

5446

**PRESENT WORTH ANALYSIS FOR THE  
OPERABLE UNIT 3 PROPOSED PLAN FOR  
INTERIM REMEDIAL ACTION FINAL OCTOBER  
1993**

**10/01/93**

**FERMCO/DOE-FN  
144  
REPORT  
OU3**

PRESENT WORTH ANALYSIS  
FOR THE  
OPERABLE UNIT 3  
PROPOSED PLAN FOR  
INTERIM REMEDIAL ACTION



FINAL  
OCTOBER 1993  
ESTIMATING SERVICES

PRESENT WORTH ANALYSIS  
FOR THE  
OPERABLE UNIT 3  
PROPOSED PLAN FOR  
INTERIM REMEDIAL ACTION



FINAL  
OCTOBER 1993  
ESTIMATING SERVICES

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OMB CIRCULAR NO. A-94 APPENDIX C

OU3 PROPOSED PLAN - COST SCHEDULE

OU3 PROPOSED PLAN - SUPPORTING ESTIMATES AND  
DOCUMENTATION

# PRESENT WORTH ANALYSIS SUMMARY

**PRESENT WORTH ANALYSIS  
OU3 PROPOSED PLAN  
SUMMARY**

**PURPOSE**

The objective of the present worth (PW) analysis is to use a method of economic evaluation that compares the sums of discounted dollar costs of capital investment, replacements, operations, and maintenance and repair over a period of time which a system or operation is considered to be the lowest-cost alternative for satisfying a particular need. The analysis complies with the requirements described by the Office of Management and Budget (OMB) Circular No. A-94, the National Bureau of Standards Handbook 135 prepared for DOE, U.S. Environmental Protection Agency (EPA) OSWER Directive 9355.3-01, and the FERMCO Technical Document No. FEMP-2306.

**BACKGROUND**

The Operable Unit 3 (OU3) Proposed Work Plan involves remedial action activities regarding the decontamination and dismantlement (D&D) of OU3 process facilities, non-process support buildings, site work, and underground utilities. The plan also includes the construction of a central storage facility and the operation and maintenance (landlord) of the buildings and facilities. The PW analysis supports the overall Proposed Work Plan Cost Estimate prepared in August, 1993, and the Gross Decontamination of Exposed Surfaces and Landlord Cost Estimates prepared in July, 1993. Three alternatives were identified that will meet the work plan objectives. These economic alternatives are described below.

Alternative 1, "No Interim Action", poses no remedial action be taken during fiscal years (FY) 1996 through 1999, but landlord cost would continue to be incurred through this period and would not start to decrease until after FY 2000. Subsequent D&D of all OU3 structures, facilities, etc., will not commence until fiscal year 2000 and will be completed by FY 2017.

Alternative 2, "Interim Decontamination of Exposed Surfaces", a gross decontamination of suspect surfaces of the OU3 facilities will take place during FY 1996 through 1999. D&D will occur in the same corresponding years as in Alternative 1. Hence, D&D and landlord spending profiles would mimic Alternative 1 through these matching years.

Alternative 3, "Accelerated D&D", is an immediate D&D action initiating in FY 1996 and ending by FY 2013 with a gradual decline in landlord costs occurring through the same period.

**ANALYSIS APPROACH**

Total Life-Cycle Cost (TLCC) approach was used to evaluate three

OU3 proposed plan alternatives. TLCC is a mode of analysis which sums all significant time-equivalent dollar costs attributable to a system or operation. Positive cash flows are treated as negative costs which are time-adjusted and subtracted from the total.

All cash flow amounts are stated in present value constant dollars, therefore all dollars will have the same purchasing power. Constant dollars indicate what the same good or service would cost at different times if no inflation or deflation exists to change the purchasing power of the dollar. A direct means was used to express cash flows in constant dollars by establishing a reference year for which the value of the dollar is set.

The constant dollar cash flows are adjusted for opportunity cost associated with their different times of occurrence. The adjustment for opportunity cost, called "discounting of cash flows" allows to convert the constant dollar cash flows occurring at different times to a time-equivalent lump-sum amount evaluated as of the beginning of the base year. This is done using an interest rate or "real discount rate" which reflects the opportunity cost apart from any change in the purchasing power of the dollar. Real discount rates do not include the rate of inflation or deflation since cash flows are expressed in constant dollars. The real discount rate used in this analysis was obtained from appendix "C" of OMB Circular No. A-94 and is identified later in the summary's conclusion.

#### ASSUMPTIONS

The data accumulated for each of the cost elements used in the PW analysis was based on the best information currently available at the time the analysis was performed.

The cost of D&D is dispersed equally by month over the life of the individual work package.

Landlord cost is distributed over time starting in FY 1996, based on the declining requirements from the buildings and facilities remaining at the end of each year. After the termination of the D&D, residual landlord cost will occur as a straight line for an indefinite period of time for security and maintenance purposes.

The miscellaneous buildings/structures work package consists of Package 25 Impoundments, and various buildings and equipment.

In reference to the Central Storage Facility Work Package, one Tension Support Structure presently exists, thus only five structures will be constructed. Skin replacement will occur for all six structures.

#### CONCLUSION

A 23 year study period was conducted and based on the execution and completion of the overall OU3 Proposed Plan (work packages 1-13,

21-25, miscellaneous buildings and trailers, and the Central Storage Facility construction). The cash flows that occur in each year were obtained from the work package(s) scheduled to be performed in the corresponding year. Indefinite residual landlord costs incurred after the D&D completion have been included. The discount rate used in the analysis was 4.4%. The net present values of the cash flow sums in constant dollars for each alternative were:

- Alternative 1 = \$1,548,005,300
- Alternative 2 = \$1,619,161,500
- Alternative 3 = \$1,475,634,600

This economic evaluation compared the sums of the discounted dollars of the OU3 Proposed Plan cost elements in the base year, FY 1994. These elements were identified as, landlord, indirect and direct labor and material costs. The net present value of the total sums were evaluated for all three alternatives to distinguish the least-cost option.

Alternative 3 accelerates the OU3 D&D four years sooner (starting in FY 1996) than in Alternatives 1 and 2, which results in an earlier reduction of landlord costs. Consequently, the outcome produced a savings of 72.3 - 143.5 million dollars over the other alternatives revealing Alternative 3 as being the lowest-cost alternative.

**ALTERNATIVE 1  
NO INTERIM ACTION**

LCC ANALYSIS TITLE: NO INTERIM ACTION

CHARGE NO.: 3AAA7  
 CLIENT: DOB  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/TP  
 DATE: 10/12/93  
 PAGE: 1 OF 29

ALTERNATIVE: 1  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%  
 DOCUMENT NO.: LCC-93-10-001

DESCRIPTION

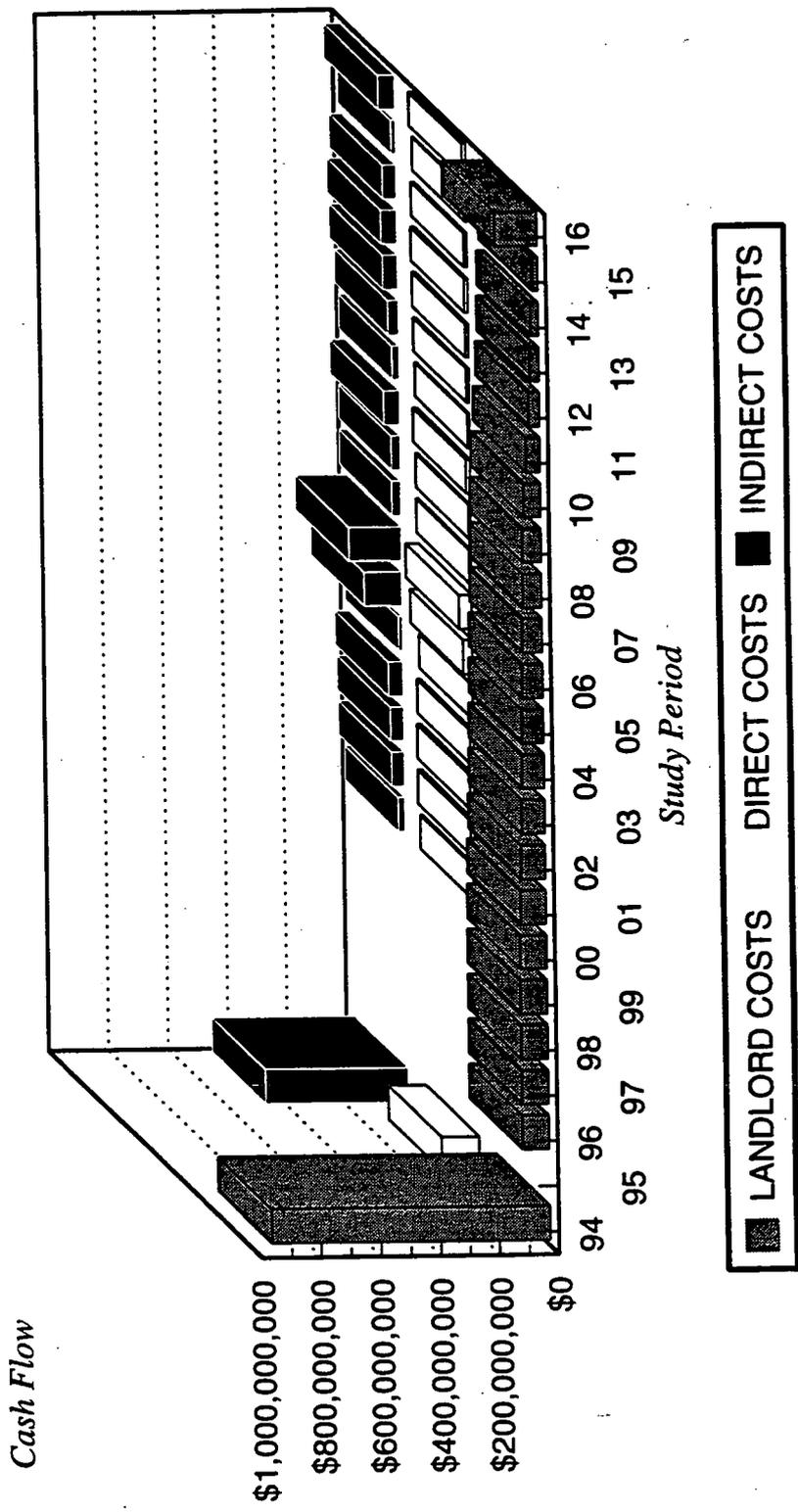
PRESENT WORTH ANALYSIS

| LANDLORD COST          | D&D (DIRECT) COST    | D&D (INDIRECT) COST  | ANNUAL CASH FLOW       | CASH FLOW YEAR |
|------------------------|----------------------|----------------------|------------------------|----------------|
| \$0                    | \$0                  | \$0                  | \$0                    | 1994           |
| \$0                    | \$0                  | \$0                  | \$0                    | 1995           |
| \$89,000,000           | \$0                  | \$0                  | \$89,000,000           | 1996           |
| \$89,000,000           | \$0                  | \$0                  | \$89,000,000           | 1997           |
| \$89,000,000           | \$0                  | \$0                  | \$89,000,000           | 1998           |
| \$89,000,000           | \$0                  | \$0                  | \$89,000,000           | 1999           |
| \$87,909,000           | \$7,471,250          | \$21,857,950         | \$117,238,200          | 2000           |
| \$84,732,000           | \$14,182,500         | \$41,720,900         | \$140,635,400          | 2001           |
| \$80,794,000           | \$14,219,500         | \$43,580,900         | \$138,594,400          | 2002           |
| \$77,174,000           | \$12,008,000         | \$48,988,000         | \$138,170,000          | 2003           |
| \$74,464,000           | \$3,190,000          | \$12,842,000         | \$90,496,000           | 2004           |
| \$72,107,000           | \$31,484,000         | \$125,403,000        | \$228,994,000          | 2005           |
| \$69,245,000           | \$44,009,000         | \$175,514,000        | \$288,768,000          | 2006           |
| \$65,625,000           | \$7,141,000          | \$28,617,000         | \$101,383,000          | 2007           |
| \$63,453,000           | \$6,912,000          | \$28,327,000         | \$98,692,000           | 2008           |
| \$61,487,000           | \$14,312,000         | \$52,980,400         | \$128,779,400          | 2009           |
| \$55,422,000           | \$6,701,000          | \$22,001,400         | \$84,124,400           | 2010           |
| \$46,259,000           | \$9,066,000          | \$33,035,400         | \$88,360,400           | 2011           |
| \$36,190,000           | \$11,693,000         | \$48,718,000         | \$96,601,000           | 2012           |
| \$29,893,000           | \$12,464,000         | \$53,458,000         | \$95,815,000           | 2013           |
| \$25,835,000           | \$10,482,000         | \$44,498,000         | \$80,815,000           | 2014           |
| \$17,709,000           | \$3,577,000          | \$14,509,000         | \$35,795,000           | 2015           |
| \$140,318,200          | \$13,013,000         | \$57,109,000         | \$210,440,200          | 2016           |
|                        |                      |                      |                        | 2017           |
|                        |                      |                      |                        | 2018           |
|                        |                      |                      |                        | 2019           |
|                        |                      |                      |                        | 2020           |
|                        |                      |                      |                        | 2021           |
|                        |                      |                      |                        | 2022           |
|                        |                      |                      |                        | 2023           |
|                        |                      |                      |                        | 2024           |
| <b>\$1,444,616,200</b> | <b>\$221,925,300</b> | <b>\$853,160,000</b> | <b>\$2,519,701,400</b> | <b>TOTAL</b>   |

\$1,548,005,300 <===== (@NPV)

# LCC CASH FLOW DIAGRAM

NO INTERIM ACTION  
ALTERNATIVE 1



LCC ANALYSIS TITLE: NO INTERIM ACTION

ALTERNATIVE: 1  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%  
 DOCUMENT NO.: LCC-93-10-001

DESCRIPTION  
 CENTRAL STORAGE  
 FACILITY

CHARGE NO.: 3AAA7  
 CLIENT: DOB  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/TP  
 DATE: 10/12/93  
 PAGE: 3 OF 29

| ASSUMPTIONS  |  | DIRECT COSTS | INDIRECT COSTS | CASH FLOW   | YEAR |
|--|--|--------------|----------------|-------------|------|
| 1. 5 TENSION SUPPORT STRUCTURES WILL BE CONSTRUCTED BETWEEN YEARS 2000 - 2002. 1 STRUCTURE PRESENTLY EXISTS. |  | \$0          | \$0            | \$0         | 1994 |
| 2. SKIN REPLACEMENT WILL OCCUR IN YEARS 2009-2011 ON ALL 6 STRUCTURES.                                       |  | \$0          | \$0            | \$0         | 1995 |
|  |  | \$0          | \$0            | \$0         | 1996 |
|  |  | \$0          | \$0            | \$0         | 1997 |
|  |  | \$0          | \$0            | \$0         | 1998 |
|  |  | \$0          | \$0            | \$0         | 1999 |
|  |  | \$0          | \$0            | \$0         | 2000 |
|  |  | \$2,289,250  | \$2,065,950    | \$4,355,200 | 2000 |
|  |  | \$4,578,500  | \$4,131,900    | \$8,710,400 | 2001 |
|  |  | \$4,578,500  | \$4,131,900    | \$8,710,400 | 2002 |
|  |  | \$0          | \$0            | \$0         | 2003 |
|  |  | \$0          | \$0            | \$0         | 2004 |
|  |  | \$0          | \$0            | \$0         | 2005 |
|  |  | \$0          | \$0            | \$0         | 2006 |
|  |  | \$0          | \$0            | \$0         | 2007 |
|  |  | \$0          | \$0            | \$0         | 2008 |
|  |  | \$0          | \$0            | \$0         | 2009 |
|  |  | \$1,760,000  | \$2,129,400    | \$3,889,400 | 2010 |
|  |  | \$1,760,000  | \$2,129,400    | \$3,889,400 | 2011 |
|  |  | \$1,760,000  | \$2,129,400    | \$3,889,400 | 2012 |
|  |  | \$0          | \$0            | \$0         | 2013 |
|  |  | \$0          | \$0            | \$0         | 2014 |
|  |  | \$0          | \$0            | \$0         | 2015 |
|  |  | \$0          | \$0            | \$0         | 2016 |
|  |  | \$0          | \$0            | \$0         | 2017 |
|  |  |              |                |             | 2018 |
|  |  |              |                |             | 2019 |
|  |  |              |                |             | 2020 |
|  |  |              |                |             | 2021 |
|  |  |              |                |             | 2022 |
|  |  |              |                |             | 2023 |
|  |  |              |                |             | 2024 |

INFORMATION SOURCE  
 1. COST DATA - O & M, CONSTRUCTION, AND SKIN REPLACEMENT  
 CENTRAL STORAGE FACILITY COST ESTIMATES.

