.
- Contractor will relocate and install Fluor provided break (T-131) and change out trailers (T-94), related support facilities and all required utilities.
- Debris will be loaded directly into Fluor Fernald Waste Generator Services containers by the Contractor(s) for relocation to the OSDF.
- In accordance with the OU3 Remedial Investigation and Feasibility Study (Final, February 1996), PCBs and hazardous materials are not contaminants of concern (COCs). In addition, based on process knowledge, no process-related materials are anticipated for this complex.
- Fluor Fernald will supply a minimum of one HEPA Vacuum Cleaner for each crew working at a time and enough to replace those that are being serviced for filter integrity testing, and all attachments required to perform work under this Task Order.
- Fluor Fernald will supply air filtration devices and appurtenances required to perform work (Specification Section 15860).
- Fluor Fernald Waste Generator Services will supply all ROBs.
- The chemical hoods and associated duct work is process-related debris that will be dispositioned at Envirocare.

- Any concrete debris that has fallen into the utility tunnels during pipe removal will remain for the below-grade remediation.
- The sole source D&D contractor concept, to be performed by MACTEC, will be accepted by DOE by the end of July 2001 and awarded by the end of September 2001.

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Administration (Includes Electrical Complex)

- One single source Contractor procurement for all D&D work.
- The effluent collection containers are supplied by Fluor Fernald D&D.
- No process hold-up material is expected.
- All chemicals have been removed from this complex.
- All records have been removed from this complex.
- All salvageable equipment has been removed from this complex.
- All miscellaneous debris (i.e.: rolling stock, trash, used PPE and miscellaneous used equipment) has been removed from this complex.
- No Contractor generated change orders for changed conditions including unidentified materials, contaminated equipment (i.e. shears, skid steers) etc.
- Contractor will install Fluor provided break and change out trailers, related support facilities and all required utilities.
- All buildings in this complex will be worked under U238 isotopes of concern.
- All contaminants have been identified and levels of contaminants are adequately determined.
- There is no process-related equipment in the complex with the exception of the laundry area located in the Services Building (11).
- Medical, dosimetry, and other facility occupants will have removed any salvageable equipment prior to turnover to the D&D project. Any remaining equipment will be handled as waste.
- Debris will be loaded directly into Fluor Fernald Waste Generator Services containers by the Contractor(s) for relocation to the OSDF.
- In accordance with the OU3 Remedial Investigation and Feasibility Study (Final, February 1996), PCBs and hazardous materials are not contaminants of concern (COCs). In addition, based on process knowledge, no process-related materials are anticipated for this complex.
- Fluor Fernald will supply a minimum of one HEPA Vacuum Cleaner for each crew working at a time and enough to replace those that are being serviced for filter integrity testing, and all attachments required to perform work under this Task Order.
- Fluor Fernald will supply air filtration devices and appurtenances required to perform work (Specification Section 15860).
- Fluor Fernald will supply all ROBs.
- The Main Electrical Substation components 16A, 16D, and 16E will remain post closure and no relocation of this substation is necessary.
- The sole source D&D contractor concept, to be performed by MACTEC, will be accepted by DOE by the end of July 2001 and awarded by the end of September 2001.

East Warehouse

- One single source Contractor procurement for all D&D work.
- The effluent collection containers are supplied by Fluor Fernald D&D.
- All chemicals have been removed from this complex.
- All records have been removed from this complex.
- All salvageable equipment has been removed from this complex.
- All miscellaneous debris (i.e.: rolling stock, trash, used PPE and miscellaneous used equipment) has been removed from this complex.
- No Contractor generated change orders for changed conditions including unidentified materials, contaminated equipment (i.e. shears, skid steers) etc.
- All buildings in this complex will be worked under U238 isotopes of concern.
- Debris will be loaded directly into Fluor Fernald Waste Generator Services containers by the Contractor(s) for relocation to the OSDF.
- In accordance with the OU3 Remedial Investigation and Feasibility Study (Final, February 1996), PCBs and hazardous materials are not contaminants of concern (COCs). In addition, based on process knowledge, no process-related materials are anticipated for this complex.
- Fluor Fernald will supply a minimum of one HEPA Vacuum Cleaner for each crew working at a time and enough to replace those that are being serviced for filter integrity testing, and all attachments required to perform work under this Task Order.
- Fluor Fernald will supply air filtration devices and appurtenances required to perform work (Specification Section 15860).
- Fluor Fernald Waste Generator Services will supply all ROBs.
- No utility redistribution to the project or surrounding areas is needed. Electrical for D&D activities is to be supplied from the main electrical substation. Water for D&D activities is to be supplied from two existing sources (north of 1st Street on "D" Street and north of 1st Street on east of "E" Street).
- No effluent collection containers are required for the East Warehouse Complex D&D Project.
- Debris will be directly loaded into containers by the Contractor(s) for relocation to the OSDF. All debris from the East Warehouses Complex will be able to be placed in the OSDF.
- T66 and T69 will be demolished at the same time as Building 82A.
- The sole source D&D contractor concept, to be performed by MACTEC, will be accepted by DOE by the end of July 2001 and awarded by the end of September 2001.

Miscellaneous Structures

- No process hold-up material in any of these buildings, components, or trailers.
- All chemicals have been removed prior to D&D.
- All records have been removed prior to D&D.
- All salvageable equipment has been removed prior to D&D.
- All miscellaneous debris (i.e.: rolling stock, trash, used PPE and miscellaneous used equipment) has been removed prior to D&D.

- Buildings 60 and 61, will be worked under Thorium 232 isotope of concern. All other components will be worked under U238 isotopes of concern.
- Fluor Fernald will supply a minimum of one HEPA Vacuum Cleaner for each crew working at a time and enough to replace those that are being serviced for filter integrity testing, and all attachments required to perform work.
- Fluor Fernald will supply air filtration devices and appurtenances required to perform work (Specification Section 15860).
- Fluor Fernald Waste Generator Services will supply all ROBs.
- No effluent collection containers are required.
- The Contractor will place their required temporary facilities in the suggested locations due to the availability of water and power.
- Thorium is the contaminant of concern for Buildings 60 and 61. D&D will be performed under thorium controls.
- The sole source D&D contractor concept, to be performed by MACTEC, will be accepted by DOE by the end of July 2001 and awarded by the end of September 2001.

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Building 64/65

- No process hold-up material in any of these buildings, components, or trailers.
- All chemicals have been removed prior to D&D.
- All records have been removed prior to D&D.
- All salvageable equipment has been removed prior to D&D.
- All miscellaneous debris (i.e.: rolling stock, trash, used PPE and miscellaneous used equipment) has been removed prior to D&D.
- Fluor Fernald will supply a minimum of one HEPA Vacuum Cleaner for each crew working at a time and enough to replace those that are being serviced for filter integrity testing, and all attachments required to perform work.
- Fluor Fernald will supply air filtration devices and appurtenances required to perform work (Specification Section 15860).
- Fluor Fernald Waste Generator Services will supply all ROBs.
- No effluent collection containers are required.
- The Contractor will place their required temporary facilities in the suggested locations due to the availability of water and power.
- Thorium is the contaminant of concern for Buildings 64 and 65. D&D will be performed under thorium controls.
- The sole source D&D contractor concept, to be performed by MACTEC, will be accepted by DOE by the end of July 2001 and awarded by the end of September 2001.

Plant 1, Phase II

- One single source Contractor procurement for all D&D work.
- The effluent collection containers are supplied by Fluor Fernald D&D.
- No process hold-up material is expected.
- All chemicals have been removed from this complex.
- All records have been removed from this complex.

- All salvageable equipment has been removed from this complex.
- All miscellaneous debris (i.e.: rolling stock, trash, used PPE and miscellaneous used equipment) has been removed from this complex.
- No Contractor generated change orders for changed conditions including unidentified materials, contaminated equipment (i.e. shears, skid steers) etc.

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- All buildings (1B, 16N, 20A, 30A, 56A, 71, TS-04, TS-05 and TS-06) will be worked under U238 isotopes of concern.
- Contractor will use Fluor provided break and change out trailers (T-93), related support facilities and all required utilities.
- Debris will be loaded directly into Fluor Fernald Waste Generator Services containers by the Contractor(s) for relocation to the OSDF.
- In accordance with the OU3 Remedial Investigation and Feasibility Study (Final, February 1996), PCBs and hazardous materials are not contaminants of concern (COCs). In addition, based on process knowledge, no process-related materials are anticipated for this complex.
- Fluor Fernald will supply a minimum of one HEPA Vacuum Cleaner for each crew working at a time and enough to replace those that are being serviced for filter integrity testing, and all attachments required to perform work under this Task Order.
- Fluor Fernald will supply air filtration devices and appurtenances required to perform work (Specification Section 15860).
- Fluor Fernald will supply all ROBs.
- No utility redistribution to the project or surrounding areas is needed. Electrical for D&D activities is to be supplied from the main electrical substation. Water for D&D activities is to be supplied from two existing sources (north of 2nd Street).
- Non structural debris will be directly loaded into containers by the Contractor(s) for relocation to the OSDF. All debris from the Plant 1, Phase II Complex will be able to be placed in the OSDF.
- Soil will be available for OSDF placement. No interim storage of debris (and no double handling) will be necessary.
- All contaminants have been identified and levels of contaminants (especially Thorium 232) are adequately determined.
- The three tension support structures will not be salvaged and will be dispositioned in the OSDF.
- Assume the roof is a non-asbestos roof and contains a styrene insulation.
- There will be no excess equipment remaining in the buildings at the start of the project; therefore, assume any equipment left behind will be considered waste.
- The sole source D&D contractor concept, to be performed by MACTEC, will be accepted by DOE by the end of July 2001 and awarded by the end of September 2001.

Plant 5

- Contractor procurement for all D&D work is completed and the project is scheduled for completion in May 2001.
- T-95 is available to the Contractor as a change/decon facility, located on the corner of 1st and "C" Street.

- T-130 is available to the Contractor as a break/lunch facility and is located on the corner of 1st and "C" Street.
- Building 5F is available to the Contractor for use as a storage area until demolition of the building is required.
- Temporary electric is supplied from the Plant 9 substation until demolition of the building is required.
- Water from two existing sources (a hydrant NW of 1st and "E" Street and the existing water hook-up to T-95).
- The Contractor will place their required temporary facilities in the suggested locations due to the availability of water and power. The asbestos decon trailer will be place immediately east of T-95.
- The effluent collection containers are supplied by Fluor Fernald D&D.
- No process hold-up material is expected.
- All chemicals have been removed from this complex.
- All records have been removed from this complex.
- All salvageable equipment has been removed from this complex.
- All utilities have been isolated by Facilities Shutdown.
- All miscellaneous debris (i.e.: rolling stock, trash, used PPE and miscellaneous used equipment) has been removed from this complex.
- Debris will be loaded directly into Fluor Fernald Waste Generator Services containers by the Contractor(s) for relocation to the OSDF.
- In accordance with the OU3 Remedial Investigation and Feasibility Study (Final, February 1996), PCBs and hazardous materials are not contaminants of concern (COCs). In addition, based on process knowledge, no process-related materials are anticipated for this complex.
- Fluor Fernald will supply a minimum of one HEPA Vacuum Cleaner for each crew working at a time and enough to replace those that are being serviced for filter integrity testing, and all attachments required to perform work under this Task Order.
- Fluor Fernald will supply air filtration devices and appurtenances required to perform work (Specification Section 15860).
- Fluor Fernald Waste Generator Services will supply all ROBs.
- No utility redistribution is required.
- All buildings in this complex will be worked under U238 isotopes of concern.
- The sole source D&D contractor concept, to be performed by MACTEC, will be accepted by DOE by the end of July 2001 and awarded by the end of September 2001.

Plant 6

- Contractor procurement for all D&D work is completed and the project is scheduled for completion in December 2001.
- T-94 is available to the Contractor as a change/decon facility, located on the corner of 1st and "D" Street.
- T-131 is available to the Contractor as a break/lunch facility and is located on the corner of 1st and "D" Street.
- Facility isolation and utility redistribution is not required.

- Temporary electric to be supplied from Plant 9 Substation until demolition of the building is required.
- Water from two existing sources (a hydrant NW of 101st and "E" Street and the existing water hook-up to T-95).
- The Contractor already has all temporary facilities installed. The asbestos decon trailer will be place immediately east of T-94.
- The effluent collection containers are supplied by Fluor Fernald D&D.
- All chemicals have been removed from this complex.
- All records have been removed from this complex.
- All salvageable equipment has been removed from this complex.
- All utilities have been isolated by Facilities Shutdown.
- All miscellaneous debris (i.e.: rolling stock, trash, used PPE and miscellaneous used equipment) has been removed from this complex.
- Debris will be loaded directly into Fluor Fernald Waste Generator Services containers by the Contractor(s) for relocation to the OSDF.
- In accordance with the OU3 Remedial Investigation and Feasibility Study (Final, February 1996), PCBs and hazardous materials are not contaminants of concern (COCs). In addition, based on process knowledge, no process-related materials are anticipated for this complex.
- Fluor Fernald will supply a minimum of one HEPA Vacuum Cleaner for each crew working at a time and enough to replace those that are being serviced for filter integrity testing, and all attachments required to perform work under this Task Order.
- Fluor Fernald will supply air filtration devices and appurtenances required to perform work (Specification Section 15860).
- Fluor Fernald Waste Generator Services will supply all ROBs.
- Perched Water System must remain operational during D&D activities.
- Building 6A will be worked under U238 isotopes of concern.
- The sole source D&D contractor concept, to be performed by MACTEC, will be accepted by DOE by the end of July 2001 and awarded by the end of September 2001.

1.2.2 Exclusions

Work not included in the projects is as follows:

Plant 2

- Removal of underground equipment or piping (except for equipment and piping located in accessible trenches, sumps, and floor openings);
- Removal and/or demolition of concrete footers, concrete floor slabs and curbs, and concrete footers for overhead pipe racks at or below grade elevation;
- Treatment of HWMU rinse water and decontamination wastewater and final disposition of debris.
- Handling, transportation and disposition of onsite and offsite waste.
- All other D&D work not specified in this Closure Plan.

Plant 3

- Removal of underground equipment or piping (except for equipment and piping located in accessible trenches, sumps, and floor openings).
- Removal and/or demolition of concrete footers, concrete floor slabs and curbs, and concrete footers for overhead pipe racks at or below grade elevation.
- Treatment of HWMU rinse water and decontamination wastewater and final disposition of debris.
- Handling, transportation and disposition of onsite and offsite waste.
- All other D&D work not specified in this closure plan.

General Sump

- Removal of underground equipment or piping (except for equipment and piping located in accessible trenches, sumps, and floor openings);
- Removal and/or demolition of concrete footers, concrete floor slabs and curbs, and concrete footers for overhead pipe racks at or below grade elevation;
- Treatment of HWMU rinse water and decontamination wastewater and final disposition of debris.
- Handling, transportation and disposition of onsite and offsite waste.
- All other D&D work not specified in this Closure Plan.

Plant 8

- Removal of underground equipment or piping (except for equipment and piping located in accessible trenches, sumps, and floor openings);
- Removal and/or demolition of concrete footers, concrete floor slabs and curbs, and concrete footers for overhead pipe racks at or below grade elevation;
- Treatment of HWMU rinse water and decontamination wastewater and final disposition of debris.
- Handling, transportation and disposition of onsite and offsite waste.
- All other D&D work not specified in this Closure Plan.

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Health and Safety Building

- Removal of underground equipment or piping (except for equipment and piping located in accessible trenches, sumps, and floor openings).
- Removal and/or demolition of concrete footers, concrete floor slabs and curbs, and concrete footers for overhead pipe racks at or below grade elevation.
- Treatment of HWMU rinse water and decontamination wastewater and final disposition of debris.
- Handling, transportation and disposition of onsite and offsite waste.
- All other D&D work not specified in this Closure Plan.

Liquid Storage

- Removal of underground equipment or piping (except for equipment and piping located in accessible trenches, sumps, and floor openings).
- Removal and/or demolition of concrete footers, concrete floor slabs and curbs, and concrete footers for overhead pipe racks at or below grade elevation.

- Treatment of HWMU rinse water and decontamination wastewater and final disposition of debris.
- Handling, transportation and disposition of onsite and offsite waste.
- All other D&D work not specified in this Closure Plan.

Pilot Plant

- Removal of underground equipment or piping (except for equipment and piping located in accessible trenches, sumps, and floor openings).
- Removal and/or demolition of concrete footers, concrete floor slabs and curbs, and concrete footers for overhead pipe racks at or below grade elevation.
- Treatment of HWMU rinse water and decontamination wastewater and final disposition of debris.
- Handling, transportation and disposition of onsite and offsite waste.
- All other D&D work not specified in this Closure Plan.

Laboratory

- Removal of underground equipment or piping (except for equipment and piping located in accessible trenches, sumps, and floor openings).
- Removal and/or demolition of concrete footers, concrete floor slabs and curbs, and concrete footers for overhead pipe racks at or below grade elevation.
- Treatment of HWMU rinse water and decontamination wastewater and final disposition of debris.
- Handling, transportation and disposition of onsite and offsite waste.
- All other D&D work not specified in this Closure Plan.

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Administration (Includes Electrical Complex)

- Removal of underground equipment or piping (except for equipment and piping located in accessible trenches, sumps, and floor openings).
- Removal and/or demolition of concrete footers, concrete floor slabs and curbs, and concrete footers for overhead pipe racks at or below grade elevation.
- Treatment of HWMU rinse water and decontamination wastewater and final disposition of debris.
- Handling, transportation and disposition of onsite and offsite waste.
- All other D&D work not specified in this Closure Plan.

East Warehouse

- Removal of underground equipment or piping (except for equipment and piping located in accessible trenches, sumps, and floor openings).
- Removal and/or demolition of concrete footers, concrete floor slabs and curbs, and concrete footers for overhead pipe racks at or below grade elevation.
- Handling, transportation and disposition of onsite and offsite waste.
- **All other D&D work not specified in this Closure Plan.**

Miscellaneous Structures

- Removal of underground equipment or piping (except for equipment and piping located in accessible trenches, sumps, and floor openings).
- Removal and/or demolition of concrete footers, concrete floor slabs and curbs, and concrete footers for overhead pipe racks at or below grade elevation.
- Treatment of HWMU rinse water and decontamination wastewater and final disposition of debris.
- Handling, transportation and disposition of onsite and offsite waste.
- All other D&D work not specified in this Closure Plan.

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Building 64/65

- Removal of underground equipment or piping (except for equipment and piping located in accessible trenches, sumps, and floor openings).
- Removal and/or demolition of concrete footers, concrete floor slabs and curbs, and concrete footers for overhead pipe racks at or below grade elevation.
- Treatment of HWMU rinse water and decontamination wastewater and final disposition of debris.
- Handling, transportation and disposition of onsite and offsite waste.
- All other D&D work not specified in this Closure Plan.

Plant 1, Phase II

- Removal of underground equipment or piping (except for equipment and piping located in accessible trenches, sumps, and floor openings).
- Removal and/or demolition of concrete footers, concrete floor slabs and curbs, and concrete footers for overhead pipe racks at or below grade elevation.
- Treatment of HWMU rinse water and decontamination wastewater and final disposition of debris.
- Handling, transportation and disposition of on-site and off-site waste.
- All other D&D work not specified in this Closure Plan.

Plant 5

- Removal of underground equipment or piping (except for equipment and piping located in accessible trenches, sumps, and floor openings).
- Removal and/or demolition of concrete footers, concrete floor slabs and curbs, and concrete footers for overhead pipe racks at or below grade elevation.
- Treatment of HWMU rinse water and decontamination wastewater and final disposition of debris.
- Handling, transportation and disposition of onsite and offsite waste.
- All other D&D work not specified in this Closure Plan.

Plant 6

- Removal of underground equipment or piping (except for equipment and piping located in accessible trenches, sumps, and floor openings).
- Removal and/or demolition of concrete footers, concrete floor slabs and curbs, and concrete footers for overhead pipe racks at or below grade elevation.

- Treatment of HWMU rinse water and decontamination wastewater and final disposition of debris.
- Handling, transportation and disposition of onsite and offsite waste.
- All other D&D work not specified in this Closure Plan.

1.2.3 Government-Furnished Equipment/Services

There are no government-furnished equipment/services associated with this scope of work.

1.3 DRIVERS

D&D of the Complexes will be executed for the following reasons:

- D&D of all facilities at the FEMP is stipulated in the OU3 Record of Decision for Interim Remedial Action (IROD) (DOE1994a), with final treatment and disposition stipulated in the OU3 Record of Decision for Final Remedial Action (DOE 1996a).
- The OU3 Integrated RD/RA Work Plan (Final, May 1997) established a remediation schedule and an EPA Enforceable Milestone for the initial execution of each D&D Project. Any changes to the Milestones will be modified to meet the site objectives and the EPA notified accordingly.

Plant 2

- The Plant2 Complex is completely vacated of all personnel and Facility Closure activities (i.e. removal of salvageable equipment, chemicals, filters, etc.) are completed.

Plant 3

- The Plant3 Complex is completely vacated of all personnel and Facility Closure activities (i.e. removal of salvageable equipment, chemicals, filters, etc.) are completed.

General Sump

- The General Sump Complex is completely vacated of all personnel and Facility Closure activities (i.e. removal of salvageable equipment, chemicals, filters, etc.) are completed.

Plant 8

- The Plant8 Complex is completely vacated of all personnel and Facility Closure activities (i.e. removal of salvageable equipment, chemicals, filters, etc.) are completed.

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Health and Safety Building

- The Health and Safety Building must be completely vacated by all personnel and Facility Closure activities (i.e. removal of salvageable equipment, chemicals, filters, etc.) completed by FF M&SI by June 2004.

Liquid Storage

- The Liquid Storage Complex must be completely vacated by all personnel and Facility Closure activities (i.e. removal of salvageable equipment, chemicals, filters, etc.) completed by FF M&SI by June 2002 for Buildings 26A, 26B, and 28D, and by June 2004 for Buildings 45A and 80.

Pilot Plant

- The Pilot Plant Complex must be completely vacated by all personnel and Facility Closure activities (i.e. removal of salvageable equipment, chemicals, filters, etc.) completed by June 2003.

Laboratory

- The Laboratory Complex must be completely vacated by all personnel and Facility Closure activities (i.e. removal of salvageable equipment, chemicals, filters, etc.) completed by June 2004.

Administration (Includes Electrical Complex)

- The Administration Complex must be completely vacated by all personnel and Facility Closure activities (i.e. removal of salvageable equipment, chemicals, filters, etc.) completed by FF M&SI by June 2004.

East Warehouse

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- The East Warehouse Complex must be completely vacated by all personnel and Facility Closure activities (i.e. removal of salvageable equipment, chemicals, filters, etc.) completed by FF M&SI by June ~~2004~~ 2005.

Miscellaneous Structures

- Miscellaneous structures must be completely vacated by all personnel and processes and Facility Closure activities (i.e. removal of salvageable equipment, chemicals, filters, etc.) must be completed by FF M&SI three (3) months prior to the beginning of D&D activities as indicated on the schedule presented in Section 2.0.

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Building 64/65

- Building 64/65 must be completely vacated by all personnel and processes and Facility Closure activities (i.e. removal of salvageable equipment, chemicals, filters, etc.) must be completed by FF M&SI three (3) months prior to the beginning of D&D activities as indicated on the schedule presented in Section 2.0.

Plant 1, Phase II

- The Plant 1 Phase II Complex must be completely vacated by all personnel and processes, Facility Closure activities (i.e. removal of salvageable equipment, chemicals, filters, etc.) completed by FF M&SI by June 2005.

Plant 5

- The Plant5 Complex is completely vacated of all personnel and Facility Closure activities (i.e. removal of salvageable equipment, chemicals, filters, etc.) are completed.

Plant 6

- The Plant 6 Complex must be completely vacated by all personnel and Facility Closure activities (i.e. removal of salvageable equipment, chemicals, filters, etc.) completed by June 2003.

1.4 PROJECT PHYSICAL DESCRIPTION

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The scope of work includes D&D Contractor activities associated with the above-grade D&D. The work consists of 15 projects as follows:

#	Project	Charge Number
1.	Plant 2 D&D	BFDD2
2.	Plant 3 D&D	BFDD3
3.	General Sump D&D	BFDDS
4.	Plant 8 D&D	BFDD8
5.	Health & Safety Building D&D	BFDDH
6.	Liquid Storage D&D	BFDDQ
7.	Pilot Plant D&D	BFDDP
8.	Laboratory D&D	BFDDB
9.	Administration (Includes Electrical Complex) D&D	BFDDA
10.	East Warehouse D&D	BFDDE
11.	Miscellaneous Structures D&D	BFDDM
12.	Building 64/65 D&D	BFDDN
13.	Plant 1, Phase II D&D	BFDD1
14.	Plant 5 D&D	BFDD5
15.	Plant 6 D&D	BFDD6

1.4.1 BFDD2 – D&D Subcontract- Plant 2

Facility D&D will be subcontracted. The subcontractor will conduct premobilization, mobilization, Building 2A D&D, Building 2D D&D, Building 2F D&D, Building 2H D&D, and demobilization.

1) Task #1 - Premobilization

Premobilization includes preparation and submittal of all documentation necessary to begin mobilization activities.

2) Task #2 - Mobilization

Mobilization includes field preparation activities, preparation of submittal documentation and building preparation.

3) Task #3 - Building 2A

Building 2A consists of a structural steel frame with transite panels outside walls and roof that is approximately 62 x 382 x 50 ft high. The building floor is a combination of acid brick and concrete. It is a multilevel building with five levels and a penthouse. The interior of the building is divided into three Process Areas separated by transite walls defined as follows (from west to east): Digestion (including the Drum Digestion area), Extraction, and Denitration (including enriched calcining area).

4) Task #4 - Building 2D

Building 2D is a two-story building located against the north wall of Plant 2A. Its shape is irregular, measuring approximately 39 x 50 x20 feet high. The building consists of a structural steel frame with transite panels on a poured concrete base with acid brick. The interior of the building is one room with a diamond place mezzanine. Building 2D housed metal dissolution charcoal treatment operations.

5) Task #5 - Component 2F

Component 2F provided a means for uranium ores and residues to reach the digestion process. The conveyer is located on the west pad (74B) of Plant 2A and measures approximately 92 x 24 feet. The following equipment remain: drum conveyer, bucket elevator, drum dumper, screw conveyer, conveyor shed, drum dumper building, and a 20 feet deep elevator pit.

6) Task #6 - Component 2H

Component 2H housed a subgrade conveyor with approximate dimensions of 15 X 190 ft and 5 ft. deep. This component extends from the former Plant 1 Ore Silos to the Ore Refinery Plant and was used to transport milled uranium ores to the Ore Refinery Plant.

7) Task #7 - Demobilization

Demobilization includes the following activities:

- Decontaminate equipment (heavy equipment)
- Remove temporary fencing
- Remove asbestos trailer, tool trailer, office trailer, temporary utilities
- Complete punchlist items. Trim rebar, grout remaining openings, gravel open areas, clean up debris

1.4.2 BFDD3 – D&D Subcontract- Plant 3

Facility D&D will be subcontracted. The overall scope of work includes premobilization, mobilization, Building 3B D&D, Building 3C D&D, Component 3D D&D, Building 3E D&D,

Component 3J D&D, Component 3K D&D, Building 39A D&D, Component 22E D&D, and demobilization.

1) Task #1 - Premobilization

Premobilization includes preparation and submittal of all documentation necessary to begin mobilization activities.

2) Task #2 - Mobilization

Mobilization includes field preparation activities, preparation of submittal documentation and building preparation.

3) Task #3 - Building 3B

Building 3B (Ozone Building) is a single-level structural steel frame building. It is rectangular shaped, measuring 27'x 33'x 14' high. The building consists of a concrete floor and a structural steel frame with transite siding and roofing panels. The building is supported by a concrete foundation on grade.

4) Task #4 - Building 3C

Building 3C (Nitric Acid Recovery Tower Control House) is a single-level rectangular building measuring Approximately 26'x110'x14' high. Building 3C consists of a concrete floor and a structural steel frame with transite siding and roofing panels. The building is supported by a concrete foundation on grade.

5) Task #5 - Component 3D

Component 3D (Nitric Acid Recovery Towers) is a six-level open steel supported structure that is approximately 46'x60'x60' high. The ground floor of the structure is contained in a concrete diked area (not covered in acid brick) that is approximately 70'x108'. The upper five floors have steel decking as flooring.

6) Task #6 - Building 3E

Building 3E (Hot Raffinate Building) is a three story irregularly shaped concrete building measuring approximately 50'x90'x60' high at its greatest dimension. The building consists of cast in place concrete construction with heavy concrete walls and double pane water filled windows. The building has concrete flooring and is supported by a concrete foundation extending below and above grade elevation. The building also contains transite and a built up roof.

7) Task #7 - Component 3J

Component 3J (Combined Raffinate Tanks) is an outdoor multilevel tank farm area consisting of (17) seventeen vertical tanks measuring 39'x169"X 20' high. Beneath the tanks is a concrete pad and dike covered with acid brick. The tanks are stainless steel and the majority are covered with a cement coating. The tanks, connection piping, catwalks, and stairs are supported by structural steel members of various sizes.

8) Task #8 - Component 3K

Component 3K (Old Cooling Water Tower) formerly was a one story, redwood structure measuring approximately 30'x50'. The wooden tower has been removed, leaving at grade and below-grade structure consisting of a concrete basin and a diked pad. Some of the mechanical components remain consisting of lights, conduit, piping, valves, electrical enclosures and support steel. D&D will consist of removing the components.

9) Task #9 - Building 39A

Building 39A (Incinerator Building) is a two story square structure measuring 53'x53'x25' high. The building consists of a structural steel frame enclosed with interior and exterior transite siding along with a double layer insulation between the transite roof panels. The building is supported by a concrete foundation extending below –and above- grade level with a finished concrete floor.

10) Task #10 - Component 22E

Component 22E was used in the pumping of high-radium raffinate slurry from the Hot Raffinate Building (Building 3E)to K-65 Silos 1 and 2. Also, decant from the K-65 Silos was returned through the trench and collected in the tank located on the northwestern corner of Building 3E before being transferred for treatment.

11) Task #11 - Demobilization

Demobilization includes the following activities:

- Decontaminate equipment (heavy equipment)
- Remove temporary fencing
- Remove asbestos trailer, tool trailer, office trailer, temporary utilities
- Complete punchlist items. Trim rebar, grout remaining openings, gravel open areas, clean up debris

1.4.3 BFDDS – D&D Subcontract- General Sump

Facility D&D will be subcontracted. The subcontractor will conduct premobilization, mobilization, Building 2B D&D, Building 2C D&D, Component 3H D&D, Component 18B D&D, Component 18D D&D, Building 18H D&D, Building 3A D&D, Building 3L D&D, miscellaneous pipes and racks D&D and demobilization.

1) Task #1 - Premobilization

Premobilization includes preparation and submittal of all documentation necessary to begin mobilization activities.

2) Task #2 - Mobilization

Mobilization includes field preparation activities, preparation of submittal documentation and building preparation.

3) Task #3 - Building 2B

Building 2B is a two-story building comprising an older original building with a newer annex attached to the south side. It consists of a concrete first floor and metal diamond plate second floor; it was constructed with a structural steel frame and transite panels for walls and roof. The older part of 2B is approximately 39 x 43 feet and contains several tanks, transfer lines, and an electrical panel. The newer annex holds a laboratory facility to support the refinery sump and is approximately 20 x 20 feet with a concrete floor covered with floor tile on the first floor and only concrete on the second floor. The walls consist of structural steel and wall board. The ceiling on the first floor is metal decking, while the second floor has metal decking covered with fiberglass insulation.

3) Task #4 - Building 2C

Building 2C is a three-level building; the first and third levels of the building are rectangular, with dimensions 17 x 28 x 10 feet. The second level constitutes a steel silo that is 50 feet tall and 18 feet wide. Building 2C has a structural steel frame, transite siding and roofing, and a concrete foundation. Building 2C had one wet process area, bulk lime handling, which produced a lime slurry for processes in Plant 2A. Bulk lime was received in the silo a vacuum pump filled the silo with lime. The silo released the lime to the lime slaker, where water was added to create the slurry. The slurry was then transferred to the break tank for agitating and pumped to a holding tank north of Plant 2A.

5) Task #5 - Component 3H

Component 3H provided treatment of contaminated effluents from Plant 2A with magnesium oxide to precipitate uranium. The Refinery Sump is comprised of six tanks and is located outside in an acid brick containment area measuring 55 x 100 feet.

6) Task #6 - Component 18B

Component 18B provided treatment of contaminated site effluents other than sewage. The General Sump is comprised of 16 tanks; most of the tanks are located outside in four separate concrete containment areas. The open area that makes up Component 18B is approximately 113 x 116 feet.

7) Task #7 - Building 18D

Building 18D is a multi-level (six floor) building. It is irregularly shaped, measuring approximately 72 x 79 x 67 feet high and consists of a structural steel frame on a poured concrete base and floor with non-insulated, corrugated metal siding and roofing. One Process Area was identified for Building 18D; high nitrate waste waters that were collected in the BDN Surge Lagoon were mixed with methanol and fed to Building 18D. The waste waters flowed through the towers, fluidizing coal particles that had bacteria attached, decomposing, and releasing CO2 and N2 off the top of the towers.

8) Task #8 - Building 18H

Building 18H is a single story structure which consists of a reinforced concrete floor and steel frame, as well as metal siding and roofing. The approximate dimensions are 30 x 15 x 15 feet in height. Process effluent from the Biodenitrification Towers was received in Building 18H for further treatment through chlorination and aeration. The equipment housed in Building 18H includes electrical pumps, chlorinators, process tanks, air compressors, aerators, and a filter press. The equipment located along the southwest interior wall was controlled as a radiological contamination area.

9) Task #9 - Building 3A

Building 3A is a single story, square building measuring approximately 60 x 60 x 14 feet high. Building 3A has a structural steel frame, with transite panels covering cinder block walls, and a concrete floor. The building is one room, except for office space along the east wall and two small steel-frame mezzanines. The building is currently used for offices and storage space.

10) Task #10 - Building 3L

Building 3L is a single story building measuring approximately 24 x 91 x 10 feet high. It consists of a concrete floor, structural steel frame, transite siding and roof, with a cinder block room inside. The building contains electrical meters, panels, and main circuit breakers.

11) Task #11 - Miscellaneous Pipes and Racks

Miscellaneous pipes, pipe racks, and power supply, etc., remove the piping from air gap isolation points in the pipe racks and power supply from the isolation points to the buildings, and piping and pipe racks from building to building shall be removed. The pipe racks shall be removed to the top of the concrete footer and the attachment bolts shall be cut flush with the concrete.

12) Task #12 - Demobilization

Demobilization includes the following activities:

- Decontaminate equipment (heavy equipment)
- Remove temporary fencing
- Remove asbestos trailer, tool trailer, office trailer, temporary utilities
- Complete punchlist items. Trim rebar, grout remaining openings, gravel open areas, clean up debris

1.4.4 BFDD8 – D&D Subcontract- Plant 8

Facility D&D will be subcontracted. The subcontractor will conduct premobilization, mobilization, Building 8A D&D, Building 8B D&D, Building 8C D&D, Building 8D D&D, Component 8E D&D, Component 8G D&D, Component 8H D&D and demobilization.

1) Task #1 - Premobilization

Premobilization includes preparation and submittal of all documentation necessary to begin mobilization activities.

2) Task #2 - Mobilization

Mobilization includes field preparation activities, preparation of submittal documentation and building preparation.

3) Task #3 - Building 8A

Building 8A, the Recovery Plant, is a two-story structure measuring 239 x 280 ft. and 37 ft. high. The building consists of a structural steel frame on a reinforced poured concrete foundation, reinforced concrete ground floors, transite interior and exterior siding panels (insulation material between panels), and transite roof panels. The second floor is primarily steel grating with some concrete flooring.

4) Task #4 - Building 8B

Building 8B, the Plant 8 Maintenance Building, is a single-story structure measuring 31 x 42 ft. and 15 ft. high. Building 8B consists of cinder block walls supported on reinforced concrete footings, with a reinforced-poured concrete floor and glass windows.

5) Task #5 - Building 8C

Building 8C, the Rotary Kiln/Drum Reconditioning Building, is a four-story steel structure with steel siding. The structure was built on a reinforced concrete pad. The dimensions of 8C are 50 x 100 feet x 50 feet in height. Building 8C was never used due to production suspension and is not expected to contain ACM, acid brick, or significant levels of contamination.

6) Task #6 - Building 8D

Building 8D is a single-level building measuring 30 x 42 ft. and 13 ft. high. Associated with 8D are a below-grade railroad tank car wash pit and a settling basin. Building 8D is a pre-engineered structure consisting of a structural steel frame with steel siding panels and a sloped steel roof panels. The building is supported on a reinforced poured concrete base.

7) Task #7 - Component 8E

Component 8E is a single-level structure with a structural steel frame and sloped metal roof. It is an extension of the Rotary Kiln/Drum Reconditioning Building (8C). The shelter is 15 feet in height, and shelters an area of reinforced poured concrete that is 40 ft. in length x 15 ft. in width.

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8) Task #8 - Component 8G

Building 8G, the trash compactor building is a multistory structure measuring ft. x ft. x ft. high. The building consists of a structural steel frame on a reinforced concrete foundation.

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~~8~~ 9) Task #~~8~~ 9 - Component 8H

This component is a single-story room on the west end of Building 8C.

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~~9~~ 10) Task #~~9~~ 10 - Demobilization

Demobilization includes the following activities:

- Decontaminate equipment (heavy equipment)
- Remove temporary fencing

- Remove asbestos trailer, tool trailer, office trailer, temporary utilities
- Complete punchlist items. Trim rebar, grout remaining openings, gravel open areas, clean up debris

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1.4.5 BFDDH – D&D Subcontract- Health and Safety Building

Facility D&D of the Administration Complex will be subcontracted. The overall scope of work includes premobilization, mobilization, Building 53A D&D, and demobilization.

1) Task #1 – Premobilization

Premobilization includes preparation and submittal of all documentation necessary to begin mobilization activities.

2) Task #2 – Mobilization

Mobilization includes field preparation activities, preparation of submittal documentation and building preparation.

3) Task #3 – Building 53A

Building 53A is a multilevel building measuring approximately 89 x 221 ft. and 22 ft. high, with two floors and a partial basement under the west section. The building consists of cement block construction on reinforced poured concrete footers and floors, flat reinforced poured concrete roofs, and glass windows.

4) Task #4 – Demobilization

Demobilization includes the following activities:

- Decontaminate equipment (heavy equipment)
- Remove temporary fencing
- Remove asbestos trailer, tool trailer, office trailer, temporary utilities
- Complete punchlist items. Trim rebar, grout remaining openings, gravel open areas, clean up debris

1.4.6 BFDDQ – D&D Subcontract- Liquid Storage

Facility D&D will be subcontracted. The overall scope of work includes premobilization, mobilization, Building 26A D&D, Component 26B D&D, Building 28D D&D, Building 45A D&D, Building 80 D&D, and demobilization.

1) Task #1 - Premobilization

Premobilization includes preparation and submittal of all documentation necessary to begin mobilization activities.

2) Task #2 - Mobilization

Mobilization includes field preparation activities, preparation of submittal documentation and building preparation.

3) Task #3 - Building 26A

Building 26A is located south of the Elevated Water Storage Tank (26B). Component 26A is comprised of a steel water storage tank and cement block wall and concrete floor building. The dimensions of the tank are 35 feet in diameter by 22 feet in height. The volume capacity of the tank is approximately 300,000 gallons. The dimensions of the building are 26 x 50 x 11 feet in height.