LCC ANALYSIS TITLE: NO INTERIM ACTION

ALTERNATIVE: 1  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%

DOCUMENT NO.: LCC-93-10-001

DESCRIPTION  
 PACKAGE 1  
 PLANT 4

CHARGE NO.: 3AAA7  
 CLIENT: DOB  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/TP  
 DATE: 10/12/93  
 PAGE: 4 OF 29

| ASSUMPTIONS  | DIRECT COSTS | INDIRECT COSTS | CASH FLOW    | YEAR |
|--|--------------|----------------|--------------|------|
| 1. D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).                        | \$0          | \$0            | \$0          | 1994 |
| 2. MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH. | \$0          | \$0            | \$0          | 1995 |
|  | \$0          | \$0            | \$0          | 1996 |
|  | \$0          | \$0            | \$0          | 1997 |
|  | \$0          | \$0            | \$0          | 1998 |
|  | \$0          | \$0            | \$0          | 1999 |
|  | \$4,129,000  | \$17,513,000   | \$21,642,000 | 2000 |
|  | \$5,506,000  | \$23,351,000   | \$28,857,000 | 2001 |
|  | \$0          | \$0            | \$0          | 2002 |
|  | \$0          | \$0            | \$0          | 2003 |
|  | \$0          | \$0            | \$0          | 2004 |
|  | \$0          | \$0            | \$0          | 2005 |
|  | \$0          | \$0            | \$0          | 2006 |
|  | \$0          | \$0            | \$0          | 2007 |
|  | \$0          | \$0            | \$0          | 2008 |
|  | \$0          | \$0            | \$0          | 2009 |
|  | \$0          | \$0            | \$0          | 2010 |
|  | \$0          | \$0            | \$0          | 2011 |
|  | \$0          | \$0            | \$0          | 2012 |
|  | \$0          | \$0            | \$0          | 2013 |
|  | \$0          | \$0            | \$0          | 2014 |
|  | \$0          | \$0            | \$0          | 2015 |
|  | \$0          | \$0            | \$0          | 2016 |
|  | \$0          | \$0            | \$0          | 2017 |
|  |              |                |              | 2018 |
|  |              |                |              | 2019 |
|  |              |                |              | 2020 |
|  |              |                |              | 2021 |
|  |              |                |              | 2022 |
|  |              |                |              | 2023 |
|  |              |                |              | 2024 |

INFORMATION SOURCE

1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN.  
 LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

LCC ANALYSIS TITLE: NO INTERIM ACTION

ALTERNATIVE: 1  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%

DOCUMENT NO.: LCC-93-10-001

ASSUMPTIONS

- D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).
- MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH.

INFORMATION SOURCE

1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN.  
 LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

016

CHARGE NO.: 3AAA7  
 CLIENT: DOE  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/TP  
 DATE: 10/12/93  
 PAGE: 5 OF 29

DESCRIPTION  
 PACKAGE 2  
 PLANT 3

| YEAR | DIRECT COSTS | INDIRECT COSTS | CASH FLOW    |
|------|--------------|----------------|--------------|
| 1994 | \$0          | \$0            | \$0          |
| 1995 | \$0          | \$0            | \$0          |
| 1996 | \$0          | \$0            | \$0          |
| 1997 | \$0          | \$0            | \$0          |
| 1998 | \$0          | \$0            | \$0          |
| 1999 | \$0          | \$0            | \$0          |
| 2000 | \$0          | \$0            | \$0          |
| 2001 | \$163,000    | \$729,000      | \$892,000    |
| 2002 | \$1,960,000  | \$8,754,000    | \$10,714,000 |
| 2003 | \$1,797,000  | \$8,024,000    | \$9,821,000  |
| 2004 | \$0          | \$0            | \$0          |
| 2005 | \$0          | \$0            | \$0          |
| 2006 | \$0          | \$0            | \$0          |
| 2007 | \$0          | \$0            | \$0          |
| 2008 | \$0          | \$0            | \$0          |
| 2009 | \$0          | \$0            | \$0          |
| 2010 | \$0          | \$0            | \$0          |
| 2011 | \$0          | \$0            | \$0          |
| 2012 | \$0          | \$0            | \$0          |
| 2013 | \$0          | \$0            | \$0          |
| 2014 | \$0          | \$0            | \$0          |
| 2015 | \$0          | \$0            | \$0          |
| 2016 | \$0          | \$0            | \$0          |
| 2017 | \$0          | \$0            | \$0          |
| 2018 |              |                |              |
| 2019 |              |                |              |
| 2020 |              |                |              |
| 2021 |              |                |              |
| 2022 |              |                |              |
| 2023 |              |                |              |
| 2024 |              |                |              |

LCC ANALYSIS TITLE: NO INTERIM ACTION

ALTERNATIVE: 1  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%

DOCUMENT NO.: LCC-93-10-001

DESCRIPTION  
 PACKAGE 3  
 PLANT 2/3

CHARGE NO.: 3AAA7  
 CLIENT: DOE  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/TP  
 DATE: 10/12/93  
 PAGE: 6 OF 29

| ASSUMPTIONS  | DIRECT COSTS | INDIRECT COSTS | CASH FLOW    | YEAR |
|--|--------------|----------------|--------------|------|
| 1. D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).                        | \$0          | \$0            | \$0          | 1994 |
| 2. MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH. | \$0          | \$0            | \$0          | 1995 |
|  | \$0          | \$0            | \$0          | 1996 |
|  | \$0          | \$0            | \$0          | 1997 |
|  | \$0          | \$0            | \$0          | 1998 |
|  | \$0          | \$0            | \$0          | 1999 |
|  | \$0          | \$0            | \$0          | 2000 |
|  | \$0          | \$0            | \$0          | 2001 |
|  | \$0          | \$0            | \$0          | 2002 |
|  | \$2,715,000  | \$12,097,000   | \$14,812,000 | 2003 |
|  | \$5,430,000  | \$24,195,000   | \$29,625,000 | 2004 |
|  | \$1,358,000  | \$6,049,000    | \$7,407,000  | 2005 |
|  | \$0          | \$0            | \$0          | 2006 |
|  | \$0          | \$0            | \$0          | 2007 |
|  | \$0          | \$0            | \$0          | 2008 |
|  | \$0          | \$0            | \$0          | 2009 |
|  | \$0          | \$0            | \$0          | 2010 |
|  | \$0          | \$0            | \$0          | 2011 |
|  | \$0          | \$0            | \$0          | 2012 |
|  | \$0          | \$0            | \$0          | 2013 |
|  | \$0          | \$0            | \$0          | 2014 |
|  | \$0          | \$0            | \$0          | 2015 |
|  | \$0          | \$0            | \$0          | 2016 |
|  | \$0          | \$0            | \$0          | 2017 |
|  |              |                |              | 2018 |
|  |              |                |              | 2019 |
|  |              |                |              | 2020 |
|  |              |                |              | 2021 |
|  |              |                |              | 2022 |
|  |              |                |              | 2023 |
|  |              |                |              | 2024 |

INFORMATION SOURCE

1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN. LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

017

**LCC ANALYSIS TITLE: NO INTERIM ACTION**

ALTERNATIVE: 1  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%

DOCUMENT NO.: LCC-93-10-001

**DESCRIPTION**  
**PACKAGE 4**  
**PILOT PLANT**

CHARGE NO.: 3AAA7  
 CLIENT: DOE  
 LOCATION: FBARNALD, OH  
 ANALYST: JJ/TP  
 DATE: 10/12/93  
 PAGE: 7 OF 29

| ASSUMPTIONS  | DIRECT COSTS | INDIRECT COSTS | CASH FLOW    | YEAR |
|--|--------------|----------------|--------------|------|
| 1. DAD COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).                        | \$0          | \$0            | \$0          | 1994 |
| 2. MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH. | \$0          | \$0            | \$0          | 1995 |
|  | \$0          | \$0            | \$0          | 1996 |
|  | \$0          | \$0            | \$0          | 1997 |
|  | \$0          | \$0            | \$0          | 1998 |
|  | \$0          | \$0            | \$0          | 1999 |
|  | \$0          | \$0            | \$0          | 2000 |
|  | \$0          | \$0            | \$0          | 2001 |
|  | \$1,881,000  | \$9,064,000    | \$10,945,000 | 2002 |
|  | \$1,881,000  | \$9,064,000    | \$10,945,000 | 2003 |
|  | \$1,881,000  | \$9,064,000    | \$10,945,000 | 2004 |
|  | \$1,097,000  | \$5,287,000    | \$6,384,000  | 2005 |
|  | \$0          | \$0            | \$0          | 2006 |
|  | \$0          | \$0            | \$0          | 2007 |
|  | \$0          | \$0            | \$0          | 2008 |
|  | \$0          | \$0            | \$0          | 2009 |
|  | \$0          | \$0            | \$0          | 2010 |
|  | \$0          | \$0            | \$0          | 2011 |
|  | \$0          | \$0            | \$0          | 2012 |
|  | \$0          | \$0            | \$0          | 2013 |
|  | \$0          | \$0            | \$0          | 2014 |
|  | \$0          | \$0            | \$0          | 2015 |
|  | \$0          | \$0            | \$0          | 2016 |
|  | \$0          | \$0            | \$0          | 2017 |
|  |              |                |              | 2018 |
|  |              |                |              | 2019 |
|  |              |                |              | 2020 |
|  |              |                |              | 2021 |
|  |              |                |              | 2022 |
|  |              |                |              | 2023 |
|  |              |                |              | 2024 |

**INFORMATION SOURCE**

1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN.  
 LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

018

LCC ANALYSIS TITLE: NO INTERIM ACTION

ALTERNATIVE: 1  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%  
 DOCUMENT NO.: LCC-93-10-001

DESCRIPTION  
 PACKAGE 5  
 PLANT 5

CHARGE NO.: 3AAA7  
 CLIENT: DOB  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/TP  
 DATE: 10/12/93  
 PAGE: 8 OF 29

| ASSUMPTIONS  | DIRECT COSTS | INDIRECT COSTS | CASH FLOW    | YEAR |
|--|--------------|----------------|--------------|------|
| 1. D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).                        | \$0          | \$0            | \$0          | 1994 |
|  | \$0          | \$0            | \$0          | 1995 |
| 2. MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH. | \$0          | \$0            | \$0          | 1996 |
|  | \$0          | \$0            | \$0          | 1997 |
|  | \$0          | \$0            | \$0          | 1998 |
|  | \$0          | \$0            | \$0          | 1999 |
|  | \$0          | \$0            | \$0          | 2000 |
|  | \$0          | \$0            | \$0          | 2001 |
|  | \$0          | \$0            | \$0          | 2002 |
|  | \$0          | \$0            | \$0          | 2003 |
|  | \$0          | \$0            | \$0          | 2004 |
|  | \$7,121,000  | \$30,534,000   | \$37,655,000 | 2005 |
|  | \$5,539,000  | \$23,748,000   | \$29,287,000 | 2006 |
|  | \$0          | \$0            | \$0          | 2007 |
|  | \$0          | \$0            | \$0          | 2008 |
|  | \$0          | \$0            | \$0          | 2009 |
|  | \$0          | \$0            | \$0          | 2010 |
|  | \$0          | \$0            | \$0          | 2011 |
|  | \$0          | \$0            | \$0          | 2012 |
|  | \$0          | \$0            | \$0          | 2013 |
|  | \$0          | \$0            | \$0          | 2014 |
|  | \$0          | \$0            | \$0          | 2015 |
|  | \$0          | \$0            | \$0          | 2016 |
|  |              |                |              | 2017 |
|  |              |                |              | 2018 |
|  |              |                |              | 2019 |
|  |              |                |              | 2020 |
|  |              |                |              | 2021 |
|  |              |                |              | 2022 |
|  |              |                |              | 2023 |
|  |              |                |              | 2024 |

INFORMATION SOURCE

1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN.  
 LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

LCC ANALYSIS TITLE: NO INTERIM ACTION

ALTERNATIVE: 1  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%  
 DOCUMENT NO.: LCC-93-10-001

DESCRIPTION  
 PACKAGE 6  
 PLANT 6

CHARGE NO.: 3AAA7  
 CLIENT: DOE  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/TP  
 DATE: 10/12/93  
 PAGE: 9 OF 29

| ASSUMPTIONS  | DIRECT COSTS | INDIRECT COSTS | CASH FLOW    | YEAR |
|--|--------------|----------------|--------------|------|
| 1. D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).                        | \$0          | \$0            | \$0          | 1994 |
| 2. MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH. | \$0          | \$0            | \$0          | 1995 |
|  | \$0          | \$0            | \$0          | 1996 |
|  | \$0          | \$0            | \$0          | 1997 |
|  | \$0          | \$0            | \$0          | 1998 |
|  | \$0          | \$0            | \$0          | 1999 |
|  | \$0          | \$0            | \$0          | 2000 |
|  | \$0          | \$0            | \$0          | 2001 |
|  | \$0          | \$0            | \$0          | 2002 |
|  | \$0          | \$0            | \$0          | 2003 |
|  | \$0          | \$0            | \$0          | 2004 |
|  | \$0          | \$0            | \$0          | 2005 |
|  | \$0          | \$0            | \$0          | 2006 |
|  | \$11,211,000 | \$51,044,000   | \$62,255,000 | 2007 |
|  | \$0          | \$0            | \$0          | 2008 |
|  | \$0          | \$0            | \$0          | 2009 |
|  | \$0          | \$0            | \$0          | 2010 |
|  | \$0          | \$0            | \$0          | 2011 |
|  | \$0          | \$0            | \$0          | 2012 |
|  | \$0          | \$0            | \$0          | 2013 |
|  | \$0          | \$0            | \$0          | 2014 |
|  | \$0          | \$0            | \$0          | 2015 |
|  | \$0          | \$0            | \$0          | 2016 |
|  | \$0          | \$0            | \$0          | 2017 |
|  |              |                |              | 2018 |
|  |              |                |              | 2019 |
|  |              |                |              | 2020 |
|  |              |                |              | 2021 |
|  |              |                |              | 2022 |
|  |              |                |              | 2023 |
|  |              |                |              | 2024 |

INFORMATION SOURCE

1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN.  
 LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

LCC ANALYSIS TITLE: NO INTERIM ACTION

ALTERNATIVE: 1  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%

DOCUMENT NO.: LCC-93-10-001

DESCRIPTION  
 PACKAGE 7  
 PLANT 9

CHARGE NO.: 3AAA7  
 CLIENT: DOB  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/TP  
 DATE: 10/12/93  
 PAGE: 10 OF 29

| ASSUMPTIONS   | DIRECT COSTS | INDIRECT COSTS | CASH FLOW    | YEAR |
|---|--------------|----------------|--------------|------|
| 1. D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).<br>2. MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH. | \$0          | \$0            | \$0          | 1994 |
|   | \$0          | \$0            | \$0          | 1995 |
|   | \$0          | \$0            | \$0          | 1996 |
|   | \$0          | \$0            | \$0          | 1997 |
|   | \$0          | \$0            | \$0          | 1998 |
|   | \$0          | \$0            | \$0          | 1999 |
|   | \$0          | \$0            | \$0          | 2000 |
|   | \$0          | \$0            | \$0          | 2001 |
|   | \$0          | \$0            | \$0          | 2002 |
|   | \$0          | \$0            | \$0          | 2003 |
|   | \$0          | \$0            | \$0          | 2004 |
|   | \$0          | \$0            | \$0          | 2005 |
|   | \$0          | \$0            | \$0          | 2006 |
|   | \$0          | \$0            | \$0          | 2007 |
|   | \$668,000    | \$3,122,000    | \$3,790,000  | 2008 |
|   | \$3,677,000  | \$17,172,000   | \$20,849,000 | 2009 |
|   |              | \$0            | \$0          | 2010 |
|   |              | \$0            | \$0          | 2011 |
|   |              | \$0            | \$0          | 2012 |
|   |              | \$0            | \$0          | 2013 |
|   |              | \$0            | \$0          | 2014 |
|   |              | \$0            | \$0          | 2015 |
|   |              | \$0            | \$0          | 2016 |
|   | \$0          | \$0            | 2017         |      |
|   |              |                | 2018         |      |
|   |              |                | 2019         |      |
|   |              |                | 2020         |      |
|   |              |                | 2021         |      |
|   |              |                | 2022         |      |
|   |              |                | 2023         |      |
|   |              |                | 2024         |      |

INFORMATION SOURCE

1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN.  
 LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

021

LCC ANALYSIS TITLE: NO INTERIM ACTION

ALTERNATIVE: 1  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%  
 DOCUMENT NO.: LCC-93-10-001

DESCRIPTION  
 PACKAGE 8  
 BOILER PLANT

CHARGE NO.: 3AAA7  
 CLIENT: DOE  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/TJ  
 DATE: 10/12/93  
 PAGE: 11 OF 29

| ASSUMPTIONS  | DIRECT COSTS | INDIRECT COSTS | CASH FLOW    | YEAR |
|--|--------------|----------------|--------------|------|
| 1. DAD COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).                        | \$0          | \$0            | \$0          | 1994 |
| 2. MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH. | \$0          | \$0            | \$0          | 1995 |
|  | \$0          | \$0            | \$0          | 1996 |
|  | \$0          | \$0            | \$0          | 1997 |
|  | \$0          | \$0            | \$0          | 1998 |
|  | \$0          | \$0            | \$0          | 1999 |
|  | \$0          | \$0            | \$0          | 2000 |
|  | \$0          | \$0            | \$0          | 2001 |
|  | \$0          | \$0            | \$0          | 2002 |
|  | \$0          | \$0            | \$0          | 2003 |
|  | \$0          | \$0            | \$0          | 2004 |
|  | \$0          | \$0            | \$0          | 2005 |
|  | \$0          | \$0            | \$0          | 2006 |
|  | \$0          | \$0            | \$0          | 2007 |
|  | \$0          | \$0            | \$0          | 2008 |
|  | \$643,000    | \$2,923,000    | \$3,566,000  | 2009 |
|  | \$3,861,000  | \$17,535,000   | \$21,396,000 | 2010 |
|  | \$3,861,000  | \$17,535,000   | \$21,396,000 | 2011 |
|  | \$643,000    | \$2,923,000    | \$3,566,000  | 2012 |
|  | \$0          | \$0            | \$0          | 2013 |
|  | \$0          | \$0            | \$0          | 2014 |
|  | \$0          | \$0            | \$0          | 2015 |
|  | \$0          | \$0            | \$0          | 2016 |
|  | \$0          | \$0            | \$0          | 2017 |
|  |              |                |              | 2018 |
|  |              |                |              | 2019 |
|  |              |                |              | 2020 |
|  |              |                |              | 2021 |
|  |              |                |              | 2022 |
|  |              |                |              | 2023 |
|  |              |                |              | 2024 |

INFORMATION SOURCE

1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN.  
 LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

LCC ANALYSIS TITLE: NO INTERIM ACTION

ALTERNATIVE: 1  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%  
 DOCUMENT NO.: LCC-93-10-001

DESCRIPTION  
 PACKAGE 9  
 MAINT AREA

CHARGE NO.: 3AAA7  
 CLIENT: DOB  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/TP  
 DATE: 10/12/93  
 PAGE: 12 OF 29

| ASSUMPTIONS  | DIRECT COSTS | INDIRECT COSTS | CASH FLOW    | YEAR |
|--|--------------|----------------|--------------|------|
| 1. D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).                        | \$0          | \$0            | \$0          | 1994 |
|  | \$0          | \$0            | \$0          | 1995 |
| 2. MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH. | \$0          | \$0            | \$0          | 1996 |
|  | \$0          | \$0            | \$0          | 1997 |
|  | \$0          | \$0            | \$0          | 1998 |
|  | \$0          | \$0            | \$0          | 1999 |
|  | \$0          | \$0            | \$0          | 2000 |
|  | \$0          | \$0            | \$0          | 2001 |
|  | \$0          | \$0            | \$0          | 2002 |
|  | \$0          | \$0            | \$0          | 2003 |
|  | \$0          | \$0            | \$0          | 2004 |
|  | \$0          | \$0            | \$0          | 2005 |
|  | \$0          | \$0            | \$0          | 2006 |
|  | \$0          | \$0            | \$0          | 2007 |
|  | \$0          | \$0            | \$0          | 2008 |
|  | \$0          | \$0            | \$0          | 2009 |
|  | \$0          | \$0            | \$0          | 2010 |
|  | \$0          | \$0            | \$0          | 2011 |
|  | \$2,434,000  | \$12,656,000   | \$15,090,000 | 2012 |
|  | \$0          | \$0            | \$0          | 2013 |
|  | \$0          | \$0            | \$0          | 2014 |
|  | \$0          | \$0            | \$0          | 2015 |
|  | \$0          | \$0            | \$0          | 2016 |
|  | \$0          | \$0            | \$0          | 2017 |
|  |              |                |              | 2018 |
|  |              |                |              | 2019 |
|  |              |                |              | 2020 |
|  |              |                |              | 2021 |
|  |              |                |              | 2022 |
|  |              |                |              | 2023 |
|  |              |                |              | 2024 |

INFORMATION SOURCE

1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN.  
 LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

LCC ANALYSIS TITLE: NO INTERIM ACTION

ALTERNATIVE: 1  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%  
 DOCUMENT NO.: LCC-93-10-001

DESCRIPTION  
 PACKAGE 10A  
 ADMIN BLDG

CHARGE NO.: 3AAA7  
 CLIENT: DOE  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/TP  
 DATE: 10/12/93  
 PAGE: 13 OF 29

| ASSUMPTIONS  | DIRECT COSTS | INDIRECT COSTS | CASH FLOW    | YEAR |
|--|--------------|----------------|--------------|------|
| 1. D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).                        | \$0          | \$0            | \$0          | 1994 |
| 2. MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH. | \$0          | \$0            | \$0          | 1995 |
|  | \$0          | \$0            | \$0          | 1996 |
|  | \$0          | \$0            | \$0          | 1997 |
|  | \$0          | \$0            | \$0          | 1998 |
|  | \$0          | \$0            | \$0          | 1999 |
|  | \$0          | \$0            | \$0          | 2000 |
|  | \$0          | \$0            | \$0          | 2001 |
|  | \$0          | \$0            | \$0          | 2002 |
|  | \$0          | \$0            | \$0          | 2003 |
|  | \$0          | \$0            | \$0          | 2004 |
|  | \$0          | \$0            | \$0          | 2005 |
|  | \$4,371,000  | \$20,149,000   | \$24,520,000 | 2006 |
|  | \$2,549,000  | \$11,753,000   | \$14,302,000 | 2007 |
|  | \$0          | \$0            | \$0          | 2008 |
|  | \$0          | \$0            | \$0          | 2009 |
|  | \$0          | \$0            | \$0          | 2010 |
|  | \$0          | \$0            | \$0          | 2011 |
|  | \$0          | \$0            | \$0          | 2012 |
|  | \$0          | \$0            | \$0          | 2013 |
|  | \$0          | \$0            | \$0          | 2014 |
|  | \$0          | \$0            | \$0          | 2015 |
|  | \$0          | \$0            | \$0          | 2016 |
|  | \$0          | \$0            | \$0          | 2017 |
|  |              |                |              | 2018 |
|  |              |                |              | 2019 |
|  |              |                |              | 2020 |
|  |              |                |              | 2021 |
|  |              |                |              | 2022 |
|  |              |                |              | 2023 |
|  |              |                |              | 2024 |

INFORMATION SOURCE

1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN. LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

CHARGE NO.: 3AAA7  
 CLIENT: DOB  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/TP  
 DATE: 10/12/93  
 PAGE: 14 OF 29

DESCRIPTION  
 PACKAGE 10B  
 ADMIN BLDG

LCC ANALYSIS TITLE: NO INTERIM ACTION

ALTERNATIVE: 1  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%  
 DOCUMENT NO.: LCC-93-10-001

ASSUMPTIONS

1. D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).
2. MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH.

INFORMATION SOURCE

1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN. LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

025

| YEAR | CASH FLOW    | INDIRECT COSTS | DIRECT COSTS |
|------|--------------|----------------|--------------|
| 1994 | \$0          | \$0            | \$0          |
| 1995 | \$0          | \$0            | \$0          |
| 1996 | \$0          | \$0            | \$0          |
| 1997 | \$0          | \$0            | \$0          |
| 1998 | \$0          | \$0            | \$0          |
| 1999 | \$0          | \$0            | \$0          |
| 2000 | \$0          | \$0            | \$0          |
| 2001 | \$0          | \$0            | \$0          |
| 2002 | \$0          | \$0            | \$0          |
| 2003 | \$0          | \$0            | \$0          |
| 2004 | \$0          | \$0            | \$0          |
| 2005 | \$0          | \$0            | \$0          |
| 2006 | \$0          | \$0            | \$0          |
| 2007 | \$0          | \$0            | \$0          |
| 2008 | \$5,546,000  | \$4,557,000    | \$989,000    |
| 2009 | \$33,276,000 | \$27,345,000   | \$5,931,000  |
| 2010 | \$0          | \$0            | \$0          |
| 2011 | \$0          | \$0            | \$0          |
| 2012 | \$0          | \$0            | \$0          |
| 2013 | \$0          | \$0            | \$0          |
| 2014 | \$0          | \$0            | \$0          |
| 2015 | \$0          | \$0            | \$0          |
| 2016 | \$0          | \$0            | \$0          |
| 2017 | \$0          | \$0            | \$0          |
| 2018 |              |                |              |
| 2019 |              |                |              |
| 2020 |              |                |              |
| 2021 |              |                |              |
| 2022 |              |                |              |
| 2023 |              |                |              |
| 2024 |              |                |              |

LCC ANALYSIS TITLE: NO INTERIM ACTION

ALTERNATIVE: 1  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%  
 DOCUMENT NO.: LCC-93-10-001

DESCRIPTION  
 PACKAGE 10C  
 ADMIN BLDG

CHARGE NO.: 3AAA7  
 CLIENT: DOB  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/TP  
 DATE: 10/12/93  
 PAGE: 15 OF 29

| ASSUMPTIONS   | DIRECT COSTS | INDIRECT COSTS | CASH FLOW    | YEAR |
|---|--------------|----------------|--------------|------|
| 1. D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).<br>2. MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH. | \$0          | \$0            | \$0          | 1994 |
|   | \$0          | \$0            | \$0          | 1995 |
|   | \$0          | \$0            | \$0          | 1996 |
|   | \$0          | \$0            | \$0          | 1997 |
|   | \$0          | \$0            | \$0          | 1998 |
|   | \$0          | \$0            | \$0          | 1999 |
|   | \$0          | \$0            | \$0          | 2000 |
|   | \$0          | \$0            | \$0          | 2001 |
|   | \$0          | \$0            | \$0          | 2002 |
|   | \$0          | \$0            | \$0          | 2003 |
|   | \$0          | \$0            | \$0          | 2004 |
|   | \$0          | \$0            | \$0          | 2005 |
|   | \$0          | \$0            | \$0          | 2006 |
|   | \$0          | \$0            | \$0          | 2007 |
|   | \$0          | \$0            | \$0          | 2008 |
|   | \$0          | \$0            | \$0          | 2009 |
|   | \$0          | \$0            | \$0          | 2010 |
|   | \$0          | \$0            | \$0          | 2011 |
|   | \$0          | \$0            | \$0          | 2012 |
|   | \$1,887,000  | \$8,701,000    | \$10,588,000 | 2013 |
|   | \$3,775,000  | \$17,401,000   | \$21,176,000 | 2014 |
|   | \$1,258,000  | \$5,800,000    | \$7,058,000  | 2015 |
|   | \$0          | \$0            | \$0          | 2016 |
|   |              |                |              | 2017 |
|   |              |                | 2018         |      |
|   |              |                | 2019         |      |
|   |              |                | 2020         |      |
|   |              |                | 2021         |      |
|   |              |                | 2022         |      |
|   |              |                | 2023         |      |
|   |              |                | 2024         |      |

INFORMATION SOURCE

1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN.  
 LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

LCC ANALYSIS TITLE: NO INTERIM ACTION

ALTERNATIVE: 1  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%  
 DOCUMENT NO.: LCC-93-10-001

ASSUMPTIONS

- D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).
- MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH.

INFORMATION SOURCE

- DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN. LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

027

CHARGE NO.: 3AAA7  
 CLIENT: DOE  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/TP  
 DATE: 10/12/93  
 PAGE: 16 OF 29

DESCRIPTION  
 PACKAGE 11  
 PLANT 8

| DIRECT COSTS | INDIRECT COSTS | CASH FLOW    | YEAR |
|--------------|----------------|--------------|------|
| \$0          | \$0            | \$0          | 1994 |
| \$0          | \$0            | \$0          | 1995 |
| \$0          | \$0            | \$0          | 1996 |
| \$0          | \$0            | \$0          | 1997 |
| \$0          | \$0            | \$0          | 1998 |
| \$0          | \$0            | \$0          | 1999 |
| \$0          | \$0            | \$0          | 2000 |
| \$0          | \$0            | \$0          | 2001 |
| \$0          | \$0            | \$0          | 2002 |
| \$0          | \$0            | \$0          | 2003 |
| \$0          | \$0            | \$0          | 2004 |
| \$0          | \$0            | \$0          | 2005 |
| \$0          | \$0            | \$0          | 2006 |
| \$0          | \$0            | \$0          | 2007 |
| \$0          | \$0            | \$0          | 2008 |
| \$0          | \$0            | \$0          | 2009 |
| \$0          | \$0            | \$0          | 2010 |
| \$0          | \$0            | \$0          | 2011 |
| \$2,566,000  | \$11,728,000   | \$14,294,000 | 2012 |
| \$6,159,000  | \$28,148,000   | \$34,307,000 | 2013 |
| \$1,540,000  | \$7,037,000    | \$8,577,000  | 2014 |
| \$0          | \$0            | \$0          | 2015 |
| \$0          | \$0            | \$0          | 2016 |
| \$0          | \$0            | \$0          | 2017 |
| \$0          | \$0            | \$0          | 2018 |
| \$0          | \$0            | \$0          | 2019 |
| \$0          | \$0            | \$0          | 2020 |
| \$0          | \$0            | \$0          | 2021 |
| \$0          | \$0            | \$0          | 2022 |
| \$0          | \$0            | \$0          | 2023 |
| \$0          | \$0            | \$0          | 2024 |

LCC ANALYSIS TITLE: NO INTERIM ACTION

ALTERNATIVE: 1  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%  
 DOCUMENT NO.: LCC-93-10-001