4) Task #4 - Component 26B

Component 26B is located north of the Pump House-HP Fire Protection (26A). Component 26B is a steel water storage tank elevated by steel supports to 265 feet above grade. The tank has a diameter of 65 feet, and a capacity of approximately 350,000 gallons.

5) Task #5 - Building 28D

Building 28D is a square building located at the west end of 2nd Street. The dimensions of the building are 15 x 15 feet. Building 28D is constructed of wood framing and siding.

6) Task #6 - Building 45A

Building 45A is a single-story building. It is rectangular shaped, measuring 121 x 150 ft and 14 ft high. The building consists of a structural steel frame with corrugated metal siding and a poured concrete base and floor. Building 45A was decontaminated in 1988, before conversion for office space, but still has high levels of fixed contamination in the rafters, as well as some ACM piping.

7) Task #7 - Building 80

Building 80 is a single story building approximately 60 X 170 ft. and 15 ft. high, consists of a structural steel frame on a reinforced poured concrete base and floor with noninsulated corrugated metal siding and roofing. Building 80 was constructed for the storage of non-liquid RCRA hazardous waste and is recognized as HWMU #29.

RCRA CERCLA Intrgrated Closure of HWMU #29 requires at least rinsing and rinseate sampling during the decontamination stage of D&D. Additional decontamination of Building 80 is not anticipated.

8) Task #8 - Demobilization

Demobilization includes the following activities:

- Decontaminate equipment (heavy equipment)
- Remove temporary fencing
- Remove asbestos trailer, tool trailer, office trailer, temporary utilities
- Complete punchlist items. Trim rebar, grout remaining openings, gravel open areas, clean up debris

1.4.7 BFDDP – D&D Subcontract- Pilot Plant

Facility D&D will be subcontracted. The overall scope of work includes premobilization, mobilization, Building 13A D&D, Building 13B D&D, Building 13C D&D, Component 13D D&D, Building 37 D&D, Building 54A D&D, Building 54B D&D, Building 54C D&D, and demobilization.

1) Task #1 - Premobilization

Premobilization includes preparation and submittal of all documentation necessary to begin mobilization activities.

2) Task #2 - Mobilization

Mobilization includes field preparation activities, preparation of submittal documentation and building preparation.

3) Task #3 - Building 13A

Building 13A is a multilevel processing facility with the dimensions 63 x 155 ft. 80% of the building is 35 ft. high; the southern 20% of the building, where the solvent extraction process was located, is 53 ft. high. The building is constructed of cement block on poured reinforced concrete floors, reinforced concrete roof, a building shell consisting of interior and exterior transite siding, and large multi-pane windows. The mezzanine floor, of reinforce poured concrete, is supported by a structural steel frame.

Building 13A houses tanks, columns, filters, ovens, size reduction equipment and associated piping, conduit, duct and appurtenances. ACM insulation covers most of the buildings piping.

There is a dust collector which serviced Building 13A. This dust collector resides at the northwest corner of 13A and just to the south of 13B. The dust collector is supported by a structural steel frame and anchored in concrete. The collector will be contained and removed and the structural steel will be dismantled by shearing.

Due to anticipated elevated air activity, Powered Air Purifying Respirators (PAPRs) will be worn during various parts of the building D&D. Prior to any activity in the building, a temporary air change unit (with HEPA and activated carbon filtration) will be installed to lower thoron readings during interior equipment removal, acid brick removal, and scabbling.

4) Task #4 - Component 13B

Building 13B is a single-level structure measuring 30 x 60 ft. and 11 ft. high. The building consists of concrete block walls supported on reinforced concrete footings, with a reinforced poured concrete floor and roof, and glass windows.
The maintenance building has two offices which are located in the building on the south side. These offices are partitioned by pre-fabricated wall panel walls, and contain dropped ceilings. The remainder of the building has exposed concrete floors and exposed roof deck above.

5) Task #5 - Building 13C

Building 13C consists of a single-level, high concrete block (masonry) wall structure, 12 x 16 ft. and 8 ft. high, supported on reinforced concrete foundations. The building has a reinforced concrete floor and a sloping shingled roof. It contains three pumps on concrete pedestals.

Four sump tanks off of the south wall are associated with the structure. The tanks and all associated piping will be removed; the containment berm will be left in place for removal during soil and below-grade excavation.

6) Task #6 - Component 13D

Component 13D is an aboveground storage tank farm. The tank farm consists of five vertical cylindrical steel tanks inside a rectangular concrete containment area measuring 28 x 45 ft. with a wall height of 18 in. aboveground. Two of the five tanks are considered to be HWMUs because of the storage of thorium nitrate tetrahydrate liquid.

The tanks will be flushed with water and the rinseate sampled until the analysis indicates the tanks are no longer RCRA-hazardous. The storage tanks and any associated piping will then be dismantled and size reduced utilizing an oxy-acetylene torch. The containment berm will be left in place for removal during soil and below-grade excavation. All other debris will be containerized for OSDF disposal.

7) Task #7 - Building 37

Building 37 is a single-story building measuring 52 x 122 ft. and 25 ft. high. The building consists of a structural steel frame anchored in a reinforced concrete foundation and a reinforced concrete floor and roof, cement block walls, and glass windows. The building is connected to the east side of Building 54A. The function of Building 37 was to test out new processes for uranium and thorium production and recovery. Due to these processes, unexpected chemicals may be present.

8) Task #8 - Building 54A

Building 54A is an irregularly shaped building with dimensions 165 x 123 ft. and 44 ft. high. It shares an entire western wall with Building 13A and its eastern wall with Building 37. The building has several distinct parts; the various parts of the overall building contain different types of construction materials

The 61 x 81 ft. main processing area (also known as Building 54A North) consists of a structural steel frame on a reinforce concrete base, reinforced poured concrete floor, transite siding panels, and glass windows.

A transformer room and utility room are attached to the north wall of the main processing area. A mechanical room, a hallway, and a power generator room are attached to the east wall of the main processing area. A control room, electrical room, and battery room are attached to the south wall of the main processing area.

The autoclave section, the southern portion of Building 54A, consists of a structural steel frame on poured reinforced concrete base with poured reinforced concrete floor, steel siding panels, and a sloped steel roof. The roof is of composite construction, having a corrugated steel deck covered with rigid insulation and five-ply built-up roofing. There are three autoclaves that contain asbestos insulation.

Due to anticipated elevated air activity, PAPRs will be worn up to and including the release cleaning phase of building D&D.

9) Task #9 - Building 54B

Building 54B is a single-level building. The shelter is rectangular and has a steel frame structure 50 x 74 ft. and 10 ft. high, with a reinforced concrete foundation and floor and a metal roof. The lower panels of the shelter are steel while the upper panels in the roof gables are transite. Building 54B stored Pilot Plant materials such as uranium tetrafluoride.

10) Task #10 - Building 54C

Building 54C is constructed of a structural steel frame supported on a reinforced poured concrete base, corrugated aluminum siding, and metal roof. The building has an aluminum

canopy that shelters the east side from the weather. The dimensions of the building are 20 x 48 ft. and 19 ft. high.

Building 54C houses three ammonia dissociators, associated equipment, piping, conduit, and other necessary appurtenances. A steel stairway on the west face of Building 54C, which services the second floor of Building 13A, will be removed as part of Building 54C.

11) Task #11 - Demobilization

Demobilization includes the following activities:

- Decontaminate equipment (heavy equipment)
- Remove temporary fencing
- Remove asbestos trailer, tool trailer, office trailer, temporary utilities
- Complete punchlist items. Trim rebar, grout remaining openings, gravel open areas, clean up debris

1.4.8 BFDDB – D&D Subcontract- Laboratory

Facility D&D will be subcontracted. The overall scope of work includes premobilization, mobilization, Building 15A D&D, Building 15B D&D, Building 15C D&D, and demobilization.

1) Task #1 - Premobilization

Premobilization includes preparation and submittal of all documentation necessary to begin mobilization activities.

2) Task #2 - Mobilization

Mobilization includes field preparation activities, preparation of submittal documentation and building preparation.

3) Task #3 - Building 15A

Building 15A has historically housed the analytical and chemical process laboratories for the FEMP. Building 15A is a multilevel, irregularly shaped building constructed of concrete block walls and concrete floors. The dimensions of the building are 253 x 292 feet and 20 feet high. The main floor of the building is composed of north, central, south, and east/west corridors. Courtyards are located between the south and central corridors and between the central and north corridors. A basement area is located beneath the western portion of the building. Piping access tunnels, which are accessible through access ways located in the first floor east corridor, run at basement level below the north and central corridors and join the basement on the west. A laboratory sump is located in the north

courtyard. The Laboratory Building has been renovated which extended the northern portion and added a second story over the northern portion extension.

4) Task #4 - Building 15B

Building 15B is a 30 x 20 x 12 feet concrete block building used for the laboratory chemical storage.

5) Task #5 - Building 15C

Building 15C is a small room that is contained within the structure of the Laboratory (Building 15A) and will, therefore, be dismantled as a part of Building 15A.

6) Task #6 - Demobilization

Demobilization includes the following activities:

- Decontaminate equipment (heavy equipment)
- Remove temporary fencing
- Remove asbestos trailer, tool trailer, office trailer, temporary utilities
- Complete punchlist items. Trim rebar, grout remaining openings, gravel open areas, clean up debris

1.4.9 BFDDA – D&D Subcontract - Administration

Facility D&D of the Administration Complex will be subcontracted. The overall scope of work includes premobilization, mobilization, Building 11 D&D, Building 14A D&D, Component 14B D&D, Component 20K D&D, Building 53B D&D, Building 31A D&D, Building 46 D&D, and demobilization.

1) Task #1 – Premobilization

Premobilization includes preparation and submittal of all documentation necessary to begin mobilization activities.

2) Task #2 – Mobilization

Mobilization includes field preparation activities, preparation of submittal documentation and building preparation.

3) Task #3 – Building 11

Building 11 is a two-story structure that measures approximately 230 x 322 ft. and 30 ft. high. Building 11 consists of cinder block construction on reinforced poured concrete footers with reinforced poured concrete floors, glass windows, and a flat reinforced poured concrete roof.

4) Task #4 – Building 14A

Building 14A is an irregularly shaped two-level structure measuring 143 x 240 ft. and 24 ft. high. Building 14A is constructed of cinder block walls supported on reinforced concrete footers with poured concrete floors. The building comprises a central hallway with east and west wings, and a partial basement is located under the west wing.

5) Task #5 – Building 14B

Component 14B is a diesel powered electrical generator located near the northwest corner of the Administration Building (14A). The component contains a diesel-powered engine, a diesel fuel tank, an electrical generator and a cement dike built under and around the diesel fuel tank.

6) Task #6 – Component 20K

Component 20K consists if two (2) cooling towers that are constructed out of galvanized steel, one pump house skid which contains three (3) pumps and a control room. The piping is plastic and carbon steel. The system ties into the existing chilled water system and DW system.

7) Task #7 – Building 53B

Building 53B consists of a cement block wall and concrete floor construction with the approximate dimensions of 36 x 72 ft. and 15 ft. high. Building 53B is a radiologically shielded structure housing highly sensitive radiation detection equipment. The facility is utilized to obtain internal radiation measurements of on-site employees. The measurements are generally for uranium content of the lungs.

R1-F02-047

8) Task #8 – Building 46

Building 46 stores forklifts, trucks, and other heavy equipment and is a single-story building, approximately 220 x 59 ft. It is a pre-engineered facility consisting of a structural steel frame on a reinforced poured concrete base, sloped steel roof panels, concrete/masonry block walls, and glass windows.

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9) Task #9 – Building 31A

The Engine House/Garage contained HWMU No.3 for which OEPA Closure Certification Acceptance was received on June 6, 1996. The garage performs repair work and preventative maintenance on the vehicles. Spills, which occur on the concrete floor are cleaned with a floor scrubber. A sewer system in the building collects the water from the floor, which is sampled before disposition to the AWWT. The building is single-story cinder block with a sloped steel panel roof (with structural supports) and concrete floor. Three aboveground fuel tanks are also included with the building.

10) Task #10 – Demobilization

Demobilization includes the following activities:

- Decontaminate equipment (heavy equipment)
- Remove temporary fencing
- Remove asbestos trailer, tool trailer, office trailer, temporary utilities
- Complete punchlist items. Trim rebar, grout remaining openings, gravel open areas, clean up debris

1.4.10 BFDDE – D&D Subcontract- East Warehouse

Facility D&D of the East Warehouse Complex will be subcontracted. The overall scope of work includes premobilization, mobilization, Component 20D D&D, Building 77 D&D, Building 79 D&D, Building 82A D&D, and demobilization.

1) Task #1 - Premobilization

Premobilization includes preparation and submittal of all documentation necessary to begin mobilization activities.

2) Task #2 - Mobilization

Mobilization includes field preparation activities, preparation of submittal documentation and building preparation.

3) Task #3 - Component 20D

Component 20D (Elevated Potable Water Storage Tank) is a steel 21,000 gallon water storage tank with six structural steel columns and a center stand pipe on concrete footings measuring 100 feet high. The tank portion is cylindrically shaped, measuring approximately 30 feet in diameter and 40 feet tall. There is an approximate 8'x8'x8' transite pump house at the base of the water tank.

4) Task #4 - Building 77

Building 77 (Finished Products Warehouse) is a single-level rectangular building measuring Approximately 120'x 162'x 12' high. Building 77 consists of a concrete floor and a structural steel frame with metal siding and roofing panels. The building is supported by a concrete foundation on grade.

5) Task #5 - Building 79

Building 79 (Plant 6 Warehouse) is a single-level rectangular building measuring Approximately 100'x170'x15' high. Building 79 consists of a concrete floor and a structural steel frame with metal siding and roofing panels. The building is supported by a concrete foundation on grade. The small break room trailer inside Building 79 is assumed to be removed by the facility owner prior to D&D activities.

6) Task #6 - Building 82A

Building 82A (Receiving/Incoming Materials Inspection Area Building) is a single-level rectangular building measuring Approximately 100'x100'x17' high. Building 82A consists of a concrete floor and a structural steel frame with metal siding and roofing panels. The building has interior cinderblock walls. The building is supported by a concrete foundation on grade.

7) Task #7 - Demobilization

Demobilization includes the following activities:

- Decontaminate equipment (heavy equipment)
- Remove temporary fencing
- Remove asbestos trailer, tool trailer, office trailer, temporary utilities
- Complete punchlist items. Trim rebar, grout remaining openings, gravel open areas, clean up debris

1.4.11BFDDM – D&D Subcontract- Miscellaneous Structures

Facility D&D will be subcontracted to either the Sole Source D&D Contractor or the Labor Hour Contractor on a task by task basis. The overall scope of each task includes premobilization, mobilization, D&D, and demobilization for each of the structures identified in Table 1.

1) Task #1 – Component 5F (Plant 5 Covered Storage Pad)

Component 5F is a pre-engineered metal structure 80 X 100 X 30 feet.

2) Task #2 – Component 12E (Maintenance Storage Shed)

Component 12E is a single story pre-engineered metal structure 20 X 20 X12 feet.

3) Task #3 – Component 12F (Maintenance Storage Shed)

Component 12F is a single story pre-engineered metal structure 20 X 20 X 12 feet.

4) Task #4 – Building 12G (Restored Area Maintenance Building)

Building 12G is a single story pre-engineered metal structure 20 X 20 X 12 feet.

5) Task #5 – Component 16B (Electrical Substation)

Component 16B is a cinder block building with a concrete floor and metal sheet roof measuring 20 x 40 ft. Component 16B contains electrical meters, panels and main circuit breakers. Component 16B is a secondary unit substation that receives 13.2 kV and transforms it down to 480V to power the Health and Safety Building, Security Building, Human Resources Building and east trailers.

6) Task #6 – Component 16C (Electrical Panels and Transformer)

Component 16C is a wooden, two-sided structure on a concrete pad that is approximately 4 x 20 ft. Component 16C shelters a transformer and electrical meter. Component 16C was used as a secondary unit substation that received 480 V and transformed it down to 208 V to provide electrical power to the east trailers.

7) Task #7 – Component 16F (Trailer Substation #1)

Component 16F is a concrete pad, 4 x 20 ft. with a small fiberglass enclosure for a transformer, main circuit breaker, fuse disconnect and electrical meters. Component 16F is a power distribution point that receives 480 V from the Electrical Substation and transforms it to 208 V to power local office trailers.

8) Task #8 – Component 16G (Trailer Substation #2)

Component 16G is a 4 x 20 ft. concrete pad with a small fiberglass enclosure for a transformer, main circuit breaker, fuse disconnect and electrical meters. Component 16G is a power distribution point that receives 480 V from the Electrical Substation and transforms it to 208 V to power the local office trailers.

9) Task #9 – Component 20E (Well House #1)

Component 20E (Well House #1) is a single story structure consisting of a cement block wall with a concrete floor and dimensions of 11 x 20 x 9 ft. high. Component 20E is one of three on-site pumping stations that supply the process area with water for fire protection and other potable uses. Component 20E houses one electrical water pump and accompanying equipment.

10) Task #10 – Component 20F (Well House #2)

Component 20F (Well House #2) is a single story structure consisting of a cement block wall with a concrete floor and dimensions of 11 x 20 x 9 ft. high. Component 20F is one of three on-site pumping stations that supply the process area with water for fire protection and other potable uses. Component 20F houses one electrical water pump and accompanying equipment.

11) Task #11 – Component 20G (Well House #3)

Component 20F (Well House #2) is a single story structure consisting of a cement block wall with a concrete floor and dimensions of 11 x 20 x 9 ft. high. Component 20F is one of three on-site pumping stations that supply the process area with water for fire protection and other potable uses. Component 20F houses one electrical water pump and accompanying equipment.

12) Task #12 – Component 22B (Storm Sewer Lift Station)

Component 22B is a single story structure with cement block walls and concrete floor. Component 22B dimensions are 10 x 16 x 8 ft. Component 22B is utilized to pump accumulated site stormwater off-site to the Great Miami River.

13) Task #13 – Component 22D (Scale House and Weigh Scale)

Component 22D is a metal framed transite sided structure approximately 6 X 8 X 8 feet.

14) Task #14 – Component 23 (Meteorological Tower)

The Meteorological Tower is a steel structure located west of the Storm Water Retention Basin (18E). The tower holds climate monitoring instruments used to measure the day-to-day meteorological conditions of the surrounding area, to detect severe weather conditions, and to gather data to support the development of air dispersion models for the Emergency Operations Center in the event of an off-site airborne release.

15) Task #15 – Component 25C (Sewer Lift Station Building)

Component 25C (Sewage Lift Station Building) is a single story structure consisting of cement block walls on a reinforced concrete floor and dimensions of 15 x 20 x 9 ft. high. Component 25C pumped accumulated sanitary wastes from the site to the Sewage Treatment Plant. The treated effluent is subsequently released to the Great Miami River

16) Task #16 – Component 26C (Main Electrical Substation Riser/Strainer House)

Component 26C (Main Electrical Strainer House) is a cinder block building with a partial concrete floor, transite roof and dimensions of 10 x 12 x 10 ft. high. Component 26C contains the control valves for the main electrical deluge fire protection system, which provides fire sprinkler protection for the Main Electrical Station.

17) Task #17 – Building~~s~~ 28E (Guard Post at OSDF South Entrance)

Component 28E is a metal framed fiberglass structure approximately 8 X 10 X 8 feet.

18) Task #18 – Building 28G (Guard Post NW of Building 45)

Component 28G is a metal framed fiberglass structure approximately 8 X 10 X 8 feet.

19) Task #19 – Building 28H (Guard Post South of K-65 Area)

Component 28H is a metal framed fiberglass structure approximately 8 X 10 X 8 feet.

20) Task #20 – Building 28J (Security Checkpoint – South Access Road)

Component 28J is a metal framed fiberglass structure approximately 8 X 10 X 8 feet.

21) Task #21 – Building 28K (Security Checkpoint – E. Parking Lot)

Component 28K is a metal framed fiberglass structure approximately 8 X 10 X 8 feet.

22) Task #22 – Building 28L (Guard Post – N. Construction Access Road)

Component 28L is a metal framed fiberglass structure approximately 8 X 10 X 8 feet.

23) Task #23 – Building 28M (Guard Post on "F" Street)

Component 28M is a metal framed fiberglass structure approximately 8 X 10 X 8 feet.

24) Task #24 – Building 30D (Sampling Line Processing)

Building 30D is located inside Building 30A.

25) Task #25 – Building 50 (Maintenance Storage Building)

Building 50 is a pre-engineered metal building 23 X 30 X 16 feet.

26) Task #26 – Building 52A (RTRAK Building)

Building 52A is a single story pre-engineered metal structure 20 X 20 X12 feet.

27) Task #27 – Building 52B (ASTD SCEP Building)

Building 52B is a pre-engineered metal building 23 X 30 X 16 feet.

28) Task #28 – Building 60 (Quonset Hut #1)

Building 60 is a single-story shelter, pre-engineered facility consisting of a structural steel frame on a reinforced poured concrete base with sloped steel roof panels, steel siding panels and glass windows. The facility has approximated dimensions of 41 X 60 X 20 feet high.

29) Task #29 – Building 61 (Quonset Hut #2)

Building 61 is a single-story shelter, pre-engineered facility consisting of a structural steel frame on a reinforced poured concrete base with sloped steel roof panels and steel siding panels. The facility has approximated dimensions of 41 X 60 X 20 feet high.

30) Task #30 – Building 62 (Quonset Hut #3)

Building 62 is a single-story shelter, pre-engineered facility consisting of a structural steel frame on a reinforced poured concrete base with sloped steel roof panels and steel siding panels. The facility has approximated dimensions of 41 X 60 X 20 feet high.

31) Task #31 – Building 68 (Pilot Plant Warehouse)

Building 68 is a metal framed building with metal siding and a metal roof 30 X 60 X 20 feet.

32) Task #32 – Building 93A (Southwest Boiler House)

Building 93A is a pre-engineered metal framed and metal sided building housing three (3) gas fired boilers 36 X 48 X 20 feet.

33) Task #33 – Component G-008 (Pipe Bridges)

Remove miscellaneous pipes, pipe racks, conduit, and power supply, etc., remove the piping from air gap isolation points in the pipe racks and power supply from the isolation points to the buildings, and piping and pipe racks from building to building shall be removed. The pipe racks shall be removed to the top of the concrete footer and the attachment bolts shall be cut flush with the concrete.

34) Task #34 – Building TS-08 (Environ. Monitor. Equip. Storage)

Component TS-08 is a steel tube framed structure enclosed within a synthetic covering. It is assumed that this structures will not be salvaged, but dismantled and sized for placement in the OSDF.

35) Task #35 – Trailer T1 (FF)

Trailer T1 is a 5-Plex trailer that measures 71 X 56 feet.

36) Task #36 – Trailer T2 (Rad Safety)

Trailer T2 is a single wide that measures 36 X 10 feet.

37) Task #37 – Trailer T3 (Wise Construction)

Trailer T3 is a single wide that measures 36 X 10 feet.

38) Task #38 – Trailer T4 (Multimedia Visual Storage)

Trailer T4 is a single wide that measures 36 X 10 feet.

39) Task #39 – Trailer T5 (FF Construction)

Trailer T5 is a single wide that measures 36 X 10 feet.

40) Task #40 – Trailer T6 (Restrooms)

Trailer T6 is a single wide that measures 36 X 10 feet.

41) Task #41 – Trailer T7 (FF)

Trailer T7 is a single wide that measures 46 X 10 feet.

42) Task #42 – Trailer T8 (Wise Construction)

Trailer T8 is a single wide that measures 44 X 10 feet.

43) Task #43 – Trailer T12 (CRU4-DLS)

Trailer T12 is a single wide that measures 10 X 30 feet.

44) Task #44 – Trailer T17 (FF)

Trailer T17 is a single wide that measures 44 X 10 feet.

45) Task #45 – Trailer T18 (Break Trailer)

Trailer T18 is a double wide that measures 56 X 24 feet.

46) Task #46 – Trailer T19 (Rad Safety)

Trailer T19 is a single wide that measures 12 X 60 feet.

47) Task #47 – Trailer T23 (10 Plex)

Trailer T23 is a 10 Plex that measures 118 X 56 feet.

48) Task #48 – Trailer T24 (7 Plex – North)

Trailer T24 is a 7 Plex that measures 82.5 X 56 feet.

49) Task #49 – Trailer T25 (7 Plex – South)

Trailer T25 is a 7 Plex that measures 82.5 X 56 feet.

50) Task #50 – Trailer T26 (Waste Management)

Trailer T26 is a single wide that measures 12 X 60 feet.

51) Task #51 – Trailer T29 (Computer)

Trailer T29 is a single wide that measures 66 X 14 feet.

52) Task #52 – Trailer T30 (Computer)

Trailer T30 is a single wide that measures 66 X 14 feet.

53) Task #53 – Trailer T33 (Shipping Office)

Trailer T33 is a single wide that measures 56 X 12 feet.

54) Task #54 – Trailer T34 (FF)

Trailer T34 is a single wide that measures 8 X 12 feet.

55) Task #55 – Trailer T35 (FF)

Trailer T35 is a double wide that measures 66 X 24 feet.

56) Task #56 – Trailer T36 (Heavy Equipment Operators)

Trailer T36 is a single wide that measures 8 X 30 feet.

57) Task #57 – Trailer T40 (Thorium Overpack)

Trailer T40 is a single wide that measures 8 X 26 feet.

58) Task #58 – Trailer T41 (Waste Certification – QA)

Trailer T41 is a single wide that measures 12 X 60 feet.

59) Task #59 – Trailer T42 (Respirator Washing Facility)

Trailer T42 is a single wide that measures 45 X 8 feet.

60) Task #60 – Trailer T43 (Restoration)

Trailer T43 is a double wide that measures 56 X 24 feet.

61) Task #61 – Trailer T44 (FF Maintenance)

Trailer T44 is a double wide that measures 56 X 24 feet.

62) Task #62 – Trailer T45 (Environmental Monitoring)

Trailer T45 is a double wide that measures 56 X 24 feet.

63) Task #63 – Trailer T46 (Environmental Monitoring)

Trailer T46 is a double wide that measures 56 X 24 feet.

64) Task #64 – Trailer T49 (Bio-Assay Semi-Trailer)

Trailer T49 is a single wide that measures 56 X 8 feet.

65) Task #65 – Trailer T50 (Rad Safety)

Trailer T50 is a single wide that measures 10 X 16 feet.

66) Task #66 – Trailer T57 (Rad Safety)

Trailer T57 is a double wide that measures 70 X 28 feet.

67) Task #67 – Trailer T58 (Construction Office)

Trailer T58 is a double wide that measures 70 X 28 feet.

68) Task #68 – Trailer T59 (FF Waste Management)

Trailer T59 is a single wide that measures 36 X 10 feet.

69) Task #69 – Trailer T60 (Environmental Monitoring)

Trailer T60 is a single wide that measures 8 X 20 feet.

70) Task #70 – Trailer T61 (Startup Group)

Trailer T61 is a single wide that measures 56 X 12 feet.

71) Task #71 – Trailer T62 (Startup Group)

Trailer T62 is a single wide that measures 50 X 12 feet.

72) Task #72 – Trailer T65 (Plant 1 Pad MC&A Office)

Trailer T65 is a single wide that measures 8 X 10 feet.

73) Task #73 – Trailer T66 (RIMIA Tri-Plex)

Trailer T66 is a Tri-Plex that measures 66 X 42 feet.

74) Task #74 – Trailer T67 (Rad. Tech.)

Trailer T67 is a single wide that measures 8 X 20 feet.

75) Task #75 – Trailer T68 (CRU1 Office)

Trailer T68 is a single wide that measures 10 X 60 feet.

76) Task #76 – Trailer T69 (Control Point – RIMIA)

Trailer T69 is a single wide that measures 10 X 20 feet.

77) Task #77 – Trailer T71 (Safe Shutdown)

Trailer T71 is a single wide that measures 56 X 12 feet.

78) Task #78 – Trailer T72 (Safe Shutdown)

Trailer T72 is a single wide that measures 50 X 12 feet.

79) Task #79 – Trailer T74 (ARASA Changeout Facility)

Trailer T74 is a Quad-Plex that measures 60 X 56 feet.

80) Task #80 – Trailer T75 (Multimedia Services)

Trailer T75 is a single wide that measures 60.5 X 12 feet.

81) Task #81 – Trailer T82 (Capital Project)

Trailer T82 is a double wide that measures 66 X 28 feet.

82) Task #82 – Trailer T83 (Capital Project)

Trailer T83 is a double wide that measures 66 X 28 feet.

83) Task #83 – Trailer T84 (Capital Project)

Trailer T84 is a double wide that measures 66 X 27.5 feet.

84) Task #84 – Trailer T85 (Capital Project)

Trailer T85 is a double wide that measures 66 X 27.5 feet.

85) Task #85 – Trailer T86 (Capital Project)

Trailer T86 is a double wide that measures 66 X 27.5 feet.

86) Task #86 – Trailer T87 (Capital Project)

Trailer T87 is a double wide that measures 66 X 27.5 feet.

87) Task #87 – Trailer T89 (WPA Men's Changeout)

Trailer T89 is a single wide that measures 56 X 14 feet.

88) Task #88 – Trailer T90 (WPA Women's Changeout)

Trailer T90 is a single wide that measures 56 X 14 feet.

89) Task #89 – Trailer T91 (WPA Men's Changeout)

Trailer T91 is a single wide that measures 56 X 14 feet.

90) Task #90 – Trailer T92 (WPA Breakroom)

Trailer T92 is a single wide that measures 56 X 14 feet.

91) Task #91 – Trailer T93 (Radiation Control Unit Quad)

Trailer T93 is a Quad-Plex that measures 60 X 56 feet.

92) Task #92 – Trailer T94 (Radiation Control Unit Quad)

Trailer T94 is a Quad-Plex that measures 60 X 56 feet.

93) Task #93 – Trailer T95 (Radiation Control Unit Quad)

Trailer T95 is a Quad-Plex that measures 60 X 56 feet.

94) Task #94 – Trailer T96 (Radiation Control)

Trailer T96 is a double wide that measures 60 X 28 feet.

95) Task #95 – Trailer T97 (FF Office – CRU4)

Trailer T97 is a single wide that measures 36 X 10 feet.

96) Task #96 – Trailer T98 (OSDF)

Trailer T98 is a single wide that measures 60 X 14 feet.

97) Task #97 – Trailer T100 (FF Office)

Trailer T100 is a single wide that measures 10 X 20 feet.

98) Task #98 – Trailer T103 (Storage)

Trailer T103 is a single wide that measures 10 X 12 feet.

99) Task #99 – Trailer T108 (IAWWTF)

Trailer T108 is a single wide that measures 56 X 12 feet.

100) Task #100 – Trailer T109 (IAWWTF)

Trailer T109 is a single wide that measures 56 X 12 feet.

101) Task #101 – Trailer T117 (CRU4 Construction Support Office)

Trailer T117 is a double wide that measures 24 X 66 feet.

102) Task #102 – Trailer T118 (CRU4 Support Office)

Trailer T118 is a single wide that measures 10 X 42 feet.

103) Task #103 – Trailer T119 (Restrooms)

Trailer T119 is a single wide that measures 46 X 10 feet.

104) Task #104 – Trailer T121 (FF Office)

Trailer T121 is a single wide that measures 14 X 74 feet.

105) Task #105 – Trailer T122 (Storage)

Trailer T122 is a single wide that measures 8 X 40 feet.

106) Task #106 – Trailer T127 (OEPA – Part of T68)

Trailer T127 is a double wide that measures 24 X 70 feet.

107) Task #107 – Trailer T128 (Mixed Waste)

Trailer T128 is a double wide that measures 25 X 60 feet.

108) Task #108 – Trailer T129 (OEPA – Part of T68)

Trailer T129 is a double wide that measures 24 X 60 feet.

109) Task #109 – Trailer T130 (Breakroom)

Trailer T130 is a double wide that measures 26 X 60 feet.

110) Task #110 – Trailer T131 (Breakroom)

Trailer T131 is a double wide that measures 26 X 60 feet.

111) Task #111 – Trailer T132 (Kelchner Office)

Trailer T132 is a single wide that measures 10 X 50 feet.

112) Task #112 – Trailer T135 (Boiler Maintenance)

Trailer T135 is a single wide that measures 14 X 56 feet.

113) Task #113 – Trailer T138 (Southern Waste Unit Site Prep. Group)

Trailer T138 is a double wide that measures 28 X 70 feet.

114) Task #114 – Trailer T139 (Southern Waste Unit Site Prep. Group)

Trailer T139 is a double wide that measures 28 X 70 feet.

115) Task #115 – Trailer T141 (Maintenance Storage)

Trailer T141 is a single wide that measures 8 X 32 feet.

116) Task #116 – Trailer T142 (Maintenance Storage)

Trailer T142 is a single wide that measures 39.5 X 8 feet.

117) Task #117 – Trailer T164 (FF Training)

Trailer T164 is a double wide that measures 24 X 60 feet.

118) Task #118 – Trailer T165 (FF Training)

Trailer T165 is a double wide that measures 24 X 60 feet.

119) Task #119 – Trailer T166 (Industrial Relations)

Trailer T166 is a double wide that measures 24 X 60 feet.

120) Task #120 – Trailer T167 (Industrial Relations)

Trailer T167 is a double wide that measures 24 X 60 feet.

121) Task #121 – Trailer T168 (ARASA Contractor)

Trailer T168 is a double wide that measures 24 X 60 feet.

122) Task #122 – Trailer T169 (ARASA Contractor)

Trailer T169 is a double wide that measures 24 X 60 feet.

123) Task #123 – Trailer T170 (ARASA Contractor)

Trailer T170 is a double wide that measures 24 X 60 feet.

124) Task #124 – Trailer T171 (ARASA Contractor)

Trailer T171 is a double wide that measures 24 X 60 feet.

125) Task #125 – Trailer T172 (FCNDP)

Trailer T172 is a double wide that measures 24 X 60 feet.

126) Task #126 – Trailer T173 (FCNDP)

Trailer T173 is a double wide that measures 24 X 60 feet.

127) Task #127 – Trailer T174 (FCNDP)

Trailer T174 is a double wide that measures 24 X 60 feet.

128) Task #128 – Trailer T175 (FCNDP)

Trailer T175 is a double wide that measures 24 X 60 feet.

129) Task #129 – Trailer T176 (FCNDP)

Trailer T176 is a double wide that measures 24 X 60 feet.

130) Task #130 – Trailer T177 (FCNDP)

Trailer T177 is a double wide that measures 24 X 60 feet.

131) Task #131 – Trailer T178 (FCNDP)

Trailer T178 is a double wide that measures 24 X 60 feet.

132) Task #132 – Trailer T179 (FCNDP)

Trailer T179 is a double wide that measures 24 X 60 feet.

133) Task #133 – Trailer T181 (FF Office)

Trailer T181 is a double wide that measures 24 X 60 feet.

134) Task #134 – Trailer T182 (FF Office)

Trailer T182 is a double wide that measures 24 X 60 feet.

135) Task #135 – Trailer T183 (FF Office)

Trailer T183 is a double wide that measures 24 X 60 feet.

136) Task #136 – Trailer T186 (OSDF Office Trailer)

Trailer T186 is a single wide that measures 10 X 10 feet.

137) Task #137 – Trailer T191 (Breakroom/Cooldown)

Trailer T191 is a single wide that measures 10 X 32 feet.

138) Task #138 – Trailer T301 (IT Corp.)

Trailer T301 is a single wide that measures 10 X 40 feet.

139) Task #139 – Trailer T305 (Environmental Monitoring)

Trailer T305 is a double wide that measures 24 X 48 feet.

140) Task #140 – Trailer T306 (Environmental Monitoring)

Trailer T306 is a single wide that measures 8 X 40 feet.

141) Task #141 – Trailer T312 (Cell 1 Personal Cool Down)

Trailer T312 is a single wide that measures 8 X 20 feet.

142) Task #142 – Trailer T313 (ARASA Admin. Office "A")

Trailer T313 is a Tri-Plex that measures 42 X 76 feet.

143) Task #143 – Trailer T314 (ARASA Admin. Office "B")

Trailer T314 is a Tri-Plex that measures 42 X 76 feet.

144) Task #144 – Trailer T315 (ARASA Laboratory Office)

Trailer T315 is a single wide that measures 10 X 50 feet.

145) Task #145 – Trailer T316 (ARASA Laboratory "A")

Trailer T316 is a single wide that measures 12 X 50 feet.

146) Task #146 – Trailer T317 (ARASA Laboratory "B")

Trailer T317 is a single wide that measures 12 X 50 feet.

147) Task #147 – Trailer T318 (ARASA MHB/RCLO Pow. Mod. Bldg)

Trailer T318 is a single wide that measures 12 X 28 feet.

148) Task #148 – Trailer T319 (ARASA Breakroom)

Trailer T319 is a single wide that measures 12 X 56 feet.

149) Task #149 – Trailer T320 (ARASA Laun./Resp. Wash Facility)

Trailer T320 is a double wide that measures 28 X 56 feet.

150) Task #150 – Trailer T321 (ARASA MHB Rad. Cont. Trailer)

Trailer T321 is a single wide that measures 12 X 56 feet.

151) Task #151 – Trailer T322 (ARASA Supervisor's Office)

Trailer T322 is a single wide that measures 12 X 48 feet.

152) Task #152 – Trailer T323 (ARASA Control Room)

Trailer T323 is a single wide that measures 10 X 30 feet.

153) Task #153 – Trailer T325 (ARASA GCS/WTS Pow. Mod. Bldg)

Trailer T325 is a single wide that measures 8 X 40 feet.

154) Task #154 – Trailer T326 (ARASA Cont. Emissions Mon. Tr.)

Trailer T326 is a single wide that measures 6 X 8 feet.

155) Task #155 – Trailer T327 (Weigh Scale Ticket Office)

Trailer T327 is a single wide that measures 12 X 12 feet.

156) Task #156 – Trailer T330 (Doffing Trailer)

Trailer T330 is a single wide that measures 8 X 8 feet.

157) Task #157 – Trailer T502 (IT Corp. ARASA)

Trailer T502 is a Quad-Plex that measures 60 X 60 feet.

158) Task #158 – Trailer T505 (Facilities Shutdown Break Trailer)

Trailer T505 is a single wide that measures 24 X 8 feet.

159) Task #159 – Trailer T506 (Office)

Trailer T506 is a single wide that measures 14 X 60 feet.

160) Task #160 – Trailer T512 (Break – M. Ravenscraft)

Trailer T512 is a single wide that measures 10 X 48 feet.

161) Task #161 – Trailer T513 (Construction Coordinators)

Trailer T513 is a single wide that measures 12 X 60 feet.

162) Task #162 – Trailer T514 (Construction – Conference Room)

Trailer T514 is a single wide that measures 55 X 11 feet.

163) Task #163 – Trailer T520 (S&W Office)

Trailer T520 is a single wide that measures 24 X 8 feet.

164) Task #164 – Trailer T529 (Storage)

Trailer T529 is a single wide that measures 12 X 20 feet.

165) Task #165 – Trailer T540 (Triplex – Porter Breakroom)

Trailer T540 is a Quad-Plex that measures 48 X 60 feet.

166) Task #166 – Trailer T603 (Storage – Semi Trailer)

Trailer T603 is a single wide that measures 40 X 8 feet.

167) Task #167 – Trailer T604 (Maintenance Storage Semi Trailer)

Trailer T604 is a single wide that measures 40 X 8 feet.

168) Task #168 – Trailer T608 (Break Trailer – Waste Management)

Trailer T608 is a single wide that measures 8 X 12 feet.