DESCRIPTION  
 PACKAGE 12  
 STORAGE

CHARGE NO.: 3AAA7  
 CLIENT: DOB  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/TP  
 DATE: 10/12/93  
 PAGE: 17 OF 29

| ASSUMPTIONS   | DIRECT COSTS | INDIRECT COSTS | CASH FLOW   | YEAR |
|---|--------------|----------------|-------------|------|
| 1. D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).<br>2. MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH. | \$0          | \$0            | \$0         | 1994 |
|   | \$0          | \$0            | \$0         | 1995 |
|   | \$0          | \$0            | \$0         | 1996 |
|   | \$0          | \$0            | \$0         | 1997 |
|   | \$0          | \$0            | \$0         | 1998 |
|   | \$0          | \$0            | \$0         | 1999 |
|   | \$0          | \$0            | \$0         | 2000 |
|   | \$0          | \$0            | \$0         | 2001 |
|   | \$0          | \$0            | \$0         | 2002 |
|   | \$0          | \$0            | \$0         | 2003 |
|   | \$0          | \$0            | \$0         | 2004 |
|   | \$0          | \$0            | \$0         | 2005 |
|   | \$0          | \$0            | \$0         | 2006 |
|   | \$0          | \$0            | \$0         | 2007 |
|   | \$0          | \$0            | \$0         | 2008 |
|   | \$0          | \$0            | \$0         | 2009 |
|   | \$0          | \$0            | \$0         | 2010 |
|   | \$0          | \$0            | \$0         | 2011 |
|   | \$718,000    | \$3,456,000    | \$4,174,000 | 2012 |
|   | \$1,435,000  | \$6,912,000    | \$8,347,000 | 2013 |
|   | \$1,435,000  | \$6,912,000    | \$8,347,000 | 2014 |
|   | \$1,435,000  | \$6,912,000    | \$8,347,000 | 2015 |
|   | \$1,435,000  | \$6,912,000    | \$8,347,000 | 2016 |
|   |              |                | 2017        |      |
|   |              |                | 2018        |      |
|   |              |                | 2019        |      |
|   |              |                | 2020        |      |
|   |              |                | 2021        |      |
|   |              |                | 2022        |      |
|   |              |                | 2023        |      |
|   |              |                | 2024        |      |

INFORMATION SOURCE

1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 3, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN. LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

228

**LCC ANALYSIS TITLE: NO INTERIM ACTION**

ALTERNATIVE: 1  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%  
 DOCUMENT NO.: LCC-93-10-001

**DESCRIPTION**  
**PACKAGE B 13**  
**PLANT 1**

CHARGE NO.: 3AAA7  
 CLIENT: DOB  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/TP  
 DATE: 10/12/93  
 PAGE: 18 OF 29

| ASSUMPTIONS  |  | DIRECT COSTS | INDIRECT COSTS | CASH FLOW    | YEAR |
|--|--|--------------|----------------|--------------|------|
| 1. D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).                        |  | \$0          | \$0            | \$0          | 1994 |
| 2. MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH. |  | \$0          | \$0            | \$0          | 1995 |
|  |  | \$0          | \$0            | \$0          | 1996 |
|  |  | \$0          | \$0            | \$0          | 1997 |
|  |  | \$0          | \$0            | \$0          | 1998 |
|  |  | \$0          | \$0            | \$0          | 1999 |
|  |  | \$0          | \$0            | \$0          | 2000 |
|  |  | \$0          | \$0            | \$0          | 2001 |
|  |  | \$0          | \$0            | \$0          | 2002 |
|  |  | \$0          | \$0            | \$0          | 2003 |
|  |  | \$0          | \$0            | \$0          | 2004 |
|  |  | \$0          | \$0            | \$0          | 2005 |
|  |  | \$10,471,000 | \$46,717,000   | \$57,188,000 | 2006 |
|  |  | \$13,961,000 | \$62,290,000   | \$76,251,000 | 2007 |
|  |  | \$4,654,000  | \$20,763,000   | \$25,417,000 | 2008 |
|  |  | \$0          | \$0            | \$0          | 2009 |
|  |  | \$0          | \$0            | \$0          | 2010 |
|  |  | \$0          | \$0            | \$0          | 2011 |
|  |  | \$0          | \$0            | \$0          | 2012 |
|  |  | \$0          | \$0            | \$0          | 2013 |
|  |  | \$0          | \$0            | \$0          | 2014 |
|  |  | \$0          | \$0            | \$0          | 2015 |
|  |  | \$0          | \$0            | \$0          | 2016 |
|  |  | \$0          | \$0            | \$0          | 2017 |
|  |  | \$0          | \$0            | \$0          | 2018 |
|  |  | \$0          | \$0            | \$0          | 2019 |
|  |  | \$0          | \$0            | \$0          | 2020 |
|  |  | \$0          | \$0            | \$0          | 2021 |
|  |  | \$0          | \$0            | \$0          | 2022 |
|  |  | \$0          | \$0            | \$0          | 2023 |
|  |  | \$0          | \$0            | \$0          | 2024 |

**INFORMATION SOURCE**

1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN.  
 LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

029

LCC ANALYSIS TITLE: NO INTERIM ACTION

ALTERNATIVE: 1  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%  
 DOCUMENT NO.: LCC-93-10-001

DESCRIPTION  
 PACKAGE 21A  
 PADS

CHARGE NO.: 3AAA7  
 CLIENT: DOB  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/TP  
 DATE: 10/12/93  
 PAGE: 19 OF 29

| ASSUMPTIONS  | DIRECT COSTS | INDIRECT COSTS | CASH FLOW   | YEAR |
|--|--------------|----------------|-------------|------|
| 1. D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).                        | \$0          | \$0            | \$0         | 1994 |
|  | \$0          | \$0            | \$0         | 1995 |
| 2. MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH. | \$0          | \$0            | \$0         | 1996 |
|  | \$0          | \$0            | \$0         | 1997 |
|  | \$0          | \$0            | \$0         | 1998 |
|  | \$0          | \$0            | \$0         | 1999 |
|  | \$0          | \$0            | \$0         | 2000 |
|  | \$0          | \$0            | \$0         | 2001 |
|  | \$0          | \$0            | \$0         | 2002 |
|  | \$0          | \$0            | \$0         | 2003 |
|  | \$0          | \$0            | \$0         | 2004 |
|  | \$0          | \$0            | \$0         | 2005 |
|  | \$378,000    | \$1,960,000    | \$2,338,000 | 2006 |
|  | \$0          | \$0            | \$0         | 2007 |
|  | \$0          | \$0            | \$0         | 2008 |
|  | \$0          | \$0            | \$0         | 2009 |
|  | \$0          | \$0            | \$0         | 2010 |
|  | \$0          | \$0            | \$0         | 2011 |
|  | \$0          | \$0            | \$0         | 2012 |
|  | \$0          | \$0            | \$0         | 2013 |
|  | \$0          | \$0            | \$0         | 2014 |
|  | \$0          | \$0            | \$0         | 2015 |
|  | \$0          | \$0            | \$0         | 2016 |
|  | \$0          | \$0            | \$0         | 2017 |
|  |              |                |             | 2018 |
|  |              |                |             | 2019 |
|  |              |                |             | 2020 |
|  |              |                |             | 2021 |
|  |              |                |             | 2022 |
|  |              |                |             | 2023 |
|  |              |                |             | 2024 |

INFORMATION SOURCE

1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN.  
 LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

030

**LCC ANALYSIS TITLE: NO INTERIM ACTION**

ALTERNATIVE: 1  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%

DOCUMENT NO.: LCC-93-10-001

**ASSUMPTIONS**

- D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).
- MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH.

**INFORMATION SOURCE**

1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 3, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN.  
 LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

031

CHARGE NO.: 3AAA7  
 CLIENT: DOB  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/TP  
 DATE: 10/12/93  
 PAGE: 20 OF 29

**DESCRIPTION**  
 PACKAGE 21B  
 PADS

| YEAR | CASH FLOW   | INDIRECT COSTS | DIRECT COSTS |
|------|-------------|----------------|--------------|
| 1994 | \$0         | \$0            | \$0          |
| 1995 | \$0         | \$0            | \$0          |
| 1996 | \$0         | \$0            | \$0          |
| 1997 | \$0         | \$0            | \$0          |
| 1998 | \$0         | \$0            | \$0          |
| 1999 | \$0         | \$0            | \$0          |
| 2000 | \$0         | \$0            | \$0          |
| 2001 | \$0         | \$0            | \$0          |
| 2002 | \$0         | \$0            | \$0          |
| 2003 | \$0         | \$0            | \$0          |
| 2004 | \$0         | \$0            | \$0          |
| 2005 | \$0         | \$0            | \$0          |
| 2006 | \$638,000   | \$535,000      | \$103,000    |
| 2007 | \$1,275,000 | \$1,069,000    | \$206,000    |
| 2008 | \$425,000   | \$356,000      | \$69,000     |
| 2009 | \$0         | \$0            | \$0          |
| 2010 | \$0         | \$0            | \$0          |
| 2011 | \$0         | \$0            | \$0          |
| 2012 | \$0         | \$0            | \$0          |
| 2013 | \$0         | \$0            | \$0          |
| 2014 | \$0         | \$0            | \$0          |
| 2015 | \$0         | \$0            | \$0          |
| 2016 | \$0         | \$0            | \$0          |
| 2017 | \$0         | \$0            | \$0          |
| 2018 | \$0         | \$0            | \$0          |
| 2019 | \$0         | \$0            | \$0          |
| 2020 | \$0         | \$0            | \$0          |
| 2021 | \$0         | \$0            | \$0          |
| 2022 | \$0         | \$0            | \$0          |
| 2023 | \$0         | \$0            | \$0          |
| 2024 | \$0         | \$0            | \$0          |

LCC ANALYSIS TITLE: NO INTERIM ACTION

ALTERNATIVE: 1  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%  
 DOCUMENT NO.: LCC-93-10-001

DESCRIPTION  
 PACKAGE B 21C  
 PADS

CHARGE NO.: 3AAA7  
 CLIENT: DOB  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/TP  
 DATE: 10/12/93  
 PAGE: 21 OF 29

| ASSUMPTIONS   | DIRECT COSTS | INDIRECT COSTS | CASH FLOW   | YEAR |
|---|--------------|----------------|-------------|------|
| 1. D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).<br>2. MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH. | \$0          | \$0            | \$0         | 1994 |
|   | \$0          | \$0            | \$0         | 1995 |
|   | \$0          | \$0            | \$0         | 1996 |
|   | \$0          | \$0            | \$0         | 1997 |
|   | \$0          | \$0            | \$0         | 1998 |
|   | \$0          | \$0            | \$0         | 1999 |
|   | \$0          | \$0            | \$0         | 2000 |
|   | \$0          | \$0            | \$0         | 2001 |
|   | \$0          | \$0            | \$0         | 2002 |
|   | \$0          | \$0            | \$0         | 2003 |
|   | \$0          | \$0            | \$0         | 2004 |
|   | \$0          | \$0            | \$0         | 2005 |
|   | \$0          | \$0            | \$0         | 2006 |
|   | \$0          | \$0            | \$0         | 2007 |
|   | \$0          | \$0            | \$0         | 2008 |
|   | \$0          | \$0            | \$0         | 2009 |
|   | \$0          | \$0            | \$0         | 2010 |
|   | \$0          | \$0            | \$0         | 2011 |
|   | \$91,000     | \$470,000      | \$561,000   | 2012 |
|   | \$182,000    | \$941,000      | \$1,123,000 | 2013 |
|   | \$106,000    | \$549,000      | \$655,000   | 2014 |
|   | \$0          | \$0            | \$0         | 2015 |
|   | \$0          | \$0            | \$0         | 2016 |
|   |              |                | 2017        |      |
|   |              |                | 2018        |      |
|   |              |                | 2019        |      |
|   |              |                | 2020        |      |
|   |              |                | 2021        |      |
|   |              |                | 2022        |      |
|   |              |                | 2023        |      |
|   |              |                | 2024        |      |

INFORMATION SOURCE

1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN.  
 LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

032

LCC ANALYSIS TITLE: NO INTERIM ACTION

ALTERNATIVE: 1  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%  
 DOCUMENT NO.: LCC-93-10-001

DESCRIPTION  
 PACKAGE 21D  
 PADS

CHARGE NO.: 3AAA7  
 CLIENT: DOE  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/TP  
 DATE: 10/12/93  
 PAGE: 22 OF 29

| ASSUMPTIONS  | DIRECT COSTS | INDIRECT COSTS | CASH FLOW   | YEAR |
|--|--------------|----------------|-------------|------|
| 1. D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).                        | \$0          | \$0            | \$0         | 1994 |
| 2. MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH. | \$0          | \$0            | \$0         | 1995 |
|  | \$0          | \$0            | \$0         | 1996 |
|  | \$0          | \$0            | \$0         | 1997 |
|  | \$0          | \$0            | \$0         | 1998 |
|  | \$0          | \$0            | \$0         | 1999 |
|  | \$0          | \$0            | \$0         | 2000 |
|  | \$0          | \$0            | \$0         | 2001 |
|  | \$0          | \$0            | \$0         | 2002 |
|  | \$0          | \$0            | \$0         | 2003 |
|  | \$0          | \$0            | \$0         | 2004 |
|  | \$0          | \$0            | \$0         | 2005 |
|  | \$0          | \$0            | \$0         | 2006 |
|  | \$0          | \$0            | \$0         | 2007 |
|  | \$0          | \$0            | \$0         | 2008 |
|  | \$0          | \$0            | \$0         | 2009 |
|  | \$0          | \$0            | \$0         | 2010 |
|  | \$0          | \$0            | \$0         | 2011 |
|  | \$0          | \$0            | \$0         | 2012 |
|  | \$0          | \$0            | \$0         | 2013 |
|  | \$0          | \$0            | \$0         | 2014 |
|  | \$0          | \$0            | \$0         | 2015 |
|  | \$0          | \$0            | \$0         | 2016 |
|  | \$378,000    | \$1,960,000    | \$2,338,000 | 2017 |
|  |              |                |             | 2018 |
|  |              |                |             | 2019 |
|  |              |                |             | 2020 |
|  |              |                |             | 2021 |
|  |              |                |             | 2022 |
|  |              |                |             | 2023 |
|  |              |                |             | 2024 |

INFORMATION SOURCE

1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN. LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

033

LCC ANALYSIS TITLE: NO INTERIM ACTION

ALTERNATIVE: 1  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%  
 DOCUMENT NO.: LCC-93-10-001

DESCRIPTION  
 PACKAGE 22A  
 FOUNDATIONS

CHARGE NO.: 3AAA7  
 CLIENT: DOB  
 LOCATION: FBARNALD, OH  
 ANALYST: JJ/TP  
 DATE: 10/12/93  
 PAGE: 23 OF 29

| ASSUMPTIONS  |  | DIRECT COSTS | INDIRECT COSTS | CASH FLOW    | YEAR |
|--|--|--------------|----------------|--------------|------|
| 1. D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).                        |  | \$0          | \$0            | \$0          | 1994 |
| 2. MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH. |  | \$0          | \$0            | \$0          | 1995 |
|  |  | \$0          | \$0            | \$0          | 1996 |
|  |  | \$0          | \$0            | \$0          | 1997 |
|  |  | \$0          | \$0            | \$0          | 1998 |
|  |  | \$0          | \$0            | \$0          | 1999 |
|  |  | \$0          | \$0            | \$0          | 2000 |
|  |  | \$0          | \$0            | \$0          | 2001 |
|  |  | \$0          | \$0            | \$0          | 2002 |
|  |  | \$0          | \$0            | \$0          | 2003 |
|  |  | \$0          | \$0            | \$0          | 2004 |
|  |  | \$0          | \$0            | \$0          | 2005 |
|  |  | \$0          | \$0            | \$0          | 2006 |
|  |  | \$0          | \$0            | \$0          | 2007 |
|  |  | \$0          | \$0            | \$0          | 2008 |
|  |  | \$0          | \$0            | \$0          | 2009 |
|  |  | \$0          | \$0            | \$0          | 2010 |
|  |  | \$0          | \$0            | \$0          | 2011 |
|  |  | \$1,919,000  | \$9,937,000    | \$11,856,000 | 2012 |
|  |  | \$3,838,000  | \$19,873,000   | \$23,711,000 | 2013 |
|  |  | \$2,239,000  | \$11,599,000   | \$13,832,000 | 2014 |
|  |  | \$0          | \$0            | \$0          | 2015 |
|  |  | \$0          | \$0            | \$0          | 2016 |
|  |  |              |                |              | 2017 |
|  |  |              |                |              | 2018 |
|  |  |              |                |              | 2019 |
|  |  |              |                |              | 2020 |
|  |  |              |                |              | 2021 |
|  |  |              |                |              | 2022 |
|  |  |              |                |              | 2023 |
|  |  |              |                |              | 2024 |

INFORMATION SOURCE

1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN. LANDLORD COST IS BASED ON THE JULY 21, 1990 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

034

**LCC ANALYSIS TITLE: NO INTERIM ACTION**

ALTERNATIVE: 1  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%

DOCUMENT NO.: LCC-93-10-001

**ASSUMPTIONS**

- D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).
- MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH.