169) Task #169 – Building 24C - Locomotive Engine House/Repair and Truck Washing Facility

Building 24C is a single-story building measuring 40 x 110 ft. and 30 ft. high and consists of a structural steel frame with non-insulated, corrugated metal siding and roofing on a reinforced poured concrete base and floor.

170) Task #170 – Railroad Track

There are approximately four (4) miles of railroad track (132 lbs/yd gauge) that remains from the original site rail construction in the 1950s. There are approximately three miles of additional track (110 lbs/yd gauge) laid in 1997 to support ARASA waste handling and rail shipping operations.

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1.4.12 BFDDN – D&D Subcontract- Building 64/65

1) Task #1 – Premobilization

Premobilization includes preparation and submittal of all documentation necessary to begin mobilization activities.

2) Task #2 – Mobilization

Mobilization includes field preparation activities, preparation of submittal documentation and building preparation.

3) Task #3 – Building 64 (Thorium Warehouse)

Building 64 is a single story building constructed of corrugated metal walls on a concrete slab. The Building 64 metal roof is supported by steel beams and columns. Building 64 is rectangular and measures 50 X 320 X 22 feet high.

4) Task #4 – Building 65 (Old Plant 5 Warehouse)

Building 65 is a single story, rectangular building that measures 50 X 210 X 22 ft high. Building 65 consists of a structural steel frame with non-insulated corrugated metal siding and roofing on a reinforced concrete base.

5) Task #5 – Demobilization

Demobilization includes the following activities:

- Decontaminate equipment (heavy equipment)
- Remove temporary fencing
- Remove asbestos trailer, tool trailer, office trailer, temporary utilities
- Complete punchlist items. Trim rebar, grout remaining openings, gravel open areas, clean up debris

1.4.13 BFDD1 – D&D Subcontract- Plant 1, Phase II

Facility D&D will be subcontracted. The overall scope of work includes premobilization, mobilization, asbestos abatement, equipment/system removal, interior transite removal, acid brick removal, release cleaning, exterior transite removal, structural steel /masonry demolition and demobilization.

1) Task #1 - Premobilization

Premobilization includes preparation and submittal of all documentation necessary to begin mobilization activities.

2) Task #2 - Mobilization

Mobilization includes field preparation activities, preparation of submittal documentation and building preparation.

3) Task #3 - Building 1B

Building 1B is the steel shelter with metal panel roofing that covers a portion of the Plant 1 Pad. The roof has a height of 18 ft.

4) Task #4 - Component 20A

Building 20A is a single-story structure, which consists of a steel frame, metal roof, and transite panels on a reinforced concrete base. The approximate dimensions are 17 x 83 ft. and 12 ft. in height. This building supplies power to several structures and trailers located on and around the Plant 1 Pad. The building contains electrical meters, panels, and main circuit breakers.

5) Task #5 - Building 30A

Building 30A is a single-level structure measuring 82 x 321 ft. and 16 ft. high. This building is constructed of a steel frame supported on a reinforced poured concrete base with a reinforced concrete floor and transite siding panels and roof.

6) Task #6 - Building 56A

Building 56A is a single-story building measuring 50 x 180 ft. and 14 ft. high and consists of a structural steel frame with non-insulated, corrugated metal siding and roofing on a reinforced poured concrete base and floor. There is minimal piping and equipment and it is assumed that there is neither ACM nor process-related equipment. Therefore, the entire structure will be dismantled and size reduced using a shear. The contractor will then containerize the debris and move the containers to the queue area for disposition in the OSDF.

7) Task #7 - Building 71

Building 71 is a single-story measuring 100 x 241 ft. and 13 ft. high. The building consists of block walls, and a bar-joist truss roof system. There is minimal piping and equipment and it is assumed that there is neither ACM nor process-related equipment.

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In addition to Building 71, this task includes the removal of the pipe bridge north of 2nd Street to Building 71 and the former location of Building 2E.

8) Task #8 - Components TS-4, TS-5 and TS-6

Components TS-4, TS-5, and TS-6 are steel tube framed structures enclosed within a synthetic covering. It is assumed that these structures will not be salvaged, but dismantled and sized for placement in the OSDF.

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9) Task #9 – Component 16N

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~~9~~ 10) Task #~~9~~ 10 - Demobilization

Demobilization includes the following activities:

- Decontaminate equipment (heavy equipment)
- Remove temporary fencing
- Remove asbestos trailer, tool trailer, office trailer, temporary utilities
- Complete punchlist items. Trim rebar, grout remaining openings, gravel open areas, clean up debris

1.4.14BFDD5 – D&D Subcontract- Plant 5

Facility D&D will be subcontracted. The overall scope of work includes premobilization, mobilization, Building 5A D&D, Building 5D D&D, and demobilization.

1) Task #1 - Premobilization

Premobilization includes preparation and submittal of all documentation necessary to begin mobilization activities.

2) Task #2 - Mobilization

Mobilization includes field preparation activities, preparation of submittal documentation and building preparation.

3) Task #3 - Building 5A

Building 5A is a three–level structural steel frame building. It is irregularly shaped measuring approximately 100 ft x 560 ft and 34 ft high. The building consists of a structural steel frame with transite siding and roofing panels. The south fifth of the building is a three story with poured concrete floors and columns. The north four fifths of the building is an open bay with mezzanines along the length of the building.

4) Task #4 - Component 5D

Building 5D (West Derby Breakout/Slag Milling Building is a four story steel new and unused building measuring approximately 41' x 160' x 50' high. The building consists of a concrete floor and a structural steel frame with metal siding and roofing panels. The building is supported by a concrete foundation on grade. Along the east wall between Building 5D and Building 5A is the exterior transite wall of Building 5A. The removal of this wall is covered in Building 5A.

5) Task #5 - Demobilization

Demobilization includes the following activities:

- Decontaminate equipment (heavy equipment)
- Remove temporary fencing
- Remove asbestos trailer, tool trailer, office trailer, temporary utilities
- Complete punchlist items. Trim rebar, grout remaining openings, gravel open areas, clean up debris

1.4.15 BFDD6 – D&D Subcontract- Plant 6

Facility D&D will be subcontracted. The overall scope of work includes premobilization, mobilization, Building 6A D&D, Building 6B D&D, Building 6C D&D, Building 6D D&D, Building 6E D&D, Building 6F D&D, Building 6G D&D, and demobilization.

1) Task #1 - Premobilization

Premobilization includes preparation and submittal of all documentation necessary to begin mobilization activities. This task is completed and no further action is required.

2) Task #2 - Mobilization

Mobilization includes field preparation activities, preparation of submittal documentation and building preparation. This task is completed and no further action is required.

3) Task #3 - Building 6A

A single level, irregularly shaped building measuring approximately 350 ft x 620 ft and 50 ft high with partial basement 20 ft below grade. Building 6A consists of a structural steel frame on a reinforced poured concrete base and floor with transite siding and roofing.

4) Task #4 - Building 6B

Plant 6 Covered Storage Area.

5) Task #5 - Building 6C

Building 6C is a single level building measuring approximately 16 ft x 30 ft and 14 ft high. Building 6C is adjacent to the east side of the Metals Fabrication Plant, and consists of a poured concrete base and floor, a structural steel frame and corrugated steel siding.

6) Task #6 - Building 6D

Building 6D is a single level building measuring approximately 16 ft x 30 ft and 14 ft high. Building 6D is adjacent to the east side of the Metals Fabrication Plant, and consists of a poured concrete base and floor, a structural steel frame and corrugated steel siding.

7) Task #7 - Building 6E

Building 6E is a single level building measuring approximately 16 ft x 30 ft and 14 ft high. Building 6E is adjacent to the east side of the Metals Fabrication Plant (Component 6A), and consists of a poured concrete base and floor, a structural steel frame, and corrugated steel siding and roofing.

8) Task #8 - Building 6F

Building 6F (Salt Oil Heat Treatment Building) is a single level building that adjoins the south end of the Metals Fabrication Plant (Component 6A). The rectangular building measures approximately 25 ft x 45 ft and 20 ft high. The building consists of a structural steel frame on a concrete base with transite siding and roofing panels.

9) Task #9 - Building 6G

Building 6G (Plant 6 Sump Building) is a newly built, unused multi-story structure located on the northeast corner of the Metals Fabrication Plant (6A). The building consists of a structural steel frame with metal siding and roofing. The structure was built on a reinforced concrete pad. The approximate dimensions of building 6G are 42 ft x 90 ft and 39 ft high.

10) Task #10 - Demobilization

Demobilization includes the following activities:

- Decontaminate equipment (heavy equipment)
- Remove temporary fencing
- Remove asbestos trailer, tool trailer, office trailer, temporary utilities
- Complete punchlist items. Trim rebar, grout remaining openings, gravel open areas, clean up debris

1.5 PROJECT PLAN/TECHNICAL SCOPE AND QUANTIFICATION

1.5.1 BFDD2 - D&D Subcontract – Plant 2

This D&D scope of work will be issued as a task order to the D&D Closure Project contract. This task includes premobilization, mobilization, Building 2A, 2D, 2F, 2H D&D, and demobilization. This work will be conducted by the D&D contractor management team and Building Trades personnel.

1) Task #1 - Premobilization

1.1) Plan/Scope – Premobilization

Premobilization includes preparation and submittal of all documentation necessary to begin mobilization activities.

The Sub-Contractor shall submit the following pre-mob submittals prior to "Authorization to Mobilize" and after issuance of the Task Order:

- Insurance certificate
- List of sub-tier contractors
- PLA letter of assent & verification of pre-job meeting
- Pay Item schedule of values
- Baseline/manpower loaded schedule
- Letter Contractor will abide by FDF PSHSP & addendum to PSHSP
- Substance abuse program
- Hearing conservation program plan
- Behavior based safety program
- QA/QC program plan
- 10 hour site safety training
- HAZWOPER training with OSHA supervised field experience form
- Mobilization SWP
- Waste handling SWP
- Temporary facilities SWP
- Temporary utilities SWP

1.2) Quantification - Premobilization

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

2) Task #2 - Mobilization

2.1) Plan/Scope – Mobilization

Mobilization includes field preparation activities, preparation of submittal documentation and building preparation.

Field preparation consists of the following activities:

- Install temporary portable toilets
- Install asbestos trailer (1 singlewide), water (with 5 micron filter dump to sewer), (heat traced) sewer (heat traced)
- Install temporary utilities – tie into substation in Building 3L water point source at low pressure fire protection system, connect to sanitary sewer at 101st & B
- Install construction zone fencing – 4' orange fencing (majority of zone has existing 4' wire fencing)
- Conduct alignment meeting
- Perform engineering survey – structural and floor loading in accordance with OSHA 1926.850
- Mobilize equipment – fork truck, pick-up truck, skid steer, track-mounted shear, back hoe, man-lift, scissor-lift, HEPA vacuums, air filtration devices, turnover-government furnished equipment, etc.

Submittal documentation consists of the following:

- Safe Work Plans
- Training Records
- MSDS
- Engineering Surveys
- Other documents as necessary.

Building preparation consists of the following:

- Construction of vestibules
- Construction of Cool down areas
- Construction of Wash down areas

2.2) Quantification – Mobilization

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

3) Task #3 - Building 2A

3.1) Plan/Scope - Building 2A

Building 2A consists of a structural steel frame with transite panels outside walls and roof that is approximately 62 x 382 x 50 ft high. The building floor is a combination of acid brick and concrete. It is a multilevel building with five levels and a penthouse. The interior of the building is divided into three Process Areas separated by transite walls defined as follows (from west to east): Digestion (including the Drum Digestion area), Extraction, and Denitration (including enriched calcining area).

The Digestion Area is divided into two distinct processes. The northern half of the plant was used for digesting uranium ores and residues that had a high radium content (hot side). The southern half of the building handled uranium ores with little to no radium (cold side). The hot side and cold side are separated by a poured concrete wall. The digestion process prepared UNH by dissolving uranium into nitric acid, which was then transferred to the Extraction Area. The Drum Digestion area is located in the middle of the first floor. It is a diked, metal floor with eight drum digestors tanks. The drum digestion area was used to digest highly enriched uranium in nitric acid and water. The following conditions should be anticipated in the Digestion Area during D&D:

Due to the extensive use of nitric acid, most of the transite wall and roof panels in the digestion area are significantly deteriorated and friable - the transite removal will be performed as a Class I abatement, requiring the use of containment/mobile hood, followed by the placement of temporary roofing fabric to maintain the building integrity;

Due to the extensive use of nitric acid, a there is the potential for granular/dust-like particulates to be present between the layers of transite on the roof. Since the transite panels are deteriorated and friable, the particulates will be handled as ACM. The amount of loose contamination between the layers is usually heaviest at the peak of the roof, and decreases as you move away from the roof peak.

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The hot side tanks are encased with gunnite (7" thick) for shielding purposes - it is currently anticipated that the tanks will be sheared in place ~~after implosion~~; 4-6 tanks, located in the outdoor curbed area north of the Digestion Area, are encased in a black asphalt/tar ACM material; and

One tank, located in the outdoor curbed area north of the Digestion Area, will contain 300 gallons of an organic liquid (i.e., kerosene) which will be removed by Safe Shutdown once the D&D Contractor cuts the tank open to make the liquid accessible.

The Extraction Area process was carried out in the northern half of the building. The purpose of the liquid-liquid countercurrent solvent extraction was to purify UNH solutions. This is accomplished by contacting the UNH solution with tributyl phosphate in kerosene in stainless steel, plate pulse columns and scrubbing the solvents in an acid-charcoal treatment. The following conditions should be anticipated in the Extraction Area during D&D:

The Extraction Area is considered a thorium-contaminated area and the D&D will be performed with thorium as the contaminant of concern - this will require to work under thorium controls (PPE, etc.) during D&D;

Due to the extensive use of nitric acid, most of the transite wall and roof panels in the digestion area are significantly deteriorated and friable - the transite removal will be performed as a Class I abatement, requiring the use of containment/mobile hood, followed by the placement of temporary roofing fabric to maintain the building integrity;

Due to the extensive use of nitric acid, a there is the potential for granular/dust-like particulates to be present between the layers of transite on the roof. Since the transite panels are deteriorated and friable, the particulates will be handled as ACM. The amount of loose contamination between the layers is usually heaviest at the peak of the roof, and decreases as you move away from the roof peak; and

Two gunnite covered tanks are located on the third floor of the extraction area - it is currently anticipated that the tanks will be sheared in place after implosion.

The Denitration Area thermally decomposed UNH to uranium trioxide (UO_3) powder. The main elements of the denitration equipment are 2 boil down tanks, sparge tanks, and the denitration pots. The safe geometry rotary calciner is located in the south side of the third level of the denitration area, calcined $\leq$10% enriched UNH to produce black oxide (U_3O_8). Although Safe Shutdown is ongoing in the facility and most/all process residues will be removed, the following conditions should be anticipated in the Denitration Area during D&D:

The exterior surface of the denitration pots are lined with ACM brick and the attached piping is large diameter with ACM insulation - a containment will be required during abatement/D&D;

The denitration pots are stainless steel and are likely to contain UO_3 residuals - rad engineering does is not currently requiring the use of containments for D&D, therefore, the contractor will use standard mechanical disassembly techniques;

The sparge tanks on the fourth floor also covered with ACM insulation - a containment will be required during abatement/D&D;

Evaporator tanks, located on the denitration roof, are covered with ACM insulation - a containment will be required during abatement; and Safe Shutdown removed enriched restricted material (3% U-235) from the following areas: calciner on the 2nd, 3rd, and 4th floors, south side; South Buffalo Dust Collector on the 4th floor, south side; North Scale Pit on the ground floor, southeast corner; and the G1-240 Dust Collector on the 3rd floor, south side. Residuals may be encountered during D&D which may require HEPA vacuuming and special handling and containerization. However, rad engineering is not currently requiring the use of a containment during demolition. The contractor may use standard mechanical disassembly techniques.

Construct vestibule to act as air lock to minimize the potential spread of contamination. Vestibules shall be constructed of fire retardant materials and be large enough for both personnel and equipment entering and exiting the building.

Establish release cleaning/decon area inside the building. The release cleaning area shall consist of a polyethylene lined containment for the collection of water. The water shall be pumped to water collection tanks for sampling. There shall be adequate tank capacity for a minimum of 30 days of release cleaning activities.

Asbestos Abatement

ACM piping will be removed by glovebag containments as follows: 1) wrap all ACM pipe in two layers of 6 mil poly; 2) install glovebag and HEPA ventilation every 10 feet; 3) perform smoke test; 4) wet surfaces with amended water; 5) remove ACM using hand-held tools; 6) encapsulate exposed ends; 7) remove glove bag; and 8) mechanically cut pipe at abated areas using band saw, reciprocating saw, or disassemble pipes at joints or fittings.

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The contractor will size, segregate, and containerize the debris and move the containers to the queue area for disposition in the OSDF. If any process-related piping or equipment fails the visual inspection criteria, it will be packaged for off-site disposal at ~~NTS~~ Envirocare.

Equipment/System Removal

Building 2A outdoor tanks will be sheared in place prior to implosion of the main facility.

Building 2A indoor tanks will be decontaminated, smeared (to ensure the tanks meet the criteria to open a building to the environment), encapsulated (as needed), left in place for dismantlement during implosion, and size reduction by shearing after implosion.

Process- Related Materials will be dismantled by 1) HEPA vacuuming, wet wiping, and/or fixing any gross loose contamination off the exterior surfaces, 2) disconnect the piece of equipment by unbolting, sawing, or cutting with torch, 3) seal openings with 6 mil poly or tape, 4) if applicable, lower to the ground using forklift or bobcat, 5) move equipment to inspection area and potential decon.

Containments are not currently required for equipment/system removal in Building 2A.

Non-process piping, valves, conduit, cable, lighting, etc. will remain in the building during Structural Steel Removal.

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The Contractor(s) shall size, segregate, and wrap the process-related debris and move the container to the que area for disposition at ~~NTS~~ Envirocare. The Contractor(s) shall size, segregate, and containerize the non-process debris and move the container to the que area for disposition in the OSDF.

Transite Removal

Transite siding in the denitration area (2 layers of panels) would likely be removed by 1) spraying encapsulant on the interior and exterior of the panels using a hand-held sprayer by workers on ground or in a manlift, 2) manually detaching and collecting the fasteners (assumed lead metal), and 3) lowering the panels by hand if on ground level or, for elevated removal, lowering the panels using a scissor lift/elevated work platform.

Transite roofing in the denitration area (2 layers of panels) would likely be removed by 1) spraying encapsulant on the exterior side of the outer panels using a hand-held sprayer by workers on ground or in a manlift; 2) manually detaching and collecting the fasteners (assumed lead metal), and 3) lowering the outer panels using a scissor lift/knuckleboom, 4) spraying encapsulant on all previously unexposed surfaces of outer panels, 5) HEPA vacuuming dust residuals identified between exterior and interior panels, 6) spraying encapsulant on the exterior surfaces of the interior panel, 7) manually detaching and collecting the fasteners (assumed lead metal), and 3) lowering the interior panels using a scissor lift/knuckleboom.

The granular/dust-like particulates present between the layers of transite on the roof will be handled as ACM. The Contractor shall take steps to minimize the release of airborne contaminants when these panels are removed by HEPA vacuuming the particulates .

Gutters and down spouts will be removed by 1) accessing using manlifts, 2) ACM contents wet with amended water, 3) ACM contents manually scooped out, 4) encapsulant applied to the cleaned gutter/spout, 5) disassembled at the joints using mechanical methods, and 6) lowered to the ground in the manlifts.

Windows will be removed by 1) applying tape to the glass, 2) removing the glazing material using a hand-held "chisel", and 3) lead frames will be removed manually in conjunction with window removal or non-lead frames may be removed during Structural

Steel Removal.

Fiberglass or Mineral Wool Insulation (Batting) located between the interior and exterior transite panels will be removed by 1) spraying encapsulant to exposed surfaces, 2) manually rolling the insulation upon itself, 3) applying amended water for dust suppression, as needed.

The Contractor shall band panels together, place panels on a pallet, wrap the palletized panels in 6 mil poly, and move to the que area for disposition in the OSDF.

The Contractor(s) shall size, segregate, and containerize the gutter debris, batting, granular particulates, and windows and move the container to the que area for disposition in the OSDF.

All lead material shall be segregated and placed into drums in accordance with the Material Segregation and Containerization Criteria requirements.

Acid Brick Removal

Acid Brick will be removed by 1) manually breaking and removing a few brick to create access using a spud bar, 2) removing acid bricks one at a time by hand, 3) dampening surfaces with water to minimize airborne dust, 4) using HEPA vacuum to remove particulates, 5) maintaining localized HEPA ventilation near the work area.

The Contractor(s) shall size, segregate, and containerize the debris and move the container to the que area at the construction zone boundary

Masonry/Concrete Removal

Above-grade concrete walls will be removed during structural dismantlement (i.e., implosion) while administering water spray to wet the concrete.

The Contractor(s) shall size, segregate, and containerize the debris and move the container to the que area for disposition in the OSDF.

Release Cleaning

Release Cleaning will be performed by 1) HEPA vacuuming and/or wet wipe any loose contamination or residuals, 2) using high pressure, low volume water washing, 3) applying fixitive to areas which do not meet the release cleaning criteria.

There are three Hazardous Waste Management Units (HWMUs) located in and around Plant 2A which include HWMU #10, 47, and 49. Each HWMU contains equipment and/or concrete which must be decontaminated in accordance with Specification Section 01517.

HWMU #10, NAR System Components

HWMU #10 is located in the Denitration Area of Plant 2A, except for Tanks F1-23 and F1-24, which are located outside Plant 2A. HWMU #10 consists of the following components:

- Two liquid cooling tanks (E3E-210 and E3E-211 and associated piping) and associated secondary containment;
- Four weir boxes (F3E-207, F3E-213, F3E-215, and F3E-218) and floor area under the boxes ;
- Secondary containment under the two storage tanks (F1-23 and F1-24); and
- Venturi scrubber (Tanks F3E-220 and G2E-207).

The two liquid cooling tanks, E3E-210 and E3E-211, and associated piping must 1) be dismantled, 2) decontaminate interior surfaces which contacted waste, 3) effluent collected separately and sampled for chromium and pH, and 4) upon FDF approval, commingle the effluent with other washwaters and transport the water to AWWT.

There are four weir boxes (F3E-207, F3E-213, F3E-215, and F3E-218) must be 1) decontaminated (rinsed), both interior and exterior surfaces, to a pH above 2, 2) effluent collected separately and sampled for chromium and pH, and 3) upon FDF approval, commingle the effluent with other washwaters and transport the water to AWWT.

Decontaminate (rinse) the secondary containments and/or floors under the 1) Storage Tanks F1-24, 2) two cooling tanks (E3E-210 and E3E-211), 3) four weir boxes (F3E-207, F3E-213, F3E-215, F3E-218), and 4) venturi scrubber (Tanks F3E-220 and G2E-207). Collect effluent separately and sample for chromium and pH. Upon approval from FDF, the combine effluent with other decon washwaters and transport water to AWWT.

HWMU No. 47, UNH Storage Tanks (North of Plant 2A)

HWMU No. 47, UNH Storage Tanks (North of Plant 2A), is located outdoors on the north side of Plant 2A. It consists of three vertical tanks (F2E-5, F2E-6, and F2E-8), measuring 18.5 feet in diameter by 15 feet high and the concrete secondary containment area in which the tanks are grouped. The secondary containment area is 63.5 feet long by 40.5 feet wide with a 2 foot 8 inch high concrete perimeter dike.

Decontaminate (rinse) the secondary concrete containment area under the UNH Storage Tanks north of Plant 2A. Collect effluent separately and sample for chromium, mercury, barium, lead, and pH. Upon approval from FDF, the combine effluent with other decon washwaters and transport water to AWWT.

HWMU No. 49, UNH Storage Tanks, Digestion Area (2 locations)

HWMU No. 49, UNH Storage Tanks, Digestion Area (2 locations), is located inside Plant 2A. The components of this HWMU are as follows:

- Area 1 - 20 feet by 127 feet (under Tanks D1-1, D1-2, D1-4, F1-1, and F1-25);
- Area 2 - 20 feet by 127 feet (under Tanks D1-7, D1-10, F1-26).

Decontaminate (rinse) the secondary concrete containment area under the UNH Storage Tanks in the Digestion Area of Plant 2A. Collect effluent separately and sample for chromium, mercury, barium, lead and pH. Upon approval from FDF, the combine effluent with other decon washwaters and transport water to AWWT.

Structural Steel Removal

Structural steel will be dismantled by shear.

The Contractor(s) shall size, segregate, and containerize the debris and move the container to the que area for disposition in the OSDF.

3.2) Quantification – Building 2A

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

4) Task #4 - Building 2D

4.1) Plan/Scope – Building 2D

Building 2D is a two-story building located against the north wall of Plant 2A. Its shape is irregular, measuring approximately 39 x 50 x20 feet high. The building consists of a structural steel frame with transite panels on a poured concrete base with acid brick. The interior of the building is one room with a diamond place mezzanine. Building 2D housed metal dissolution charcoal treatment operations . The following conditions are to be anticipated during D&D:

Due to the extensive use of nitric acid, most of the transite wall and roof panels in the are significantly deteriorated and friable. However, most of the panels have been coated with Aglobal encasement@ to reduce airborne emissions - the transite removal will be performed as a Class I abatement, requiring the use of containment/mobile hood, followed by the placement of temporary roofing fabric to maintain the building integrity; and

Due to the extensive use of nitric acid, a there is the potential for granular/dust-like particulates to be present between the layers of transite on the roof. Since the transite panels are deteriorated and friable, the particulates will be handled as ACM. The amount of loose contamination between the layers is usually heaviest at the peak of the roof, and decreases as you move away from the roof peak.

Asbestos Abatement

ACM piping will be removed by glovebag containments as follows: 1) wrap all ACM pipe in two layers of 6 mil poly; 2) install glovebag and HEPA ventilation every 10 feet; 3) perform smoke test; 4) wet surfaces with amended water; 5) remove ACM using hand-held tools; 6) encapsulate exposed ends; 7) remove glove bag; and 8) mechanically cut pipe at abated areas using band saw, reciprocating saw, or disassemble pipes at joints or fittings.

The contractor will size, segregate, and containerize the debris and move the containers to the queue area for disposition in the OSDF.

Equipment/System Removal

Building 2D indoor tanks will be decontaminated, smeared (to ensure the tanks meet the criteria to open a building to the environment), encapsulated (as needed), and left in place for dismantlement during implosion, and size reduction by shearing.

Process- Related Materials will be dismantled by 1) HEPA vacuuming, wet wiping, and/or fixing any gross loose contamination off the exterior surfaces, 2) disconnect the piece of equipment by unbolting, sawing, or cutting with torch, 3) seal openings with 6 mil poly or tape, 4) if applicable, lower to the ground using forklift or bobcat, 5) move equipment to inspection area and potential decon.

Containments are not currently required for equipment/system removal in Building 2D.

Non-process piping, valves, conduit, cable, lighting, etc. will remain in the building during Structural Steel Removal.

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The Contractor(s) shall size, segregate, and wrap the process-related debris and move the container to the que area for disposition at ~~NTS~~ Envirocare. The Contractor(s) shall size, segregate, and containerize the non-process debris and move the container to the que area for disposition in the OSDF.

Transite Removal

Transite siding (2 layers of panels) would likely be removed by 1) spraying encapsulant on the interior and exterior of the panels (where global encasement is not already applied) using a hand-held sprayer by workers on ground or in a manlift, 2) manually detaching and collecting the fasteners (assumed lead metal), and 3) lowering the panels by hand if on ground level or, for elevated removal, lowering the panels using a scissor lift/elevated work platform.

Transite roofing (2 layers of panels) would likely be removed by 1) spraying encapsulant on the exterior side of the outer panels (where global encasement is not already applied) using a hand-held sprayer by workers on ground or in a manlift; 2) manually detaching and collecting the fasteners (assumed lead metal), and 3) lowering the outer panels using a scissor lift/knuckleboom, 4) spraying encapsulant on all previously unexposed surfaces of outer panels, 5) HEPA vacuuming dust residuals identified between exterior and interior panels, 6) spraying encapsulant on the exterior surfaces of the interior panel, 7) manually detaching and collecting the fasteners (assumed lead metal), and 3) lowering the interior panels using a scissor lift/knuckleboom

The granular/dust-like particulates present between the layers of transite on the roof will be handled as ACM. The Contractor shall take steps to minimize the release of airborne contaminants when these panels are removed by HEPA vacuuming the particulates.

Gutters and down spouts will be removed by 1) accessing using manlifts, 2) ACM contents wet with amended water, 3) ACM contents manually scooped out, 4) encapsulant applied to the cleaned gutter/spout, 5) disassembled at the joints using mechanical methods, and 6) lowered to the ground in the manlifts.

Windows will be removed by 1) applying tape to the glass, 2) removing the glazing material using a hand-held "chisel", and 3) lead frames will be removed manually in conjunction with window removal or non-lead frames may be removed during Structural Steel Removal.

Fiberglass or Mineral Wool Insulation (Batting) located between the interior and exterior transite panels will be removed by 1) spraying encapsulant to exposed surfaces, 2) manually rolling the insulation upon itself, 3) applying amended water for dust suppression, as needed.

The Contractor shall band panels together, place panels on a pallet, wrap the palletized panels in 6 mil poly, and move to the que area for disposition in the OSDF.

The Contractor(s) shall size, segregate, and containerize the gutter debris, batting, granular particulates, and windows and move the container to the que area for disposition in the OSDF.

Acid Brick Removal

Acid Brick will be removed by 1) manually breaking and removing a few brick to create access using a spud bar, 2) removing acid bricks one at a time by hand, 3) dampening surfaces with water to minimize airborne dust, 4) using HEPA vacuum to remove particulates, 5) maintaining localized HEPA ventilation near the work area.

The Contractor(s) shall size, segregate, and containerize the debris and move the container to the que area for disposition at NTS.

Release Cleaning

Release Cleaning will be performed by 1) HEPA vacuuming and/or wet wipe any loose contamination or residuals, 2) using high pressure, low volume water washing, 3) applying fixitive to areas which do not meet the release cleaning criteria.

Structural Steel Removal

Structural steel will be dismantled by shearing.

The Contractor(s) shall size, segregate, and containerize the debris and move the container to the que area for disposition in the OSDF.

4.2) Quantification – Building 2D

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

5) Task #5 - Component 2F

5.1) Plan/Scope - Component 2F

Component 2F provided a means for uranium ores and residues to reach the digestion process. The conveyer is located on the west pad (74B) of Plant 2A and measures approximately 92 x 24 feet. The following equipment remain: drum conveyer, bucket elevator, drum dumper, screw conveyer, conveyor shed, drum dumper building, and a 20 feet deep elevator pit.

Asbestos Abatement

ACM piping will be removed by glovebag containments as follows 1) wrap all ACM pipe in two layers of 6 mil poly, 2) install glovebag and HEPA ventilation every 10 feet, 3) perform smoke test, 4) wet surfaces with amended water, 5) remove ACM using hand-held tools, 6) encapsulate exposed ends, 7) remove glove bag, 8) mechanically cut

pipe at abated areas using band saw, reciprocating saw, or disassemble pipes at joints or fittings.

The Contractor(s) shall size, segregate, and containerize the debris and move the container to the que area for disposition in the OSDF.

Equipment/System Removal

Component 2F non-process equipment/systems will be sheared in place using water misting to control airborne emissions and the concrete pad area to control run-off.

Process- Related debris will be dismantled by 1) HEPA vacuuming, wet wiping, and/or fixing any gross loose contamination off the exterior surfaces, 2) disconnect the piece of equipment by unbolting, sawing, or cutting with torch, 3) seal openings with 6 mil poly or tape, 4) if applicable, lower to the ground using forklift or bobcat, 5) move equipment to inspection area and potential decon.

Containments are not currently required for equipment/system removal in Component 2F.

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The Contractor(s) shall size, segregate, and wrap the process-related debris and move the container to the que area for disposition at ~~NTS~~ Envirocare. The Contractor(s) shall size, segregate, and containerize the non-process debris and move the container to the que area for disposition in the OSDF.

Release Cleaning

Release Cleaning of debris will be performed on the debris by 1) HEPA vacuuming and/or wet wipe any loose contamination or residuals, 2) using high pressure, low volume water washing, 3) applying fixitive to areas which do not meet the release cleaning criteria.

Structural Steel Removal

Structural steel will be dismantled by shearing.

The Contractor(s) shall size, segregate, and containerize the debris and move the container to the que area for disposition in the OSDF.

5.2) Quantification – Component 2F

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

6) Task #6 - Component 2H

6.1) Plan/Scope – Component 2H

Component 2H housed a subgrade conveyor with approximate dimensions of 15 X 190 ft and 5 ft. deep. This component extends from the former Plant 1 Ore Silos to the Ore Refinery Plant and was used to transport milled uranium ores to the Ore Refinery Plant.

Equipment/System Removal

Process- Related debris will be dismantled by 1) HEPA vacuuming, wet wiping, and/or fixing any gross loose contamination off the exterior surfaces, 2) disconnect the piece of equipment by unbolting, sawing, or cutting with torch, 3) seal openings with 6 mil poly or tape, 4) if applicable, lower to the ground using forklift or bobcat, 5) move equipment to inspection area and potential decon.

Containments are not currently required for equipment/system removal in Component 2H.

R1-F02-009

The Contractor(s) shall size, segregate, and wrap the process-related debris and move the container to the que area for disposition at ~~NTS~~ Envirocare. The Contractor(s) shall size, segregate, and containerize the non-process debris and move the container to the que area for disposition in the OSDF.

Release Cleaning

Release Cleaning of debris will be performed on the debris by 1) HEPA vacuuming and/or wet wipe any loose contamination or residuals, 2) using high pressure, low volume water washing, 3) applying fixitive to areas which do not meet the release cleaning criteria.

6.2) Quantification – Component 2H

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

7) Task #7 - Demobilization

7.1) Plan/Scope – Demobilization

Demobilization includes the following activities:

- Decontaminate equipment (heavy equipment)
- Remove temporary fencing

- Remove asbestos trailer, tool trailer, office trailer, temporary utilities
- Complete punchlist items. Trim rebar, grout remaining openings, gravel open areas, clean up debris

7.2) Quantification – Demobilization

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

1.5.2 BFDD3 - D&D Subcontract – Plant 3

This D&D scope of work will be issued as a task order to the D&D Closure Project contract. This task includes premobilization, mobilization, Building 3B D&D, Building 3C D&D, Component 3D D&D, Building 3E D&D, Component 3J D&D, Component 3K D&D, Building 39A D&D, Component 22E D&D, and demobilization. This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor FTEs are presented in Section 3, and estimated quantities are presented in Section 4.

1) Task #1 - Premobilization

1.1) Plan/Scope – Premobilization

Premobilization includes preparation and submittal of all documentation necessary to begin mobilization activities.

The Sub-Contractor shall submit the following pre-mob submittals prior to "Authorization to Mobilize" and after issuance of the Task Order:

- Insurance certificate
- List of sub-tier contractors
- PLA letter of assent & verification of pre-job meeting
- Pay Item schedule of values
- Baseline/manpower loaded schedule
- Letter Contractor will abide by FDF PSHSP & addendum to PSHSP
- Substance abuse program
- Hearing conservation program plan
- Behavior based safety program
- QA/QC program plan
- 10 hour site safety training
- HAZWOPER training with OSHA supervised field experience form
- Mobilization SWP
- Waste handling SWP

- Temporary facilities SWP
- Temporary utilities SWP

1.2) Quantification - Premobilization

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

2) Task #2 - Mobilization

2.1) Plan/Scope – Mobilization

Mobilization includes field preparation activities, preparation of submittal documentation and building preparation.

Field preparation consists of the following activities:

- Install temporary portable toilets

- Install asbestos trailer (1 singlewide), water (with 5 micron filter dump to sewer), (heat traced) sewer (heat traced)

- Relocate and install T95 (4-Plex) and T130 (doublewide) including all utilities and fixtures.

- Install temporary utilities – tie into substation in Building 3L water point source at low pressure fire protection system, connect to sanitary sewer at 101st & "B" street.

- Install construction zone fencing – 4' orange fencing (majority of zone has existing 4' wire fencing)

- Conduct alignment meeting

- Perform engineering survey – structural and floor loading in accordance with OSHA 1926.850

- Mobilize equipment – fork truck, pick-up truck, skid steer, track-mounted shear, back hoe, man-lift, scissor-lift, HEPA vacuums, air filtration devices, turnover-government furnished equipment, etc.

Submittal documentation consists of the following:

- Safe Work Plans
- Training Records

- MSDS
- Engineering Surveys
- Other documents as necessary.

Building preparation consists of the following:

- Construction of vestibules
- Construction of Cool down areas
- Construction of Wash down areas

2.2) Quantification – Mobilization

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

3) Task #3 - Building 3B

3.1) Plan/Scope - Building 3B

Building 3B (Ozone Building) is a single-level structural steel frame building. It is rectangular shaped, measuring 27'x 33'x 14' high. The building consists of a concrete floor and a structural steel frame with transite siding and roofing panels. The building is supported by a concrete foundation on grade.

Equipment Dismantlement

All process-related materials were removed in 1975.

Non-process piping, valves, conduit, cable, lighting, etc. will remain in the building during Structural Steel Removal.

The Contractor(s) shall size, segregate, and containerize the debris and move the container to the que area for disposition in the OSDF.

Structural steel will be dismantled by shearing.

The Contractor(s) shall size, segregate, and containerize the debris and move the container to the que area for disposition in the OSDF.

Transite Removal

Transite siding (1 layer of panel) would likely be removed by 1) spraying encapsulant on the interior and exterior of the panels using a hand-held sprayer by workers on ground or in a manlift, 2) manually detaching and collecting the fasteners (assumed lead metal), and 3)

lowering the panels by hand if on ground level or, for elevated removal, lowering the panels using a scissor lift/elevated work platform.

Transite roofing (1 layer of panel) would likely be removed by 1) spraying encapsulant on the exterior side of the outer panels using a hand-held sprayer by workers on ground or in a manlift; 2) manually detaching and collecting the fasteners (assumed lead metal), and 3) lowering the outer panels using a scissor lift/knuckleboom, and 4) spraying encapsulant on all previously unexposed surfaces of outer panels.

Gutters and down spouts will be removed by 1) accessing using manlifts, 2) ACM contents wet with amended water, 3) ACM contents manually scooped out, 4) encapsulant applied to the cleaned gutter/spout, 5) disassembled at the joints using mechanical methods, and 6) lowered to the ground in the manlifts.

All lead material shall be segregated and placed into drums in accordance with the Material Segregation and Containerization Criteria requirements.

Windows will be removed by: 1) applying tape to the glass, 2) removing the glazing material using a hand-held "chisel", and 3) lead frames will be removed manually in conjunction with window removal or non-lead frames may be removed during Structural Steel Removal.

The Contractor shall band transite panels together, place panels on a pallet, wrap the palletized panels in 6 mil poly, and move to the que area for disposition in the OSDF.

The Contractor(s) shall size, segregate, and containerize the gutter debris and windows and move the container to the que area for disposition in the OSDF.

Structural Dismantlement

Structural steel will be dismantled by shearing.

The Contractor(s) shall size, segregate, and containerize the debris and move the container to the que area for disposition in the OSDF.

3.2) Quantification – Building 3B

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

4) Task #4 - Building 3C

4.1) Plan/Scope – Building 3C

Building 3C (Nitric Acid Recovery Tower Control House) is a single-level rectangular building measuring Approximately 26'x110'x14' high. Building 3C consists of a concrete floor and a structural steel frame with transite siding and roofing panels. The building is supported by a concrete foundation on grade.