**INFORMATION SOURCE**

1. DIRECT, INDIRECT, AND TOTAL, INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN.  
 LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

DESCRIPTION  
 PACKAGE 22B  
 FOUNDATIONS

CHARGE NO.: 3AAA7  
 CLIENT: DOB  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/TP  
 DATE: 10/12/93  
 PAGE: 24 OF 29

| YEAR | CASH FLOW    | INDIRECT COSTS | DIRECT COSTS |
|------|--------------|----------------|--------------|
| 1994 | \$0          | \$0            | \$0          |
| 1995 | \$0          | \$0            | \$0          |
| 1996 | \$0          | \$0            | \$0          |
| 1997 | \$0          | \$0            | \$0          |
| 1998 | \$0          | \$0            | \$0          |
| 1999 | \$0          | \$0            | \$0          |
| 2000 | \$0          | \$0            | \$0          |
| 2001 | \$0          | \$0            | \$0          |
| 2002 | \$0          | \$0            | \$0          |
| 2003 | \$0          | \$0            | \$0          |
| 2004 | \$0          | \$0            | \$0          |
| 2005 | \$0          | \$0            | \$0          |
| 2006 | \$0          | \$0            | \$0          |
| 2007 | \$0          | \$0            | \$0          |
| 2008 | \$0          | \$0            | \$0          |
| 2009 | \$0          | \$0            | \$0          |
| 2010 | \$0          | \$0            | \$0          |
| 2011 | \$0          | \$0            | \$0          |
| 2012 | \$0          | \$0            | \$0          |
| 2013 | \$0          | \$0            | \$0          |
| 2014 | \$0          | \$0            | \$0          |
| 2015 | \$0          | \$0            | \$0          |
| 2016 | \$49,399,000 | \$41,403,000   | \$7,996,000  |
| 2017 |              |                |              |
| 2018 |              |                |              |
| 2019 |              |                |              |
| 2020 |              |                |              |
| 2021 |              |                |              |
| 2022 |              |                |              |
| 2023 |              |                |              |
| 2024 |              |                |              |

335

5448

LCC ANALYSIS TITLE: NO INTERIM ACTION

ALTERNATIVE: 1  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%  
 DOCUMENT NO: LCC-93-10-001

DESCRIPTION  
 PACKAGE 23A  
 UTILITIES

CHARGE NO.: 3AAA7  
 CLIENT: DOB  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/TP  
 DATE: 10/12/93  
 PAGE: 25 OF 29

| ASSUMPTIONS  | DIRECT COSTS | INDIRECT COSTS | CASH FLOW   | YEAR |
|--|--------------|----------------|-------------|------|
| 1. D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).                        | \$0          | \$0            | \$0         | 1994 |
|  | \$0          | \$0            | \$0         | 1995 |
| 2. MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH. | \$0          | \$0            | \$0         | 1996 |
|  | \$0          | \$0            | \$0         | 1997 |
|  | \$0          | \$0            | \$0         | 1998 |
|  | \$0          | \$0            | \$0         | 1999 |
|  | \$0          | \$0            | \$0         | 2000 |
|  | \$0          | \$0            | \$0         | 2001 |
|  | \$0          | \$0            | \$0         | 2002 |
|  | \$948,000    | \$4,911,000    | \$5,859,000 | 2003 |
|  | \$474,000    | \$2,455,000    | \$2,929,000 | 2004 |
|  | \$0          | \$0            | \$0         | 2005 |
|  | \$0          | \$0            | \$0         | 2006 |
|  | \$0          | \$0            | \$0         | 2007 |
|  | \$0          | \$0            | \$0         | 2008 |
|  | \$0          | \$0            | \$0         | 2009 |
|  | \$0          | \$0            | \$0         | 2010 |
|  | \$0          | \$0            | \$0         | 2011 |
|  | \$0          | \$0            | \$0         | 2012 |
|  | \$0          | \$0            | \$0         | 2013 |
|  | \$0          | \$0            | \$0         | 2014 |
|  | \$0          | \$0            | \$0         | 2015 |
|  | \$0          | \$0            | \$0         | 2016 |
|  | \$0          | \$0            | \$0         | 2017 |
|  |              |                |             | 2018 |
|  |              |                |             | 2019 |
|  |              |                |             | 2020 |
|  |              |                |             | 2021 |
|  |              |                |             | 2022 |
|  |              |                |             | 2023 |
|  |              |                |             | 2024 |

INFORMATION SOURCE

1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN.  
 LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

036

5446

LCC ANALYSIS TITLE: NO INTERIM ACTION

ALTERNATIVE: 1  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%

DOCUMENT NO.: LCC-93-10-001

ASSUMPTIONS

1. D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).
2. MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH.

INFORMATION SOURCE

1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN. LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

037

CHARGE NO.: 3AAA7  
 CLIENT: DOE  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/TP  
 DATE: 10/12/93  
 PAGE: 26 OF 29

DESCRIPTION  
 PACKAGE 23B  
 UTILITIES

| DIRECT COSTS | INDIRECT COSTS | CASH FLOW   | YEAR |
|--------------|----------------|-------------|------|
| \$0          | \$0            | \$0         | 1994 |
| \$0          | \$0            | \$0         | 1995 |
| \$0          | \$0            | \$0         | 1996 |
| \$0          | \$0            | \$0         | 1997 |
| \$0          | \$0            | \$0         | 1998 |
| \$0          | \$0            | \$0         | 1999 |
| \$0          | \$0            | \$0         | 2000 |
| \$0          | \$0            | \$0         | 2001 |
| \$0          | \$0            | \$0         | 2002 |
| \$0          | \$0            | \$0         | 2003 |
| \$0          | \$0            | \$0         | 2004 |
| \$0          | \$0            | \$0         | 2005 |
| \$683,000    | \$3,536,000    | \$4,219,000 | 2006 |
| \$683,000    | \$3,536,000    | \$4,219,000 | 2007 |
| \$57,000     | \$295,000      | \$352,000   | 2008 |
| \$0          | \$0            | \$0         | 2009 |
| \$0          | \$0            | \$0         | 2010 |
| \$0          | \$0            | \$0         | 2011 |
| \$0          | \$0            | \$0         | 2012 |
| \$0          | \$0            | \$0         | 2013 |
| \$0          | \$0            | \$0         | 2014 |
| \$0          | \$0            | \$0         | 2015 |
| \$0          | \$0            | \$0         | 2016 |
| \$0          | \$0            | \$0         | 2017 |
| \$0          | \$0            | \$0         | 2018 |
| \$0          | \$0            | \$0         | 2019 |
| \$0          | \$0            | \$0         | 2020 |
| \$0          | \$0            | \$0         | 2021 |
| \$0          | \$0            | \$0         | 2022 |
| \$0          | \$0            | \$0         | 2023 |
| \$0          | \$0            | \$0         | 2024 |

5446

LCC ANALYSIS TITLE: NO INTERIM ACTION

ALTERNATIVE: 1  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%  
 DOCUMENT NO.: LCC-93-10-001

DESCRIPTION  
 PACKAGE 23C  
 UTILITIES

CHARGE NO.: 3AAA7  
 CLIENT: DOB  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/T  
 DATE: 10/12/93  
 PAGE: 27 OF 29

| ASSUMPTIONS   | DIRECT COSTS | INDIRECT COSTS | CASH FLOW   | YEAR |
|---|--------------|----------------|-------------|------|
| 1. D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).<br>2. MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH. | \$0          | \$0            | \$0         | 1994 |
|   | \$0          | \$0            | \$0         | 1995 |
|   | \$0          | \$0            | \$0         | 1996 |
|   | \$0          | \$0            | \$0         | 1997 |
|   | \$0          | \$0            | \$0         | 1998 |
|   | \$0          | \$0            | \$0         | 1999 |
|   | \$0          | \$0            | \$0         | 2000 |
|   | \$0          | \$0            | \$0         | 2001 |
|   | \$0          | \$0            | \$0         | 2002 |
|   | \$0          | \$0            | \$0         | 2003 |
|   | \$0          | \$0            | \$0         | 2004 |
|   | \$0          | \$0            | \$0         | 2005 |
|   | \$0          | \$0            | \$0         | 2006 |
|   | \$0          | \$0            | \$0         | 2007 |
|   | \$0          | \$0            | \$0         | 2008 |
|   | \$0          | \$0            | \$0         | 2009 |
|   | \$0          | \$0            | \$0         | 2010 |
|   | \$0          | \$0            | \$0         | 2011 |
|   | \$178,000    | \$921,000      | \$1,099,000 | 2012 |
|   | \$711,000    | \$3,683,000    | \$4,394,000 | 2013 |
|   | \$533,000    | \$2,762,000    | \$3,295,000 | 2014 |
|   | \$0          | \$0            | \$0         | 2015 |
|   | \$0          | \$0            | \$0         | 2016 |
|   |              |                | 2017        |      |
|   |              |                | 2018        |      |
|   |              |                | 2019        |      |
|   |              |                | 2020        |      |
|   |              |                | 2021        |      |
|   |              |                | 2022        |      |
|   |              |                | 2023        |      |
|   |              |                | 2024        |      |

INFORMATION SOURCE

1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN.  
 LANDLORD COST IS BASED ON THE JULY 21, 1990 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

038

LCC ANALYSIS TITLE: NO INTERIM ACTION

ALTERNATIVE: 1  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%  
 DOCUMENT NO.: LCC-93-10-001

DESCRIPTION  
 PACKAGE 24  
 ROADS, R/R, LOTS

CHARGE NO.: 3AAA7  
 CLIENT: DOB  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/TP  
 DATE: 10/12/93  
 PAGE: 28 OF 29

| ASSUMPTIONS   | DIRECT COSTS | INDIRECT COSTS | CASH FLOW   | YEAR |
|---|--------------|----------------|-------------|------|
| 1. D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).<br>2. MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH. | \$0          | \$0            | \$0         | 1994 |
|   | \$0          | \$0            | \$0         | 1995 |
|   | \$0          | \$0            | \$0         | 1996 |
|   | \$0          | \$0            | \$0         | 1997 |
|   | \$0          | \$0            | \$0         | 1998 |
|   | \$0          | \$0            | \$0         | 1999 |
|   | \$0          | \$0            | \$0         | 2000 |
|   | \$0          | \$0            | \$0         | 2001 |
|   | \$0          | \$0            | \$0         | 2002 |
|   | \$0          | \$0            | \$0         | 2003 |
|   | \$0          | \$0            | \$0         | 2004 |
|   | \$0          | \$0            | \$0         | 2005 |
|   | \$1,631,000  | \$7,731,000    | \$9,362,000 | 2005 |
|   | \$408,000    | \$1,933,000    | \$2,341,000 | 2006 |
|   | \$0          | \$0            | \$0         | 2007 |
|   | \$0          | \$0            | \$0         | 2008 |
|   | \$0          | \$0            | \$0         | 2009 |
|   | \$0          | \$0            | \$0         | 2010 |
|   | \$0          | \$0            | \$0         | 2011 |
|   | \$0          | \$0            | \$0         | 2012 |
|   | \$0          | \$0            | \$0         | 2013 |
|   | \$0          | \$0            | \$0         | 2014 |
|   | \$0          | \$0            | \$0         | 2015 |
| \$0   | \$0          | \$0            | 2016        |      |
|   |              |                | 2017        |      |
|   |              |                | 2018        |      |
|   |              |                | 2019        |      |
|   |              |                | 2020        |      |
|   |              |                | 2021        |      |
|   |              |                | 2022        |      |
|   |              |                | 2023        |      |
|   |              |                | 2024        |      |

INFORMATION SOURCE

1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN.  
 LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

LCC ANALYSIS TITLE: NO INTERIM ACTION

ALTERNATIVE: 1  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%  
 DOCUMENT NO.: LCC-93-10-001

DESCRIPTION  
 MISCELLANEOUS  
 BUILDINGS/TRAILERS  
 (PKG 25 IMPOUNDMENTS)

CHARGE NO.: 3AAA7  
 CLIENT: DOE  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/JP  
 DATE: 10/12/93  
 PAGE: 29 OF 29

| ASSUMPTIONS  | DIRECT COSTS | INDIRECT COSTS | CASH FLOW    | YEAR |
|--|--------------|----------------|--------------|------|
| 1. D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).                        | \$0          | \$0            | \$0          | 1994 |
| 2. MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH. | \$0          | \$0            | \$0          | 1995 |
|  | \$0          | \$0            | \$0          | 1996 |
|  | \$0          | \$0            | \$0          | 1997 |
|  | \$0          | \$0            | \$0          | 1998 |
|  | \$0          | \$0            | \$0          | 1999 |
|  | \$0          | \$0            | \$0          | 2000 |
|  | \$1,053,000  | \$2,279,000    | \$3,332,000  | 2001 |
|  | \$2,054,000  | \$4,445,000    | \$6,499,000  | 2002 |
|  | \$2,137,000  | \$4,623,000    | \$6,760,000  | 2003 |
|  | \$2,426,000  | \$5,250,000    | \$7,676,000  | 2004 |
|  | \$735,000    | \$1,506,000    | \$2,241,000  | 2005 |
|  | \$6,829,000  | \$14,776,000   | \$21,605,000 | 2006 |
|  | \$9,555,000  | \$20,675,000   | \$30,230,000 | 2007 |
|  | \$1,556,000  | \$3,368,000    | \$4,924,000  | 2008 |
|  | \$1,534,000  | \$3,319,000    | \$4,853,000  | 2009 |
|  | \$2,760,000  | \$5,971,000    | \$8,731,000  | 2010 |
|  | \$1,080,000  | \$2,337,000    | \$3,417,000  | 2011 |
|  | \$1,663,000  | \$3,599,000    | \$5,262,000  | 2012 |
|  | \$2,628,000  | \$5,786,000    | \$8,414,000  | 2013 |
|  | \$2,871,000  | \$6,311,000    | \$9,182,000  | 2014 |
|  | \$2,394,000  | \$5,281,000    | \$7,675,000  | 2015 |
|  | \$884,000    | \$1,797,000    | \$2,681,000  | 2016 |
|  | \$3,204,000  | \$6,834,000    | \$10,038,000 | 2017 |
|  |              |                |              | 2018 |
|  |              |                |              | 2019 |
|  |              |                |              | 2020 |
|  |              |                |              | 2021 |
|  |              |                |              | 2022 |
|  |              |                |              | 2023 |
|  |              |                |              | 2024 |

INFORMATION SOURCE

1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN.  
 LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

**ALTERNATIVE 2  
INTERIM DECONTAMINATION OF  
EXPOSED SURFACES**

LCC ANALYSIS TITLE: INTERIM DECONTAMINATION OF EXPOSED SURFACES  
 ALTERNATIVE: 2  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%  
 DOCUMENT NO.: LCC-93-10-001

CHARGE NO.: 3AAA7  
 CLIENT: DOE  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/TP  
 DATE: 10/12/93  
 PAGE: 1 OF 30

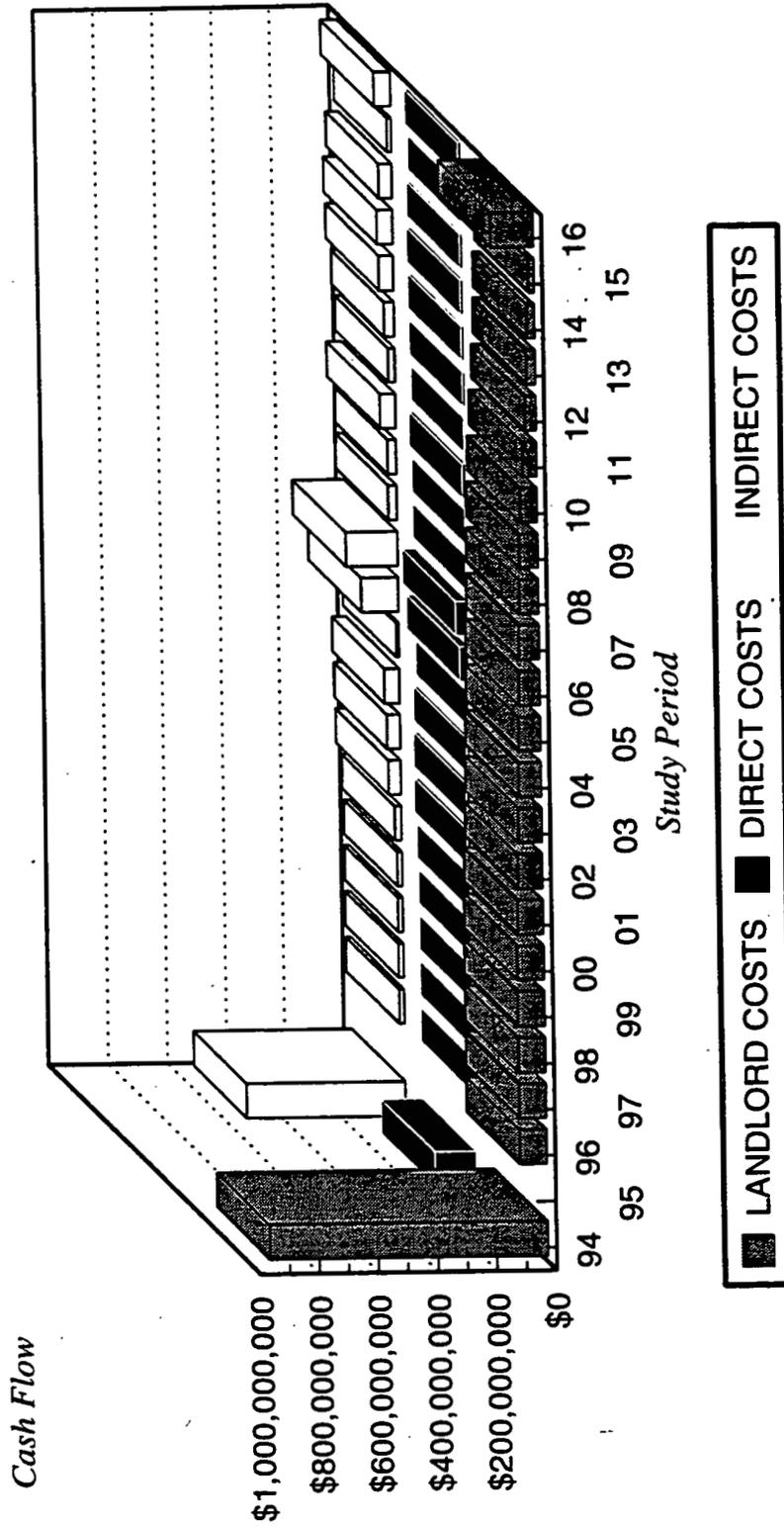
PRESENT WORTH ANALYSIS

| LANDLORD COST          | D&D (DIRECT) COST    | D&D (INDIRECT) COST  | ANNUAL CASH FLOW       | CASH FLOW YEAR |
|------------------------|----------------------|----------------------|------------------------|----------------|
| \$0                    | \$0                  | \$0                  | \$0                    | 1994           |
| \$0                    | \$0                  | \$0                  | \$0                    | 1995           |
| \$89,000,000           | \$3,921,225          | \$16,624,250         | \$109,545,500          | 1996           |
| \$89,000,000           | \$3,921,225          | \$16,624,250         | \$109,545,500          | 1997           |
| \$89,000,000           | \$3,921,225          | \$16,624,250         | \$109,545,500          | 1998           |
| \$89,000,000           | \$3,921,225          | \$16,624,250         | \$109,545,500          | 1999           |
| \$87,909,000           | \$7,471,250          | \$21,857,950         | \$117,238,200          | 2000           |
| \$84,732,000           | \$14,234,500         | \$41,968,900         | \$140,935,400          | 2001           |
| \$80,794,000           | \$14,485,500         | \$44,781,900         | \$140,061,400          | 2002           |
| \$77,174,000           | \$12,232,000         | \$50,001,000         | \$139,407,000          | 2003           |
| \$74,464,000           | \$2,648,000          | \$10,380,000         | \$87,492,000           | 2004           |
| \$72,107,000           | \$31,484,000         | \$125,403,000        | \$228,994,000          | 2005           |
| \$69,245,000           | \$44,009,000         | \$175,514,000        | \$288,768,000          | 2006           |
| \$65,625,000           | \$7,141,000          | \$28,617,000         | \$101,383,000          | 2007           |
| \$63,453,000           | \$6,912,000          | \$28,327,000         | \$98,692,000           | 2008           |
| \$61,487,000           | \$14,312,000         | \$52,980,400         | \$128,779,400          | 2009           |
| \$55,422,000           | \$6,701,000          | \$22,001,400         | \$84,124,400           | 2010           |
| \$46,259,000           | \$9,066,000          | \$33,035,400         | \$88,360,400           | 2011           |
| \$36,190,000           | \$11,693,000         | \$48,782,000         | \$96,665,000           | 2012           |
| \$29,899,000           | \$12,464,000         | \$53,586,000         | \$95,943,000           | 2013           |
| \$25,835,000           | \$10,482,000         | \$44,626,000         | \$80,943,000           | 2014           |
| \$17,709,000           | \$3,577,000          | \$14,637,000         | \$35,923,000           | 2015           |
| \$140,318,200          | \$13,013,000         | \$57,237,000         | \$210,568,200          | 2016           |
|                        |                      |                      |                        | 2017           |
|                        |                      |                      |                        | 2018           |
|                        |                      |                      |                        | 2019           |
|                        |                      |                      |                        | 2020           |
|                        |                      |                      |                        | 2021           |
|                        |                      |                      |                        | 2022           |
|                        |                      |                      |                        | 2023           |
|                        |                      |                      |                        | 2024           |
| <b>\$1,444,616,200</b> | <b>\$237,610,200</b> | <b>\$920,233,000</b> | <b>\$2,602,459,400</b> | <b>TOTAL</b>   |

\$1,619,161,500 < == == (@NPV)

# LCC CASH FLOW DIAGRAM

## INTERIM DECONTAMINATION OF EXPOSED SURFACES ALTERNATIVE 2



LCC ANALYSIS TITLE: INTERIM DECONTAMINATION  
 OF EXPOSED SURFACES  
 ALTERNATIVE: 2  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%  
 DOCUMENT NO.: LCC-93-10-001

ASSUMPTIONS  
 1. 5 TENSION SUPPORT STRUCTURES WILL BE CONSTRUCTED BETWEEN YEARS 2000-2002. 1 STRUCTURE PRESENTLY EXISTS.  
 2. SKIN REPLACEMENT WILL OCCUR IN YEARS 2009-2011 ON ALL 6 STRUCTURES.

INFORMATION SOURCE  
 1. COST DATA - O & M, CONSTRUCTION, AND SKIN REPLACEMENT  
 CENTRAL STORAGE FACILITY COST ESTIMATES.

CHARGE NO.: 3AAA7  
 CLIENT: DOB  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/TP  
 DATE: 10/12/93  
 PAGE: 3 OF 30

DESCRIPTION  
 CENTRAL STORAGE  
 FACILITY

| YEAR | CASH FLOW   | INDIRECT COSTS | DIRECT COSTS |
|------|-------------|----------------|--------------|
| 1994 | \$0         | \$0            | \$0          |
| 1995 | \$0         | \$0            | \$0          |
| 1996 | \$0         | \$0            | \$0          |
| 1997 | \$0         | \$0            | \$0          |
| 1998 | \$0         | \$0            | \$0          |
| 1999 | \$0         | \$0            | \$0          |
| 2000 | \$4,355,200 | \$2,065,950    | \$2,289,250  |
| 2001 | \$8,710,400 | \$4,131,900    | \$4,578,500  |
| 2002 | \$8,710,400 | \$4,131,900    | \$4,578,500  |
| 2003 | \$0         | \$0            | \$0          |
| 2004 | \$0         | \$0            | \$0          |
| 2005 | \$0         | \$0            | \$0          |
| 2006 | \$0         | \$0            | \$0          |
| 2007 | \$0         | \$0            | \$0          |
| 2008 | \$0         | \$0            | \$0          |
| 2009 | \$3,889,400 | \$2,129,400    | \$1,760,000  |
| 2010 | \$3,889,400 | \$2,129,400    | \$1,760,000  |
| 2011 | \$3,889,400 | \$2,129,400    | \$1,760,000  |
| 2012 | \$0         | \$0            | \$0          |
| 2013 | \$0         | \$0            | \$0          |
| 2014 | \$0         | \$0            | \$0          |
| 2015 | \$0         | \$0            | \$0          |
| 2016 | \$0         | \$0            | \$0          |
| 2017 |             |                |              |
| 2018 |             |                |              |
| 2019 |             |                |              |
| 2020 |             |                |              |
| 2021 |             |                |              |
| 2022 |             |                |              |
| 2023 |             |                |              |
| 2024 |             |                |              |

LCC ANALYSIS TITLE: INTERIM DECONTAMINATION OF EXPOSED SURFACES  
 ALTERNATIVE: 2  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%  
 DOCUMENT NO: LCC-93-10-001

CHARGE NO.: 3AAA7  
 CLIENT: DOB  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/TP  
 DATE: 10/12/93  
 PAGE: 4 OF 30

DESCRIPTION  
 PACKAGE 1  
 PLANT 4

| ASSUMPTIONS  | DIRECT COSTS | INDIRECT COSTS | CASH FLOW    | YEAR |
|--|--------------|----------------|--------------|------|
| 1. D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).                        | \$0          | \$0            | \$0          | 1994 |
| 2. MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH. | \$0          | \$0            | \$0          | 1995 |
|  | \$0          | \$0            | \$0          | 1996 |
|  | \$0          | \$0            | \$0          | 1997 |
|  | \$0          | \$0            | \$0          | 1998 |
|  | \$0          | \$0            | \$0          | 1999 |
|  | \$4,129,000  | \$17,513,000   | \$21,642,000 | 2000 |
|  | \$5,506,000  | \$23,351,000   | \$28,857,000 | 2001 |
|  | \$0          | \$0            | \$0          | 2002 |
|  | \$0          | \$0            | \$0          | 2003 |
|  | \$0          | \$0            | \$0          | 2004 |
|  | \$0          | \$0            | \$0          | 2005 |
|  | \$0          | \$0            | \$0          | 2006 |
|  | \$0          | \$0            | \$0          | 2007 |
|  | \$0          | \$0            | \$0          | 2008 |
|  | \$0          | \$0            | \$0          | 2009 |
|  | \$0          | \$0            | \$0          | 2010 |
|  | \$0          | \$0            | \$0          | 2011 |
|  | \$0          | \$0            | \$0          | 2012 |
|  | \$0          | \$0            | \$0          | 2013 |
|  | \$0          | \$0            | \$0          | 2014 |
|  | \$0          | \$0            | \$0          | 2015 |
|  | \$0          | \$0            | \$0          | 2016 |
|  |              |                |              | 2017 |
|  |              |                |              | 2018 |
|  |              |                |              | 2019 |
|  |              |                |              | 2020 |
|  |              |                |              | 2021 |
|  |              |                |              | 2022 |
|  |              |                |              | 2023 |
|  |              |                |              | 2024 |

INFORMATION SOURCE  
 1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN.  
 LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

**LCC ANALYSIS TITLE: INTERIM DECONTAMINATION OF EXPOSED SURFACES**

ALTERNATIVE: 2  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%  
 DOCUMENT NO.: LCC-93-10-001

DESCRIPTION  
 PACKAGE 2  
 PLANT 3

CHARGE NO.: 3AAA7  
 CLIENT: DOB  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/TP  
 DATE: 10/12/93  
 PAGE: 5 OF 30

| ASSUMPTIONS  | DIRECT COSTS | INDIRECT COSTS | CASH FLOW    | YEAR |
|--|--------------|----------------|--------------|------|
| 1. D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).                        | \$0          | \$0            | \$0          | 1994 |
|  | \$0          | \$0            | \$0          | 1995 |
| 2. MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH. | \$0          | \$0            | \$0          | 1996 |
|  | \$0          | \$0            | \$0          | 1997 |
|  | \$0          | \$0            | \$0          | 1998 |
|  | \$0          | \$0            | \$0          | 1999 |
|  | \$0          | \$0            | \$0          | 2000 |
|  | \$170,000    | \$761,000      | \$931,000    | 2001 |
|  | \$2,045,000  | \$9,134,000    | \$11,179,000 | 2002 |
|  | \$1,704,000  | \$7,612,000    | \$9,316,000  | 2003 |
|  | \$0          | \$0            | \$0          | 2004 |
|  | \$0          | \$0            | \$0          | 2005 |
|  | \$0          | \$0            | \$0          | 2006 |
|  | \$0          | \$0            | \$0          | 2007 |
|  | \$0          | \$0            | \$0          | 2008 |
|  | \$0          | \$0            | \$0          | 2009 |
|  | \$0          | \$0            | \$0          | 2010 |
|  | \$0          | \$0            | \$0          | 2011 |
|  | \$0          | \$0            | \$0          | 2012 |
|  | \$0          | \$0            | \$0          | 2013 |
|  | \$0          | \$0            | \$0          | 2014 |
|  | \$0          | \$0            | \$0          | 2015 |
|  | \$0          | \$0            | \$0          | 2016 |
|  | \$0          | \$0            | \$0          | 2017 |
|  | \$0          | \$0            | \$0          | 2018 |
|  | \$0          | \$0            | \$0          | 2019 |
|  | \$0          | \$0            | \$0          | 2020 |
|  | \$0          | \$0            | \$0          | 2021 |
|  | \$0          | \$0            | \$0          | 2022 |
|  | \$0          | \$0            | \$0          | 2023 |
|  | \$0          | \$0            | \$0          | 2024 |

**INFORMATION SOURCE**

1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN.  
 LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

LCC ANALYSIS TITLE: INTERIM DECONTAMINATION OF EXPOSED SURFACES  
 ALTERNATIVE: 2  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%  
 DOCUMENT NO.: LCC-93-10-001

DESCRIPTION  
 PACKAGE 3  
 PLANT 2/3

CHARGE NO.: 3AAA7  
 CLIENT: DOB  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/T  
 DATE: 10/12/93  
 PAGE: 6 OF 30

| ASSUMPTIONS  |  | DIRECT COSTS | INDIRECT COSTS | CASH FLOW    | YEAR |
|--|--|--------------|----------------|--------------|------|
| 1. D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).                        |  | \$0          | \$0            | \$0          | 1994 |
| 2. MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH. |  | \$0          | \$0            | \$0          | 1995 |
|  |  | \$0          | \$0            | \$0          | 1996 |
|  |  | \$0          | \$0            | \$0          | 1997 |
|  |  | \$0          | \$0            | \$0          | 1998 |
|  |  | \$0          | \$0            | \$0          | 1999 |
|  |  | \$0          | \$0            | \$0          | 2000 |
|  |  | \$0          | \$0            | \$0          | 2001 |
|  |  | \$0          | \$0            | \$0          | 2002 |
|  |  | \$2,851,000  | \$12,702,000   | \$15,553,000 | 2003 |
|  |  | \$5,702,000  | \$25,404,000   | \$31,106,000 | 2004 |
|  |  | \$950,000    | \$4,234,000    | \$5,184,000  | 2005 |
|  |  | \$0          | \$0            | \$0          | 2006 |
|  |  | \$0          | \$0            | \$0          | 2007 |
|  |  | \$0          | \$0            | \$0          | 2008 |
|  |  | \$0          | \$0            | \$0          | 2009 |
|  |  | \$0          | \$0            | \$0          | 2010 |
|  |  | \$0          | \$0            | \$0          | 2011 |
|  |  | \$0          | \$0            | \$0          | 2012 |
|  |  | \$0          | \$0            | \$0          | 2013 |
|  |  | \$0          | \$0            | \$0          | 2014 |
|  |  | \$0          | \$0            | \$0          | 2015 |
|  |  | \$0          | \$0            | \$0          | 2016 |
|  |  | \$0          | \$0            | \$0          | 2017 |
|  |  |              |                |              | 2018 |
|  |  |              |                |              | 2019 |
|  |  |              |                |              | 2020 |
|  |  |              |                |              | 2021 |
|  |  |              |                |              | 2022 |
|  |  |              |                |              | 2023 |
|  |  |              |                |              | 2024 |