Interior Asbestos Abatement

ACM piping will be removed by glovebag containments as follows 1) wrap all ACM pipe in two layers of 6 mil poly, 2) install glovebag and HEPA ventilation every 10 feet, 3) perform smoke test, 4) wet surfaces with amended water, 5) remove ACM using hand-held tools, 6) encapsulate exposed ends, 7) remove glove bag, 8) mechanically cut pipe at abated areas using band saw, reciprocating saw, or disassemble pipes at joints or fittings.

ACM Floor Tile will be removed by 1) applying amended water, 2) physically breaking the tiles using hand-held scrapers, 3) remove mastic by applying mastic dissolver and scouring the floor with a hand-held floor scrubber, 4) apply absorbent material (sawdust or cat litter) to remove any dissolved mastic.

The Contractor(s) shall size, segregate, and containerize the debris and move the container to the que area for disposition in the OSDF.

Equipment Dismantlement

Process- Related Materials will be dismantled by 1) HEPA vacuuming, wet wiping, and/or fixing any gross loose contamination off the exterior surfaces, 2) disconnect the piece of equipment by unbolting, sawing, or cutting with torch, 3) seal openings with 6 mil poly or tape, 4) if applicable, lower to the ground using forklift or bobcat, 5) move equipment to inspection area and potential decon.

Containments are not required for equipment/system removal in Building 3C.

Non-process piping, valves, conduit, cable, lighting, etc. will remain in the building during Structural Steel Removal.

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The Contractor(s) shall size, segregate, and wrap the process-related debris and move the container to the que area for disposition at ~~NTS~~ Envirocare. The Contractor(s) shall size, segregate, and containerize the non-process debris and move the container to the que area for disposition in the OSDF.

Transite Removal

Transite siding (2 layers of panels) would likely be removed by 1) spraying encapsulant on the interior and exterior of the panels using a hand-held sprayer by workers on ground or in a manlift, 2) manually detaching and collecting the fasteners (assumed lead metal), and 3) lowering the panels by hand if on ground level or, for elevated removal, lowering the panels using a scissor lift/elevated work platform.

Transite roofing (2 layers of panels) would likely be removed by 1) spraying encapsulant on the exterior side of the outer panels using a hand-held sprayer by workers on ground or in a manlift; 2) manually detaching and collecting the fasteners (assumed lead metal), and 3) lowering the outer panels using a scissor lift/knuckleboom, 4) spraying encapsulant on all previously unexposed surfaces of outer panels, 5) HEPA vacuuming dust residuals identified between exterior and interior panels, 6) spraying encapsulant on the exterior surfaces of the interior panel, 7) manually detaching and collecting the fasteners (assumed lead metal), and 3) lowering the interior panels using a scissor lift/knuckleboom.

Gutters and down spouts will be removed by 1) accessing using manlifts, 2) ACM contents wet with amended water, 3) ACM contents manually scooped out, 4) encapsulant applied to the cleaned gutter/spout, 5) disassembled at the joints using mechanical methods, and 6) lowered to the ground in the manlifts.

All lead material shall be segregated and placed into drums in accordance with the Material Segregation and Containerization Criteria requirements.

Windows will be removed by 1) applying tape to the glass, 2) removing the glazing material using a hand-held "chisel", and 3) lead frames will be removed manually in conjunction with window removal or non-lead frames may be removed during Structural Steel Removal.

Fiberglass or Mineral Wool Insulation (Batting) located between the interior and exterior transite panels will be removed by 1) spraying encapsulant to exposed surfaces, 2) manually rolling the insulation upon itself, 3) applying amended water for dust suppression, as needed.

The Contractor shall band panels together, place panels on a pallet, wrap the palletized panels in 6 mil poly, and move to the que area for disposition in the OSDF.

The Contractor(s) shall size, segregate, and containerize the gutter debris, batting, and windows and move the container to the que area for disposition in the OSDF.

Structural Dismantlement

Structural steel will be dismantled by shear.

The Contractor(s) shall size, segregate, and containerize the debris and move the container to the que area for disposition in the OSDF.

4.2) Quantification – Building 3C

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

5) Task #5 - Component 3D

5.1) Plan/Scope - Component 3D

Component 3D (Nitric Acid Recovery Towers) is a six-level open steel supported structure that is approximately 46'x60'x60' high. The ground floor of the structure is contained in a concrete diked area (not covered in acid brick) that is approximately 70'x108'. The upper five floors have steel decking as flooring.

Interior Asbestos Abatement

ACM piping will be removed by glovebag containments as follows 1) wrap all ACM pipe in two layers of 6 mil poly, 2) install glovebag and HEPA ventilation every 10 feet, 3) perform smoke test, 4) wet surfaces with amended water, 5) remove ACM using hand-held tools, 6) encapsulate exposed ends, 7) remove glove bag, 8) mechanically cut pipe at abated areas using band saw, reciprocating saw, or disassemble pipes at joints or fittings.
The Contractor(s) shall size, segregate, and containerize the debris and move the container to the que area for disposition in the OSDF.

Equipment Dismantlement

Process- Related Materials will be dismantled by 1) HEPA vacuuming, wet wiping, and/or fixing any gross loose contamination off the exterior surfaces, 2) disconnect the piece of equipment by unbolting, sawing, or cutting with torch, 3) seal openings with 6 mil poly or tape, 4) if applicable, lower to the ground using forklift, bobcat, or crane, 5) move equipment to inspection area and potential decon.

Tanks and vessels will sheared during structural demolition using water spray for dust control and the concrete diked area for runoff control.

Containments are not required for equipment/system removal in Building 3D.

Non-process piping, valves, conduit, cable, lighting, etc. will also remain intact until Structural Steel Removal.

R1-F02-012

The Contractor(s) shall size, segregate, and wrap the process-related debris and move the container to the que area for disposition at ~~NTS~~ Envirocare. The Contractor(s) shall size, segregate, and containerize the non-process debris and move the container to the que area for disposition in the OSDF.

Structural Dismantlement

Structural steel, stairs, ladders, and steel decking will be dismantled by shear.

The Contractor(s) shall size, segregate, and containerize the debris and move the container to the que area for disposition in the OSDF.

5.2) Quantification – Component 3D

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

6) Task #6 - Building 3E

6.1) Plan/Scope – Building 3E

Building 3E (Hot Raffinate Building) is a three story irregularly shaped concrete building measuring approximately 50'x90'x60' high at its greatest dimension. The building consists of cast in place concrete construction with heavy concrete walls and double pane water filled windows. The building has concrete flooring and is supported by a concrete foundation extending below and above grade elevation. The building also contains transite and a built up roof.

Interior Asbestos Abatement

ACM piping will be removed by glovebag containments as follows 1) wrap all ACM pipe in two layers of 6 mil poly, 2) install glovebag and HEPA ventilation every 10 feet, 3) perform smoke test, 4) wet surfaces with amended water, 5) remove ACM using hand-held tools, 6) encapsulate exposed ends, 7) remove glove bag, 8) mechanically cut pipe at abated areas using band saw, reciprocating saw, or disassemble pipes at joints or fittings.

The Contractor(s) shall size, segregate, and containerize the debris and move the container to the que area for disposition in the OSDF.

Equipment Dismantlement

Process- Related Materials will be dismantled by 1) HEPA vacuuming, wet wiping, and/or fixing any gross loose contamination off the exterior surfaces, 2) disconnect the piece of equipment by unbolting, sawing, or cutting with torch, 3) seal openings with 6 mil poly or

tape, 4) if applicable, lower to the ground using forklift or bobcat, 5) move equipment to inspection area and potential decon.

Containments are not required for equipment/system removal in Building 3E.

Non-process piping, valves, conduit, cable, lighting, etc. will remain in the building during Structural Steel Removal.

R1-F02-012

The Contractor(s) shall size, segregate, and wrap the process-related debris and move the container to the que area for disposition at ~~NTS~~ Envirocare. The Contractor(s) shall size, segregate, and containerize the non-process debris and move the container to the que area for disposition in the OSDF.

Release Cleaning will be performed by 1) HEPA vacuuming and/or wet wipe any loose contamination or residuals, 2) using high pressure, low volume water washing, 3) applying fixitive to areas which do not meet the release cleaning criteria.

R1-F02-011

There are two areas of concrete located on the first floor of the Hot Raffinate Building that are considered Hazardous Waste Management Unit (HWMU) areas. The HWMU areas shall be decontaminated in accordance with Specification Section 01517. ~~The Site Support~~ Contractor shall wash the areas and collect effluent separately. The ~~Site Support~~ Contractor shall perform washing of the areas until the analytical results indicate that the closure limits have been met. Upon approval from FDF, the ~~Site Support~~ Contractor shall combine effluent with other decon washwaters ~~and~~ for transport water to AWWT by Fluor Fernald.

R1-F02-011

R1-F02-050

Acid Brick will be removed by 1) manually breaking and removing a few brick to create access using a spud bar, 2) removing acid bricks one at a time by hand, 3) dampening surfaces with water to minimize airborne dust, 4) using HEPA vacuum to remove particulates, 5) maintaining localized HEPA ventilation near the work area.

Transite Removal

Transite siding (2 layers of panels) would likely be removed by 1) spraying encapsulant on the interior and exterior of the panels using a hand-held sprayer by workers on ground or in a manlift, 2) manually detaching and collecting the fasteners (assumed lead metal), and 3) lowering the panels by hand if on ground level or, for elevated removal, lowering the panels using a scissor lift/elevated work platform.

Transite roofing (2 layers of panels) would likely be removed by 1) spraying encapsulant on the exterior side of the outer panels using a hand-held sprayer by workers on ground or in a manlift; 2) manually detaching and collecting the fasteners (assumed lead metal), and 3) lowering the outer panels using a scissor lift/knuckleboom, 4) spraying encapsulant on all previously unexposed surfaces of outer panels, 5) HEPA vacuuming dust residuals identified between exterior and interior panels, 6) spraying encapsulant on the exterior

surfaces of the interior panel, 7) manually detaching and collecting the fasteners (assumed lead metal), and 3) lowering the interior panels using a scissor lift/knuckleboom

Built-Up Roofing (assumed non-friable/Class II removal) will be removed by 1) wetting surfaces and applying HEPA vacuums, 2) mechanically cutting the roof into manageable pieces by using electric saws (circular or reciprocating), 3) wrapping the roof pieces in 6 mil poly, 4) lowering the pieces to the ground using manlift.

Gutters and down spouts will be removed by 1) accessing using manlifts, 2) ACM contents wet with amended water, 3) ACM contents manually scooped out, 4) encapsulant applied to the cleaned gutter/spout, 5) disassembled at the joints using mechanical methods, and 6) lowered to the ground in the manlifts.

All lead material shall be segregated and placed into drums in accordance with the Material Segregation and Containerization Criteria requirements.

Double Pane Windows will be removed by 1) applying tape to the glass, 2) removing the glazing material using a hand-held "chisel", and 3) lead frames will be removed manually in conjunction with window removal or non-lead frames may be removed during Structural Steel Removal.

Fiberglass or Mineral Wool Insulation (Batting) located between the interior and exterior transite panels will be removed by 1) spraying encapsulant to exposed surfaces, 2) manually rolling the insulation upon itself, 3) applying amended water for dust suppression, as needed.

The Contractor shall band panels together, place panels on a pallet, wrap the palletized panels in 6 mil poly, and move to the que area for disposition in the OSDF.

The Contractor(s) shall size, segregate, and containerize the gutter debris, batting, built-up roofing, and windows and move the container to the que area for disposition in the OSDF.

Structural Dismantlement

Above-grade concrete walls will be removed by 1) administering water spray to wet the concrete before and during dismantlement, 2) use hoe ram or shears to dismantle and size reduce using pushover techniques, and 3) shear steel reinforcements, as needed.

Structural steel will be dismantled by shear.

The Contractor(s) shall size, segregate, and containerize the debris and move the container to the que area for disposition in the OSDF.

6.2) Quantification – Building 3E

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

7) Task #7 - Component 3J

7.1) Plan/Scope – Component 3J

Component 3J (Combined Raffinate Tanks) is an outdoor multilevel tank farm area consisting of (17) seventeen vertical tanks measuring 39'x169"X 20' high. Beneath the tanks is a concrete pad and dike covered with acid brick. The tanks are stainless steel and the majority are covered with a cement coating. The tanks, connection piping, catwalks, and stairs are supported by structural steel members of various sizes.

Interior Asbestos Abatement

ACM piping will be removed by glovebag containments as follows 1) wrap all ACM pipe in two layers of 6 mil poly, 2) install glovebag and HEPA ventilation every 10 feet, 3) perform smoke test, 4) wet surfaces with amended water, 5) remove ACM using hand-held tools, 6) encapsulate exposed ends, 7) remove glove bag, 8) mechanically cut pipe at abated areas using band saw, reciprocating saw, or disassemble pipes at joints or fittings.

The Contractor(s) shall size, segregate, and containerize the debris and move the container to the que area for disposition in the OSDF.

Equipment Dismantlement

Process- Related Materials will be dismantled by 1) HEPA vacuuming, wet wiping, and/or fixing any gross loose contamination off the exterior surfaces, 2) disconnect the piece of equipment by unbolting, sawing, or cutting with torch, 3) seal openings with 6 mil poly or tape, 4) if applicable, lower to the ground using forklift, bobcat, or crane, 5) move equipment to inspection area and potential decon.

Tanks and vessels will sheared during structural demolition using water spray for dust control and the acid brick diked area for runoff control.

Containments are not required for equipment/system removal in Building 3J.

Non-process piping, valves, conduit, cable, lighting, etc. will also remain intact until Structural Steel Removal.

The Contractor(s) shall size, segregate, and wrap the process-related debris and move the container to the que area for disposition at Envirocare. The Contractor(s) shall size,

segregate, and containerize the non-process debris and move the container to the que area for disposition in the OSDF.

Acid Brick will be removed by 1) manually breaking and removing a few brick to create access using a spud bar, 2) removing acid bricks one at a time by hand, 3) dampening surfaces with water to minimize airborne dust, 4) using HEPA vacuum to remove particulates, 5) maintaining localized HEPA ventilation near the work area.

The Contractor(s) shall size, segregate, and containerize the debris and move the container to the que area at the construction zone boundary.

Structural Dismantlement

Structural steel, stairs, ladders, and steel decking will be dismantled by shear.

The Contractor(s) shall size, segregate, and containerize the debris and move the container to the que area for disposition in the OSDF.

7.2) Quantification – Component 3J

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

8) Task #8 – Component 3K

8.1) Plan/Scope – Component 3K

Component 3K (Old Cooling Water Tower) formerly was a one story, redwood structure measuring approximately 30'x50'. The wooden tower has been removed, leaving at grade and below-grade structure consisting of a concrete basin and a diked pad. Some of the mechanical components remain consisting of lights, conduit, piping, valves, electrical enclosures and support steel. D&D will consist of removing the components.

Interior Asbestos Abatement

ACM piping will be removed by glovebag containments as follows 1) wrap all ACM pipe in two layers of 6 mil poly, 2) install glovebag and HEPA ventilation every 10 feet, 3) perform smoke test, 4) wet surfaces with amended water, 5) remove ACM using hand-held tools, 6) encapsulate exposed ends, 7) remove glove bag, 8) mechanically cut pipe at abated areas using band saw, reciprocating saw, or disassemble pipes at joints or fittings.

The Contractor(s) shall size, segregate, and containerize the debris and move the container to the que area for disposition in the OSDF.

Structural and Equipment Dismantlement

All equipment and systems remaining are non-process which will be removed using mechanical means. The tower and all systems will be dismantled by shear.

8.2) Quantification – Component 3K

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

9) Task #9 - Building 39A

9.1) Plan/Scope - Building 39A

Building 39A (Incinerator Building) is a two story square structure measuring 53'x53'x25' high. The building consists of a structural steel frame enclosed with interior and exterior transite siding along with a double layer insulation between the transite roof panels. The building is supported by a concrete foundation extending below -and above- grade level with a finished concrete floor.

Equipment Dismantlement

Construct vestibule.

Establish release cleaning/decon area inside the building.

Process- Related Materials will be dismantled by 1) HEPA vacuuming, wet wiping, and/or fixing any gross loose contamination off the exterior surfaces, 2) disconnect the piece of equipment by unbolting, sawing, or cutting with torch, 3) seal openings with 6 mil poly or tape, 4) if applicable, lower to the ground using forklift or bobcat, 5) move equipment to inspection area and potential decon.

Containments are not required for equipment/system removal in Building 39A.
Non-process piping, valves, conduit, cable, lighting, etc. will remain in the building during Structural Steel Removal.

The Contractor(s) shall size, segregate, and wrap the process-related debris and move the container to the que area for disposition at Envirocare. The Contractor(s) shall size, segregate, and containerize the non-process debris and move the container to the que area for disposition in the OSDF.

Acid Brick will be removed by 1) manually breaking and removing a few brick to create access using a spud bar, 2) removing acid bricks one at a time by hand, 3) dampening surfaces with water to minimize airborne dust, 4) using HEPA vacuum to remove particulates, 5) maintaining localized HEPA ventilation near the work area.

Release Cleaning will be performed by 1) HEPA vacuuming and/or wet wipe any loose contamination or residuals, 2) using high pressure, low volume water washing, 3) applying fixitive to areas which do not meet the release cleaning criteria.

Transite Removal

Transite siding (1 layer of panel) would likely be removed by 1) spraying encapsulant on the interior and exterior of the panels using a hand-held sprayer by workers on ground or in a manlift, 2) manually detaching and collecting the fasteners (assumed lead metal), and 3) lowering the panels by hand if on ground level or, for elevated removal, lowering the panels using a scissor lift/elevated work platform.

Transite roofing (1 layer of panel) would likely be removed by 1) spraying encapsulant on the exterior side of the outer panels using a hand-held sprayer by workers on ground or in a manlift; 2) manually detaching and collecting the fasteners (assumed lead metal), and 3) lowering the outer panels using a scissor lift/knuckleboom, 4) spraying encapsulant on all previously unexposed surfaces of outer panels, 5) HEPA vacuuming dust residuals identified between exterior and interior panels, 6) spraying encapsulant on the exterior surfaces of the interior panel, 7) manually detaching and collecting the fasteners (assumed lead metal), and 3) lowering the interior panels using a scissor lift/knuckleboom,

Gutters and down spouts will be removed by 1) accessing using manlifts, 2) ACM contents wet with amended water, 3) ACM contents manually scooped out, 4) encapsulant applied to the cleaned gutter/spout, 5) disassembled at the joints using mechanical methods, and 6) lowered to the ground in the manlifts.

All lead material shall be segregated and placed into drums in accordance with the Material Segregation and Containerization Criteria requirements.

Windows will be removed by 1) applying tape to the glass, 2) removing the glazing material using a hand-held "chisel", and 3) lead frames will be removed manually in conjunction with window removal or non-lead frames may be removed during Structural Steel Removal.
The Contractor shall band panels together, place panels on a pallet, wrap the palletized panels in 6 mil poly, and move to the que area for disposition in the OSDF.

The Contractor(s) shall size, segregate, and containerize the gutter debris, batting, and windows and move the container to the que area for disposition in the OSDF.

Structural Dismantlement

Above-grade concrete walls will be removed by 1) administering water spray to wet the concrete before and during dismantlement, 2) use hoe ram or shears to dismantle and size reduce using pushover techniques, and 3) shear steel reinforcements, as needed.

The Contractor(s) shall size, segregate, and containerize the debris and move the container to the que area at the construction zone boundary.

Structural steel will be dismantled by shear.

The Contractor(s) shall size, segregate, and containerize the debris and move the container to the que area for disposition in the OSDF.

9.2) Quantification - Building 39A

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

10) Task #10 - Component 22E

10.1) Plan/Scope - Component 22E

Component 22E is the trench used in the pumping of high-radium raffinate slurry from the Hot Raffinate Building (Building 3E) to K-65 Silos 1 and 2. Also, decant from the K-65 Silos was returned through the trench and collected in the tank located on the northwestern corner of Building 3E before being transferred for treatment.

Equipment Dismantlement

Process- Related Materials will be dismantled by 1) HEPA vacuuming, wet wiping, and/or fixing any gross loose contamination off the exterior surfaces, 2) disconnect the piece of equipment by unbolting, sawing, or cutting with torch, 3) seal openings with 6 mil poly or tape, 4) if applicable, lower to the ground using forklift or bobcat, 5) move equipment to inspection area and potential decon.

Containments are not required for equipment/system removal in Component 22E.

The Contractor(s) shall size, segregate, and wrap the process-related debris and move the container to the que area for disposition at Envirocare. The Contractor(s) shall size, segregate, and containerize the non-process debris and move the container to the que area for disposition in the OSDF.

Release Cleaning will be performed by 1) HEPA vacuuming and/or wet wipe any loose contamination or residuals, 2) using high pressure, low volume water washing, 3) applying fixitive to areas which do not meet the release cleaning criteria.

Structural Dismantlement

No structural dismantlement is required.

10.2) Quantitative - Component 22E

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

11) Task #11 - Demobilization

11.1) Plan/Scope – Demobilization

Demobilization includes the following activities:

- Decontaminate equipment (heavy equipment)
- Remove temporary fencing
- Remove asbestos trailer, tool trailer, office trailer, temporary utilities
- Complete punchlist items. Trim rebar, grout remaining openings, gravel open areas, clean up debris

11.2) Quantification – Demobilization

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

1.5.3 BFDDS - D&D Subcontract – General Sump

This D&D scope of work will be issued as a task order to the D&D Closure Project contract. This task includes premobilization, mobilization, Building 2B D&D, Building 2C D&D, Component 3H D&D, Component 18B D&D, Component 18D D&D, Building 18H D&D, Building 3A D&D, Building 3L D&D, miscellaneous pipes and racks D&D and demobilization. This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor FTEs are presented in Section 3, and estimated quantities are presented in Section 4.

1) Task #1 - Premobilization

1.1) Plan/Scope – Premobilization

Premobilization includes preparation and submittal of all documentation necessary to begin mobilization activities.

The Sub-Contractor shall submit the following pre-mob submittals prior to "Authorization to Mobilize" and after issuance of the Task Order:

- Insurance certificate
- List of sub-tier contractors
- PLA letter of assent & verification of pre-job meeting
- Pay Item schedule of values
- Baseline/manpower loaded schedule
- Letter Contractor will abide by FDF PSHSP & addendum to PSHSP
- Substance abuse program
- Hearing conservation program plan
- Behavior based safety program
- QA/QC program plan
- 10 hour site safety training
- HAZWOPER training with OSHA supervised field experience form
- Mobilization SWP
- Waste handling SWP
- Temporary facilities SWP
- Temporary utilities SWP

1.2) Quantification - Premobilization

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

2) Task #2 - Mobilization

2.1) Plan/Scope – Mobilization

Mobilization includes field preparation activities, preparation of submittal documentation and building preparation.

Field preparation consists of the following activities:

- Install temporary portable toilets

- Install asbestos trailer (1 singlewide), water (with 5 micron filter dump to sewer), (heat traced) sewer (heat traced)

- Install temporary utilities – tie into substation in Building 36 water point source at low pressure fire protection system, connect to sanitary sewer at 101st & "B".

- Install construction zone fencing – 4' orange fencing (majority of zone has existing 4' wire fencing)

- Conduct alignment meeting

- Perform engineering survey – structural and floor loading in accordance with OSHA 1926.850

- Mobilize equipment – fork truck, pick-up truck, skid steer, track-mounted shear, back hoe, man-lift, scissor-lift, HEPA vacuums, air filtration devices, turnover-government furnished equipment, etc.

Submittal documentation consists of the following:

- Safe Work Plans
- Training Records
- MSDS
- Engineering Surveys
- Other documents as necessary.

Building preparation consists of the following:

- Construction of vestibules
- Construction of Cool down areas
- Construction of Wash down areas

2.2) Quantification – Mobilization

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

3) Task #3 - Building 2B

3.1) Plan/Scope – Building 2B

Building 2B is a two-story building comprising an older original building with a newer annex attached to the south side. It consists of a concrete first floor and metal diamond plate second floor; it was constructed with a structural steel frame and transite panels for walls and roof. The older part of 2B is approximately 39 x 43 feet and contains several tanks, transfer lines, and an electrical panel. The newer annex holds a laboratory facility to support the refinery sump and is approximately 20 x 20 feet with a concrete floor covered with floor tile on the first floor and only concrete on the second floor. The walls consist of structural steel and wall board. The ceiling on the first floor is metal decking, while the second floor has metal decking covered with fiberglass insulation.

Interior Asbestos Abatement

ACM piping will be removed by glovebag containments as follows: 1) wrap all ACM pipe in two layers of 6 mil poly; 2) install glovebag and HEPA ventilation every 10 feet; 3)

perform smoke test; 4) wet surfaces with amended water; 5) remove ACM using hand-held tools; 6) encapsulate exposed ends; 7) remove glove bag; and 8) mechanically cut pipe at abated areas using band saw, reciprocating saw, or disassemble pipes at joints or fittings.

The Contractor(s) shall size, segregate, and containerize the debris and move the containers to the queue area for disposition in the OSDF. If any process-related piping or equipment fails the visual inspection criteria, it will be packaged for off-site disposal at NTS.

Equipment/System Removal

Process-related debris is not anticipated in this building; containments are not required for equipment/system removal in Building 2B.

Non-process piping, valves, conduit, cable, lighting, etc. will remain in the building during Structural Steel Removal.

Wallboard will be removed by: 1) manually detaching the fasteners; and 2) lowering the panels by hand if on ground level, or for elevated removal, lowering the panels using an elevated work platform.

Non-ACM floor tile will be removed by: 1) physically breaking the tiles using a hand-held scraper; 2) removing mastic by applying mastic dissolver and scouring the floor with a hand-held floor scrubber; 3) applying absorbent material (sawdust or cat litter) to remove and undissolved mastic; and 4) shoveling the absorbent into containers.

The Contractor(s) shall size, segregate, and containerize the non-process debris and move the container to the queue area for disposition in the OSDF.

Mansonry/Concrete Removal

Above-grade concrete walls will be removed by 1) administering water spray to wet the concrete before and during dismantlement, 2) use hoe ram or shears to dismantle and size reduce using pushover techniques, and 3) shear steel reinforcements, as needed.

The Contractor(s) shall size, segregate, and containerize the debris and move the containers to the queue area for disposition in the OSDF.

Transite Removal

Transite siding (1 layer of panels) would likely be removed by: 1) spraying encapsulant on the interior and exterior of the panels using a hand-held sprayer by workers on ground or in a manlift; 2) manually detaching and collecting the fasteners (assumed lead metal); and 3) lowering the panels by hand if on ground level or, for elevated removal, lowering the panels using a scissor lift/elevated work platform.

Transite roofing (1 layer of panels) would likely be removed by: 1) spraying encapsulant on the exterior side of the panels using a hand-held sprayer by workers on ground or in a manlift; 2) manually detaching and collecting the fasteners (assumed lead metal); 3) lowering the outer panels using a scissor lift/knuckleboom; and 4) spraying encapsulant on all previously unexposed surfaces of panels.

Gutters and down spouts will be removed by: 1) accessing using manlifts; 2) ACM contents wet with amended water; 3) ACM contents manually scooped out; 4) encapsulant applied to the cleaned gutter/spout; 5) disassembled at the joints using mechanical methods; and 6) lowered to the ground in the manlifts.

All lead material shall be segregated and placed into drums in accordance with the Material Segregation and Containerization Criteria requirements.

Windows will be removed by: 1) applying tape to the glass; 2) removing the glazing material using a hand-held "chisel"; and 3) lead frames will be removed manually in conjunction with window removal or non-lead frames may be removed during Structural Steel Removal.

Fiberglass or Mineral Wool Insulation (Batting) located between the interior and exterior transite panels will be removed by: 1) spraying encapsulant to exposed surfaces; 2) manually rolling the insulation upon itself; and 3) applying amended water for dust suppression, as needed.

The Contractor shall band panels together, place panels on a pallet, wrap the palletized panels in 6 mil poly, and move to the queue area for disposition in the OSDF.

The Contractor(s) shall size, segregate, and containerize the debris, move the containers to the queue area for disposition in the OSDF.

Structural and Equipment Dismantlement

Above-grade concrete walls will be removed by 1) administering water spray to wet the concrete before and during dismantlement, 2) use hoe ram or shears to dismantle and size reduce using pushover techniques, and 3) shear steel reinforcements, as needed.

The Contractor(s) shall size, segregate, and containerize the debris and move the containers to the queue area for disposition in the OSDF.

3.2) Quantification – Building 2B

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

4) Task #4 - Building 2C

4.1) Plan/Scope – Building 2C

Building 2C is a three-level building; the first and third levels of the building are rectangular, with dimensions 17 x 28 x 10 feet. The second level constitutes a steel silo that is 50 feet tall and 18 feet wide. Building 2C has a structural steel frame, transite siding and roofing, and a concrete foundation. Building 2C had one wet process area, bulk lime handling, which produced a lime slurry for processes in Plant 2A. Bulk lime was received in the silo a vacuum pump filled the silo with lime. The silo released the lime to the lime slaker, where water was added to create the slurry. The slurry was then transferred to the break tank for agitating and pumped to a holding tank north of Plant 2A.

Interior Asbestos Abatement

ACM piping will be removed by glovebag containments as follows: 1) wrap all ACM pipe in two layers of 6 mil poly; 2) install glovebag and HEPA ventilation every 10 feet; 3) perform smoke test; 4) wet surfaces with amended water; 5) remove ACM using hand-held tools; 6) encapsulate exposed ends; 7) remove glove bag; and 8) mechanically cut pipe at abated areas using band saw, reciprocating saw, or disassemble pipes at joints or fittings.

ACM tile will also be removed; being very careful not to break the tile prior to removal and keeping the surfaces wet with amended water.

Cubicle or temporary walls and carpet will be removed.

The contractor will size, segregate, and containerize the debris and move the containers to the queue area for disposition in the OSDF.

Equipment Dismantlement

Process-related debris is not anticipated in this building; containments are not required for equipment/system removal in Building 2C.

Non-process piping, valves, conduit, cable, lighting, etc. will remain in the building during structural steel removal.

The silo will sheared during structural demolition using water spray for dust control.

The contractor will size and containerize the remaining commingled debris and move the containers to the queue area for disposition in the OSDF.

Transite Removal

Transite siding (1 layer of panels) would likely be removed by: 1) spraying encapsulant on the interior and exterior of the panels using a hand-held sprayer by workers on ground or in a manlift; 2) manually detaching and collecting the fasteners (assumed lead metal); and 3) lowering the panels by hand if on ground level or, for elevated removal, lowering the panels using a scissor lift/elevated work platform.

Transite roofing (1 layer of panels) would likely be removed by: 1) spraying encapsulant on the exterior side of the panels using a hand-held sprayer by workers on ground or in a manlift; 2) manually detaching and collecting the fasteners (assumed lead metal); 3) lowering the outer panels using a scissor lift/knuckleboom; and 4) spraying encapsulant on all previously unexposed surfaces of panels.

Gutters and down spouts will be removed by: 1) accessing using manlifts; 2) ACM contents wet with amended water; 3) ACM contents manually scooped out; 4) encapsulant applied to the cleaned gutter/spout; and 5) disassembled at the joints using mechanical methods, and 6) lowered to the ground in the manlifts.

All lead material shall be segregated and placed into drums in accordance with the Material Segregation and Containerization Criteria requirements.

Windows will be removed by: 1) applying tape to the glass; 2) removing the glazing material using a hand-held "chisel"; and 3) lead frames will be removed manually in conjunction with window removal or non-lead frames may be removed during structural steel removal.

Fiberglass or Mineral Wool Insulation (Batting) located between the interior and exterior transite panels will be removed by: 1) spraying encapsulant to exposed surfaces; 2) manually rolling the insulation upon itself; and 3) applying amended water for dust suppression, as needed.

The Contractor shall band panels together, place panels on a pallet, wrap the palletized panels in 6 mil poly, and move to the queue area for disposition in the OSDF.

The Contractor(s) shall size, segregate, and containerize the debris, move the containers to the queue area for disposition in the OSDF.

Structural and Equipment Dismantlement

Structural steel, non-process equipment, and decking will be dismantled by shear.

The contractor will size and containerize the remaining commingled debris and move the containers to the queue area for disposition in the OSDF.

4.2) Quantification – Component 2C

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

5) Task #5 - Component 3H

5.1) Plan/Scope – Component 3H

Component 3H provided treatment of contaminated effluents from Plant 2A with magnesium oxide to precipitate uranium. The Refinery Sump is comprised of six tanks and is located outside in an acid brick containment area measuring 55 x 100 feet.

Interior Asbestos Abatement

ACM piping will be removed by glovebag containments as follows: 1) wrap all ACM pipe in two layers of 6 mil poly; 2) install glovebag and HEPA ventilation every 10 feet; 3) perform smoke test; 4) wet surfaces with amended water; 5) remove ACM using hand-held tools; 6) encapsulate exposed ends; 7) remove glove bag; and 8) mechanically cut pipe at abated areas using band saw, reciprocating saw, or disassemble pipes at joints or fittings.

The Contractor(s) shall size, segregate, and containerize the debris and move the containers to the queue area for disposition in the OSDF.

Equipment System Removal

Process- Related Materials will be dismantled by: 1) HEPA vacuuming, wet wiping, and/or fixing any gross loose contamination off the exterior surfaces; 2) disconnect the piece of equipment by unbolting, sawing, or cutting with torch; 3) seal openings with 6 mil poly or tape; 4) if applicable, lower to the ground using forklift, bobcat, or crane; and 5) move equipment to inspection area and potential decontamination.

Tanks and vessels will sheared during structural demolition using water spray for dust control and the acid brick diked area for runoff control.

Containments are not required for equipment/system removal in Building 3H.
The Contractor(s) shall size, segregate, and wrap the process-related debris and move the containers to the queue area for disposition at OSDF. The Contractor(s) shall size, segregate, and containerize the non-process debris and move the containers to the queue area for disposition in the OSDF.

Acid Brick Removal

Acid Brick will be removed by: 1) manually breaking and removing a few brick to create access using a spud bar; 2) removing acid bricks one at a time by hand; 3) dampening surfaces with water to minimize airborne dust; 4) using HEPA vacuum to remove particulates; and 5) maintaining localized HEPA ventilation near the work area.

The Contractor(s) shall size, segregate, and containerize the debris and move the containers to the queue area at the construction zone boundary.

Structural and Equipment Dismantlement

Structural steel, stairs, ladders, and steel decking will be dismantled by shear.

The Contractor(s) shall size, segregate, and containerize the debris and move the containers to the queue area for disposition in the OSDF.

5.2) Quantification – Component 3H

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

6) Task #6 - Component 18B

6.1) Plan/Scope – Component 18B

Component 18B provided treatment of contaminated site effluents other than sewage. The General Sump is comprised of 16 tanks; most of the tanks are located outside in four separate concrete containment areas. The open area that makes up Component 18B is approximately 113 x 116 feet.

Interior Asbestos Abatement

ACM piping will be removed by glovebag containments as follows: 1) wrap all ACM pipe in two layers of 6 mil poly; 2) install glovebag and HEPA ventilation every 10 feet; 3) perform smoke test; 4) wet surfaces with amended water; 5) remove ACM using hand-held tools; 6) encapsulate exposed ends; 7) remove glove bag; and 8) mechanically cut pipe at abated areas using band saw, reciprocating saw, or disassemble pipes at joints or fittings.

The Contractor(s) shall size, segregate, and containerize the debris and move the containers to the queue area for disposition in the OSDF.

Equipment System Removal

Process- Related Materials will be dismantled by: 1) HEPA vacuuming, wet wiping, and/or fixing any gross loose contamination off the exterior surfaces; 2) disconnect the piece of equipment by unbolting, sawing, or cutting with torch; 3) seal openings with 6 mil poly or tape; 4) if applicable, lower to the ground using forklift, bobcat, or crane; and 5) move equipment to inspection area and potential decontamination.

Tanks and vessels will sheared during structural demolition using water spray for dust control and the acid brick diked area for runoff control.

Containments are not required for equipment/system removal in Building 18B.

The Contractor(s) shall size, segregate, and wrap the process-related debris and move the containers to the queue area for disposition at NTS. The Contractor(s) shall size, segregate, and containerize the non-process debris and move the containers to the queue area for disposition in the OSDF.

HWMU #48 Cleaning

There is an area of concrete located under the UNH Tanks that is considered a Hazardous Waste Management Unit (HWMU #48). The HWMU area shall be decontaminated in accordance with Specification Section 01517. The Site Contractor shall wash the areas and collect effluent separately. The Contractor shall wash the areas until the analytical results indicate that the closure limits have been met. Fluor Fernald will collect a sample and perform laboratory analysis. Upon approval from Fluor Fernald, the Contractor shall combine effluent with other decontamination washwaters and transport water to AWWT.

Structural and Equipment Dismantlement

Structural steel, stairs, ladders, and steel decking will be dismantled by shear.

The Contractor(s) shall size, segregate, and containerize the debris and move the containers to the queue area for disposition in the OSDF.

6.2) Quantification – Component 18B

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

7) Task #7 - Building 18D

7.1) Plan/Scope - Building 18D

Building 18D is a multi-level (six floor) building. It is irregularly shaped, measuring approximately 72 x 79 x 67 feet high and consists of a structural steel frame on a poured concrete base and floor with non-insulated, corrugated metal siding and roofing. One Process Area was identified for Building 18D; high nitrate waste waters that were collected in the BDN Surge Lagoon were mixed with methanol and fed to Building 18D. The waste waters flowed through the towers, fluidizing coal particles that had bacteria attached, decomposing, and releasing CO2 and N2 off the top of the towers.

Interior Asbestos Abatement

ACM piping will be removed by glovebag containments as follows: 1) wrap all ACM pipe in two layers of 6 mil poly; 2) install glovebag and HEPA ventilation every 10 feet; 3) perform smoke test; 4) wet surfaces with amended water; 5) remove ACM using hand-held tools; 6) encapsulate exposed ends; 7) remove glove bag; and 8) mechanically cut pipe at abated areas using band saw, reciprocating saw, or disassemble pipes at joints or fittings.

The contractor will size, segregate, and containerize the debris and move the containers to the queue area for disposition in the OSDF.

Equipment/System Dismantlement

Process- Related Materials will be dismantled by: 1) HEPA vacuuming, wet wiping, and/or fixing any gross loose contamination off the exterior surfaces; 2) disconnect the piece of equipment by unbolting, sawing, or cutting with torch; 3) seal openings with 6 mil poly or tape; 4) if applicable, lower to the ground using forklift, bobcat, or crane; and 5) move equipment to inspection area and decontamination.

If any process-related piping or equipment fails the visual inspection criteria, it will be packaged for off-site disposal at Envirocare.

Tanks and vessels will be sheared during structural demolition using water spray for dust control and the acid brick diked area for runoff control.

Containments are not required for equipment/system removal in Building 18D.

The Contractor(s) shall size, segregate, and containerize the non-process debris and move the containers to the queue area for disposition in the OSDF.

Structural Dismantlement

Structural steel, siding, stairs, ladders, and steel decking will be dismantled by shear.

The Contractor(s) shall size, segregate, and containerize the debris and move the containers to the queue area for disposition in the OSDF.

Non-process piping, valves, conduit, cable, lighting, non-ACM floor tile, etc. will remain in the building during dismantlement of the structure.

8) Task #8 - Building 18H

8.1) Plan/Scope - Building 18H

Building 18H is a single story structure which consists of a reinforced concrete floor and steel frame, as well as metal siding and roofing. The approximate dimensions are 30 x 15 x 15 feet in height. Process effluent from the Biodenitrification Towers was received in Building 18H for further treatment through chlorination and aeration. The equipment housed in Building 18H includes electrical pumps, chlorinators, process tanks, air compressors, aerators, and a filter press. The equipment located along the southwest interior wall was controlled as a radiological contamination area.
It is assumed that the in-vivo equipment is salvageable and will be removed prior to turnover of the building to the D&D project. Any equipment left behind will be considered waste for removal and disposal.

Interior Asbestos Abatement

ACM piping will be removed by glovebag containments as follows: 1) wrap all ACM pipe in two layers of 6 mil poly; 2) install glovebag and HEPA ventilation every 10 feet; 3) perform smoke test; 4) wet surfaces with amended water; 5) remove ACM using hand-held tools; 6) encapsulate exposed ends; 7) remove glove bag; and 8) mechanically cut pipe at abated areas using band saw, reciprocating saw, or disassemble pipes at joints or fittings.

The contractor will size, segregate, and containerize the debris and move the containers to the queue area for disposition in the OSDF

Equipment/System Dismantlement

Process- Related Materials will be dismantled by: 1) HEPA vacuuming, wet wiping, and/or fixing any gross loose contamination off the exterior surfaces; 2) disconnect the piece of equipment by unbolting, sawing, or cutting with torch; 3) seal openings with 6 mil poly or tape; 4) if applicable, lower to the ground using forklift, bobcat, or crane; and 5) move equipment to inspection area and potential decontamination.

Tanks and vessels will sheared during structural demolition using water spray for dust control and the acid brick diked area for runoff control.

Containments are not required for equipment/system removal in Building 18H.

The Contractor(s) shall size, segregate, and wrap the process-related debris and move the containers to the queue area for disposition at OSDF. The Contractor(s) shall size, segregate, and containerize the non-process debris and move the containers to the queue area for disposition in the OSDF.

Structural Dismantlement

Structural steel, siding, stairs, ladders, and steel decking, will be dismantled by shear.

The contractor will size and containerize the remaining commingled debris and move the containers to the queue area for disposition in the OSDF.

8.2) Quantification – Building 18H

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

9) Task #9 - Building 3A

9.1) Plan/Scope - Building 3A

Building 3A is a single story, square building measuring approximately 60 x 60 x 14 feet high. Building 3A has a structural steel frame, with transite panels covering cinder block walls, and a concrete floor. The building is one room, except for office space along the east wall and two small steel-frame mezzanines. The building is currently used for offices and storage space.

Interior Asbestos Abatement

ACM piping will be removed by glovebag containments as follows: 1) wrap all ACM pipe in two layers of 6 mil poly; 2) install glovebag and HEPA ventilation every 10 feet; 3) perform smoke test; 4) wet surfaces with amended water; 5) remove ACM using hand-held tools; 6) encapsulate exposed ends; 7) remove glove bag; and 8) mechanically cut pipe at abated areas using band saw, reciprocating saw, or disassemble pipes at joints or fittings.

The Contractor(s) shall size, segregate, and containerize the debris and move the containers to the queue area for disposition in the OSDF.

Equipment/System Dismantlement

No process-related materials are anticipated in this facility. Most equipment/systems may remain in the facility during structural demolition.

The Contractor(s) shall size, segregate, and containerize the non-process debris and move the containers to the queue area for disposition in the OSDF.

Transite Removal

Transite siding (1 layer of panels) would likely be removed by: 1) spraying encapsulant on the interior and exterior of the panels using a hand-held sprayer by workers on ground or in a manlift; 2) manually detaching and collecting the fasteners (assumed lead metal); and 3) owering the panels by hand if on ground level or, for elevated removal, lowering the panels using a scissor lift/elevated work platform.

Transite roofing (1 layer of panels) would likely be removed by: 1) spraying encapsulant on the exterior side of the panels using a hand-held sprayer by workers on ground or in a manlift; 2) manually detaching and collecting the fasteners (assumed lead metal); 3) lowering the outer panels using a scissor lift/knuckleboom; and 4) spraying encapsulant on all previously unexposed surfaces of panels.

Gutters and down spouts will be removed by: 1) accessing using manlifts; 2) ACM contents wet with amended water; 3) ACM contents manually scooped out; 4) encapsulant applied to the cleaned gutter/spout; 5) disassembled at the joints using mechanical methods; and 6) lowered to the ground in the manlifts.

All lead material shall be segregated and placed into drums in accordance with the Material Segregation and Containerization Criteria requirements.

Windows will be removed by: 1) applying tape to the glass; 2) removing the glazing material using a hand-held "chisel"; and 3) lead frames will be removed manually in conjunction with window removal or non-lead frames may be removed during structural steel removal.

Fiberglass or Mineral Wool Insulation (Batting) located between the interior and exterior transite panels will be removed by: 1) spraying encapsulant to exposed surfaces; 2) manually rolling the insulation upon itself; 3) applying amended water for dust suppression, as needed.

The Contractor shall band panels together, place panels on a pallet, wrap the palletized panels in 6 mil poly, and move to the queue area for disposition in the OSDF.

The Contractor(s) shall size, segregate, and containerize the debris, move the container to the queue area for disposition in the OSDF.

Mansonry/Concrete Removal

Above-grade cinderblock walls will be removed by: 1) administering water spray to wet the concrete before and during dismantlement; 2) use hoe ram or shears to dismantle and size reduce using pushover techniques; and 3) shear steel reinforcements, as needed.

The Contractor(s) shall size, segregate, and containerize the debris and move the containers to the queue area for disposition in the OSDF.

Structural Dismantlement

Structural steel, mezzanines, stairs, ladders, and steel decking, will be dismantled by shear.

The Contractor(s) shall size, segregate, and containerize the debris and move the containers to the queue area for disposition in the OSDF.

The Contractor will size and containerize the remaining commingled debris and move the containers to the queue area for disposition in the OSDF.

9.2) Quantification – Building 3A

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

10) Task #10 - Building 3L

10.1) Plan/Scope - Building 3L

Building 3L is a single story building measuring approximately 24 x 91 x 10 feet high. It consists of a concrete floor, structural steel frame, transite siding and roof, with a cinder block room inside. The building contains electrical meters, panels, and main circuit breakers.

Interior Asbestos Abatement

ACM piping will be removed by glovebag containments as follows: 1) wrap all ACM pipe in two layers of 6 mil poly; 2) install glovebag and HEPA ventilation every 10 feet; 3) perform smoke test; 4) wet surfaces with amended water; 5) remove ACM using hand-held tools; 6) encapsulate exposed ends; 7) remove glove bag; and 8) mechanically cut pipe at abated areas using band saw, reciprocating saw, or disassemble pipes at joints or fittings.

The contractor will size, segregate, and containerize the debris and move the containers to the queue area for disposition in the OSDF

Equipment/System Dismantlement

No process-related materials are anticipated in this facility. Most equipment/systems may remain in the facility during structural demolition.

The Contractor(s) shall size, segregate, and containerize the non-process debris and move the containers to the queue area for disposition in the OSDF.

Transite Removal

Transite siding (1 layer of panels) would likely be removed by: 1) spraying encapsulant on the interior and exterior of the panels using a hand-held sprayer by workers on ground or in a manlift; 2) manually detaching and collecting the fasteners (assumed lead metal); and 3) lowering the panels by hand if on ground level or, for elevated removal, lowering the panels using a scissor lift/elevated work platform.

Transite roofing (1 layer of panels) would likely be removed by: 1) spraying encapsulant on the exterior side of the panels using a hand-held sprayer by workers on ground or in a manlift; 2) manually detaching and collecting the fasteners (assumed lead metal); 3) lowering the outer panels using a scissor lift/knuckleboom; and 4) spraying encapsulant on all previously unexposed surfaces of panels.

Gutters and down spouts will be removed by: 1) accessing using manlifts; 2) ACM contents wet with amended water; 3) ACM contents manually scooped out; 4) encapsulant applied to the cleaned gutter/spout; 5) disassembled at the joints using mechanical methods; and 6) lowered to the ground in the manlifts.

All lead material shall be segregated and placed into drums in accordance with the Material Segregation and Containerization Criteria requirements.

Windows will be removed by: 1) applying tape to the glass; 2) removing the glazing material using a hand-held "chisel"; and 3) lead frames will be removed manually in conjunction with window removal or non-lead frames may be removed during structural steel removal.

Fiberglass or Mineral Wool Insulation (Batting) located between the interior and exterior transite panels will be removed by: 1) spraying encapsulant to exposed surfaces; 2) manually rolling the insulation upon itself; and 3) applying amended water for dust suppression, as needed.

The Contractor shall band panels together, place panels on a pallet, wrap the palletized panels in 6 mil poly, and move to the queue area for disposition in the OSDF.

The Contractor(s) shall size, segregate, and containerize the debris, move the containers to the queue area for disposition in the OSDF.

Concrete/Mansonry Removal

Above-grade cinderblock walls will be removed by: 1) administering water spray to wet the concrete before and during dismantlement; 2) use hoe ram or shears to dismantle and size reduce using pushover techniques; and 3) shear steel reinforcements, as needed.

The Contractor(s) shall size, segregate, and containerize the debris and move the containers to the queue area for disposition in the OSDF.

Structural Dismantlement

Structural steel, mezzanines, stairs, ladders, and steel decking, will be dismantled by shear.

The Contractor(s) shall size, segregate, and containerize the debris and move the containers to the queue area for disposition in the OSDF.

10.2) Quantification – Building 3L

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

11) Task #11 - Miscellaneous Pipe and Pipe Racks

11.1) Plan/Scope – Miscellaneous Pipe and Pipe Racks

Asbestos Abatement

ACM piping will be removed by glovebag containments as follows: 1) wrap all ACM pipe in two layers of 6 mil poly; 2) install glovebag and HEPA ventilation every 10 feet; 3) perform smoke test; 4) wet surfaces with amended water; 5) remove ACM using hand-held tools; 6) encapsulate exposed ends; 7) remove glove bag; and 8) mechanically cut pipe at abated areas using band saw, reciprocating saw, or disassemble pipes at joints or fittings.

The Contractor(s) shall size, segregate, and containerize the debris and move the containers to the queue area for disposition in the OSDF.

Structural Dismantlement

Miscellaneous pipes, pipe racks, and power supply, etc., remove the piping from air gap isolation points in the pipe racks and power supply from the isolation points to the

buildings, and piping and pipe racks from building to building shall be removed. The pipe racks shall be removed to the top of the concrete footer and the attachment bolts shall be cut flush with the concrete using sheers.

The Contractor(s) shall size, segregate, and containerize the debris and move the containers to the queue area for disposition in the OSDF.

11.2) Quantification – Miscellaneous Pipe and Pipe Racks

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

12) Task #12 - Demobilization

12.1) Plan/Scope – Demobilization

Demobilization includes the following activities:

- Decontaminate equipment (heavy equipment)
- Remove temporary fencing
- Remove asbestos trailer, tool trailer, office trailer, temporary utilities
- Complete punchlist items. Trim rebar, grout remaining openings, gravel open areas, clean up debris

12.2) Quantification – Demobilization

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

1.5.4 BFDD8 - D&D Subcontract – Plant 8

This D&D scope of work will be issued as a task order to the D&D Closure Project contract. This task includes premobilization, mobilization, Building 8A, 8B, 8C, 8E, 8G, 8H D&D, and demobilization. This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D schedule is presented in Section 2.0, Subcontractoe FTE's are presented in Section 3 and estimated quantities are presented in Section 4.

1) Task #1 - Premobilization

1.1) Plan/Scope – Premobilization

Premobilization includes preparation and submittal of all documentation necessary to begin mobilization activities.

The Sub-Contractor shall submit the following pre-mob submittals prior to "Authorization to Mobilize" and after issuance of the Task Order:

- Insurance certificate
- List of sub-tier contractors
- PLA letter of assent & verification of pre-job meeting
- Pay Item schedule of values
- Baseline/manpower loaded schedule
- Letter Contractor will abide by FDF PSHSP & addendum to PSHSP
- Substance abuse program
- Hearing conservation program plan
- Behavior based safety program
- QA/QC program plan
- 10 hour site safety training
- HAZWOPER training with OSHA supervised field experience form
- Mobilization SWP
- Waste handling SWP
- Temporary facilities SWP
- Temporary utilities SWP

1.2) Quantification - Premobilization

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

2) Task #2 - Mobilization

2.1) Plan/Scope – Mobilization

Mobilization includes field preparation activities, preparation of submittal documentation and building preparation.

Field preparation consists of the following activities:

- Install temporary portable toilets

- Install asbestos trailer (1 singlewide), water (with 5 micron filter dump to sewer), (heat traced) sewer (heat traced)

- Install temporary utilities – tie into substation in Building 36 water point source at low pressure fire protection system, connect to sanitary sewer at 101st and "B" street.

- Install construction zone fencing – 4' orange fencing (majority of zone has existing 4' wire fencing)

- Conduct alignment meeting

- Perform engineering survey – structural and floor loading in accordance with OSHA 1926.850

- Mobilize equipment – fork truck, pick-up truck, skid steer, track-mounted shear, back hoe, man-lift, scissor-lift, HEPA vacuums, air filtration devices, turnover-government furnished equipment, etc.

Submittal documentation consists of the following:

- Safe Work Plans
- Training Records
- MSDS
- Engineering Surveys
- Other documents as necessary.

Building preparation consists of the following:

- Construction of vestibules
- Construction of Cool down areas
- Construction of Wash down areas

1.2) Quantification – Mobilization

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

3) Task #3 - Building 8A

3.1) Plan/Scope Building 8A

Building 8A, the Recovery Plant, is a two-story structure measuring 239 x 280 ft. and 37 ft. high. The building consists of a structural steel frame on a reinforced poured concrete foundation, reinforced concrete ground floors, transite interior and exterior siding

panels (insulation material between panels), and transite roof panels. The second floor is primarily steel grating with some concrete flooring.

Asbestos Abatement

ACM piping will be removed by glovebag containments as follows: 1) wrap all ACM pipe in two layers of 6 mil poly; 2) install glovebag and HEPA ventilation every 10 feet; 3) perform smoke test; 4) wet surfaces with amended water; 5) remove ACM using hand-held tools; 6) encapsulate exposed ends; 7) remove glove bag; and 8) mechanically cut pipe at abated areas using band saw, reciprocating saw, or disassemble pipes at joints or fittings.

R1-F02-014

The contractor will size, segregate, and containerize the debris and move the containers to the queue area for disposition in the OSDF. If any process-related piping or equipment fails the visual inspection criteria, it will be packaged for off-site disposal at ~~NTS~~ Envirocare.

Equipment/System Removal

Significant quantities of process-related piping and equipment are anticipated throughout both the wet and dry sides of Building 8A; therefore, openings of the building (for example, entryways between Buildings 8A and 8C) will be sealed.

All piping and equipment will be removed from the dry side of Building 8A and only process-related piping and equipment will be removed from the wet side of Building 8A.

Non-process piping and equipment on the wet side, along with all conduit, cable, lighting, etc., will remain in the building during structural steel removal.

Wallboard will be removed by: 1) manually detaching the fasteners; and 2) lowering the panels by hand if on ground level, or for elevated removal, lowering the panels using an elevated work platform.

Non-ACM floor tile will be removed by: 1) physically breaking the tiles using a hand-held scraper; 2) removing mastic by applying mastic dissolver and scouring the floor with a hand-held floor scrubber; 3) applying absorbent material (sawdust or cat litter) to remove and undissolved mastic; and 4) shoveling the absorbent into containers.

Floor trenches will be cleaned and the metal trench covers left in place.

The concrete floor within the Muffle Furnace Area will be scabbled to a 1-inch depth on the second floor. Also, any concrete within the first floor of the Muffle Furnace Area that had not been scabbled during the 1998 scabbling technology demonstration (Ref: Implementation Plan for Scabbling Plant 8 Muffle Furnace Area - First Floor, May 1998), will also be scabbled to a depth of one inch.

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The contractor will size, segregate, and containerize all interior debris and move the containers to the queue area for disposition at ~~NTS~~ Envirocare.

Transite Removal

Transite siding (1 layer of panels) would likely be removed by: 1) spraying encapsulant on the interior and exterior of the panels using a hand-held sprayer by workers on ground or in a manlift; 2) manually detaching and collecting the fasteners (assumed lead metal); and 3) lowering the panels by hand if on ground level or, for elevated removal, lowering the panels using a scissor lift/elevated work platform.

Additional decontamination measures will be required for double transite layers on roof where holdup contamination resides, per Specification Section 07415.

Gutters and down spouts will be removed by: 1) accessing using manlifts; 2) ACM contents wet with amended water; 3) ACM contents manually scooped out; 4) encapsulant applied to the cleaned gutter/spout; 5) disassembled at the joints using mechanical methods; and 6) lowered to the ground in the manlifts.

All lead material shall be segregated and placed into drums in accordance with the Material Segregation and Containerization Criteria requirements.

Windows will be removed by: 1) applying tape to the glass; 2) removing the glazing material using a hand-held "chisel"; and 3) lead frames will be removed manually in conjunction with window removal or non-lead frames may be removed during Structural Steel Removal.

Fiberglass or Mineral Wool Insulation (Batting) located between the interior and exterior transite panels will be removed by: 1) spraying encapsulant to exposed surfaces; 2) manually rolling the insulation upon itself; and 3) applying amended water for dust suppression, as needed.

R1-F02-014

The contractor will band panels together, place panels on a pallet, wrap the palletized panels in 6 mil poly, and move to the queue area for disposition at ~~NTS~~ Envirocare.

R1-F02-014

The contractor will size, segregate, and containerize the debris, move the containers to the queue area for disposition at ~~NTS~~ Envirocare.

Acid Brick Removal

Acid Brick will be removed by 1) manually breaking and removing a few brick to create access using a spud bar, 2) removing acid bricks one at a time by hand, 3) dampening surfaces with water to minimize airborne dust, 4) using HEPA vacuum to remove particulates, 5) maintaining localized HEPA ventilation near the work area.

The Contractor(s) shall size, segregate, and containerize the debris and move the container to the que area at the construction zone boundary.

Release Cleaning

Decontamination efforts are assumed to be necessary for the Building 8A wet side where thorium contamination may be encountered in certain areas. Moderate levels of cleaning (high-pressure, low-volume water washing) and lockdown are required throughout the building.

There are two Hazardous Waste Management Units (HWMUs) associated with Building 8A. The Oxidation Furnace Number 1 is HWMU 15 and is inside the building. The Box Furnace (HWMU 14) is located immediately north of Building 8A. In both cases, the equipment within the HWMU will be removed, sized, and containerized and the HWMU area (i.e., concrete foundation/pad) will be decontaminated in accordance with Specification Section 01517. The contractor will wash the areas and collect effluent separately. The contractor will wash the areas until the analytical results indicate that the closure limits have been met. FDF will collect a sample and perform laboratory analysis. Upon approval from FDF, the contractor will combine effluent with other decontamination washwaters and transport water to AWWT.

Structural Steel Removal

The Building 8A structure will be tripped and pulled down to the east, whereupon the structural steel, non-process equipment, and decking will be dismantled by shear.

The Contractor(s) shall size, segregate, and containerize the debris and move the container to the que area for disposition in the OSDF.

3.2) Quantification – Building 8A

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

4) Task #4 - Building 8B

4.1) Plan/Scope – Building 8B

Building 8B, the Plant 8 Maintenance Building, is a single-story structure measuring 31 x 42 ft. and 15 ft. high. Building 8B consists of cinder block walls supported on reinforced concrete footings, with a reinforced-poured concrete floor and glass windows.

Structural Dismantlement

All piping and equipment are non-process and will remain in the building during structural dismantlement. The structure will be removed by: 1) administering water spray to wet the concrete before and during dismantlement; 2) use hoe ram or shears to dismantle and size reduce using pushover techniques; and 3) shear steel reinforcements, as needed. The contractor will size, segregate, and containerize the debris and move the containers to the queue area for disposition in the OSDF.

4.2) Quantification – Building 8B

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

5) Task #5 - Building 8C

5.1) Plan/Scope - Building 8C

Building 8C, the Rotary Kiln/Drum Reconditioning Building, is a four-story steel structure with steel siding. The structure was built on a reinforced concrete pad. The dimensions of 8C are 50 x 100 feet x 50 feet in height. Building 8C was never used due to production suspension and is not expected to contain ACM, acid brick, or significant levels of contamination.

Structural Dismantlement

Piping, equipment, siding, Component 8H and Component 8G will be removed to the extent necessary by shearing to trip the structure and the kiln together to the east. Once tripped, the structure, kiln, and all remaining non-process equipment will be sized using a shear. The contractor will containerize the debris and move the containers to the queue area for disposition in the OSDF. The concrete pedestals supporting the rotary kiln will be left in place.

5.2) Quantification – Building 8C

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

6) Task #6 - Building 8D

6.1) Plan/Scope – Building 8D

Building 8D is a single-level building measuring 30 x 42 ft. and 13 ft. high. Associated with 8D are a below-grade railroad tank car wash pit and a settling basin. Building 8D is a

pre-engineered structure consisting of a structural steel frame with steel siding panels and a sloped steel roof panels. The building is supported on a reinforced poured concrete base.

Structural Dismantlement

The structure, non-process equipment, piping and decking will be dismantled and sized using a shear. Any equipment or piping from the wash pit will also be removed. The contractor will segregate and containerize the debris and move the containers to the queue area for disposition in the OSDF.

6.2) Quantification – Building 8D

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

7) Task #7 - Building 8E

7.1) Plan/Scope – Building 8E

Component 8E is a single-level structure with a structural steel frame and sloped metal roof. It is an extension of the Rotary Kiln/Drum Reconditioning Building (8C). The shelter is 15 feet in height, and shelters an area of reinforced poured concrete that is 40 ft. in length x 15 ft. in width.

Structural Dismantlement

The structure (and any non-process equipmentand piping) will be dismantled and sized using a shear. The contractor will containerize the debris and move the containers to the queue area for disposition in the OSDF.

7.2) Quantification – Building 8E

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

8) Task #8 - Component 8G

8.1) Plan/Scope – Component 8G

This component is a single-story room on the east end of Building 8C. The approach for dismantlement is incorporated into the discussion of Building 8C.

8.2) Quantification – Component 8G

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

1) Task #9 - Component 8H

9.1) Plan/Scope - Component 8H

This component is a single-story room on the west end of Building 8C. The approach for dismantlement is incorporated into the discussion of Building 8C.

9.2) Quantification - Component 8H

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

10) Task #10 - Demobilization

10.1) Plan/Scope – Demobilization

Demobilization includes the following activities:

- Decontaminate equipment (heavy equipment)
- Remove temporary fencing
- Remove asbestos trailer, tool trailer, office trailer, temporary utilities
- Complete punchlist items. Trim rebar, grout remaining openings, gravel open areas, clean up debris

10.2) Quantification – Demobilization

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

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1.5.5 BFDDH - D&D Subcontract – Health and Safety Building

This D&D scope of work will be issued as a task order to the D&D Closure Project contract. This task includes premobilization, mobilization 53A D&D, and demobilization. This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor FTEs are presented in Section 3, and estimated quantities are presented in Section 4.

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1) Task #1 – Premobilization

1.1) Plan/Scope – Premobilization

Premobilization includes preparation and submittal of all documentation necessary to begin mobilization activities.

The Sub-Contractor shall submit the following pre-mob submittals prior to "Authorization to Mobilize" and after issuance of the Task Order:

- Insurance certificate
- List of sub-tier contractors
- PLA letter of assent & verification of pre-job meeting
- Pay Item schedule of values
- Baseline/manpower loaded schedule
- Letter Contractor will abide by FDF PSHSP & addendum to PSHSP
- Substance abuse program
- Hearing conservation program plan
- Behavior based safety program
- QA/QC program plan
- 10 hour site safety training
- HAZWOPER training with OSHA supervised field experience form
- Mobilization SWP
- Waste handling SWP
- Temporary facilities SWP
- Temporary utilities SWP

1.2) Quantification – Premobilization

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

2) Task #2 – Mobilization

2.1) Plan/Scope – Mobilization

Mobilization includes field preparation activities, preparation of submittal documentation and building preparation.

Field preparation consists of the following activities:

- Install temporary portable toilets

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- Install asbestos trailer (1 singlewide), water (with 5 micron filter dump to sewer), (heat traced) sewer (heat traced)

- Install temporary utilities – tie into substation in Building ~~36~~ 16B water point source at low pressure fire protection system, connect to sanitary sewer at ~~101st & B~~ 1st & "C"

- Install construction zone fencing – 4' orange fencing (majority of zone has existing 4' wire fencing)

- Conduct alignment meeting
- Perform engineering survey – structural and floor loading in accordance with OSHA 1926.850

- Mobilize equipment – fork truck, pick-up truck, skid steer, track-mounted shear, back hoe, man-lift, scissor-lift, HEPA vacuums, air filtration devices, turnover-government furnished equipment, etc.

Submittal documentation consists of the following:

- Safe Work Plans
- Training Records
- MSDS
- Engineering Surveys
- Other documents as necessary.

Building preparation consists of the following:

- Construction of vestibules
- Construction of Cool down areas
- Construction of Wash down areas

2-2) Quantification – Mobilization

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

3) Task #3 – Building 53A

Building 53A is a multilevel building measuring approximately 89 x 221 ft. and 22 ft. high, with two floors and a partial basement under the west section. The building consists of cement block construction on reinforced poured concrete footers and floors, flat reinforced poured concrete roofs, and glass windows.

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Upon departure the various building occupants will take their salvageable equipment with them. These groups may include medical, dosimetry, and lab personnel. Any equipment left behind will be considered waste for disposal.

3.1) Plan/Scope - Building 53A

Interior Asbestos Abatement

ACM piping will be removed by glovebag containments as follows: 1) wrap all ACM pipe in two layers of 6 mil poly; 2) install glovebag and HEPA ventilation every 10 feet; 3) perform smoke test; 4) wet surfaces with amended water; 5) remove ACM using hand-held tools; 6) encapsulate exposed ends; 7) remove glove bag; and 8) mechanically cut pipe at abated areas using band saw, reciprocating saw, or disassemble pipes at joints or fittings.

ACM tile will also be removed; being very careful not to break the tile prior to removal and keeping the surfaces wet with amended water.

Cubicle or temporary walls and carpet will be removed.

If any radiologically contaminated, non-salvageable equipment remain (from dosimetry, for example), the equipment will be removed, washed (if necessary), and visually inspected to verify the debris meets the OSDF WAC.

The contractor will size, segregate, and containerize the debris and move the containers to the queue area for disposition in the OSDF.

Structural Dismantlement

Windows and the glass contained within the two-story foyer of the building will be removed by: 1) applying tape to the glass; 2) removing the glazing material using a hand-held "chisel"; and 3) lead frames will be removed manually in conjunction with window removal or non-lead frames may be dismantled with the structure.
Non-process piping, valves, conduit, cable, lighting, non-ACM floor tile, etc. will remain in the building during dismantlement of the structure.

The remainder of the above-grade portions of the building, which is predominantly CMU walls and concrete slabs, will be removed by: 1) administering water spray to wet the concrete before and during dismantlement; 2) using a concrete shear to dismantle and size reduce using pushover techniques; and 3) shearing steel reinforcements, as needed.

The contractor will size and containerize the remaining commingled debris and move the containers to the queue area for disposition in the OSDF.

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3.2) Quantification – Building 53A

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

4) Task #8 – Demobilization

4.1) Plan/Scope – Demobilization

Demobilization includes the following activities:

- Decontaminate equipment (heavy equipment)
- Remove temporary fencing
- Remove asbestos trailer, tool trailer, office trailer, temporary utilities
- Complete punchlist items. Trim rebar, grout remaining openings, gravel open areas, clean up debris

4.2) Quantification – Demobilization

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

1.5.6 BFDDQ - D&D Subcontract – Liquid Storage

This D&D scope of work will be issued as a task order to the D&D Closure Project contract. This task includes premobilization, mobilization, Building 26A, Component 26B, Buildings 28D, 45A, 80, D&D, and demobilization. This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor FTEs are presented in Section 3, and estimated quantities are presented in Section 4.

1) Task #1 - Premobilization

1.1) Plan/Scope – Premobilization

Premobilization includes preparation and submittal of all documentation necessary to begin mobilization activities.

The Sub-Contractor shall submit the following pre-mob submittals prior to "Authorization to Mobilize" and after issuance of the Task Order:

- Insurance certificate
- List of sub-tier contractors

- PLA letter of assent & verification of pre-job meeting
- Pay Item schedule of values
- Baseline/manpower loaded schedule
- Letter Contractor will abide by FDF PSHSP & addendum to PSHSP
- Substance abuse program
- Hearing conservation program plan
- Behavior based safety program
- QA/QC program plan
- 10 hour site safety training
- HAZWOPER training with OSHA supervised field experience form
- Mobilization SWP
- Waste handling SWP
- Temporary facilities SWP
- Temporary utilities SWP

1.2) Quantification - Premobilization

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

2) Task #2 - Mobilization

2.1) Plan/Scope – Mobilization

Mobilization includes field preparation activities, preparation of submittal documentation and building preparation.

Field preparation consists of the following activities:

- Install temporary portable toilets

- Install asbestos trailer (1 singlewide), water (with 5 micron filter dump to sewer), (heat traced) sewer (heat traced)

- Install temporary utilities – tie into substation in Building 36 water point source at low pressure fire protection system, connect to sanitary sewer at 101st & "B" street.

- Install construction zone fencing – 4' orange fencing (majority of zone has existing 4' wire fencing)

- Conduct alignment meeting

- Perform engineering survey – structural and floor loading in accordance with OSHA 1926.850

- Mobilize equipment – fork truck, pick-up truck, skid steer, track-mounted shear, back hoe, man-lift, scissor-lift, HEPA vacuums, air filtration devices, turnover-government furnished equipment, etc.

Submittal documentation consists of the following:

- Safe Work Plans
- Training Records
- MSDS
- Engineering Surveys
- Other documents as necessary.

Building preparation consists of the following:

- Construction of vestibules
- Construction of Cool down areas
- Construction of Wash down areas

2.2) Quantification – Mobilization

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

3) Task #3 - Building 26A

3.1) 1 Plan/Scope – Building 26A

Building 26A is located south of the Elevated Water Storage Tank (26B). Component 26A is comprised of a steel water storage tank and cement block wall and concrete floor building. The dimensions of the tank are 35 feet in diameter by 22 feet in height. The volume capacity of the tank is approximately 300,000 gallons. The dimensions of the building are 26 x 50 x 11 feet in height.

Structural and Equipment Dismantlement

Non-process piping, valves, conduit, cable, lighting, etc. will remain in the building during structural removal.

Above-grade concrete walls will be removed by 1) administering water spray to wet the concrete before and during dismantlement, 2) use hoe ram or shears to dismantle and size reduce using pushover techniques, and 3) shear steel reinforcements, as needed.

Structural steel and the tank will be dismantled by shear.

The Contractor(s) shall size, segregate, and containerize the debris and move the container to the que area for disposition in the OSDF.

3.2) Quantification – Building 26A

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

4) Task #4 - Component 26B

4.1) Plan/Scope – Component 26B

Component 26B is located north of the Pump House-HP Fire Protection (26A). Component 26B is a steel water storage tank elevated by steel supports to 265 feet above grade. The tank has a diameter of 65 feet, and a capacity of approximately 350,000 gallons.

Structural and Equipment Dismantlement

The storage tank will be felled to the east utilizing shaped charges.

The felled tower will be sized to meet OSDF WAC using a shear.

The Contractor(s) shall containerize the debris and move the container to the que area for disposition in the OSDF.

4.2) Quantification – Component 26B

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

5) Task #5 - Building 28D

5.1) Plan/Scope – Building 28D

Building 28D is a square building located at the west end of 2nd Street. The dimensions of the building are 15 x 15 feet. Building 28D is constructed of wood framing and siding.

Structural and Equipment Dismantlement

Non-process piping, valves, conduit, cable, lighting, etc. will remain in the building during dismantlement of the structure (using a shear).

The Contractor(s) shall size, segregate, and containerize the non-process debris and move the container to the que area for disposition in the OSDF.

5.2) Quantification – Building 28D

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

6) Task #6 - Building 45A

6.1) Plan/Scope – Building 45A

Building 45A is a single-story building. It is rectangular shaped, measuring 121 x 150 ft and 14 ft high. The building consists of a structural steel frame with corrugated metal siding and a poured concrete base and floor. Building 45A was decontaminated in 1988, before conversion for office space, but still has high levels of fixed contamination in the rafters, as well as some ACM piping.

Interior Asbestos Abatement

ACM piping will be removed by glovebag containments as follows 1) wrap all ACM pipe in two layers of 6 mil poly, 2) install glovebag and HEPA ventilation every 10 feet, 3) perform smoke test, 4) wet surfaces with amended water, 5) remove ACM using hand-held tools, 6) encapsulate exposed ends, 7) remove glove bag, 8) mechanically cut pipe at abated areas using band saw, reciprocating saw, or disassemble pipes at joints or fittings.

ACM Floor Tile will be removed by 1) applying amended water, 2) physically breaking the tiles using hand-held scrapers, 3) remove mastic by applying mastic dissolver and scouring the floor with a hand-held floor scrubber, 4) apply absorbent material (sawdust or cat litter) to remove any dissolved mastic.

The contractor will size, segregate, and containerize the debris and move the containers to the queue area for disposition in the OSDF.

Structural and Equipment Dismantlement

Non-process equipment piping, valves, conduit, cable, lighting, etc. will remain in the building during Structural Steel Removal.

Structural steel and metal siding will be dismantled by shearing.

The Contractor(s) shall size, segregate, and containerize the debris and move the container to the que area for disposition in the OSDF.

6.2) Quantification – Building 45A

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

7) Task #7 - Building 80

Building 80 is a single story building approximately 60 X 170 ft. and 15 ft. high, consists of a structural steel frame on a reinforced poured concrete base and floor with non-insulated corrugated metal siding and roofing. Building 80 was constructed for the storage of non-liquid RCRA hazardous waste and is recognized as HWMU #29.

7.1) Plan/Scope - Building 80

HWMU Cleaning

RCRA CERCLA Intrgrated Closure of HWMU #29 requires at least rinsing and rinseate sampling during the decontamination stage of D&D. Additional decontamination of Building 80 is not anticipated.

Structural Dismantlement

The structure and interior non-process equipment and lighting will be dismantled and sized using a shear. The Contractor will segregate and containerize the debris and move the containers to the queue area for disposition in the OSDF.

7.2) Quantification – Building 80

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

8) Task #8 - Demobilization

8.1) Plan/Scope – Demobilization

Demobilization includes the following activities:

- Decontaminate equipment (heavy equipment)
- Remove temporary fencing
- Remove asbestos trailer, tool trailer, office trailer, temporary utilities
- Complete punchlist items. Trim rebar, grout remaining openings, gravel open areas, clean up debris

8.2) Quantification – Demobilization

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

1.5.7 BFDDP - D&D Subcontract – Pilot Plant

This D&D scope of work will be issued as a task order to the D&D Closure Project contract. This task includes premobilization, mobilization, Building 13A D&D, Building 13B D&D, Building 13C D&D, Component 13D D&D, Building 37 D&D, Building 54A D&D, Building 54B D&D, Building 54C D&D, and demobilization. This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor FTEs are presented in Section 3, and estimated quantities are presented in Section 4.

1) Task #1 - Premobilization

1.1) Plan/Scope – Premobilization

Premobilization includes preparation and submittal of all documentation necessary to begin mobilization activities.

The Sub-Contractor shall submit the following pre-mob submittals prior to "Authorization to Mobilize" and after issuance of the Task Order:

- Insurance certificate
- List of sub-tier contractors
- PLA letter of assent & verification of pre-job meeting
- Pay Item schedule of values
- Baseline/manpower loaded schedule
- Letter Contractor will abide by FDF PSHSP & addendum to PSHSP
- Substance abuse program
- Hearing conservation program plan
- Behavior based safety program
- QA/QC program plan
- 10 hour site safety training
- HAZWOPER training with OSHA supervised field experience form
- Mobilization SWP
- Waste handling SWP
- Temporary facilities SWP
- Temporary utilities SWP

1.2) Quantification - Premobilization

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

2) Task #2 - Mobilization

2.1) Plan/Scope – Mobilization

Mobilization includes field preparation activities, preparation of submittal documentation and building preparation.

Field preparation consists of the following activities:

- Install temporary portable toilets
- Relocate and install T-93 (4-plex) and T-131 (doublewide) and install all utilities
- Install asbestos trailer (1 singlewide), water (with 5 micron filter dump to sewer), (heat traced) sewer (heat traced)
- Install temporary utilities – tie into substation in Building 36 water point source at low pressure fire protection system, connect to sanitary sewer at 101st & "B" street.
- Install construction zone fencing – 4' orange fencing (majority of zone has existing 4' wire fencing)
- Conduct alignment meeting
- Perform engineering survey – structural and floor loading in accordance with OSHA 1926.850
- Mobilize equipment – fork truck, pick-up truck, skid steer, track-mounted shear, back hoe, man-lift, scissor-lift, HEPA vacuums, air filtration devices, turnover-government furnished equipment, etc.

Submittal documentation consists of the following:

- Safe Work Plans
- Training Records
- MSDS
- Engineering Surveys
- Other documents as necessary.

Building preparation consists of the following:

- Construction of vestibules
- Construction of Cool down areas
- Construction of Wash down areas

2.2) Quantification – Mobilization

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

3) Task #3 - Building 13A

3.1) Plan/Scope – Building 13A

Building 13A is a multilevel processing facility with the dimensions 63 x 155 ft. 80% of the building is 35 ft. high; the southern 20% of the building, where the solvent extraction process was located, is 53 ft. high. The building is constructed of cement block on poured reinforced concrete floors, reinforced concrete roof, a building shell consisting of interior and exterior transite siding, and large multi-pane windows. The mezzanine floor, of reinforce poured concrete, is supported by a structural steel frame.

Building 13A houses tanks, columns, filters, ovens, size reduction equipment and associated piping, conduit, duct and appurtenances. ACM insulation covers most of the buildings piping.

There is a dust collector which serviced Building 13A. This dust collector resides at the northwest corner of 13A and just to the south of 13B. The dust collector is supported by a structural steel frame and anchored in concrete. The collector will be contained and removed and the structural steel will be dismantled by shearing.

Due to anticipated elevated air activity, Powered Air Purifying Respirators (PAPRs) will be worn during various parts of the building D&D. Prior to any activity in the building, a temporary air change unit (with HEPA and activated carbon filtration) will be installed to lower thoron readings during interior equipment removal, acid brick removal, and scabbling.

Interior Asbestos Abatement

ACM piping will be removed by glovebag containments as follows: 1) wrap all ACM pipe in two layers of 6 mil poly; 2) install glovebag and HEPA ventilation every 10 feet; 3) perform smoke test; 4) wet surfaces with amended water; 5) remove ACM using hand-held tools; 6) encapsulate exposed ends; 7) remove glove bag; and 8) mechanically

cut pipe at abated areas using band saw, reciprocating saw, or disassemble pipes at joints or fittings.

ACM tile will also be removed; being very careful not to break the tile prior to removal and keeping the surfaces wet with amended water

The contractor will size, segregate, and containerize the debris and move the containers to the queue area for disposition in the OSDF.

Equipment/System Dismantlement

All piping and equipment will be removed during this phase of work; however, conduit, cable, lighting, etc. will remain in the building during structural dismantlement.

Wallboard will be removed by: 1) manually detaching the fasteners; and 2) lowering the panels by hand if on ground level, or for elevated removal, lowering the panels using an elevated work platform.