INFORMATION SOURCE

1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN.  
 LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

**LCC ANALYSIS TITLE: INTERIM DECONTAMINATION OF EXPOSED SURFACES**

ALTERNATIVE: 2  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%  
 DOCUMENT NO.: LCC-93-10-001

DESCRIPTION  
 PACKAGE 4  
 PILOT PLANT

CHARGENO: 3AAA7  
 CLIENT: DOB  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/TP  
 DATE: 10/12/93  
 PAGE: 7 OF 30

| ASSUMPTIONS   | DIRECT COSTS | INDIRECT COSTS | CASH FLOW    | YEAR |
|---|--------------|----------------|--------------|------|
| 1. D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).<br>2. MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH. | \$0          | \$0            | \$0          | 1994 |
|   | \$0          | \$0            | \$0          | 1995 |
|   | \$0          | \$0            | \$0          | 1996 |
|   | \$0          | \$0            | \$0          | 1997 |
|   | \$0          | \$0            | \$0          | 1998 |
|   | \$0          | \$0            | \$0          | 1999 |
|   | \$0          | \$0            | \$0          | 2000 |
|   | \$1,926,000  | \$9,280,000    | \$11,206,000 | 2001 |
|   | \$1,926,000  | \$9,280,000    | \$11,206,000 | 2002 |
|   | \$1,926,000  | \$9,280,000    | \$11,206,000 | 2003 |
| \$963,000   | \$4,640,000  | \$5,603,000    | 2004         |      |
|   | \$0          | \$0            | \$0          | 2005 |
|   | \$0          | \$0            | \$0          | 2006 |
|   | \$0          | \$0            | \$0          | 2007 |
|   | \$0          | \$0            | \$0          | 2008 |
|   | \$0          | \$0            | \$0          | 2009 |
|   | \$0          | \$0            | \$0          | 2010 |
|   | \$0          | \$0            | \$0          | 2011 |
|   | \$0          | \$0            | \$0          | 2012 |
|   | \$0          | \$0            | \$0          | 2013 |
|   | \$0          | \$0            | \$0          | 2014 |
|   | \$0          | \$0            | \$0          | 2015 |
|   | \$0          | \$0            | \$0          | 2016 |
|   | \$0          | \$0            | \$0          | 2017 |
|   |              |                |              | 2018 |
|   |              |                |              | 2019 |
|   |              |                |              | 2020 |
|   |              |                |              | 2021 |
|   |              |                |              | 2022 |
|   |              |                |              | 2023 |
|   |              |                |              | 2024 |

**INFORMATION SOURCE**

1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN.  
 LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

**LCC ANALYSIS TITLE: INTERIM DECONTAMINATION OF EXPOSED SURFACES**

ALTERNATIVE: 2  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%

DESCRIPTION  
 PACKAGE 5  
 PLANT 5

CHARGE NO.: 3AAA7  
 CLIENT: DOB  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/TP  
 DATE: 10/12/93  
 PAGE: 8 OF 30

DOCUMENT NO.: LCC-93-10-001

**ASSUMPTIONS**

- D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).
- MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH.

**INFORMATION SOURCE**

- DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN. LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

| YEAR | CASH FLOW    | INDIRECT COSTS | DIRECT COSTS |
|------|--------------|----------------|--------------|
| 1994 | \$0          | \$0            | \$0          |
| 1995 | \$0          | \$0            | \$0          |
| 1996 | \$0          | \$0            | \$0          |
| 1997 | \$0          | \$0            | \$0          |
| 1998 | \$0          | \$0            | \$0          |
| 1999 | \$0          | \$0            | \$0          |
| 2000 | \$0          | \$0            | \$0          |
| 2001 | \$0          | \$0            | \$0          |
| 2002 | \$0          | \$0            | \$0          |
| 2003 | \$0          | \$0            | \$0          |
| 2004 | \$0          | \$0            | \$0          |
| 2005 | \$37,655,000 | \$30,534,000   | \$7,121,000  |
| 2006 | \$29,287,000 | \$23,748,000   | \$5,539,000  |
| 2007 | \$0          | \$0            | \$0          |
| 2008 | \$0          | \$0            | \$0          |
| 2009 | \$0          | \$0            | \$0          |
| 2010 | \$0          | \$0            | \$0          |
| 2011 | \$0          | \$0            | \$0          |
| 2012 | \$0          | \$0            | \$0          |
| 2013 | \$0          | \$0            | \$0          |
| 2014 | \$0          | \$0            | \$0          |
| 2015 | \$0          | \$0            | \$0          |
| 2016 | \$0          | \$0            | \$0          |
| 2017 |              |                |              |
| 2018 |              |                |              |
| 2019 |              |                |              |
| 2020 |              |                |              |
| 2021 |              |                |              |
| 2022 |              |                |              |
| 2023 |              |                |              |
| 2024 |              |                |              |

LCC ANALYSIS TITLE: INTERIM DECONTAMINATION OF EXPOSED SURFACES  
 ALTERNATIVE: 2  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%  
 DOCUMENT NO.: LCC-93-10-001

ASSUMPTIONS  
 1. D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).  
 2. MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH.

INFORMATION SOURCE  
 1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 3, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN.  
 LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

DESCRIPTION  
 PACKAGE 6  
 PLANT 6

CHARGE NO.: 3AAA7  
 CLIENT: DOB  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/TP  
 DATE: 10/12/93  
 PAGE: 9 OF 30

| DIRECT COSTS | INDIRECT COSTS | CASH FLOW    | YEAR |
|--------------|----------------|--------------|------|
| \$0          | \$0            | \$0          | 1994 |
| \$0          | \$0            | \$0          | 1995 |
| \$0          | \$0            | \$0          | 1996 |
| \$0          | \$0            | \$0          | 1997 |
| \$0          | \$0            | \$0          | 1998 |
| \$0          | \$0            | \$0          | 1999 |
| \$0          | \$0            | \$0          | 2000 |
| \$0          | \$0            | \$0          | 2001 |
| \$0          | \$0            | \$0          | 2002 |
| \$0          | \$0            | \$0          | 2003 |
| \$0          | \$0            | \$0          | 2004 |
| \$0          | \$0            | \$0          | 2005 |
| \$0          | \$0            | \$0          | 2006 |
| \$11,211,000 | \$51,044,000   | \$62,255,000 | 2007 |
| \$0          | \$0            | \$0          | 2008 |
| \$0          | \$0            | \$0          | 2009 |
| \$0          | \$0            | \$0          | 2010 |
| \$0          | \$0            | \$0          | 2011 |
| \$0          | \$0            | \$0          | 2012 |
| \$0          | \$0            | \$0          | 2013 |
| \$0          | \$0            | \$0          | 2014 |
| \$0          | \$0            | \$0          | 2015 |
| \$0          | \$0            | \$0          | 2016 |
| \$0          | \$0            | \$0          | 2017 |
|              |                |              | 2018 |
|              |                |              | 2019 |
|              |                |              | 2020 |
|              |                |              | 2021 |
|              |                |              | 2022 |
|              |                |              | 2023 |
|              |                |              | 2024 |

**LCC ANALYSIS TITLE: INTERIM DECONTAMINATION OF EXPOSED SURFACES**

ALTERNATIVE: 2  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%  
 DOCUMENT NO.: LCC-93-10-001

DESCRIPTION  
 PACKAGE 7  
 PLANT 9

CHARGE NO.: 3AAA7  
 CLIENT: DOB  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/TP  
 DATE: 10/12/93  
 PAGE: 10 OF 30

| ASSUMPTIONS  | DIRECT COSTS | INDIRECT COSTS | CASH FLOW    | YEAR |
|--|--------------|----------------|--------------|------|
| 1. D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).                        | \$0          | \$0            | \$0          | 1994 |
|  | \$0          | \$0            | \$0          | 1995 |
| 2. MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH. | \$0          | \$0            | \$0          | 1996 |
|  | \$0          | \$0            | \$0          | 1997 |
|  | \$0          | \$0            | \$0          | 1998 |
|  | \$0          | \$0            | \$0          | 1999 |
|  | \$0          | \$0            | \$0          | 2000 |
|  | \$0          | \$0            | \$0          | 2001 |
|  | \$0          | \$0            | \$0          | 2002 |
|  | \$0          | \$0            | \$0          | 2003 |
|  | \$0          | \$0            | \$0          | 2004 |
|  | \$0          | \$0            | \$0          | 2005 |
|  | \$0          | \$0            | \$0          | 2006 |
|  | \$668,000    | \$3,122,000    | \$3,790,000  | 2007 |
|  | \$3,677,000  | \$17,172,000   | \$20,849,000 | 2008 |
|  | \$0          | \$0            | \$0          | 2009 |
|  | \$0          | \$0            | \$0          | 2010 |
|  | \$0          | \$0            | \$0          | 2011 |
|  | \$0          | \$0            | \$0          | 2012 |
|  | \$0          | \$0            | \$0          | 2013 |
|  | \$0          | \$0            | \$0          | 2014 |
|  | \$0          | \$0            | \$0          | 2015 |
|  | \$0          | \$0            | \$0          | 2016 |
|  | \$0          | \$0            | \$0          | 2017 |
|  | \$0          | \$0            | \$0          | 2018 |
|  | \$0          | \$0            | \$0          | 2019 |
|  | \$0          | \$0            | \$0          | 2020 |
|  | \$0          | \$0            | \$0          | 2021 |
|  | \$0          | \$0            | \$0          | 2022 |
|  | \$0          | \$0            | \$0          | 2023 |
|  | \$0          | \$0            | \$0          | 2024 |

**INFORMATION SOURCE**  
 1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN.  
 LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

LCC ANALYSIS TITLE: INTERIM DECONTAMINATION OF EXPOSED SURFACES  
 ALTERNATIVE: 2  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%  
 DOCUMENT NO.: LCC-93-10-001

DESCRIPTION  
 PACKAGE 8  
 BOILER PLANT

CHARGE NO.: 3AAA7  
 CLIENT: DOB  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/TP  
 DATE: 10/12/93  
 PAGE: 11 OF 30

| ASSUMPTIONS  | DIRECT COSTS | INDIRECT COSTS | CASH FLOW    | YEAR |
|--|--------------|----------------|--------------|------|
| 1. D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).                        | \$0          | \$0            | \$0          | 1994 |
| 2. MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH. | \$0          | \$0            | \$0          | 1995 |
|  | \$0          | \$0            | \$0          | 1996 |
|  | \$0          | \$0            | \$0          | 1997 |
|  | \$0          | \$0            | \$0          | 1998 |
|  | \$0          | \$0            | \$0          | 1999 |
|  | \$0          | \$0            | \$0          | 2000 |
|  | \$0          | \$0            | \$0          | 2001 |
|  | \$0          | \$0            | \$0          | 2002 |
|  | \$0          | \$0            | \$0          | 2003 |
|  | \$0          | \$0            | \$0          | 2004 |
|  | \$0          | \$0            | \$0          | 2005 |
|  | \$0          | \$0            | \$0          | 2006 |
|  | \$0          | \$0            | \$0          | 2007 |
|  | \$643,000    | \$2,923,000    | \$3,566,000  | 2008 |
|  | \$3,861,000  | \$17,535,000   | \$21,396,000 | 2009 |
|  | \$3,861,000  | \$17,535,000   | \$21,396,000 | 2010 |
|  | \$643,000    | \$2,923,000    | \$3,566,000  | 2011 |
|  | \$0          | \$0            | \$0          | 2012 |
|  | \$0          | \$0            | \$0          | 2013 |
|  | \$0          | \$0            | \$0          | 2014 |
|  | \$0          | \$0            | \$0          | 2015 |
|  | \$0          | \$0            | \$0          | 2016 |
|  | \$0          | \$0            | \$0          | 2017 |
|  |              |                |              | 2018 |
|  |              |                |              | 2019 |
|  |              |                |              | 2020 |
|  |              |                |              | 2021 |
|  |              |                |              | 2022 |
|  |              |                |              | 2023 |
|  |              |                |              | 2024 |

INFORMATION SOURCE

1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN.  
 LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

LCC ANALYSIS TITLE: INTERIM DECONTAMINATION OF EXPOSED SURFACES

ALTERNATIVE: 2  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%

DESCRIPTION  
 PACKAGE 9  
 MAINT AREA

CHARGE NO.: 3AAA7  
 CLIENT: DOB  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/TP  
 DATE: 10/12/93  
 PAGE: 12 OF 30

DOCUMENT NO.: LCC-93-10-001

ASSUMPTIONS

- DAD COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).
- MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH.

INFORMATION SOURCE

1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN.  
 LANDLORD COST IS BASED ON THE JULY 21, 1990 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

| YEAR | DIRECT COSTS | INDIRECT COSTS | CASH FLOW    |
|------|--------------|----------------|--------------|
| 1994 | \$0          | \$0            | \$0          |
| 1995 | \$0          | \$0            | \$0          |
| 1996 | \$0          | \$0            | \$0          |
| 1997 | \$0          | \$0            | \$0          |
| 1998 | \$0          | \$0            | \$0          |
| 1999 | \$0          | \$0            | \$0          |
| 2000 | \$0          | \$0            | \$0          |
| 2001 | \$0          | \$0            | \$0          |
| 2002 | \$0          | \$0            | \$0          |
| 2003 | \$0          | \$0            | \$0          |
| 2004 | \$0          | \$0            | \$0          |
| 2005 | \$0          | \$0            | \$0          |
| 2006 | \$0          | \$0            | \$0          |
| 2007 | \$0          | \$0            | \$0          |
| 2008 | \$0          | \$0            | \$0          |
| 2009 | \$0          | \$0            | \$0          |
| 2010 | \$0          | \$0            | \$0          |
| 2011 | \$0          | \$12,656,000   | \$15,090,000 |
| 2012 | \$2,434,000  | \$0            | \$0          |
| 2013 | \$0          | \$0            | \$0          |
| 2014 | \$0          | \$0            | \$0          |
| 2015 | \$0          | \$0            | \$0          |
| 2016 | \$0          | \$0            | \$0          |
| 2017 | \$0          | \$0            | \$0          |
| 2018 | \$0          | \$0            | \$0          |
| 2019 | \$0          | \$0            | \$0          |
| 2020 | \$0          | \$0            | \$0          |
| 2021 | \$0          | \$0            | \$0          |
| 2022 | \$0          | \$0            | \$0          |
| 2023 | \$0          | \$0            | \$0          |
| 2024 | \$0          | \$0            | \$0          |

**LCC ANALYSIS TITLE: INTERIM DECONTAMINATION OF EXPOSED SURFACES**

ALTERNATIVE: 2  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%  
 DOCUMENT NO.: LCC-93-10-001

DESCRIPTION  
 PACKAGB 10A  
 ADMIN BLDG

CHARGE NO.: 3AAA7  
 CLIENT: DOB  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/TP  
 DATE: 10/12/93  
 PAGE: 13 OF 30

| ASSUMPTIONS  | DIRECT COSTS | INDIRECT COSTS | CASH FLOW    | YEAR |
|--|--------------|----------------|--------------|------|
| 1. D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).                        | \$0          | \$0            | \$0          | 1994 |
| 2. MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH. | \$0          | \$0            | \$0          | 1995 |
|  | \$0          | \$0            | \$0          | 1996 |
|  | \$0          | \$0            | \$0          | 1997 |
|  | \$0          | \$0            | \$0          | 1998 |
|  | \$0          | \$0            | \$0          | 1999 |
|  | \$0          | \$0            | \$0          | 2000 |
|  | \$0          | \$0            | \$0          | 2001 |
|  | \$0          | \$0            | \$0          | 2002 |
|  | \$0          | \$0            | \$0          | 2003 |
|  | \$0          | \$0            | \$0          | 2004 |
|  | \$4,371,000  | \$20,149,000   | \$24,520,000 | 2005 |
|  | \$2,549,000  | \$11,753,000   | \$14,302,000 | 2006 |
|  | \$0          | \$0            | \$0          | 2007 |
|  | \$0          | \$0            | \$0          | 2008 |
|  | \$0          | \$0            | \$0          | 2009 |
|  | \$0          | \$0            | \$0          | 2010 |
|  | \$0          | \$0            | \$0          | 2011 |
|  | \$0          | \$0            | \$0          | 2012 |
|  | \$0          | \$0            | \$0          | 2013 |
|  | \$0          | \$0            | \$0          | 2014 |
|  | \$0          | \$0            | \$0          | 2015 |
|  | \$0          | \$0            | \$0          | 2016 |
|  | \$0          | \$0            | \$0          | 2017 |
|  |              |                |              | 2018 |
|  |              |                |              | 2019 |
|  |              |                |              | 2020 |
|  |              |                |              | 2021 |
|  |              |                |              | 2022 |
|  |              |                |              | 2023 |
|  |              |                |              | 2024 |

**INFORMATION SOURCE**

1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN.  
 LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

**LCC ANALYSIS TITLE: INTERIM DECONTAMINATION OF EXPOSED SURFACES**

ALTERNATIVE: 2  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%

CHARGE NO.: 3AAA7  
 CLIENT: DOB  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/TP  
 DATE: 10/12/93  
 PAGE: 14 OF 30

DOCUMENT NO.: LCC-93-10-001

**ASSUMPTIONS**

- D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).
- MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH.