Non-ACM floor tile will be removed by: 1) physically breaking the tiles using a hand-held scraper; 2) removing mastic by applying mastic dissolver and scouring the floor with a hand-held floor scrubber; 3) applying absorbent material (sawdust or cat litter) to remove and undissolved mastic; and 4) shoveling the absorbent into containers.

Utility piping contained within the piping access (utility) tunnels in the basement will be sectioned, removed from the pipe racks and/or hangers, and left on the basement floor for later removal.

Acid brick will be removed by: 1) manually breaking and removing a few bricks to create access using a spud bar; 2) removing acid bricks one at a time by hand; 3) dampening surfaces with water to minimize airborne dust; 4) removing acid brick membrane; 5) using HEPA vacuum to remove particulates; and 6) maintaining localized HEPA ventilation near the work area.

The contractor will containerize the acid brick and associated membrane together at the construction zone boundary.

The concrete floor within the Southern Extraction Process Area of Building 13A will be scabbled to a depth of 2" to remove elevated levels of technetium-99.

Wallboard will be removed by: 1) manually detaching the fasteners; and 2) lowering the panels by hand if on ground level, or for elevated removal, lowering the panels using an elevated work platform.

Release Cleaning

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Prior to opening the building to the environment, release cleaning will be performed ~~in accordance with D&D Specification Section 01517~~. Release cleaning will be performed by 1) HEPA vacuuming and/or wet wipe any loose contamination or residues, 2) using high pressure, low volume water washing, 3) applying fixative to areas which do not meet the release cleaning criteria.

Transite Removal

Transite siding (2 layers of panels) would likely be removed by 1) spraying encapsulant on the interior and exterior of the panels using a hand-held sprayer by workers on ground or in a manlift, 2) manually detaching and collecting the fasteners (assumed lead metal), and 3) lowering the panels by hand if on ground level or, for elevated removal, lowering the panels using a scissor lift/elevated work platform.

Gutters and down spouts will be removed by 1) accessing using manlifts, 2) ACM contents wet with amended water, 3) ACM contents manually scooped out, 4) encapsulant applied to the cleaned gutter/spout, 5) disassembled at the joints using mechanical methods, and 6) lowered to the ground in the manlifts.
All lead material shall be segregated and placed into drums in accordance with the Material Segregation and Containerization Criteria requirements.

Fiberglass or Mineral Wool Insulation (Batting) located between the interior and exterior transite panels will be removed by 1) spraying encapsulant to exposed surfaces, 2) manually rolling the insulation upon itself, 3) applying amended water for dust suppression, as needed.

Windows will be removed by: 1) applying tape to the glass; 2) removing the glazing material using a hand-held "chisel"; and 3) lead frames will be removed manually in conjunction with window removal or non-lead frames may be removed during structural dismantlement.

The contractor will band panels together, place panels on a pallet, wrap the palletized panels in 6-mil poly, and move to the queue area for disposition in the OSDF.

The contractor will size, segregate, and containerize the batting and windows and move the container to the queue area for disposition in the OSDF. The gutter debris will be drummed for off-site disposal.

Structural and Equipment Dismantlement

Above-grade concrete walls and roofing will be removed by: 1) administering water spray to wet the concrete before and during dismantlement; 2) using a wrecking ball to collapse the structure to the ground; 3) using a concrete shear to size reduce the concrete to meet OSDF Category 2 size criteria; and 4) shearing steel reinforcements, as needed.

The contractor will size, segregate, and containerize the debris and move the containers to the queue area for disposition in the OSDF.

3.2) Quantification – Building 13A

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

4) Task #4 - Component 13B

4.1) Plan/Scope – Component 13B

Building 13B is a single-level structure measuring 30 x 60 ft. and 11 ft. high. The building consists of concrete block walls supported on reinforced concrete footings, with a reinforced poured concrete floor and roof, and glass windows.

The maintenance building has two offices which are located in the building on the south side. These offices are partitioned by pre-fabricated wall panel walls, and contain dropped ceilings. The remainder of the building has exposed concrete floors and exposed roof deck above.

Interior Asbestos Abatement

ACM piping will be removed by glovebag containments as follows: 1) wrap all ACM pipe in two layers of 6 mil poly; 2) install glovebag and HEPA ventilation every 10 feet; 3) perform smoke test; 4) wet surfaces with amended water; 5) remove ACM using hand-held tools; 6) encapsulate exposed ends; 7) remove glove bag; and 8) mechanically cut pipe at abated areas using band saw, reciprocating saw, or disassemble pipes at joints or fittings.

Release Cleaning

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Prior to opening the building to the environment, release cleaning will be performed ~~in accordance with D&D Specification Section 01517~~. Release cleaning will be performed by 1) HEPA vacuuming and/or wet wipe any loose contamination or residues; 2) using high pressure, low volume water washing; 3) applying fixative to areas which do not meet the release cleaning criteria.

Structural and Equipment Dismantlement

Non-process piping, valves, conduit, cable, lighting, etc. will remain in the building during structural dismantlement.

Wallboard will be removed by: 1) manually detaching the fasteners; and 2) lowering the panels by hand if on ground level, or for elevated removal, lowering the panels using an elevated work platform.

Non-ACM floor tile will be removed by: 1) physically breaking the tiles using a hand-held scraper; 2) removing mastic by applying mastic dissolver and scouring the floor with a hand-held floor scrubber; 3) applying absorbent material (sawdust or cat litter) to remove and undissolved mastic; and 4) shoveling the absorbent into containers.

Windows will be removed by: 1) applying tape to the glass; 2) removing the glazing material using a hand-held "chisel"; and 3) lead frames will be removed manually in conjunction with window removal or non-lead frames may be removed during D&D.

Above-grade concrete walls will be removed by: 1) administering water spray to wet the concrete before and during dismantlement; 2) using a concrete shear to dismantle and size reduce using pushover techniques; and 3) shearing steel reinforcements, as needed.

The contractor will size, segregate, and containerize the debris and move the containers to the queue area for disposition in the OSDF.

4.2) Quantification – Component 13B

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

5) Task #5 – Building 13C

5.1) Plan/Scope – Building 13C

Building 13C consists of a single-level, high concrete block (masonry) wall structure, 12 x 16 ft. and 8 ft. high, supported on reinforced concrete foundations. The building has a reinforced concrete floor and a sloping shingled roof. It contains three pumps on concrete pedestals.

Four sump tanks off of the south wall are associated with the structure. The tanks and all associated piping will be removed; the containment berm will be left in place for removal during soil and below-grade excavation.

Interior Asbestos Abatement

ACM piping (if any) will be removed by glovebag containments as follows: 1) wrap all ACM pipe in two layers of 6 mil poly; 2) install glovebag and HEPA ventilation every 10 feet; 3) perform smoke test; 4) wet surfaces with amended water; 5) remove ACM using hand-held tools; 6) encapsulate exposed ends; 7) remove glove bag; and

8) mechanically cut pipe at abated areas using band saw, reciprocating saw, or disassemble pipes at joints or fittings.

Structural and Equipment Dismantlement

All interior piping, valves, and other equipment will be removed prior to dismantlement.

The four exterior sump tanks and associated piping will be size reduced using an oxy-acetylene torch.

Windows will be removed by: 1) applying tape to the glass; 2) removing the glazing material using a hand-held "chisel"; and 3) lead frames will be removed manually in conjunction with window removal or non-lead frames may be removed during D&D.

Above-grade concrete walls will be removed by administering water spray to wet the concrete before and during dismantlement and using a concrete shear to dismantle and size reduce using pushover techniques.

The contractor will size, segregate, and containerize the debris and move the containers to the queue area for disposition in the OSDF.

5.2) Quantification – Building 13C

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

6) Task #6 - Component 13D

6.1) Plan/Scope – Component 13D

Component 13D is an aboveground storage tank farm. The tank farm consists of five vertical cylindrical steel tanks inside a rectangular concrete containment area measuring 28 x 45 ft. with a wall height of 18 in. aboveground. Two of the five tanks are considered to be HWMUs because of the storage of thorium nitrate tetrahydrate liquid.

Equipment Dismantlement

The tanks will be flushed with water and the rinseate sampled until the analysis indicates the tanks are no longer RCRA-hazardous. The storage tanks and any associated piping will then be dismantled and size reduced utilizing an oxy-acetylene torch. The containment berm will be left in place for removal during soil and below-grade excavation. All other debris will be containerized for OSDF disposal.

6.2) Quantification – Component 13D

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

7) Task #7 - Building 37

7.1) Plan/Scope - Building 37

Building 37 is a single-story building measuring 52 x 122 ft. and 25 ft. high. The building consists of a structural steel frame anchored in a reinforced concrete foundation and a reinforced concrete floor and roof, cement block walls, and glass windows. The building is connected to the east side of Building 54A. The function of Building 37 was to test out new processes for uranium and thorium production and recovery.

Interior Asbestos Abatement

ACM piping will be removed by glovebag containments as follows: 1) wrap all ACM pipe in two layers of 6 mil poly; 2) install glovebag and HEPA ventilation every 10 feet; 3) perform smoke test; 4) wet surfaces with amended water; 5) remove ACM using hand-held tools; 6) encapsulate exposed ends; 7) remove glove bag; and 8) mechanically cut pipe at abated areas using band saw, reciprocating saw, or disassemble pipes at joints or fittings.

Release Cleaning

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Prior to opening the building to the environment, release cleaning will be performed ~~in accordance with D&D Specification Section 01517~~. Release cleaning will be performed by 1) HEPA vacuuming and/or wet wipe any loose contamination or residues, 2) using high pressure, low volume water washing, 3) applying fixative to areas which do not meet the release cleaning criteria.

Structural Dismantlement

All piping and equipment will be removed from this building; however, conduit, cable, lighting, etc. will remain in the building during structural dismantlement. Due to the potential for unexpected chemicals to be present in this building, PAPRs will be worn during piping and equipment removal.

Prior to opening the building to the environment, release cleaning will be performed in accordance with D&D Specification Section 01517.

Above-grade concrete walls will be removed by: 1) administering water spray to wet the concrete before and during dismantlement; 2) using a concrete shear to dismantle and size reduce using pushover techniques; and 3) shearing steel reinforcements, as needed.

The contractor will size, segregate, and containerize the debris and move the containers to the queue area for disposition in the OSDF.

7.2) Quantification – Building 37

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

8) Task #8 - Building 54A

8.1) Plan/Scope – Building 54A

Building 54A is an irregularly shaped building with dimensions 165 x 123 ft. and 44 ft. high. It shares an entire western wall with Building 13A and its eastern wall with Building 37. The building has several distinct parts; the various parts of the overall building contain different types of construction materials

The 61 x 81 ft. main processing area (also known as Building 54A North) consists of a structural steel frame on a reinforce concrete base, reinforced poured concrete floor, transite siding panels, and glass windows.

A transformer room and utility room are attached to the north wall of the main processing area. A mechanical room, a hallway, and a power generator room are attached to the east wall of the main processing area. A control room, electrical room, and battery room are attached to the south wall of the main processing area.

The autoclave section, the southern portion of Building 54A, consists of a structural steel frame on poured reinforced concrete base with poured reinforced concrete floor, steel siding panels, and a sloped steel roof. The roof is of composite construction, having a corrugated steel deck covered with rigid insulation and five-ply built-up roofing. There are three autoclaves that contain asbestos insulation.

Due to anticipated elevated air activity, PAPRs will be worn up to and including the release cleaning phase of building D&D.

Interior Asbestos Abatement

ACM piping will be removed by glovebag containments as follows: 1) wrap all ACM pipe in two layers of 6 mil poly; 2) install glovebag and HEPA ventilation every 10 feet; 3) perform smoke test; 4) wet surfaces with amended water; 5) remove ACM using hand-held tools; 6) encapsulate exposed ends; 7) remove glove bag; and 8) mechanically cut pipe at abated areas using band saw, reciprocating saw, or disassemble pipes at joints or fittings.

ACM tile will also be removed, being very careful not to break the tile prior to removal and keeping the surfaces wet with amended water.

Equipment Dismantlement

All piping and equipment will be removed or verified to be locked-down during release cleaning; conduit, cable, lighting, etc. can remain in the building until dismantlement of the structure.

There is known holdup/residue material in Building 54A. This material is under a single piece of equipment and will be removed during D&D activities (assume a two-day activity).

Non-ACM floor tile will be removed by: 1) physically breaking the tiles using a hand-held scraper; 2) removing mastic by applying mastic dissolver and scouring the floor with a hand-held floor scrubber; 3) applying absorbent material (sawdust or cat litter) to remove and undissolved mastic; and 4) shoveling the absorbent into containers.

Wallboard will be removed by: 1) manually detaching the fasteners; and 2) lowering the panels by hand if on ground level, or for elevated removal, lowering the panels using an elevated work platform.

Release Cleaning

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Prior to opening the building to the environment, release cleaning will be performed ~~in accordance with D&D Specification Section 01517~~. Release cleaning will be performed by 1) HEPA vacuuming and/or wet wipe any loose contamination or residues, 2) using high pressure, low volume water washing, 3) applying fixative to areas which do not meet the release cleaning criteria.

Transite Removal

Transite siding (2 layers of panels) would likely be removed by 1) spraying encapsulant on the interior and exterior of the panels using a hand-held sprayer by workers on ground or in a manlift, 2) manually detaching and collecting the fasteners (assumed lead metal), and 3) lowering the panels by hand if on ground level or, for elevated removal, lowering the panels using a scissor lift/elevated work platform.

All lead material shall be segregated and placed into drums in accordance with the Material Segregation and Containerization Criteria requirements.

Gutters and down spouts will be removed by 1) accessing using manlifts, 2) ACM contents wet with amended water, 3) ACM contents manually scooped out, 4) encapsulant applied to the cleaned gutter/spout, 5) disassembled at the joints using mechanical methods, and 6) lowered to the ground in the manlifts.

Fiberglass or Mineral Wool Insulation (Batting) located between the interior and exterior transite panels will be removed by 1) spraying encapsulant to exposed surfaces, 2) manually rolling the insulation upon itself, 3) applying amended water for dust suppression, as needed.

Prior to opening the building to the environment, release cleaning will be performed in accordance with D&D Specification Section 01517.

Windows will be removed by: 1) applying tape to the glass; 2) removing the glazing material using a hand-held "chisel"; and 3) lead frames will be removed manually in conjunction with window removal or non-lead frames may be removed during D&D.

The contractor will band panels together, place panels on a pallet, wrap the palletized panels in 6-mil poly, and move to the queue area for disposition in the OSDF.

The contractor will size, segregate, and containerize the batting and windows and move the container to the queue area for disposition in the OSDF. The gutter debris will be drummed for off-site disposal.

Structural Removal

Above-grade concrete walls and roofing will be removed by: 1) administering water spray to wet the concrete before and during dismantlement; 2) using a wrecking ball to collapse the structure to the ground; 3) using a concrete shear to size reduce the concrete to meet OSDF Category 2 size criteria; and 4) shearing steel reinforcements, as needed.

The contractor will size, segregate, and containerize the debris and move the containers to the queue area for disposition in the OSDF

8.2) Quantification – Building 54A

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

9) Task #9 - Building 54B

9.1) Plan/Scope – Building 54B

Building 54B is a single-level building. The shelter is rectangular and has a steel frame structure 50 x 74 ft. and 10 ft. high, with a reinforced concrete foundation and floor and a metal roof. The lower panels of the shelter are steel while the upper panels in the roof gables are transite. Building 54B stored Pilot Plant materials such as uranium tetrafluoride.

Interior Asbestos Removal

ACM piping will be removed by glovebag containments as follows: 1) wrap all ACM pipe in two layers of 6 mil poly; 2) install glovebag and HEPA ventilation every 10 feet; 3) perform smoke test; 4) wet surfaces with amended water; 5) remove ACM using hand-held tools; 6) encapsulate exposed ends; 7) remove glove bag; and 8) mechanically cut pipe at abated areas using band saw, reciprocating saw, or disassemble pipes at joints or fittings.

ACM tile will also be removed; being very careful not to break the tile prior to removal and keeping the surfaces wet with amended water

The contractor will size, segregate, and containerize the debris and move the containers to the queue area for disposition in the OSDF.

Equipment Removal

All piping and equipment will be removed during this phase of work; however, conduit, cable, lighting, etc. will remain in the building during structural dismantlement.

Wallboard will be removed by: 1) manually detaching the fasteners; and 2) lowering the panels by hand if on ground level, or for elevated removal, lowering the panels using an elevated work platform.

Non-ACM floor tile will be removed by: 1) physically breaking the tiles using a hand-held scraper; 2) removing mastic by applying mastic dissolver and scouring the floor with a hand-held floor scrubber; 3) applying absorbent material (sawdust or cat litter) to remove and undissolved mastic; and 4) shoveling the absorbent into containers.

Utility piping contained within the piping access (utility) tunnels in the basement will be sectioned, removed from the pipe racks and/or hangers, and left on the basement floor for later removal.

Acid brick will be removed by: 1) manually breaking and removing a few bricks to create access using a spud bar; 2) removing acid bricks one at a time by hand; 3) dampening surfaces with water to minimize airborne dust; 4) removing acid brick membrane; 5) using HEPA vacuum to remove particulates; and 6) maintaining localized HEPA ventilation near the work area.

The contractor will containerize the acid brick and associated membrane together at the construction zone boundary.

The concrete floor within the Southern Extraction Process Area of Building 13A will be scabbled to a depth of 2" to remove elevated levels of technetium-99.

Wallboard will be removed by: 1) manually detaching the fasteners; and 2) lowering the panels by hand if on ground level, or for elevated removal, lowering the panels using an elevated work platform.

Transite Removal

Transite siding and roofing (single layers of panels) would likely be removed by 1) spraying encapsulant on the interior and exterior of the panels using a hand-held sprayer by workers on ground or in a manlift, 2) manually detaching and collecting the fasteners (assumed lead metal), and 3) lowering the panels by hand if on ground level or, for elevated removal, lowering the panels using a scissor lift/elevated work platform.

Gutters and down spouts will be removed by 1) accessing using manlifts, 2) ACM contents wet with amended water, 3) ACM contents manually scooped out, 4) encapsulant applied to the cleaned gutter/spout, 5) disassembled at the joints using mechanical methods, and 6) lowered to the ground in the manlifts.

All lead material shall be segregated and placed into drums in accordance with the Material Segregation and Containerization Criteria requirements.

The contractor will band transite panels together, place panels on a pallet, and wrap the palletized panels in 6-mil poly. The contractor will size and containerize the structural steel and windows in roll-off boxes and will drum any gutter debris. All containers will be moved to the queue area for disposition in the OSDF (transite, steel, and windows) or off site (gutter debris).

Structural Dismantlement

The remainder of the structure will be dismantled and sized using a shear.

The contractor will size, segregate, and containerize the debris and move the containers to the queue area for disposition in the OSDF.

9.2) Quantification – Building 54B

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

10) Task #10 - Building 54C

10.1) Plan/Scope – Building 54C

Building 54C is constructed of a structural steel frame supported on a reinforced poured concrete base, corrugated aluminum siding, and metal roof. The building has an aluminum

canopy that shelters the east side from the weather. The dimensions of the building are 20 x 48 ft. and 19 ft. high.

Building 54C houses three ammonia dissociators, associated equipment, piping, conduit, and other necessary appurtenances. A steel stairway on the west face of Building 54C, which services the second floor of Building 13A, will be removed as part of Building 54C.

Interior Asbestos Removal

ACM piping will be removed by glovebag containments as follows: 1) wrap all ACM pipe in two layers of 6 mil poly; 2) install glovebag and HEPA ventilation every 10 feet; 3) perform smoke test; 4) wet surfaces with amended water; 5) remove ACM using hand-held tools; 6) encapsulate exposed ends; 7) remove glove bag; and 8) mechanically cut pipe at abated areas using band saw, reciprocating saw, or disassemble pipes at joints or fittings.

The contractor will size, segregate, and containerize the debris and move the containers to the queue area for disposition in the OSDF.

Release Cleaning

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Prior to opening the building to the environment, release cleaning will be performed ~~in accordance with D&D Specification Section 01517~~. Release cleaning will be performed by 1) HEPA vacuuming and/or wet wipe any loose contamination or residues, 2) using high pressure, low volume water washing, 3) applying fixative to areas which do not meet the release cleaning criteria.

Structural And Equipment Dismantlement

The remaining structure, ammonia dissociators, and stairway will be dismantled using a shear. The contractor will size, segregate, and containerize the debris and move the containers to the queue area for disposition in the OSDF.

10.2) Quantification – Demobilization

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

11) Task #11 - Demobilization

11.1) Plan/Scope – Demobilization

Demobilization includes the following activities:

- Decontaminate equipment (heavy equipment)
- Remove temporary fencing
- Remove asbestos trailer, tool trailer, office trailer, temporary utilities
- Complete punchlist items. Trim rebar, grout remaining openings, gravel open areas, clean up debris

11.2) Quantification – Demobilization

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

1.5.8 BFDDB - D&D Subcontract – Laboratory

This D&D scope of work will be issued as a task order to the D&D Closure Project contract. These tasks include 1) premobilization, 2) mobilization, 3) Building 15A D&D, 4) Building 15B D&D, 5) Building 15C D&D, and 6) demobilization.

1) Task #1 - Premobilization

1.1) Plan/Scope – Premobilization

Premobilization includes preparation and submittal of all documentation necessary to begin mobilization activities.

The Sub-Contractor shall submit the following pre-mob submittals prior to "Authorization to Mobilize" and after issuance of the Task Order:

- Insurance certificate
- List of sub-tier contractors
- PLA letter of assent and verification of pre-job meeting
- Pay Item schedule of values
- Baseline/manpower loaded schedule
- Letter Contractor will abide by FDF PSHSP & addendum to PSHSP
- Substance abuse program
- Hearing conservation program plan
- Behavior based safety program
- QA/QC program plan
- 10 hour site safety training
- HAZWOPER training with OSHA supervised field experience form
- Mobilization SWP
- Waste handling SWP
- Temporary facilities SWP
- Temporary utilities SWP

1.2) Quantification - Premobilization

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

2) Task #2 - Mobilization

2.1) Plan/Scope – Mobilization

Mobilization includes field preparation activities, preparation of submittal documentation and building preparation.

Field preparation consists of the following activities:

- Install temporary portable toilets
- Install asbestos trailer (1 singlewide), water (with 5 micron filter dump to sewer), (heat traced) sewer (heat traced)
- Install temporary utilities – tie into substation in Building 36 water point source at low pressure fire protection system, connect to sanitary sewer at 101st & "B" street.
- Install construction zone fencing – 4′ orange fencing (majority of zone has existing 4′ wire fencing)
- Conduct alignment meeting
- Perform engineering survey – structural and floor loading in accordance with OSHA 1926.850
- Mobilize equipment – fork truck, pick-up truck, skid steer, track-mounted shear, back hoe, man-lift, scissor-lift, HEPA vacuums, air filtration devices, turnover-government furnished equipment, etc.

Submittal documentation consists of the following:

- Safe Work Plans
- Training Records
- MSDS
- Engineering Surveys
- Other documents as necessary.

Building preparation consists of the following:

- Construction of vestibules
- Construction of Cool down areas
- Construction of Wash down areas

2.2) Quantification – Mobilization

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

3) Task #3 - Building 15A

3.1) Plan/Scope – Building 15A

Building 15A has historically housed the analytical and chemical process laboratories for the FEMP. Building 15A is a multilevel, irregularly shaped building constructed of concrete block walls and concrete floors. The dimensions of the building are 253 x 292 feet and 20 feet high. The main floor of the building is composed of north, central, south, and east/west corridors. Courtyards are located between the south and central corridors and between the central and north corridors. A basement area is located beneath the western portion of the building. Piping access tunnels, which are accessible through access ways located in the first floor east corridor, run at basement level below the north and central corridors and join the basement on the west. A laboratory sump is located in the north courtyard. The Laboratory Building has been renovated which extended the northern portion and added a second story over the northern portion extension.

Interior Asbestos Abatement

ACM piping and duct insulation will be removed by glovebag containments a room at a time. In some instances, asbestos may be removed from an entire room as a large-scale asbestos abatement activity. However, the standard technique for ACM removal will be as follows: 1) wrap all ACM pipe in two layers of 6 mil poly; 2) install glovebag and HEPA ventilation every 10 feet; 3) perform smoke test; 4) wet surfaces with amended water; 5) remove ACM using hand-held tools; 6) encapsulate exposed ends; 7) remove glove bag; and 8) mechanically cut pipe at abated areas using band saw, reciprocating saw, or disassemble pipes at joints or fittings.

ACM tile will also be removed; being very careful not to break the tile prior to removal and keeping the surfaces wet with amended water. Any lab cabinetry that lies on top of ACM tile will be removed to gain access to the tile.

The contractor will size, segregate, and containerize the debris and move the containers to the queue area for disposition in the OSDF.

Structural and Equipment Dismantlement

The standard chemical hoods and associated ductwork will be disassembled and removed as process-related debris. These hoods were used for sample acid dissolutions using nitric, hydrofluoric, and hydrochloric acids and, as such, will require disposal at Envirocare. The removal of the Building 15A perchloric hoods and associated duct work must be performed using extreme caution due to the fact that over time perchloric acid will form perchlorate crystals which may be shock sensitive. These hoods will be decontaminated prior and during disassembly by removing any residue with water.

Cabinetry, non-process piping, valves, conduit, cable, lighting, etc. will remain in the building for inclusion with structural removal.

Wallboard will be removed by: 1) manually detaching the fasteners; and 2) lowering the panels by hand if on ground level, or for elevated removal, lowering the panels using an elevated work platform.

Non-ACM floor tile will be removed by: 1) physically breaking the tiles using a hand-held scraper; 2) removing mastic by applying mastic dissolver and scouring the floor with a hand-held floor scrubber; 3) applying absorbent material (sawdust or cat litter) to remove and undissolved mastic; and 4) shoveling the absorbent into containers.

Utility piping contained within the piping access (utility) tunnels in the basement will be sectioned, removed from the pipe racks and/or hangers, and left on the basement floor for later removal.

Windows will be removed by: 1) applying tape to the glass; 2) removing the glazing material using a hand-held "chisel"; and 3) lead frames will be removed manually in conjunction with window removal or non-lead frames may be removed during structural dismantlement.

The contractor will size, segregate, and containerize the debris and move the containers to the queue area for disposition in the OSDF.

Above-grade concrete walls and roof will be removed by 1) administering water spray to wet the concrete before and during dismantlement, 2) use hoe ram or shears to dismantle and size reduce using pushover techniques, and 3) shear steel reinforcements, as needed.

The contractor will size, segregate, and containerize the debris and move the containers to the queue area for disposition in the OSDF.

Once the above-grade structure has been removed, the contractor will use a hoe ram to break through the first floor concrete slab, thereby exposing the basement and tunnels. The piping will be removed and containerized; the concrete rubble will be left in the basement for removal during below-grade excavation.

3.2) Quantification – Building 15A

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

4) Task #4 - Building 15B

4.1) Plan/Scope – Building 15B

Building 15B is a concrete block building used for the laboratory chemical storage. The CMU structure will be removed by: 1) administering water spray to wet the concrete before and during dismantlement; 2) use hoe ram or shears to dismantle and size reduce using pushover techniques; and 3) shear steel reinforcements, as needed. The contractor will size, segregate, and containerize the debris and move the containers to the queue area for disposition in the OSDF.

4.2) Quantification – Building 15B

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

5) Task #5 - Building 15C

5.1) Plan/Scope – Building 15C

Building 15C is a small room that is contained within the structure of the Laboratory (Building 15A) and will, therefore, be dismantled as a part of Building 15A.

5.2) Quantification – Building 15C

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

6) Task #6 - Demobilization

6.1) Plan/Scope – Demobilization

Demobilization includes the following activities:

- Decontaminate equipment (heavy equipment)
- Remove temporary fencing
- Remove asbestos trailer, tool trailer, office trailer, temporary utilities

- Complete punchlist items. Trim rebar, grout remaining openings, gravel open areas, clean up debris

6.2) Quantification – Demobilization

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

1.5.9 BFDDA - D&D Subcontract – Administration (Includes Electrical Complex)

This D&D scope of work will be issued as a task order to the D&D Closure Project contract. This task includes premobilization, mobilization, Building 11, 14A, 14B, 20K, 53A, 53B D&D, and demobilization. This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor FTEs are presented in Section 3, and estimated quantities are presented in Section 4.

1) Task #1 – Premobilization

1.1) Plan/Scope – Premobilization

Premobilization includes preparation and submittal of all documentation necessary to begin mobilization activities.

The Sub-Contractor shall submit the following pre-mob submittals prior to "Authorization to Mobilize" and after issuance of the Task Order:

- Insurance certificate
- List of sub-tier contractors
- PLA letter of assent & verification of pre-job meeting
- Pay Item schedule of values
- Baseline/manpower loaded schedule
- Letter Contractor will abide by FDF PSHSP & addendum to PSHSP
- Substance abuse program
- Hearing conservation program plan
- Behavior based safety program
- QA/QC program plan
- 10 hour site safety training
- HAZWOPER training with OSHA supervised field experience form
- Mobilization SWP
- Waste handling SWP
- Temporary facilities SWP
- Temporary utilities SWP

1.2) Quantification - Premobilization

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

2) Task #2 – Mobilization

2.1) Plan/Scope – Mobilization

Mobilization includes field preparation activities, preparation of submittal documentation and building preparation.

Field preparation consists of the following activities:

- Install temporary portable toilets
- Install asbestos trailer (1 singlewide), water (with 5 micron filter dump to sewer), (heat traced) sewer (heat traced)
- R1-F02-002 Install temporary utilities – tie into substation in Building ~~36~~ 16B water point source at low pressure fire protection system, connect to sanitary sewer at ~~101st & B~~ 1st & "C" street.
- Install construction zone fencing – 4' orange fencing (majority of zone has existing 4' wire fencing)
- Conduct alignment meeting
- Perform engineering survey – structural and floor loading in accordance with OSHA 1926.850
- Mobilize equipment – fork truck, pick-up truck, skid steer, track-mounted shear, back hoe, man-lift, scissor-lift, HEPA vacuums, air filtration devices, turnover-government furnished equipment, etc.

Submittal documentation consists of the following:

- Safe Work Plans
- Training Records
- MSDS
- Engineering Surveys
- Other documents as necessary.

Building preparation consists of the following:

- Construction of vestibules
- Construction of Cool down areas
- Construction of Wash down areas

2.2) Quantification – Mobilization

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

3) Task #3 – Building 11

3.1) Plan/Scope – Building 11

Building 11 is a two-story structure that measures approximately 230 x 322 ft. and 30 ft. high. Building 11 consists of cinder block construction on reinforced poured concrete footers with reinforced poured concrete floors, glass windows, and a flat reinforced poured concrete roof.

Building 11 was used for several purposes, including the FEMP cafeteria (partially converted to office space), locker rooms, offices, training and conference rooms, and laundry facilities.

Interior Asbestos Abatement

ACM piping will be removed by glovebag containments as follows: 1) wrap all ACM pipe in two layers of 6 mil poly; 2) install glovebag and HEPA ventilation every 10 feet; 3) perform smoke test; 4) wet surfaces with amended water; 5) remove ACM using hand-held tools; 6) encapsulate exposed ends; 7) remove glove bag; and 8) mechanically cut pipe at abated areas using band saw, reciprocating saw, or disassemble pipes at joints or fittings.

ACM tile will also be removed; being very careful not to break the tile prior to removal and keeping the surfaces wet with amended water.

Cubicle or temporary walls and carpet will be removed.

The contractor will size, segregate, and containerize the debris and move the containers to the queue area for disposition in the OSDF.

Structural and Equipment Dismantlement

Windows will be removed by: 1) applying tape to the glass; 2) removing the glazing material using a hand-held "chisel"; and 3) lead frames will be removed manually in

conjunction with window removal or non-lead frames may be dismantled with the structure.

Piping and equipment in the laundry area will be disconnected and removed, washed, and visually inspected to verify the debris meets the OSDF WAC. Non-process piping, valves, conduit, cable, lighting, non-ACM floor tile, etc. will remain in the building during dismantlement of the structure.

The remainder of the above-grade portions of the building, which is predominantly CMU walls and concrete slabs, will be removed by: 1) administering water spray to wet the concrete before and during dismantlement; 2) using a concrete shear to dismantle and size reduce using pushover techniques; and 3) shearing steel reinforcements, as needed.

The contractor will size and containerize the remaining commingled debris and move the containers to the queue area for disposition in the OSDF.

3.2) Quantification – Building 11

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

4) Task #4 – Building 14A

4.1) Plan/Scope – Building 14A

Building 14A is an irregularly shaped two-level structure measuring 143 x 240 ft. and 24 ft. high. Building 14A is constructed of cinder block walls supported on reinforced concrete footers with poured concrete floors. The building comprises a central hallway with east and west wings, and a partial basement is located under the west wing. Building 14A houses the main offices for site management, the main mailroom, central reproduction and drafting, central computing, file storage, and the Emergency Operations Center. The building is also equipped with several restrooms/locker rooms.

Interior Asbestos Abatement

ACM piping will be removed by glovebag containments as follows: 1) wrap all ACM pipe in two layers of 6 mil poly; 2) install glovebag and HEPA ventilation every 10 feet; 3) perform smoke test; 4) wet surfaces with amended water; 5) remove ACM using hand-held tools; 6) encapsulate exposed ends; 7) remove glove bag; and 8) mechanically cut pipe at abated areas using band saw, reciprocating saw, or disassemble pipes at joints or fittings.

ACM tile will also be removed; being very careful not to break the tile prior to removal and keeping the surfaces wet with amended water.

Cubicle or temporary walls and carpet will be removed.

The contractor will size, segregate, and containerize the debris and move the containers to the queue area for disposition in the OSDF.

Structural and Equipment Dismantlement

Windows will be removed by: 1) applying tape to the glass; 2) removing the glazing material using a hand-held "chisel"; and 3) lead frames will be removed manually in conjunction with window removal or non-lead frames may be dismantled with the structure.

Non-process piping, valves, conduit, cable, lighting, non-ACM floor tile, etc. will remain in the building during dismantlement of the structure.

The remainder of the above-grade portions of the building, which is predominantly CMU walls and concrete slabs, will be removed by: 1) administering water spray to wet the concrete before and during dismantlement; 2) using a concrete shear to dismantle and size reduce using pushover techniques; and 3) shearing steel reinforcements, as needed.

The contractor will size and containerize the remaining commingled debris and move the containers to the queue area for disposition in the OSDF.

4.2) Quantification – Building 14A

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

5) Task #5 – Building 14B

5.1) Plan/Scope – Building 14B

Component 14B is a diesel powered electrical generator located near the northwest corner of the Administration Building (14A). The component contains a diesel-powered engine, a diesel fuel tank, an electrical generator and a cement dike built under and around the diesel fuel tank.

Equipment Dismantlement

The generator, tank and other metallic components of Component 14B will be dismantled and sized using a hydraulic shear and containerized in roll-off-boxes for transportation to the OSDF. The concrete dike will be left in place for removal during at- and below-grade excavation.

5.2) Quantification – Building 14B

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

6) Task #6 – Component 20K

6.1) Plan/Scope – Component 20K

Component 20K consists if two (2) cooling towers that are constructed out of galvanized steel, one pump house skid which contains three (3) pumps and a control room. The piping is plastic and carbon steel. The system ties into the existing chilled water system and DW system.

Structural and Equipment Dismantlement

Non-process piping, valves, conduit, cable, lighting, non-ACM floor tile, etc. will remain in the building during dismantlement of the structure.

The remainder of the above-grade portions of the structure, which is predominantly metal cooling tower and concrete slabs, will be removed by: 1) administering water spray to wet the structure before and during dismantlement; 2) using a shear to dismantle and size reduce using pushover techniques; and 3) shearing steel reinforcements, as needed.

The contractor will size and containerize the remaining commingled debris and move the containers to the queue area for disposition in the OSDF.

6.2) Quantification – Component 20K

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

7) Task #7 – Building 53B

Building 53B consists of a cement block wall and concrete floor construction with the approximate dimensions of 36 x 72 ft. and 15 ft. high. Building 53B is a radiologically shielded structure housing highly sensitive radiation detection equipment. The facility is utilized to obtain internal radiation measurements of on-site employees. The measurements are generally for uranium content of the lungs.

It is assumed that the in-vivo equipment is salvageable and will be removed prior to turnover of the building to the D&D project. Any equipment left behind will be considered waste for removal and disposal.

7.1) Plan/Scope – Building 53B

Interior Asbestos Abatement

ACM piping will be removed by glovebag containments as follows: 1) wrap all ACM pipe in two layers of 6 mil poly; 2) install glovebag and HEPA ventilation every 10 feet; 3) perform smoke test; 4) wet surfaces with amended water; 5) remove ACM using hand-held tools; 6) encapsulate exposed ends; 7) remove glove bag; and 8) mechanically cut pipe at abated areas using band saw, reciprocating saw, or disassemble pipes at joints or fittings.

ACM tile will also be removed; being very careful not to break the tile prior to removal and keeping the surfaces wet with amended water.

Cubicle or temporary walls and carpet will be removed.

Wallboard will be removed by: 1) manually detaching the fasteners; and 2) lowering the panels by hand if on ground level, or for elevated removal, lowering the panels using an elevated work platform.

The contractor will size, segregate, and containerize the debris and move the containers to the queue area for disposition in the OSDF.

Structural Dismantlement

Windows will be removed by: 1) applying tape to the glass; 2) removing the glazing material using a hand-held "chisel"; and 3) lead frames will be removed manually in conjunction with window removal or non-lead frames may be dismantled with the structure.

Non-process piping, valves, conduit, cable, lighting, non-ACM floor tile, etc. will remain in the building during dismantlement of the structure.

The remainder of the above-grade portions of the building, which is predominantly CMU walls and concrete slabs, will be removed by: 1) administering water spray to wet the concrete before and during dismantlement; 2) using a concrete shear to dismantle and size reduce using pushover techniques; and 3) shearing steel reinforcements, as needed.

The contractor will size and containerize the remaining commingled debris and move the containers to the queue area for disposition in the OSDF.

7.2) Quantification – Building 53B

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

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8) Task #8 – Building 46

8.1) Plan/Scope – Building 46

Building 46 stores forklifts, trucks, and other heavy equipment and is a single-story building, approximately 220 x 59 ft. It is a pre-engineered facility consisting of a structural steel frame on a reinforced poured concrete base, sloped steel roof panels, concrete/masonry block walls, and glass windows.

Structural and Equipment Dismantlement

Non-process piping, valves, conduit, cable, lighting, etc. will remain in the building during Structural Steel Removal.
Windows will be removed by 1) applying tape to the glass, 2) removing the glazing material using a hand-held "chisel", and 3) lead frames will be removed manually in conjunction with window removal or non-lead frames may be removed during Masonry/Concrete Removal.

Above-grade concrete walls, roof, and structural supports will be removed by 1) administering water spray to wet the concrete before and during dismantlement, 2) use hoe ram or shears to dismantle and size reduce using pushover techniques, and 3) shear steel reinforcements, as needed.

Structural steel, metal siding, and roof will be dismantled by shear.

The Contractor will size, segregate, and containerize the debris and move the container to the queue area for disposition in the OSDF.

8.2) Quantification – Building 46

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

9) Task #9 – Building 31A

9.1) Plan/Scope – Building 31A

The Engine House/Garage contained HWMU No. 3 for which OEPA Closure Certification Acceptance was received on June 6, 1996. The garage performs repair work and preventative maintenance on the vehicles. Spills, which occur on the concrete floor are cleaned with a floor scrubber. A sewer system in the building collects the water from the floor, which is sampled before disposition to the AWWT. The building is single-story cinder block with a sloped steel panel roof (with structural supports) and concrete floor.

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Three aboveground fuel tanks are also included with the building. Emergency power generator and fuel tank are included with the building.

Interior Asbestos Abatement

ACM piping will be removed by glovebag containments as follows 1) wrap all ACM pipe in two layers of 6 mil poly, 2) install glovebag and HEPA ventilation every 10 feet, 3) perform smoke test, 4) wet surfaces with amended water, 5) remove ACM using hand-held tools, 6) encapsulate exposed ends, 7) remove glove bag, 8) mechanically cut pipe at abated areas using band saw, reciprocating saw, or disassemble pipes at joints or fittings.

ACM Floor Tile will be removed by 1) applying amended water, 2) physically breaking the tiles using hand-held scrapers, 3) remove mastic by applying mastic dissolver and scouring the floor with a hand-held floor scrubber, 4) apply absorbent material (sawdust or cat litter) to remove any dissolved mastic.
The contractor will size, segregate, and containerize the debris and move the containers to the queue area for disposition in the OSDF.

Structural and Equipment Dismantlement

Tanks and vessels will sheared during structural demolition using water spray for dust control and the existing concrete pad (with additional sandbagged curbing for run-off control).

Containments are not required for equipment/system removal.

Non-process piping, valves, conduit, cable, lighting, etc. will also remain intact until structural demolition.

Above grade concrete walls, roof, and structural supports will be removed by 1) administering water spray to wet the concrete before and during dismantlement, 2) use hoe ram or shears to dismantle and size reduce using pushover techniques, and 3) shear steel reinforcements, as needed.

Metal roofing and structural steel will be dismantled by shear.

The Contractor will size, segregate, and containerize the debris and move the container to the queue area for disposition in the OSDF.

9.2) Quantification – Building 31A

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

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10) Task #8 – Demobilization

10.1) Plan/Scope – Demobilization

Demobilization includes the following activities:

- Decontaminate equipment (heavy equipment)
- Remove temporary fencing
- Remove asbestos trailer, tool trailer, office trailer, temporary utilities
- Complete punchlist items. Trim rebar, grout remaining openings, gravel open areas, clean up debris

10.2) Quantification – Demobilization

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

This D&D scope of work will be issued as a task order to the D&D Closure Project contract. This task includes premobilization, mobilization, Building 31A D&D, Building 46 D&D, and demobilization. This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor FTEs are presented in Section 3, and estimated quantities are presented in Section 4.

1.5.10 BFDDE - D&D Subcontract – East Warehouse

This D&D scope of work will be issued as a task order to the D&D Closure Project contract. These tasks include 1) premobilization, 2) mobilization, 3) Component 20D D&D, 4) Building 77 D&D, 5) Building 79 D&D, 6) Building 82A D&D, and 7) demobilization.

1) Task #1 - Premobilization

1.1) Plan/Scope – Premobilization

Premobilization includes preparation and submittal of all documentation necessary to begin mobilization activities.

The Sub-Contractor shall submit the following pre-mob submittals prior to "Authorization to Mobilize" and after issuance of the Task Order:

- Insurance certificate
- List of sub-tier contractors

- PLA letter of assent & verification of pre-job meeting
- Pay Item schedule of values
- Baseline/manpower loaded schedule
- Letter Contractor will abide by FDF PSHSP & addendum to PSHSP
- Substance abuse program
- Hearing conservation program plan
- Behavior based safety program
- QA/QC program plan
- 10 hour site safety training
- HAZWOPER training with OSHA supervised field experience form
- Mobilization SWP
- Waste handling SWP
- Temporary facilities SWP
- Temporary utilities SWP

1.2) Quantification - Premobilization

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

2) Task #2 - Mobilization

2.1) Plan/Scope – Mobilization

Mobilization includes field preparation activities, preparation of submittal documentation and building preparation.

Field preparation consists of the following activities:

- Install temporary portable toilets

- Install asbestos trailer (1 singlewide), water (with 5 micron filter dump to sewer), (heat traced) sewer (heat traced)

- Install temporary utilities – tie into substation in Building 36 water point source at low pressure fire protection system, connect to sanitary sewer at 101st & "B".

- Install construction zone fencing – 4' orange fencing (majority of zone has existing 4' wire fencing)

- Conduct alignment meeting

- Perform engineering survey – structural and floor loading in accordance with OSHA 1926.850

- Mobilize equipment – fork truck, pick-up truck, skid steer, track-mounted shear, back hoe, man-lift, scissor-lift, HEPA vacuums, air filtration devices, turnover-government furnished equipment, etc.

Submittal documentation consists of the following:

- Safe Work Plans
- Training Records
- MSDS
- Engineering Surveys
- Other documents as necessary.

Building preparation consists of the following:

- Construction of vestibules
- Construction of Cool down areas
- Construction of Wash down areas

2.2) Quantification – Mobilization

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

3) Task #3 - Component 20D

3.1) Plan/Scope – Component 20D

Component 20D (Elevated Potable Water Storage Tank) is a steel 21,000 gallon water storage tank with six structural steel columns and a center stand pipe on concrete footings measuring 100 feet high. The tank portion is cylindrically shaped, measuring approximately 30 feet in diameter and 40 feet tall. There is an approximate 8'x8'x8' transite pump house at the base of the water tank.

Interior Asbestos Abatement

The center stand pipe is insulated with asbestos tar paper. The stand pipe will be enclosed using scaffolding and plastic sheeting. The tar paper and non asbestos block will be using band saws, reciprocating saws, or other means necessary. After the asbestos and block have been removed the metal pipe will be encapsulated, the enclosure tested for airborne ACM and the enclosure dismantled.

The contractor shall size, segregate, and containerize the debris and move the container to the queuing area for disposition in the OSDF.

Structural and Equipment Dismantlement

Non-process piping, valves, conduit, cable, lighting, etc. will remain in the building during Structural Steel Removal.

The Contractor will size, segregate, and containerize the debris and move the container to the queue area for disposition in the OSDF.

The elevated water tower will be brought to the ground by mechanically cutting and tripping. The structure steel and tank will be sheared to the size criteria on the ground.

The Contractor(s) shall size, segregate, and containerize the debris and move the containers to the queuing area for disposition in the OSDF.

Exterior Asbestos Abatement

Transite siding (1 layer of panels) would likely be removed by 1) spraying encapsulant on the interior and exterior of the panels using a hand-held sprayer by workers on ground, 2) manually detaching and collecting the fasteners (assumed lead metal), and 3) lowering the panels by hand.

Transite roofing (1 layer of panels) would likely be removed by 1) spraying encapsulant on the interior and exterior side of the panels using a hand-held sprayer by workers on ground or from a ladder, 2) manually detaching and collecting the fasteners (assumed lead metal), and 3) lowering the panels using a ladder or manlift, 4) spraying encapsulant on all previously unexposed surfaces of panels.

All lead material shall be segregated and placed into drums in accordance with the Material Segregation and Containerization Criteria requirements.

The Contractor shall band panels together, place panels on a pallet and move to the queuing area for disposition in the OSDF.

3.2) Quantification – Component 20D

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

4) Task #4 - Building 77

4.1) Plan/Scope – Building 77

Building 77 (Finished Products Warehouse) is a single-level rectangular building measuring Approximately 120'x 162'x 12' high. Building 77 consists of a concrete floor and a structural steel frame with metal siding and roofing panels. The building is supported by a concrete foundation on grade.

Structural and Equipment Dismantlement

No process-related equipment or materials have been identified.

Non-process piping, valves, conduit, cable, lighting, etc. will remain in the building during Structural Steel Removal.

The Contractor(s) shall size, segregate, and containerize the non-process debris and move the container to the queuing area for disposition in the OSDF.

Structural steel will be dismantled by shear.

The Contractor(s) shall size, segregate, and containerize the debris and move the container to the queuing area for disposition in the OSDF.

4.2) Quantification – Building 77

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

5) Task #5 - Building 79

5.1) Plan/Scope – Building 79

Building 79 (Plant 6 Warehouse) is a single-level rectangular building measuring Approximately 100'x170'x15' high. Building 79 consists of a concrete floor and a structural steel frame with metal siding and roofing panels. The building is supported by a concrete foundation on grade. The small break room trailer inside Building 79 is assumed to be removed by the facility owner prior to D&D activities.

Structural and Equipment Dismantlement

No process-related equipment or materials have been identified.

Non-process piping, valves, conduit, cable, lighting, etc. will also remain intact until Structural Steel Removal.

The Contractor(s) shall size, segregate, and containerize the non-process debris and move the container to the queuing area for disposition in the OSDF.

Structural steel will be dismantled by shear.

The Contractor(s) shall size, segregate, and containerize the debris and move the container to the queuing area for disposition in the OSDF.

5.2) Quantification – Building 79

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

6) Task #6 - Building 82A

6.1) Plan/Scope – Building 82A

Building 82A (Receiving/Incoming Materials Inspection Area Building) is a single-level rectangular building measuring Approximately 100'x100'x17' high. Building 82A consists of a concrete floor and a structural steel frame with metal siding and roofing panels. The building has interior cinderblock walls. The building is supported by a concrete foundation on grade.

Structural and Equipment Dismantlement

No process-related equipment or materials have been identified.

Non-process piping, valves, conduit, cable, lighting, etc. will remain in the building during Structural Steel Removal.

The Contractor(s) shall size, segregate, and containerize the non-process debris and move the container to the queuing area for disposition in the OSDF.

Above-grade masonry/concrete walls will be removed by 1) administering water spray to wet the concrete before and during dismantlement, 2) use hoe ram or shears to dismantle and size reduce using pushover techniques, and 3) shear steel reinforcements, as needed.

The Contractor(s) shall size, segregate, and containerize the debris and move the container to the queuing area for disposition in the OSDF.

Structural steel will be dismantled by shear.

The Contractor(s) shall size, segregate, and containerize the debris and move the container to the queuing area for disposition in the OSDF.

6.2) Quantification – Building 82A

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

7) Task #7 - Demobilization

7.1) Plan/Scope – Demobilization

Demobilization includes the following activities:

- Decontaminate equipment (heavy equipment)
- Remove temporary fencing
- Remove asbestos trailer, tool trailer, office trailer, temporary utilities
- Complete punchlist items. Trim rebar, grout remaining openings, gravel open areas, clean up debris

7.2) Quantification – Demobilization

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

1.5.11 BFDDM - D&D Subcontract – Miscellaneous

This D&D scope of work consists of the following activities: premobilization, mobilization, D&D, and demobilization. These tasks will be issued as task orders to the D&D Closure Project contract or the Labor Hour Contract as the structure become available for D&D. This work will be conducted by the D&D contractor management team and Building Trades personnel.

1.1) Plan/Scope – Miscellaneous D&D

Premobilization

Premobilization includes preparation and submittal of all documentation necessary to begin mobilization activities.

The Sub-Contractor shall submit the following pre-mob submittals prior to "Authorization to Mobilize" and after issuance of the Task Order:

- Insurance certificate
- List of sub-tier contractors

- PLA letter of assent and verification of pre-job meeting
- Pay Item schedule of values
- Baseline/manpower loaded schedule
- Letter Contractor will abide by FDF PSHSP & addendum to PSHSP
- Substance abuse program
- Hearing conservation program plan
- Behavior based safety program
- QA/QC program plan
- 10 hour site safety training
- HAZWOPER training with OSHA supervised field experience form
- Mobilization SWP
- Waste handling SWP
- Temporary facilities SWP
- Temporary utilities SWP

Mobilization

Mobilization includes field preparation activities, preparation of submittal documentation and building preparation.

Field preparation consists of the following activities:

- Install temporary portable toilets

- Install construction zone fencing – 4′ orange fencing (majority of zone has existing 4′ wire fencing)

- Conduct alignment meeting

- Perform engineering survey – structural and floor loading in accordance with OSHA 1926.850

- Mobilize equipment – fork truck, pick-up truck, skid steer, track-mounted shear, back hoe, man-lift, scissor-lift, HEPA vacuums, air filtration devices, turnover-government furnished equipment, etc.

Submittal documentation consists of the following:

- Safe Work Plans
- Training Records
- MSDS
- Engineering Surveys
- Other documents as necessary.

D&D

The building, component, or trailer will be dismantled using a hydraulic shear. The contractor will size and containerize the debris in roll-off boxes and will move the containers to the queue area for disposition in the OSDF.

Demobilization

Demobilization includes the following activities:

- Decontaminate equipment (heavy equipment)
- Remove temporary fencing
- Remove asbestos trailer, tool trailer, office trailer, temporary utilities
- Complete punchlist items. Trim rebar, grout remaining openings, gravel open areas, clean up debris

The tasks are as follows:

1) Task #1 – Component 5F (Plant 5 Covered Storage Pad)

Component 5F is a pre-engineered metal structure 80 X 100 X 30 feet.

2) Task #2 – Component 12E (Maintenance Storage Shed)

Component 12E is a single story pre-engineered metal structure 20 X 20 X12 feet.

3) Task #3 – Component 12F (Maintenance Storage Shed)

Component 12F is a single story pre-engineered metal structure 20 X 20 X 12 feet.

4) Task #4 – Building 12G (Restored Area Maintenance Building)

Building 12G is a single story pre-engineered metal structure 20 X 20 X 12 feet.

5) Task #5 - Component 16B (Electrical Substation)

Component 16B is a cinder block building with a concrete floor and metal sheet roof measuring 20 x 40 ft. Component 16B contains electrical meters, panels and main circuit breakers. Component 16B is a secondary unit substation that receives 13.2 kV and transforms it down to 480V to power the Health and Safety Building, Security Building, Human Resources Building and east trailers.

6) Task #6 - Component 16C (Electrical Panels & Transformer)

Component 16C is a wooden, two-sided structure on a concrete pad that is approximately 4 x 20 ft. Component 16C shelters a transformer and electrical meter. Component 16C was used as a secondary unit substation that received 480 V and transformed it down to 208 V to provide electrical power to the east trailers.

7) Task #7 – Component 16F (Trailer Substation #1)

Component 16F is a concrete pad, 4 x 20 ft. with a small fiberglass enclosure for a transformer, main circuit breaker, fuse disconnect and electrical meters. Component 16F is a power distribution point that receives 480 V from the Electrical Substation and transforms it to 208 V to power local office trailers.

8) Task #8 – Component 16G (Trailer Substation #2)

Component 16G is a 4 x 20 ft. concrete pad with a small fiberglass enclosure for a transformer, main circuit breaker, fuse disconnect and electrical meters. Component 16G is a power distribution point that receives 480 V from the Electrical Substation and transforms it to 208 V to power the local office trailers.

9) Task #9 - Component 20E (Well House #1)

Component 20E (Well House #1) is a single story structure consisting of a cement block wall with a concrete floor and dimensions of 11 x 20 x 9 ft. high. Component 20E is one of three on-site pumping stations that supply the process area with water for fire protection and other potable uses. Component 20E houses one electrical water pump and accompanying equipment.

10) Task #10 – Component 20F (Well House #2)

Component 20F (Well House #2) is a single story structure consisting of a cement block wall with a concrete floor and dimensions of 11 x 20 x 9 ft. high. Component 20F is one of three on-site pumping stations that supply the process area with water for fire protection and other potable uses. Component 20F houses one electrical water pump and accompanying equipment.

11) Task #11 – Component 20G (Well House #3)

Component 20F (Well House #2) is a single story structure consisting of a cement block wall with a concrete floor and dimensions of 11 x 20 x 9 ft. high. Component 20F is one of three on-site pumping stations that supply the process area with water for fire protection and other potable uses. Component 20F houses one electrical water pump and accompanying equipment.

12) Task #12 – Component 22B (Storm Sewer Lift Station)

Component 22B is a single story structure with cement block walls and concrete floor. Component 22B dimensions are 10 x 16 x 8 ft. Component 22B is utilized to pump accumulated site stormwater off-site to the Great Miami River.

13) Task #13 - Component 22D (Scale House and Weigh Scale)

Component 22D is a metal framed transite sided 6 X 8 X 8 feet.

14) Task #14 – Component 23 (Meteorological Tower)

The Meteorological Tower is a steel structure located west of the Storm Water Retention Basin (18E). The tower holds climate monitoring instruments used to measure the day-to-day meteorological conditions of the surrounding area, to detect severe weather conditions, and to gather data to support the development of air dispersion models for the Emergency Operations Center in the event of an off-site airborne release.

15) Task #15 – Component 25C (Sewer Lift Station Building)

Component 25C (Sewage Lift Station Building) is a single story structure consisting of cement block walls on a reinforced concrete floor and dimensions of 15 x 20 x 9 ft. high. Component 25C pumped accumulated sanitary wastes from the site to the Sewage Treatment Plant. The treated effluent is subsequently released to the Great Miami River

16) Task #16 – Component 26C (Main Electrical Substation Riser/Strainer House)

Component 26C (Main Electrical Strainer House) is a cinder block building with a partial concrete floor, transite roof and dimensions of 10 x 12 x 10 ft. high. Component 26C contains the control valves for the main electrical deluge fire protection system, which provides fire sprinkler protection for the Main Electrical Station

17) Task #17 – Buildings 28E (Guard Post at OSDF South Entrance)

Component 28E is a metal framed fiberglass structure approximately 8 X 10 X 8 feet.

18) Task #18 – Building 28G (Guard Post NW of Building 45)

Component 28G is a metal framed fiberglass structure approximately 8 X 10 X 8 feet.

19) Task #19 – Building 28H (Guard Post South of K-65 Area)

Component 28H is a metal framed fiberglass structure approximately 8 X 10 X 8 feet.

20) Task #20 - Building 28J (Security Checkpoint – South Access Road)

Component 28J is a metal framed fiberglass structure approximately 8 X 10 X 8 feet.

21) Task #21 - Building 28K (Security Checkpoint – E. Parking Lot)

Component 28K is a metal framed fiberglass structure approximately 8 X 10 X 8 feet.

22) Task #22 – Building 28L (Guard Post – N. Construction Access Road)

Component 28L is a metal framed fiberglass structure approximately 8 X 10 X 8 feet.

23) Task #23 – Building 28M (Guard Post on "F" Street)

Component 28M is a metal framed fiberglass structure approximately 8 X 10 X 8 feet.

24) Task #24 – Building 30D (Sampling Line Processing)

Building 30D is located inside Building 30A.

25) Task #25 - Building 50 (Maintenance Storage Building)

Building 50 is a pre-engineered metal building 23 X 30 X 16 feet.

26) Task #26 – Building 52A (RTRAK Building)

Building 52A is a single story pre-engineered metal structure 20 X 20 X12 feet.

27) Task #27 – Building 52B (ASTD SCEP Building)

Building 52B is a pre-engineered metal building 23 X 30 X 16 feet.

28) Task #28 – Building 60 (Quonset Hut #1)

Building 60 is a single-story shelter, pre-engineered facility consisting of a structural steel frame on a reinforced poured concrete base with sloped steel roof panels, steel siding panels and glass windows. The facility has approximated dimensions of 41 X 60 X 20 feet high.

29) Task #29 - Building 61 (Quonset Hut #2)

Building 61 is a single-story shelter, pre-engineered facility consisting of a structural steel frame on a reinforced poured concrete base with sloped steel roof panels and steel siding panels. The facility has approximated dimensions of 41 X 60 X 20 feet high.

30) Task #30 – Building 62 (Quonset Hut #3)

Building 62 is a single-story shelter, pre-engineered facility consisting of a structural steel frame on a reinforced poured concrete base with sloped steel roof panels and steel siding panels. The facility has approximated dimensions of 41 X 60 X 20 feet high.

31) Task #31 – Building 68 (Pilot Plant Warehouse)

Building 68 is a metal framed building with metal siding and a metal roof 30 X 60 X 20 feet.

32) Task #32 – Building 93A (Southwest Boiler House)

Building 93A is a pre-engineered metal framed and metal sided building housing three (3) gas fired boilers 36 X 48 X 20 feet.

33) Task #33 – Component G-008 (Pipe Bridges)

Remove miscellaneous pipes, pipe racks, conduit, and power supply, etc., remove the piping from air gap isolation points in the pipe racks and power supply from the isolation points to the buildings, and piping and pipe racks from building to building shall be removed. The pipe racks shall be removed to the top of the concrete footer and the attachment bolts shall be cut flush with the concrete.

34) Task #34 – Building TS-08 (Environ. Monitor. Equip. Storage)

Component TS-08 is a steel tube framed structure enclosed within a synthetic covering. It is assumed that this structure will not be salvaged, but dismantled and sized for placement in the OSDF.

35) Task #35 - Trailer T1 (FF)

Trailer T1 is a 5-Plex trailer that measures 71 X 56 feet.

36) Task #36 - Trailer T2 (Rad Safety)

Trailer T2 is a single wide that measures 36 X 10 feet.

37) Task #37 - Trailer T3 (Wise Construction)

Trailer T3 is a single wide that measures 36 X 10 feet.

38) Task #38 - Trailer T4 (Multimedia Visual Storage)

Trailer T4 is a single wide that measures 36 X 10 feet.

39) Task #39 - Trailer T5 (FF Construction)

Trailer T5 is a single wide that measures 36 X 10 feet.

40) Task #40 - Trailer T6 (Restrooms)

Trailer T6 is a single wide that measures 36 X 10 feet.

41) Task #41 – Trailer T7 (FF)

Trailer T7 is a single wide that measures 46 X 10 feet.

42) Task #42 – Trailer T8 (Wise Construction)

Trailer T8 is a single wide that measures 44 X 10 feet.

43) Task #43 – Trailer T12 (CRU4-DLS)

Trailer T12 is a single wide that measures 10 X 30 feet.

44) Task #44 – Trailer T17 (FF)

Trailer T17 is a single wide that measures 44 X 10 feet.

45) Task #45 – Trailer T18 (Break Trailer)

Trailer T18 is a double wide that measures 56 X 24 feet.

46) Task #46 – Trailer T19 (Rad Safety)

Trailer T19 is a single wide that measures 12 X 60 feet.

47) Task #47 – Trailer T23 (10 Plex)

Trailer T23 is a 10 Plex that measures 118 X 56 feet.

48) Task #48 – Trailer T24 (7 Plex – North)

Trailer T24 is a 7 Plex that measures 82.5 X 56 feet.

49) Task #49 – Trailer T25 (7 Plex – South)

Trailer T25 is a 7 Plex that measures 82.5 X 56 feet.

50) Task #50 – Trailer T26 (Waste Management)

Trailer T26 is a single wide that measures 12 X 60 feet.

51) Task #51 – Trailer T29 (Computer)

Trailer T29 is a single wide that measures 66 X 14 feet.

52) Task #52 - Trailer T30 (Computer)

Trailer T30 is a single wide that measures 66 X 14 feet.

53) Task #53 – Trailer T33 (Shipping Office)

Trailer T33 is a single wide that measures 56 X 12 feet.

54) Task #54 – Trailer T34 (FF)

Trailer T34 is a single wide that measures 8 X 12 feet.

55) Task #55 – Trailer T35 (FF)

Trailer T35 is a double wide that measures 66 X 24 feet.

56) Task #56 – Trailer T36 (Heavy Equipment Operators)

Trailer T36 is a single wide that measures 8 X 30 feet.

57) Task #57 - Trailer T40 (Thorium Overpack)

Trailer T40 is a single wide that measures 8 X 26 feet.

58) Task #58 - Trailer T41 (Waste Certification - OA)

Trailer T41 is a single wide that measures 12 X 60 feet.

59) Task #59 - Trailer T42 (Respirator Washing Facility)

Trailer T42 is a single wide that measures 45 X 8 feet.

60) Task #60 - Trailer T43 (Restoration)

Trailer T43 is a double wide that measures 56 X 24 feet.

61) Task #61 – Trailer T44 (FF Maintenance)

Trailer T44 is a double wide that measures 56 X 24 feet.

62) Task #62 - Trailer T45 (Environmental Monitoring)

Trailer T45 is a double wide that measures 56 X 24 feet.

63) Task #63 - Trailer T46 (Environmental Monitoring)

Trailer T46 is a double wide that measures 56 X 24 feet.

64) Task #64 - Trailer T49 (Bio-Assay Semi-Trailer)

Trailer T49 is a single wide that measures 56 X 8 feet.

65) Task #65 – Trailer T50 (Rad Safety)

Trailer T50 is a single wide that measures 10 X 16 feet.

66) Task #66 – Trailer T57 (Rad Safety)

Trailer T57 is a double wide that measures 70 X 28 feet.

67) Task #67 – Trailer T58 (Construction Office)

Trailer T58 is a double wide that measures 70 X 28 feet.

68) Task #68 - Trailer T59 (FF Waste Management)

Trailer T59 is a single wide that measures 36 X 10 feet.

69) Task #69 - Trailer T60 (Environmental Monitoring)

Trailer T60 is a single wide that measures 8 X 20 feet.

70) Task #70 – Trailer T61 (Startup Group)

Trailer T61 is a single wide that measures 56 X 12 feet.

71) Task #71) – Trailer T62 (Startup Group)

Trailer T62 is a single wide that measures 50 X 12 feet.

72) Task #72 – Trailer T65 (Plant 1 Pad MC&A Office)

Trailer T65 is a single wide that measures 8 X 10 feet.

73) Task #73 - Trailer T66 (RIMIA Tri-Plex)

Trailer T66 is a Tri-Plex that measures 66 X 42 feet.

74) Task #74 – Trailer T67 (Rad. Tech.)

Trailer T67 is a single wide that measures 8 X 20 feet.

75) Task #75 – Trailer T68 (CRU1 Office)

Trailer T68 is a single wide that measures 10 X 60 feet.

76) Task #76 – Trailer T69 (Control Point – RIMIA)

Trailer T69 is a single wide that measures 10 X 20 feet.

77) Task #77 – Trailer T71 (Safe Shutdown)

Trailer T71 is a single wide that measures 56 X 12 feet.

78) Task #78 – Trailer T72 (Safe Shutdown)

Trailer T72 is a single wide that measures 50 X 12 feet.

79) Task #79 – Trailer T74 (ARASA Changeout Facility)

Trailer T74 is a Quad-Plex that measures 60 X 56 feet.

80) Task #80 – Trailer T75 (Multimedia Services)

Trailer T75 is a single wide that measures 60.5 X 12 feet.

81) Task #81 – Trailer T82 (Capital Project)

Trailer T82 is a double wide that measures 66 X 28 feet.

82) Task #82 - Trailer T83 (Capital Project)

Trailer T83 is a double wide that measures 66 X 28 feet.

83) Task #83 – Trailer T84 (Capital Project)

Trailer T84 is a double wide that measures 66 X 27.5 feet.

84) Task #84 – Trailer T85 (Capital Project)

Trailer T85 is a double wide that measures 66 X 27.5 feet.

85) Task #85 – Trailer T86 (Capital Project)

Trailer T86 is a double wide that measures 66 X 27.5 feet.

86) Task #86 – Trailer T87 (Capital Project)

Trailer T87 is a double wide that measures 66 X 27.5 feet.

87) Task #87 – Trailer T89 (WPA Men's Changeout)

Trailer T89 is a single wide that measures 56 X 14 feet.

88) Task #88 – Trailer T90 (WPA Women's Changeout)

Trailer T90 is a single wide that measures 56 X 14 feet.

89) Task #89 – Trailer T91 (WPA Men's Changeout)

Trailer T91 is a single wide that measures 56 X 14 feet.

90) Task #90 – Trailer T92 (WPA Breakroom)

Trailer T92 is a single wide that measures 56 X 14 feet.

91) Task #91 – Trailer T93 (Radiation Control Unit Quad)

Trailer T93 is a Quad-Plex that measures 60 X 56 feet.

92) Task #92 – Trailer T94 (Radiation Control Unit Quad)

Trailer T94 is a Quad-Plex that measures 60 X 56 feet.

93) Task #93 – Trailer T95 (Radiation Control Unit Quad)

Trailer T95 is a Quad-Plex that measures 60 X 56 feet.

94) Task #94 – Trailer T96 (Radiation Control)

Trailer T96 is a double wide that measures 60 X 28 feet.

95) Task #95 – Trailer T97 (FF Office – CRU4)

Trailer T97 is a single wide that measures 36 X 10 feet.

96) Task #96 - Trailer T98 (OSDF)

Trailer T98 is a single wide that measures 60 X 14 feet.

97) Task #97 - Trailer T100 (FF Office)

Trailer T100 is a single wide that measures 10 X 20 feet.

98) Task #98 - Trailer T103 (Storage)

Trailer T103 is a single wide that measures 10 X 12 feet.

99) Task #99 – Trailer T108 (IAWWTF)

Trailer T108 is a single wide that measures 56 X 12 feet.

100) Task #100 - Trailer T109 (IAWWTF)

Trailer T109 is a single wide that measures 56 X 12 feet.

101) Task #101 – Trailer T117 (CRU4 Construction Support Office)

Trailer T117 is a double wide that measures 24 X 66 feet.

102) Task #102 - Trailer T118 (CRU4 Support Office)

Trailer T118 is a single wide that measures 10 X 42 feet.

103) Task #103 - Trailer T119 (Restrooms)

Trailer T119 is a single wide that measures 46 X 10 feet.

104) Task #104 – Trailer T121 (FF Office)

Trailer T121 is a single wide that measures 14 X 74 feet.

105) Task #105 – Trailer T122 (Storage)

Trailer T122 is a single wide that measures 8 X 40 feet.

106) Task #106 – Trailer T127 (OEPA – Part of T68)

Trailer T127 is a double wide that measures 24 X 70 feet.

107) Task #107 – Trailer T128 (Mixed Waste)

Trailer T128 is a double wide that measures 25 X 60 feet.

108) Task #108 - Trailer T129 (OEPA – Part of T68)

Trailer T129 is a double wide that measures 24 X 60 feet.

109) Task #109 - Trailer T130 (Breakroom)

Trailer T130 is a double wide that measures 26 X 60 feet.

110) Task #110 - Trailer T131 (Breakroom)

Trailer T131 is a double wide that measures 26 X 60 feet.

111) Task #111 – Trailer T132 (Kelchner Office)

Trailer T132 is a single wide that measures 10 X 50 feet.

112) Task #112 – Trailer T135 (Boiler Maintenance)

Trailer T135 is a single wide that measures 14 X 56 feet.

113) Task #113 - Trailer T138 (Southern Waste Unit Site Prep. Group.)

Trailer T138 is a double wide that measures 28 X 70 feet.

114) Task #114 - Trailer T139 (Southern Waste Unit Site Prep. Group.)

Trailer T139 is a double wide that measures 28 X 70 feet.

115) Task #115 - Trailer T141 (Maintenance Storage)

Trailer T141 is a single wide that measures 8 X 32 feet.

116) Task #116 - Trailer T142 (Maintenance Storage)

Trailer T142 is a single wide that measures 39.5 X 8 feet.

117) Task #117 – Trailer T164 (FF Training)

Trailer T164 is a double wide that measures 24 X 60 feet.

118) Task #118 – Trailer T165 (FF Training)

Trailer T165 is a double wide that measures 24 X 60 feet.

119) Task #119 – Trailer T166 (Industrial Relations)

Trailer T166 is a double wide that measures 24 X 60 feet.

120) Task #120 – Trailer T167 (Industrial Relations)

Trailer T167 is a double wide that measures 24 X 60 feet.

121) Task #121 – Trailer T168 (ARASA Contractor)

Trailer T168 is a double wide that measures 24 X 60 feet.

122) Task #122 – Trailer T169 (ARASA Contractor)

Trailer T169 is a double wide that measures 24 X 60 feet.

123) Task #123 - Trailer T170 (ARASA Contractor)

Trailer T170 is a double wide that measures 24 X 60 feet.

124) Task #124 - Trailer T171 (ARASA Contractor)

Trailer T171 is a double wide that measures 24 X 60 feet.

125) Task #125 – Trailer T172 (FCNDP)

Trailer T172 is a double wide that measures 24 X 60 feet.

126) Task #126 – Trailer T173 (FCNDP)

Trailer T173 is a double wide that measures 24 X 60 feet.

127) Task #127 – Trailer T174 (FCNDP)

Trailer T174 is a double wide that measures 24 X 60 feet.

128) Task #128 – Trailer T175 (FCNDP)

Trailer T175 is a double wide that measures 24 X 60 feet.

129) Task #129 – Trailer T176 (FCNDP)

Trailer T176 is a double wide that measures 24 X 60 feet.

130) Task #130 - Trailer T177 (FCNDP)

Trailer T177 is a double wide that measures 24 X 60 feet.

131) Task #131 – Trailer T178 (FCNDP)

Trailer T178 is a double wide that measures 24 X 60 feet.

132) Task #132 - Trailer T179 (FCNDP)

Trailer T179 is a double wide that measures 24 X 60 feet.

133) Task #133 - Trailer T181 (FF Office)

Trailer T181 is a double wide that measures 24 X 60 feet.

134) Task #134 - Trailer T182 (FF Office)

Trailer T182 is a double wide that measures 24 X 60 feet.

135) Task #135 - Trailer T183 (FF Office)

Trailer T183 is a double wide that measures 24 X 60 feet.

136) Task #136 - Trailer T186 (OSDF Office Trailer)

Trailer T186 is a single wide that measures 10 X 10 feet.

137) Task #137 - Trailer T191 (Breakroom/Cooldown)

Trailer T191 is a single wide that measures 10 X 32 feet.

138) Task #138 - Trailer T301 (IT Corp.)

Trailer T301 is a single wide that measures 10 X 40 feet.

139) Task #139 - Trailer T305 (Environmental Monitoring)

Trailer T305 is a double wide that measures 24 X 48 feet.

140) Task #140 - Trailer T306 (Environmental Monitoring)

Trailer T306 is a single wide that measures 8 X 40 feet.

141) Task #141 - Trailer T312 (Cell 1 Personal Cool Down)

Trailer T312 is a single wide that measures 8 X 20 feet.

142) Task #142 – Trailer T313 (ARASA Admin. Office "A")

Trailer T313 is a Tri-Plex that measures 42 X 76 feet.

143) Task #143 – Trailer T314 (ARASA Admin. Office "B")

Trailer T314 is a Tri-Plex that measures 42 X 76 feet.

144) Task #144 - Trailer T315 (ARASA Laboratory Office)

Trailer T315 is a single wide that measures 10 X 50 feet.

145) Task #145 - Trailer T316 (ARASA Laboratory "A")

Trailer T316 is a single wide that measures 12 X 50 feet.

146) Task #146 - Trailer T317 (ARASA Laboratory "B")

Trailer T317 is a single wide that measures 12 X 50 feet.

147) Task #147 – Trailer T318 (ARASA MHB/RCLO Pow. Mod. Bld)

Trailer T318 is a single wide that measures 12 X 28 feet.

148) Task #148 – Trailer T319 (ARASA Breakroom)

Trailer T319 is a single wide that measures 12 X 56 feet.

149) Task #149 - Trailer T320 (ARASA Laun./Resp. wash facility)

Trailer T320 is a double wide that measures 28 X 56 feet.

150) Task #150 – Trailer T321 (ARASA MHB Rad. Cont. Trailer)

Trailer T321 is a single wide that measures 12 X 56 feet.

151) Task #151 – Trailer T322 (ARASA Supervisor's Office)

Trailer T322 is a single wide that measures 12 X 48 feet.

152) Task #152 – Trailer T323 (ARASA Control Room)

Trailer T323 is a single wide that measures 10 X 30 feet.

153) Task #153 - Trailer T325 (ARASA GCS/WTS Pow. Mod. Bldg)

Trailer T325 is a single wide that measures 8 X 40 feet.

154) Task #154 – Trailer T326 (ARASA Cont. Emissions Mon. Tr.)

Trailer T326 is a single wide that measures 6 X 8 feet.

155) Task #155 - Trailer T327 (Weigh Scale Ticket Office)

Trailer T327 is a single wide that measures 12 X 12 feet.

156) Task #156 – Trailer T330 (Doffing Trailer)

Trailer T330 is a single wide that measures 8 X 8 feet.

157) Task #157 – Trailer T502 (IT Corp. ARASA)

Trailer T502 is a Quad-Plex that measures 60 X 60 feet.

158) Task #158 – Trailer T505 (Facilities Shutdown Break Trailer)

Trailer T505 is a single wide that measures 24 X 8 feet.

159) Task #159 - Trailer T506 (Office)

Trailer T506 is a single wide that measures 14 X 60 feet.

160) Task #160 - Trailer T512 (Break- M. Ravenscraft)

Trailer T512 is a single wide that measures 10 X 48 feet.

161) Task #161 - Trailer T513 (Construction Coordinators)

Trailer T513 is a single wide that measures 12 X 60 feet.

162) Task #162 - Trailer T514 (Construction – Conference Room)

Trailer T514 is a single wide that measures 55 X 11 feet.

163) Task #163 - Trailer T520 (S&W Office)

Trailer T520 is a single wide that measures 24 X 8 feet.

164) Task #164 - Trailer T529 (Storage)

Trailer T529 is a single wide that measures 12 X 20 feet.

165) Task #165 – Trailer T540 (Triplex – Porter Breakroom)

Trailer T540 is a Quad-Plex that measures 48 X 60 feet.

166) Task #166 – Trailer T603 (Storage – Semi Trailer)

Trailer T603 is a single wide that measures 40 X 8 feet.

167) Task #167 – Trailer T604 (Maintenance Storage Semi Trailer)

Trailer T604 is a single wide that measures 40 X 8 feet.

168) Task #168 - Trailer T608 (Break Trailer – Waste Management)

Trailer T608 is a single wide that measures 8 X 12 feet.

169) Task #169 - Building 24C - Locomotive Engine House/Repair and Truck Washing Facility

Building 24C is a single-story building measuring 40 x 110 ft. and 30 ft. high and consists of a structural steel frame with non-insulated, corrugated metal siding and roofing on a reinforced poured concrete base and floor. There is minimal piping and equipment and it is assumed that there is neither ACM nor process-related equipment. Therefore, the entire structure will be dismantled and size reduced using a shear. In addition, the D&D includes all the area fencing, power poles, area lighting, and miscellaneous fixtures. The contractor will then containerize the debris and move the containers to the queue area for disposition in the OSDF.

170) Task #170 – Railroad Tracks

There are approximately four (4) miles of railroad track (132 lbs/yd gauge) that remains from the original site rail construction in the 1950s. There are approximately three miles of additional track (110 lbs/yd gauge) laid in 1997 to support ARASA waste handling and rail shipping operations.

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Removal of the railroad track will be conducted in two phases. Phase 1 will include the east rail yard, east of Building 24C and Phase 2 will include the remaining rail west of Building 24C to the C&O rail interchange.

As part of the D&D scope, all metal associated with the rails will be removed, leaving the wooden ties in place for below-grade excavation. The rail will be torch cut in no greater than ten-foot sections, loaded into roll-off boxes, and staged for transportation to the OSDF for disposal.

1.2) Quantification – Subcontract D&D

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

R1-F02-047

1.5.12 BFDDN – D&D Subcontract – Building 64/65

This D&D scope of work consists of the following activities: premobilization, mobilization, D&D, and demobilization. These tasks will be issued as task orders to the D&D Closure Project contract or the Labor Hour Contract as the structure become available for D&D. This work will be conducted by the D&D contractor management team and Building Trades personnel.

R1-F02-047

1) Task # 1 – Premobilization – Building 64/65

1.1) Plan/Scope – Premobilization

Premobilization includes preparation and submittal of all documentation necessary to begin mobilization activities.

The Sub-Contractor shall submit the following pre-mob submittals prior to "Authorization to Mobilize" and after issuance of the Task Order:

- Insurance certificate
- List of sub-tier contractors
- PLA letter of assent & verification of pre-job meeting
- Pay Item schedule of values
- Baseline/manpower loaded schedule
- Letter Contractor will abide by FDF PSHSP & addendum to PSHSP
- Substance abuse program
- Hearing conservation program plan
- Behavior based safety program
- QA/QC program plan
- 10 hour site safety training
- HAZWOPER training with OSHA supervised field experience form
- Mobilization SWP
- Waste handling SWP
- Temporary facilities SWP
- Temporary utilities SWP

1.2) Quantification – Premobilization

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2. Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

2) Task #2 – Mobilization

2.1) Plan/Scope – Mobilization

Mobilization includes field preparation activities, preparation of submittal documentation and building preparation.

Field preparation consists of the following activities:

- Install temporary portable toilets

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- Install construction zone fencing – 4' orange fencing (majority of zone has existing 4' wire fencing)
- Conduct alignment meeting
- Perform engineering survey – structural and floor loading in accordance with OSHA 1926.850
- Mobilize equipment – fork truck, pick-up truck, skid steer, track-mounted shear, back hoe, man-lift, scissor-lift, HEPA vacuums, air filtration devices, turnover-government furnished equipment, etc.

Submittal documentation consists of the following:

- Safe Work Plans
- Training Records
- MSDS
- Engineering Surveys
- Other documents as necessary.

2.2) Quantification – Mobilization

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

3) Task #3 – Building 64 (Thorium Warehouse)

3.1) Plan/Scope – Building 64 (Thorium Warehouse)

Building 64 is a single story building constructed of corrugated metal walls on a concrete slab. The Building 64 metal roof is supported by steel beams and columns. Building 64 is rectangular and measures 50 X 320 X 22 feet high.

3.2) Quantification – Building 64 (Thorium Warehouse)

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

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4) Task #4 - Building 65 (Old Plant 5 Warehouse)

4.1) Plan/Scope - Building 65 (Old Plant 5 Warehouse)

Building 65 is a single story, rectangular building that measures 50 X 210 X 22 ft high. Building 65 consists of a structural steel frame with non-insulated corrugated metal siding and roofing on a reinforced concrete base.

4.2) Quantification - Building 65 (Old Plant 5 Warehouse)

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

5) Task #5 - Demobilization

5.1) Plan/Scope - Demobilization

Demobilization includes the following activities:

- Decontaminate equipment (heavy equipment)
- Remove temporary fencing
- Remove asbestos trailer, tool trailer, office trailer, temporary utilities
- Complete punchlist items - Trim rebar, grout remaining openings, gravel open areas, clean up debris

5.2) Quantification - Demobilization

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

1.5.13 BFDD1 - D&D Subcontract – Plant 1, Phase II

This D&D scope of work will be issued as a task order to the D&D Closure Project contract. This task includes premobilization, mobilization, Building 1B D&D, Building 16N D&D, Building 20A D&D, Building 30A D&D, Building 56A D&D, Building 71 D&D, Components TS-04, TS-05, and TS-06 D&D, and demobilization. This work will be conducted by the D&D contractor management team and Building Trades personnel.

1) Task #1 - Premobilization

1.1) Plan/Scope – Premobilization

Premobilization includes preparation and submittal of all documentation necessary to begin mobilization activities.

The Sub-Contractor shall submit the following pre-mob submittals prior to "Authorization to Mobilize" and after issuance of the Task Order:

- Insurance certificate
- List of sub-tier contractors
- PLA letter of assent and verification of pre-job meeting
- Pay Item schedule of values
- Baseline/manpower loaded schedule
- Letter Contractor will abide by FDF PSHSP & addendum to PSHSP
- Substance abuse program
- Hearing conservation program plan
- Behavior based safety program
- QA/QC program plan
- 10 hour site safety training
- HAZWOPER training with OSHA supervised field experience form
- Mobilization SWP
- Waste handling SWP
- Temporary facilities SWP
- Temporary utilities SWP

1.2) Quantification - Premobilization

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

2) Task #2 - Mobilization

2.1) Plan/Scope – Mobilization

Mobilization includes field preparation activities, preparation of submittal documentation and building preparation.

Field preparation consists of the following activities:

- Install temporary portable toilets

- Install asbestos trailer (1 singlewide), water (with 5 micron filter dump to sewer), (heat traced) sewer (heat traced)

- Install temporary utilities – tie into substation in Building 20A water point source at low pressure fire protection system, connect to sanitary sewer in T93.

- Install construction zone fencing – 4' orange fencing (majority of zone has existing 4' wire fencing)

- Conduct alignment meeting

- Perform engineering survey – structural and floor loading in accordance with OSHA 1926.850

- Mobilize equipment – fork truck, pick-up truck, skid steer, track-mounted shear, back hoe, man-lift, scissor-lift, HEPA vacuums, air filtration devices, turnover-government furnished equipment, etc.

Submittal documentation consists of the following:

- Safe Work Plans
- Training Records
- MSDS
- Engineering Surveys
- Other documents as necessary.

Building preparation consists of the following:

- Construction of vestibules
- Construction of Cool down areas
- Construction of Wash down areas

2.2) Quantification – Mobilization

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

3) Task #3 - Building 1B

3.1) Plan/Scope – Building 1B

Structural Dismantlement

Building 1B is the steel shelter with metal panel roofing that covers a portion of the Plant 1 Pad. The roof has a height of 18 ft. The structure will be dismantled by shearing, sized to meet the OSDF category 2 placement criteria, containerized in roll-off boxes, and moved to the queue area for disposition in the OSDF.

3.2) Quantification – Building 1B

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

4) Task #4 - Building 20A

4.1) Plan/Scope – Building 20A

Building 20A is a single-story structure, which consists of a steel frame, metal roof, and transite panels on a reinforced concrete base. The approximate dimensions are 17 x 83 ft. and 12 ft. in height. This building supplies power to several structures and trailers located on and around the Plant 1 Pad. The building contains electrical meters, panels, and main circuit breakers. It will be the last building demolished as part of this project.

Interior Asbestos Abatement

ACM piping will be removed by glovebag containments as follows: 1) wrap all ACM pipe in two layers of 6 mil poly; 2) install glovebag and HEPA ventilation every 10 feet; 3) perform smoke test; 4) wet surfaces with amended water; 5) remove ACM using hand-held tools; 6) encapsulate exposed ends; 7) remove glove bag; and 8) mechanically cut pipe at abated areas using band saw, reciprocating saw, or disassemble pipes at joints or fittings.

The contractor will size, segregate, and containerize the debris and move the containers to the queue area for disposition in the OSDF.

Exterior Asbestos Abatement

Transite siding (2 layers of panels) would likely be removed by 1) spraying encapsulant on the interior and exterior of the panels using a hand-held sprayer by workers on ground or in a manlift, 2) manually detaching and collecting the fasteners (assumed lead metal), and 3) lowering the panels by hand if on ground level or, for elevated removal, lowering the panels using a scissor lift/elevated work platform.

Gutters and down spouts will be removed by 1) accessing using manlifts, 2) ACM contents wet with amended water, 3) ACM contents manually scooped out, 4) encapsulant applied to the cleaned gutter/spout, 5) disassembled at the joints using mechanical methods, and 6) lowered to the ground in the manlifts.

Fiberglass or Mineral Wool Insulation (Batting) located between the interior and exterior transite panels will be removed by 1) spraying encapsulant to exposed surfaces, 2) manually rolling the insulation upon itself, 3) applying amended water for dust suppression, as needed.

The Contractor will band panels together, place panels on a pallet, wrap the palletized panels in 6-mil poly, and move to the queue area for disposition in the OSDF.

The Contractor will size, segregate, and containerize the gutter debris, batting, and windows and move the container to the queue area for disposition in the OSDF.

All lead material shall be segregated and placed into drums in accordance with the Material Segregation and Containerization Criteria requirements.

Structural and Equipment Dismantlement

No process-related materials are anticipated in this facility. All equipment/systems may remain in the facility during structural demolition.

The contractor will size, segregate, and containerize the non-process debris and move the containers to the queue area for disposition in the OSDF.
Structural steel will be dismantled by shearing.

The contractor will size, segregate, and containerize the debris and move the containers to the queue area for disposition in the OSDF.

4.2) Quantification – Building 20A

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

5) Task #5 - Building 30A

5.1) Plan/Scope – Building 30A

Building 30A is a single-level structure measuring 82 x 321 ft. and 16 ft. high. This building is constructed of a steel frame supported on a reinforced poured concrete base with a reinforced concrete floor and transite siding panels and roof.

Interior Asbestos Abatement

ACM piping will be removed by glovebag containments as follows: 1) wrap all ACM pipe in two layers of 6 mil poly; 2) install glovebag and HEPA ventilation every 10 feet; 3) perform smoke test; 4) wet surfaces with amended water; 5) remove ACM using hand-held tools; 6) encapsulate exposed ends; 7) remove glove bag; and 8) mechanically cut pipe at abated areas using band saw, reciprocating saw, or disassemble pipes at joints or fittings.

The contractor will size, segregate, and containerize the debris and move the containers to the queue area for disposition in the OSDF.

Exterior Asbestos Abatement

Transite siding (2 layers of panels) would likely be removed by 1) spraying encapsulant on the interior and exterior of the panels using a hand-held sprayer by workers on ground or in a manlift, 2) manually detaching and collecting the fasteners (assumed lead metal), and 3) lowering the panels by hand if on ground level or, for elevated removal, lowering the panels using a scissor lift/elevated work platform.

Gutters and down spouts will be removed by 1) accessing using manlifts, 2) ACM contents wet with amended water, 3) ACM contents manually scooped out, 4) encapsulant applied to the cleaned gutter/spout, 5) disassembled at the joints using mechanical methods, and 6) lowered to the ground in the manlifts.

Fiberglass or Mineral Wool Insulation (Batting) located between the interior and exterior transite panels will be removed by 1) spraying encapsulant to exposed surfaces, 2) manually rolling the insulation upon itself, 3) applying amended water for dust suppression, as needed.

The contractor will band panels together, place panels on a pallet, wrap the palletized panels in 6-mil poly, and move to the queue area for disposition in the OSDF.

The contractor will size, segregate, and containerize the gutter debris, batting, and windows and move the container to the queue area for disposition in the OSDF.

Structural and Equipment Dismantlement

No process-related materials are anticipated in this facility. All equipment/systems may remain in the facility during structural demolition.

The contractor will size, segregate, and containerize the non-process debris and move the containers to the queue area for disposition in the OSDF.

Structural steel and all remaining non-process piping/equipment will be dismantled by shearing.

The contractor will size, segregate, and containerize the debris and move the containers to the queue area for disposition in the OSDF

5.2) Quantification – Building 30A

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

6) Task #6 - Building 56A

6.1) Plan/Scope – Building 56A

Building 56A is a single-story building measuring 50 x 180 ft. and 14 ft. high and consists of a structural steel frame with non-insulated, corrugated metal siding and roofing on a reinforced poured concrete base and floor. There is minimal piping and equipment and it is assumed that there is neither ACM nor process-related equipment.

Structural Dismantlement

The entire structure will be dismantled and size reduced using a shear. The contractor will then containerize the debris and move the containers to the queue area for disposition in the OSDF.

6.2) Quantification – Building 56A

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

7) Task #7 - Building 71

7.1) Plan/Scope - Building 71

Building 71 is a single-story measuring 100 x 241 ft. and 13 ft. high. The building consists of block walls, and a bar-joist truss roof system. There is minimal piping and equipment and it is assumed that there is neither ACM nor process-related equipment.

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In addition to Building 71, this task includes the removal of the pipe bridge north of 2nd Street to Building 71 and the former location of Building 2E.

Structural Dismantlement

Building 71 will be dismantled by: 1) administering water spray to wet the concrete before and during dismantlement; 2) using a concrete shear to dismantle and size reduce using

pushover techniques; and 3) shearing steel reinforcements, as needed. The contractor will size, segregate, and containerize the debris and move the containers to the queue area for disposition in the OSDF.

7.2) Quantification – Building 71

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

8) Task #8 – Component TS-04, TS-05 and TS-06

8.1) Plan/Scope – Component TS-04, TS-05 and TS-06

Components TS-4, TS-5, and TS-6 are steel tube framed structures enclosed within a synthetic covering. It is assumed that these structures will not be salvaged, but dismantled and sized for placement in the OSDF.

Structural Dismantlement

The structural framing members will be cut at their base using a shear and then size reduced once on the ground. The synthetic covering will be rolled/folded into bundles that meet the OSDF Category 2 size criteria.

8.2) Quantification – Components TS-04, TS-05 and TS-06

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

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9) Task #8 – Component 16N

9.1) Plan/Scope – Component 16N

Structural Dismantlement

The structural framing members will be cut at their base using a shear and then size reduced once on the ground. The synthetic covering will be rolled/folded into bundles that meet the OSDF Category 2 size criteria.

9.2) Quantification – Components 16N

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

R1-F02-020

~~9~~ 10) Task #~~9~~ 10 - Demobilization

10.1) Plan/Scope – Demobilization

Demobilization includes the following activities:

- Decontaminate equipment (heavy equipment)
- Remove temporary fencing
- Remove asbestos trailer, tool trailer, office trailer, temporary utilities
- Complete punchlist items. Trim rebar, grout remaining openings, gravel open areas, clean up debris

10.2) Quantification – Demobilization

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

1.5.14 BFDD5 - D&D Subcontract – Plant 5

This Project includes premobilization, mobilization, Building 5A D&D, Building 5D D&D, and demobilization. This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor FTEs are presented in Section 3, and estimated quantities are presented in Section 4. This project has been awarded and is scheduled for completion in May 2001.

1) Task #1 - Premobilization

1.1) Plan/Scope – Premobilization

Premobilization activities are completed.

1.2) Quantification - Premobilization

Premobilization activities are completed.

2) Task #2 - Mobilization

2.1) Plan/Scope – Mobilization

Mobilization activities are completed.

2.2) Quantification - Mobilization

Mobilization activities are completed.

3) Task #3 - Building 5A

3.1) Plan/Scope – Building 5A

Building 5A is a three–level structural steel frame building. It is irregularly shaped measuring approximately 100 ft x 560 ft and 34 ft high. The building consists of a structural steel frame with transite siding and roofing panels. The south fifth of the building is a three story with poured concrete floors and columns. The north four fifths of the building is an open bay with mezzanines along the length of the building.

Interior Asbestos Abatement

ACM piping will be removed by glove bag containments as follows 1) wrap all ACM pipe in two layers of 6 mil poly, 2) install glove bag and HEPA ventilation every 10 feet, 3) perform smoke test, 4) wet surfaces with amended water, 5) remove ACM using hand-held tools, 6) encapsulate exposed ends, 7) remove glove bag, 8) mechanically cut pipe at abated areas using band saw, reciprocating saw, or disassemble pipes at joints or fittings.

ACM Floor Tile will be removed by 1) applying amended water, 2) physically breaking the tiles using hand-held scrapers, 3) remove mastic by applying mastic dissolver and scouring the floor with a hand-held floor scrubber, 4) apply absorbent material (sawdust or cat litter) to remove any dissolved mastic.

The Contractor(s) shall size, segregate, and containerize the debris and move the container to the queuing area for disposition in the OSDF.

Equipment/System Dismantlement

Contractor will seal all openings, install vestibule, and cleaning area.

Process- Related Materials will be dismantled by 1) HEPA vacuuming, wet wiping, and/or fixing any gross loose contamination off the exterior surfaces, 2) disconnect the piece of equipment by unbolting, sawing, or cutting with torch, 3) seal openings with 6 mil poly or tape, 4) if applicable, lower to the ground using forklift or bobcat, 5) move equipment to inspection area and potential decon.

Non-process piping, valves, conduit, cable, lighting, etc. will remain in the building during Structural Steel Removal.

The Contractor(s) shall size, segregate, and containerize the debris and move the container to the queue area for disposition in the OSDF.

Release Cleaning will be performed by 1) HEPA vacuuming and/or wet wipe any loose contamination or residuals, 2) using high pressure, low volume water washing, 3) applying fixative to areas which do not meet the release cleaning criteria.

Transite Removal

Transite roofing (1 layer of panel) would likely be removed by 1) spraying encapsulant on the exterior side of the outer panels using a hand-held sprayer by workers on ground or in a manlift; 2) manually detaching and collecting the fasteners (assumed lead metal), and 3) lowering the outer panels using a scissor lift/knuckleboom, and 4) spraying encapsulant on all previously unexposed surfaces of outer panels.

Gutters and down spouts will be removed by 1) accessing using manlifts, 2) ACM contents wet with amended water, 3) ACM contents manually scooped out, 4) encapsulant applied to the cleaned gutter/spout, 5) disassembled at the joints using mechanical methods, and 6) lowered to the ground in the manlifts.

All lead material shall be segregated and placed into drums in accordance with the Material Segregation and Containerization Criteria requirements.

Windows will be removed by 1) applying tape to the glass, 2) removing the glazing material using a hand-held "chisel", and 3) lead frames will be removed manually in conjunction with window removal or non-lead frames may be removed during Structural Steel Removal.

The Contractor shall band transite panels together, place panels on a pallet, wrap the palletized panels in 6 mil poly, and move to the queue area for disposition in the OSDF.

The Contractor(s) shall size, segregate, and containerize the gutter debris and windows and move the container to the queue area for disposition in the OSDF.

Structural and Equipment Dismantlement

Above-grade concrete walls will be removed by 1) administering water spray to wet the concrete before and during dismantlement, 2) use hoe ram or shears to dismantle and size reduce using pushover techniques, and 3) shear steel reinforcements, as needed.

Structural steel will be dismantled by shearing.

The Contractor(s) shall size, segregate, and containerize the debris and move the container to the queue area for disposition in the OSDF.

3.2) Quantification – Building 5A

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

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The value entered into the Execution Baseline is equal to the original contract value plus all contract modifications through MOD. 18, minus Actual Costs of work performed through November 2000.

4) Task #4 - Component 5D

4.1) Plan/Scope – Component 5D

Building 5D (West Derby Breakout/Slag Milling Building is a four story steel new and unused building measuring approximately 41′ x 160′ x 50′ high. The building consists of a concrete floor and a structural steel frame with metal siding and roofing panels. The building is supported by a concrete foundation on grade. Along the east wall between Building 5D and Building 5A is the exterior transite wall of Building 5A. The removal of this wall is covered in Building 5A.

Structural and Equipment Dismantlement

Non-process piping, valves, conduit, cable, lighting, etc. will also remain intact until Structural Steel Removal.

The Contractor(s) shall size, segregate, and containerize the non-process debris and move the container to the queuing area for disposition in the OSDF.

Release Cleaning will be performed by 1) HEPA vacuuming and/or wet wipe any loose contamination or residuals, 2) using high pressure, low volume water washing, 3) applying fixative to areas which do not meet the release cleaning criteria.

Structural steel, stairs, ladders, and steel decking will be dismantled by shear.

The Contractor(s) shall size, segregate, and containerize the debris and move the container to the queuing area for disposition in the OSDF.

4.2) Quantification – Component 5D

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

R1-F02-044

The value entered into the Execution Baseline is equal to the original contract value plus all contract modifications through MOD. 18, minus Actual Costs of work performed through November 2000.

5) Task #5 - Demobilization

5.1) Plan/Scope – Demobilization

Demobilization includes the following activities:

- Decontaminate equipment (heavy equipment)
- Remove temporary fencing
- Remove asbestos trailer, tool trailer, office trailer, temporary utilities
- Complete punchlist items. Trim rebar, grout remaining openings, gravel open areas, clean up debris

5.2) Quantification – Demobilization

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

R1-F02-044

The value entered into the Execution Baseline is equal to the original contract value plus all contract modifications through MOD. 18, minus Actual Costs of work performed through November 2000.

1.5.15 BFDD6 - D&D Subcontract – Plant 6

This Project includes premobilization, mobilization, Building 6A D&D, Building 6B D&D, Building 6C D&D, Building 6D D&D, Building 6E D&D, Building 6F D&D, Building 6G D&D, and demobilization. This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor FTEs are presented in Section 3, and estimated quantities are presented in Section 4.

1) Task #1 - Premobilization

1.1) Plan/Scope – Premobilization

Premobilization includes preparation and submittal of all documentation necessary to begin mobilization activities.

The Sub-Contractor shall submit the following pre-mob submittals prior to "Authorization to Mobilize" and after issuance of the Task Order:

- Insurance certificate
- List of sub-tier contractors
- PLA letter of assent & verification of pre-job meeting
- Pay Item schedule of values
- Baseline/manpower loaded schedule
- Letter Contractor will abide by FDF PSHSP and addendum to PSHSP
- Substance abuse program
- Hearing conservation program plan
- Behavior based safety program
- QA/QC program plan
- 10 hour site safety training
- HAZWOPER training with OSHA supervised field experience form
- Mobilization SWP
- Waste handling SWP
- Temporary facilities SWP
- Temporary utilities SWP

1.2) Quantification - Premobilization

This task is completed and no further action is required.

2) Task #2 - Mobilization

2.1) Plan/Scope – Mobilization

Mobilization includes field preparation activities, preparation of submittal documentation and building preparation.

Field preparation consists of the following activities:

- Install temporary portable toilets

- Install asbestos trailer (1 singlewide), water (with 5 micron filter dump to sewer), (heat traced) sewer (heat traced)

- Install temporary utilities – tie into substation in Building 36 water point source at low pressure fire protection system, connect to sanitary sewer at 101st & "B".

- Install construction zone fencing – 4' orange fencing (majority of zone has existing 4' wire fencing)

- Conduct alignment meeting

- Perform engineering survey – structural and floor loading in accordance with OSHA 1926.850

- Mobilize equipment – fork truck, pick-up truck, skid steer, track-mounted shear, back hoe, man-lift, scissor-lift, HEPA vacuums, air filtration devices, turnover-government furnished equipment, etc.

Submittal documentation consists of the following:

- Safe Work Plans
- Training Records
- MSDS
- Engineering Surveys
- Other documents as necessary.

Building preparation consists of the following:

- Construction of vestibules
- Construction of Cool down areas
- Construction of Wash down areas

2.2) Quantification - Mobilization

This task is completed and no further action is required.

3) Task #3 - Building 6A

3.1) Plan/Scope – Building 6A

A single level, irregularly shaped building measuring approximately 350 ft x 620 ft and 50 ft high with partial basement 20 ft below grade. Building 6A consists of a structural steel frame on a reinforced poured concrete base and floor with transite siding and roofing.

Interior Asbestos Abatement

ACM piping will be removed by glove bag containments as follows 1) wrap all ACM pipe in two layers of 6 mil poly, 2) install glove bag and HEPA ventilation every 10 feet, 3) perform smoke test, 4) wet surfaces with amended water, 5) remove ACM using hand-held tools, 6) encapsulate exposed ends, 7) remove glove bag, 8) mechanically cut pipe at abated areas using band saw, reciprocating saw, or disassemble pipes at joints or fittings.

ACM Floor Tile will be removed by 1) applying amended water, 2) physically breaking the tiles using hand-held scrapers, 3) remove mastic by applying mastic dissolver and scouring

the floor with a hand-held floor scrubber, 4) apply absorbent material (sawdust or cat litter) to remove any dissolved mastic.

The Contractor(s) shall size, segregate, and containerize the debris and move the container to the queuing area for disposition in the OSDF.

Equipment/System Dismantlement

Process- Related Materials will be dismantled by 1) HEPA vacuuming, wet wiping, and/or fixing any gross loose contamination off the exterior surfaces, 2) disconnect the piece of equipment by unbolting, sawing, or cutting with torch, 3) seal openings with 6 mil poly or tape, 4) if applicable, lower to the ground using forklift or bobcat, 5) move equipment to inspection area and potential decon.

Non-process piping, valves, conduit, cable, lighting, etc. will remain in the building during Structural Steel Removal.

Acid brick will be removed by 1) manually breaking and removing a few brick to create access using a spud bar, 2) removing acid bricks one at a time by hand, 3) dampening surfaces with water to minimize airborne dust, 4) using HEPA vacuum to remove particulates, 5) maintaining localized HEPA ventilation near work area.

The Contractor(s) shall size, segregate, and containerize the debris and move the container to the queue area for disposition in the OSDF.

Release Cleaning will be performed by 1) HEPA vacuuming and/or wet wipe any loose contamination or residuals, 2) using high pressure, low volume water washing, 3) applying fixative to areas which do not meet the release cleaning criteria.

Structural and Equipment Dismantlement

Transite siding (1 layer of panel) would likely be removed by 1) spraying encapsulant on the interior and exterior of the panels using a hand-held sprayer by workers on ground or in a manlift, 2) manually detaching and collecting the fasteners (assumed lead metal), and 3) lowering the panels by hand if on ground level or, for elevated removal, lowering the panels using a scissor lift/elevated work platform.

Transite roofing (1 layer of panel) would likely be removed by 1) spraying encapsulant on the exterior side of the outer panels using a hand-held sprayer by workers on ground or in a manlift; 2) manually detaching and collecting the fasteners (assumed lead metal), and 3) lowering the outer panels using a scissor lift/knuckleboom, and 4) spraying encapsulant on all previously unexposed surfaces of outer panels.

Gutters and down spouts will be removed by 1) accessing using manlifts, 2) ACM contents wet with amended water, 3) ACM contents manually scooped out, 4) encapsulant applied to the cleaned gutter/spout, 5) disassembled at the joints using

mechanical methods, and 6) lowered to the ground in the manlifts.Structural steel and the tank will be dismantled by shear.

All lead material shall be segregated and placed into drums in accordance with the Material Segregation and Containerization Criteria requirements.

Windows will be removed by 1) applying tape to the glass, 2) removing the glazing material using a hand-held "chisel", and 3) lead frames will be removed manually in conjunction with window removal or non-lead frames may be removed during Structural Steel Removal.

The Contractor shall band transite panels together, place panels on a pallet, wrap the palletized panels in 6 mil poly, and move to the queue area for disposition in the OSDF.

The Contractor(s) shall size, segregate, and containerize the gutter debris and windows and move the container to the queue area for disposition in the OSDF.

Structural and Equipment Dismantlement

Above-grade concrete walls will be removed by 1) administering water spray to wet the concrete before and during dismantlement, 2) use hoe ram or shears to dismantle and size reduce using pushover techniques, and 3) shear steel reinforcements, as needed.

Structural steel will be dismantled by shearing.

The Contractor(s) shall size, segregate, and containerize the debris and move the container to the queue area for disposition in the OSDF.

3.2) Quantification – Building 6A

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

R1-F02-045

The value entered into the Execution Baseline is equal to the original contract value, plus all contract modifications through MOD. 17, minus Actual Costs of work performed through November 2000.

4) Task #4 - Building 6B

4.1) Plan/Scope – Building 6B

Plant 6 Covered Storage Area

Equipment/System Dismantlement

Contractor will seal all openings, install vestibule, and cleaning area.

Process- Related Materials will be dismantled by 1) HEPA vacuuming, wet wiping, and/or fixing any gross loose contamination off the exterior surfaces, 2) disconnect the piece of equipment by unbolting, sawing, or cutting with torch, 3) seal openings with 6 mil poly or tape, 4) if applicable, lower to the ground using forklift or bobcat, 5) move equipment to inspection area and potential decon.
Non-process piping, valves, conduit, cable, lighting, etc. will also remain intact until Structural Steel Removal.

The Contractor(s) shall size, segregate, and containerize the non-process debris and move the container to the queuing area for disposition in the OSDF.

Release Cleaning will be performed by 1) HEPA vacuuming and/or wet wipe any loose contamination or residuals, 2) using high pressure, low volume water washing, 3) applying fixative to areas which do not meet the release cleaning criteria.

Structural and Equipment Dismantlement

Structural steel, stairs, ladders, and steel decking will be dismantled by shear.

The Contractor(s) shall size, segregate, and containerize the debris and move the container to the queuing area for disposition in the OSDF.

4.2) Quantification – Building 6B

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

R1-F02-045

The value entered into the Execution Baseline is equal to the original contract value, plus all contract modifications through MOD. 17, minus Actual Costs of work performed through November 2000.

5) Task #5 - Building 6C

5.1) Plan/Scope – Building 6C

Building 6C is a single level building measuring approximately 16 ft x 30 ft and 14 ft high. Building 6C is adjacent to the east side of the Metals Fabrication Plant, and consists of a poured concrete base and floor, a structural steel frame and corrugated steel siding.

Interior Asbestos Abatement

ACM piping will be removed by glovebag containments as follows 1) wrap all ACM pipe in two layers of 6 mil poly, 2) install glovebag and HEPA ventilation every 10 feet, 3) perform smoke test, 4) wet surfaces with amended water, 5) remove ACM using hand-held tools, 6) encapsulate exposed ends, 7) remove glove bag, 8) mechanically cut pipe at abated areas using band saw, reciprocating saw, or disassemble pipes at joints or fittings.

The Contractor(s) shall size, segregate, and containerize the debris and move the container to the queuing area for disposition in the OSDF.

Equipment/System Dismantlement

Non-process piping, valves, conduit, cable, lighting, etc. will remain in the building during Structural Steel Removal.
The Contractor(s) shall size, segregate, and containerize the debris and move the container to the queue area for disposition in the OSDF.

Release Cleaning will be performed by 1) HEPA vacuuming and/or wet wipe any loose contamination or residuals, 2) using high pressure, low volume water washing, 3) applying fixative to areas which do not meet the release cleaning criteria.

Structural and Equipment Dismantlement

Structural steel will be dismantled by shearing.

The Contractor(s) shall size, segregate, and containerize the debris and move the container to the queue area for disposition in the OSDF.

5.2) Quantification – Building 6C

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

R1-F02-045

The value entered into the Execution Baseline is equal to the original contract value, plus all contract modifications through MOD. 17, minus Actual Costs of work performed through November 2000.

6) Task #6 - Building 6D

6.1) Plan/Scope – Building 6D

Building 6D is a single level building measuring approximately 16 ft x 30 ft and 14 ft high. Building 6D is adjacent to the east side of the Metals Fabrication Plant, and consists of a poured concrete base and floor, a structural steel frame and corrugated steel siding.

Interior Asbestos Abatement

ACM piping will be removed by glovebag containments as follows 1) wrap all ACM pipe in two layers of 6 mil poly, 2) install glovebag and HEPA ventilation every 10 feet, 3) perform smoke test, 4) wet surfaces with amended water, 5) remove ACM using hand-held tools, 6) encapsulate exposed ends, 7) remove glove bag, 8) mechanically cut pipe at abated areas using band saw, reciprocating saw, or disassemble pipes at joints or fittings.

The Contractor(s) shall size, segregate, and containerize the debris and move the container to the queuing area for disposition in the OSDF.

Equipment/System Dismantlement

Contractor will seal all openings, install vestibule, and cleaning area.

Process- Related Materials will be dismantled by 1) HEPA vacuuming, wet wiping, and/or fixing any gross loose contamination off the exterior surfaces, 2) disconnect the piece of equipment by unbolting, sawing, or cutting with torch, 3) seal openings with 6 mil poly or tape, 4) if applicable, lower to the ground using forklift or bobcat, 5) move equipment to inspection area and potential decon.

Non-process piping, valves, conduit, cable, lighting, etc. will remain in the building during Structural Steel Removal.

The Contractor(s) shall size, segregate, and containerize the debris and move the container to the queue area for disposition in the OSDF.

Release Cleaning will be performed by 1) HEPA vacuuming and/or wet wipe any loose contamination or residuals, 2) using high pressure, low volume water washing, 3) applying fixative to areas which do not meet the release cleaning criteria.

Structural and Equipment Dismantlement

Structural steel will be dismantled by shearing.

The Contractor(s) shall size, segregate, and containerize the debris and move the container to the queue area for disposition in the OSDF.

6.2) Quantification – Building 6D

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

R1-F02-045

The value entered into the Execution Baseline is equal to the original contract value, plus all contract modifications through MOD. 17, minus Actual Costs of work performed through November 2000.

7) Task #7 - Building 6E

7.1) Plan/Scope - Building 6E

Building 6E is a single level building measuring approximately 16 ft x 30 ft and 14 ft high. Building 6E is adjacent to the east side of the Metals Fabrication Plant (Component 6A), and consists of a poured concrete base and floor, a structural steel frame, and corrugated steel siding and roofing.

Interior Asbestos Abatement

ACM piping will be removed by glovebag containments as follows 1) wrap all ACM pipe in two layers of 6 mil poly, 2) install glovebag and HEPA ventilation every 10 feet, 3) perform smoke test, 4) wet surfaces with amended water, 5) remove ACM using hand-held tools, 6) encapsulate exposed ends, 7) remove glove bag, 8) mechanically cut pipe at abated areas using band saw, reciprocating saw, or disassemble pipes at joints or fittings.
The Contractor(s) shall size, segregate, and containerize the debris and move the container to the queuing area for disposition in the OSDF.

Equipment/System Dismantlement

Contractor will seal all openings, install vestibule, and cleaning area.

Process- Related Materials will be dismantled by 1) HEPA vacuuming, wet wiping, and/or fixing any gross loose contamination off the exterior surfaces, 2) disconnect the piece of equipment by unbolting, sawing, or cutting with torch, 3) seal openings with 6 mil poly or tape, 4) if applicable, lower to the ground using forklift or bobcat, 5) move equipment to inspection area and potential decon.

Non-process piping, valves, conduit, cable, lighting, etc. will remain in the building during Structural Steel Removal.

The Contractor(s) shall size, segregate, and containerize the debris and move the container to the queue area for disposition in the OSDF.

Release Cleaning will be performed by 1) HEPA vacuuming and/or wet wipe any loose contamination or residuals, 2) using high pressure, low volume water washing, 3) applying fixative to areas which do not meet the release cleaning criteria.

Structural Dismantlement

Structural steel will be dismantled by shearing.

The Contractor(s) shall size, segregate, and containerize the debris and move the container to the queue area for disposition in the OSDF.

7.2) Quantification – Building 6E

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

R1-F02-045

The value entered into the Execution Baseline is equal to the original contract value, plus all contract modifications through MOD. 17, minus Actual Costs of work performed through November 2000.

8) Task #8 - Building 6F

8.1) Plan/Scope - Building 6F

Building 6F (Salt Oil Heat Treatment Building) is a single level building that adjoins the south end of the Metals Fabrication Plant (Component 6A). The rectangular building measures approximately 25 ft x 45 ft and 20 ft high. The building consists of a structural steel frame on a concrete base with transite siding and roofing panels.

Interior Asbestos Abatement

ACM piping will be removed by glovebag containments as follows 1) wrap all ACM pipe in two layers of 6 mil poly, 2) install glovebag and HEPA ventilation every 10 feet, 3) perform smoke test, 4) wet surfaces with amended water, 5) remove ACM using hand-held tools, 6) encapsulate exposed ends, 7) remove glove bag, 8) mechanically cut pipe at abated areas using band saw, reciprocating saw, or disassemble pipes at joints or fittings.

The Contractor(s) shall size, segregate, and containerize the debris and move the container to the queuing area for disposition in the OSDF.

Equipment/System Dismantlement

Contractor will seal all openings, install vestibule, and cleaning area.

Process- Related Materials will be dismantled by 1) HEPA vacuuming, wet wiping, and/or fixing any gross loose contamination off the exterior surfaces, 2) disconnect the piece of equipment by unbolting, sawing, or cutting with torch, 3) seal openings with 6 mil poly or tape, 4) if applicable, lower to the ground using forklift or bobcat, 5) move equipment to inspection area and potential decon.

Non-process piping, valves, conduit, cable, lighting, etc. will remain in the building during Structural Steel Removal.

The Contractor(s) shall size, segregate, and containerize the debris and move the container to the queue area for disposition in the OSDF.

Release Cleaning will be performed by 1) HEPA vacuuming and/or wet wipe any loose contamination or residuals, 2) using high pressure, low volume water washing, 3) applying fixative to areas which do not meet the release cleaning criteria.

Transite Removal

Transite siding (1 layer of panel) would likely be removed by 1) spraying encapsulant on the interior and exterior of the panels using a hand-held sprayer by workers on ground or in a manlift, 2) manually detaching and collecting the fasteners (assumed lead metal), and 3) lowering the panels by hand if on ground level or, for elevated removal, lowering the panels using a scissor lift/elevated work platform.

Transite roofing (1 layer of panel) would likely be removed by 1) spraying encapsulant on the exterior side of the outer panels using a hand-held sprayer by workers on ground or in a manlift; 2) manually detaching and collecting the fasteners (assumed lead metal), and 3) lowering the outer panels using a scissor lift/knuckleboom, and 4) spraying encapsulant on all previously unexposed surfaces of outer panels.

Gutters and down spouts will be removed by 1) accessing using manlifts, 2) ACM contents wet with amended water, 3) ACM contents manually scooped out, 4) encapsulant applied to the cleaned gutter/spout, 5) disassembled at the joints using mechanical methods, and 6) lowered to the ground in the manlifts.

All lead material shall be segregated and placed into drums in accordance with the Material Segregation and Containerization Criteria requirements.

Windows will be removed by 1) applying tape to the glass, 2) removing the glazing material using a hand-held "chisel", and 3) lead frames will be removed manually in conjunction with window removal or non-lead frames may be removed during Structural Steel Removal.

The Contractor shall band transite panels together, place panels on a pallet, wrap the palletized panels in 6 mil poly, and move to the queue area for disposition in the OSDF.

The Contractor(s) shall size, segregate, and containerize the gutter debris and windows and move the container to the queue area for disposition in the OSDF.

Structural Dismantlement

Structural steel will be dismantled by shearing.

The Contractor(s) shall size, segregate, and containerize the debris and move the container to the queue area for disposition in the OSDF.

8.2) Quantification – Building 6F

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

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The value entered into the Execution Baseline is equal to the original contract value, plus all contract modifications through MOD. 17, minus Actual Costs of work performed through November 2000.

9) Task #9 - Building 6G

9.1) Plan/Scope - Building 6G

Building 6G (Plant 6 Sump Building) is a newly built, unused multi-story structure located on the northeast corner of the Metals Fabrication Plant (6A). The building consists of a structural steel frame with metal siding and roofing. The structure was built on a reinforced concrete pad. The approximate dimensions of building 6G are 42 ft x 90 ft and 39 ft high.

Equipment/System Dismantlement

Containments are not required for equipment/system removal in Building 6G.

Non-process piping, valves, conduit, cable, lighting, etc. will remain in the building during Structural Steel Removal.

The Contractor(s) shall size, segregate, and containerize the non-process debris and move the container to the queue area for disposition in the OSDF.

Release Cleaning will be performed by 1) HEPA vacuuming and/or wet wipe any loose contamination or residuals, 2) using high pressure, low volume water washing, 3) applying fixative to areas which do not meet the release cleaning criteria.

Structural Dismantlement

Structural steel will be dismantled by shearing.

The Contractor(s) shall size, segregate, and containerize the debris and move the container to the queue area for disposition in the OSDF.

9.2) Quantification – Building 6G

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

R1-F02-045

The value entered into the Execution Baseline is equal to the original contract value, plus all contract modifications through MOD. 17, minus Actual Costs of work performed through November 2000.

10) Task #10 - Demobilization

10.1) Plan/Scope – Demobilization

Demobilization includes the following activities:

- Decontaminate equipment (heavy equipment)
- Remove temporary fencing
- Remove asbestos trailer, tool trailer, office trailer, temporary utilities
- Complete punchlist items. Trim rebar, grout remaining openings, gravel open areas, clean up debris

10.2 Quantification – Demobilization

This work will be conducted by the D&D contractor management team and Building Trades personnel. The D&D Schedule is presented in Section 2, Subcontractor hours are presented in Section 4, and estimated materials and quantities are presented in Section 4.

R1-F02-045

The value entered into the Execution Baseline is equal to the original contract value, plus all contract modifications through MOD. 17, minus Actual Costs of work performed through November 2000.