**INFORMATION SOURCE**

1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN.  
 LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

| DESCRIPTION | DIRECT COSTS | INDIRECT COSTS | CASH FLOW    | YEAR |
|-------------|--------------|----------------|--------------|------|
| PACKAGE 10B | \$0          | \$0            | \$0          | 1994 |
| ADMIN BLDG  | \$0          | \$0            | \$0          | 1995 |
|             | \$0          | \$0            | \$0          | 1996 |
|             | \$0          | \$0            | \$0          | 1997 |
|             | \$0          | \$0            | \$0          | 1998 |
|             | \$0          | \$0            | \$0          | 1999 |
|             | \$0          | \$0            | \$0          | 2000 |
|             | \$0          | \$0            | \$0          | 2001 |
|             | \$0          | \$0            | \$0          | 2002 |
|             | \$0          | \$0            | \$0          | 2003 |
|             | \$0          | \$0            | \$0          | 2004 |
|             | \$0          | \$0            | \$0          | 2005 |
|             | \$0          | \$0            | \$0          | 2006 |
|             | \$0          | \$0            | \$0          | 2007 |
|             | \$0          | \$0            | \$0          | 2008 |
|             | \$989,000    | \$4,557,000    | \$5,546,000  | 2009 |
|             | \$5,931,000  | \$27,345,000   | \$33,276,000 | 2010 |
|             | \$0          | \$0            | \$0          | 2011 |
|             | \$0          | \$0            | \$0          | 2012 |
|             | \$0          | \$0            | \$0          | 2013 |
|             | \$0          | \$0            | \$0          | 2014 |
|             | \$0          | \$0            | \$0          | 2015 |
|             | \$0          | \$0            | \$0          | 2016 |
|             | \$0          | \$0            | \$0          | 2017 |
|             |              |                |              | 2018 |
|             |              |                |              | 2019 |
|             |              |                |              | 2020 |
|             |              |                |              | 2021 |
|             |              |                |              | 2022 |
|             |              |                |              | 2023 |
|             |              |                |              | 2024 |

LCC ANALYSIS TITLE: INTERIM DECONTAMINATION  
 OF EXPOSED SURFACES  
 ALTERNATIVE: 2  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%  
 DOCUMENT NO.: LCC-93-10-001

DESCRIPTION  
 PACKAGE 10C  
 ADMIN BLDG

CHARGE NO.: 3AAA7  
 CLIENT: DOB  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/TP  
 DATE: 10/12/93  
 PAGE: 15 OF 30

| ASSUMPTIONS  | DIRECT COSTS | INDIRECT COSTS | CASH FLOW    | YEAR |
|--|--------------|----------------|--------------|------|
| 1. D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).                        | \$0          | \$0            | \$0          | 1994 |
|  | \$0          | \$0            | \$0          | 1995 |
| 2. MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH. | \$0          | \$0            | \$0          | 1996 |
|  | \$0          | \$0            | \$0          | 1997 |
|  | \$0          | \$0            | \$0          | 1998 |
|  | \$0          | \$0            | \$0          | 1999 |
|  | \$0          | \$0            | \$0          | 2000 |
|  | \$0          | \$0            | \$0          | 2001 |
|  | \$0          | \$0            | \$0          | 2002 |
|  | \$0          | \$0            | \$0          | 2003 |
|  | \$0          | \$0            | \$0          | 2004 |
|  | \$0          | \$0            | \$0          | 2005 |
|  | \$0          | \$0            | \$0          | 2006 |
|  | \$0          | \$0            | \$0          | 2007 |
|  | \$0          | \$0            | \$0          | 2008 |
|  | \$0          | \$0            | \$0          | 2009 |
|  | \$0          | \$0            | \$0          | 2010 |
|  | \$0          | \$0            | \$0          | 2011 |
|  | \$0          | \$0            | \$0          | 2012 |
|  | \$1,887,000  | \$8,701,000    | \$10,588,000 | 2013 |
|  | \$3,775,000  | \$17,401,000   | \$21,176,000 | 2014 |
|  | \$1,258,000  | \$5,800,000    | \$7,058,000  | 2015 |
|  | \$0          | \$0            | \$0          | 2016 |
|  |              |                |              | 2017 |
|  |              |                |              | 2018 |
|  |              |                |              | 2019 |
|  |              |                |              | 2020 |
|  |              |                |              | 2021 |
|  |              |                |              | 2022 |
|  |              |                |              | 2023 |
|  |              |                |              | 2024 |

INFORMATION SOURCE

1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN.  
 LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

**LCC ANALYSIS TITLE: INTERIM DECONTAMINATION OF EXPOSED SURFACES**

ALTERNATIVE: 2  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%  
 DOCUMENT NO.: LCC-93-10-001

**DESCRIPTION**  
 PACKAGE 11  
 PLANT 8

CHARGE NO.: 3AAA7  
 CLIENT: DOB  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/TP  
 DATE: 10/12/93  
 PAGE: 16 OF 30

| ASSUMPTIONS  | DIRECT COSTS | INDIRECT COSTS | CASH FLOW    | YEAR |
|--|--------------|----------------|--------------|------|
| 1. D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).                        | \$0          | \$0            | \$0          | 1994 |
|  | \$0          | \$0            | \$0          | 1995 |
| 2. MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH. | \$0          | \$0            | \$0          | 1996 |
|  | \$0          | \$0            | \$0          | 1997 |
|  | \$0          | \$0            | \$0          | 1998 |
|  | \$0          | \$0            | \$0          | 1999 |
|  | \$0          | \$0            | \$0          | 2000 |
|  | \$0          | \$0            | \$0          | 2001 |
|  | \$0          | \$0            | \$0          | 2002 |
|  | \$0          | \$0            | \$0          | 2003 |
|  | \$0          | \$0            | \$0          | 2004 |
|  | \$0          | \$0            | \$0          | 2005 |
|  | \$0          | \$0            | \$0          | 2006 |
|  | \$0          | \$0            | \$0          | 2007 |
|  | \$0          | \$0            | \$0          | 2008 |
|  | \$0          | \$0            | \$0          | 2009 |
|  | \$0          | \$0            | \$0          | 2010 |
|  | \$2,566,000  | \$11,728,000   | \$14,294,000 | 2011 |
|  | \$6,159,000  | \$28,148,000   | \$34,307,000 | 2012 |
|  | \$1,540,000  | \$7,037,000    | \$8,577,000  | 2013 |
|  | \$0          | \$0            | \$0          | 2014 |
|  | \$0          | \$0            | \$0          | 2015 |
|  | \$0          | \$0            | \$0          | 2016 |
|  |              |                |              | 2017 |
|  |              |                |              | 2018 |
|  |              |                |              | 2019 |
|  |              |                |              | 2020 |
|  |              |                |              | 2021 |
|  |              |                |              | 2022 |
|  |              |                |              | 2023 |
|  |              |                |              | 2024 |

**INFORMATION SOURCE**

1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN.  
 LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

LCC ANALYSIS TITLE: INTERIM DECONTAMINATION OF EXPOSED SURFACES

ALTERNATIVE: 2  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%

DESCRIPTION  
 PACKAGE 12  
 STORAGE

CHARGE NO.: 3AAA7  
 CLIENT: DOB  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/TP  
 DATE: 10/12/93  
 PAGE: 17 OF 30

DOCUMENT NO.: LCC-93-10-001  
 ASSUMPTIONS

- D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).
- MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH.

INFORMATION SOURCE

1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN. LANDLORD COST IS BASED ON THE JULY 21, 1999 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

| DIRECT COSTS | INDIRECT COSTS | CASH FLOW   | YEAR |
|--------------|----------------|-------------|------|
| \$0          | \$0            | \$0         | 1994 |
| \$0          | \$0            | \$0         | 1995 |
| \$0          | \$0            | \$0         | 1996 |
| \$0          | \$0            | \$0         | 1997 |
| \$0          | \$0            | \$0         | 1998 |
| \$0          | \$0            | \$0         | 1999 |
| \$0          | \$0            | \$0         | 2000 |
| \$0          | \$0            | \$0         | 2001 |
| \$0          | \$0            | \$0         | 2002 |
| \$0          | \$0            | \$0         | 2003 |
| \$0          | \$0            | \$0         | 2004 |
| \$0          | \$0            | \$0         | 2005 |
| \$0          | \$0            | \$0         | 2006 |
| \$0          | \$0            | \$0         | 2007 |
| \$0          | \$0            | \$0         | 2008 |
| \$0          | \$0            | \$0         | 2009 |
| \$0          | \$0            | \$0         | 2010 |
| \$0          | \$0            | \$0         | 2011 |
| \$0          | \$0            | \$0         | 2012 |
| \$718,000    | \$3,520,000    | \$4,238,000 | 2013 |
| \$1,435,000  | \$7,040,000    | \$8,475,000 | 2014 |
| \$1,435,000  | \$7,040,000    | \$8,475,000 | 2015 |
| \$1,435,000  | \$7,040,000    | \$8,475,000 | 2016 |
| \$1,435,000  | \$7,040,000    | \$8,475,000 | 2017 |
|              |                |             | 2018 |
|              |                |             | 2019 |
|              |                |             | 2020 |
|              |                |             | 2021 |
|              |                |             | 2022 |
|              |                |             | 2023 |
|              |                |             | 2024 |

**LCC ANALYSIS TITLE: INTERIM DECONTAMINATION OF EXPOSED SURFACES**

ALTERNATIVE: 2  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%  
 DOCUMENT NO.: LCC-93-10-001

DESCRIPTION  
 PACKAGE B 13  
 PLANT 1

CHARGE NO.: 3AAA7  
 CLIENT: DOB  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/TP  
 DATE: 10/12/93  
 PAGE: 18 OF 30

| ASSUMPTIONS  | DIRECT COSTS | INDIRECT COSTS | CASH FLOW    | YEAR |
|--|--------------|----------------|--------------|------|
| 1. DAD COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).                        | \$0          | \$0            | \$0          | 1994 |
|  | \$0          | \$0            | \$0          | 1995 |
| 2. MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH. | \$0          | \$0            | \$0          | 1996 |
|  | \$0          | \$0            | \$0          | 1997 |
|  | \$0          | \$0            | \$0          | 1998 |
|  | \$0          | \$0            | \$0          | 1999 |
|  | \$0          | \$0            | \$0          | 2000 |
|  | \$0          | \$0            | \$0          | 2001 |
|  | \$0          | \$0            | \$0          | 2002 |
|  | \$0          | \$0            | \$0          | 2003 |
|  | \$0          | \$0            | \$0          | 2004 |
|  | \$10,471,000 | \$46,717,000   | \$57,188,000 | 2005 |
|  | \$13,961,000 | \$62,290,000   | \$76,251,000 | 2006 |
|  | \$4,654,000  | \$20,763,000   | \$25,417,000 | 2007 |
|  | \$0          | \$0            | \$0          | 2008 |
|  | \$0          | \$0            | \$0          | 2009 |
|  | \$0          | \$0            | \$0          | 2010 |
|  | \$0          | \$0            | \$0          | 2011 |
|  | \$0          | \$0            | \$0          | 2012 |
|  | \$0          | \$0            | \$0          | 2013 |
|  | \$0          | \$0            | \$0          | 2014 |
|  | \$0          | \$0            | \$0          | 2015 |
|  | \$0          | \$0            | \$0          | 2016 |
|  |              |                |              | 2017 |
|  |              |                |              | 2018 |
|  |              |                |              | 2019 |
|  |              |                |              | 2020 |
|  |              |                |              | 2021 |
|  |              |                |              | 2022 |
|  |              |                |              | 2023 |
|  |              |                |              | 2024 |

**INFORMATION SOURCE**

1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN. LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

LCC ANALYSIS TITLE: INTERIM DECONTAMINATION OF EXPOSED SURFACES  
 ALTERNATIVE: 2  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%  
 DOCUMENT NO.: LCC-93-10-001

DESCRIPTION  
 PACKAGE 21A  
 PADS

CHARGE NO.: 3AAA7  
 CLIENT: DOE  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/TP  
 DATE: 10/12/93  
 PAGE: 19 OF 30

ASSUMPTIONS  
 1. D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).  
 2. MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH.

INFORMATION SOURCE  
 1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN.  
 LANDLORD COST IS BASED ON THE JULY 21, 1999 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

| YEAR | CASH FLOW   | INDIRECT COSTS | DIRECT COSTS |
|------|-------------|----------------|--------------|
| 1994 | \$0         | \$0            | \$0          |
| 1995 | \$0         | \$0            | \$0          |
| 1996 | \$0         | \$0            | \$0          |
| 1997 | \$0         | \$0            | \$0          |
| 1998 | \$0         | \$0            | \$0          |
| 1999 | \$0         | \$0            | \$0          |
| 2000 | \$0         | \$0            | \$0          |
| 2001 | \$0         | \$0            | \$0          |
| 2002 | \$0         | \$0            | \$0          |
| 2003 | \$0         | \$0            | \$0          |
| 2004 | \$0         | \$0            | \$0          |
| 2005 | \$2,338,000 | \$1,960,000    | \$378,000    |
| 2006 | \$0         | \$0            | \$0          |
| 2007 | \$0         | \$0            | \$0          |
| 2008 | \$0         | \$0            | \$0          |
| 2009 | \$0         | \$0            | \$0          |
| 2010 | \$0         | \$0            | \$0          |
| 2011 | \$0         | \$0            | \$0          |
| 2012 | \$0         | \$0            | \$0          |
| 2013 | \$0         | \$0            | \$0          |
| 2014 | \$0         | \$0            | \$0          |
| 2015 | \$0         | \$0            | \$0          |
| 2016 | \$0         | \$0            | \$0          |
| 2017 | \$0         | \$0            | \$0          |
| 2018 | \$0         | \$0            | \$0          |
| 2019 | \$0         | \$0            | \$0          |
| 2020 | \$0         | \$0            | \$0          |
| 2021 | \$0         | \$0            | \$0          |
| 2022 | \$0         | \$0            | \$0          |
| 2023 | \$0         | \$0            | \$0          |
| 2024 | \$0         | \$0            | \$0          |

LCC ANALYSIS TITLE: INTERIM DECONTAMINATION OF EXPOSED SURFACES  
 ALTERNATIVE: 2  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%  
 DOCUMENT NO.: LCC-93-10-001

CHARGE NO.: 3AAA7  
 CLIENT: DOB  
 LOCATION: FBRNALD, OH  
 ANALYST: JJ/T  
 DATE: 10/12/93  
 PAGE: 20 OF 30

DESCRIPTION  
 PACKAGE 21B  
 PADS

| ASSUMPTIONS   | DIRECT COSTS | INDIRECT COSTS | CASH FLOW   | YEAR |
|---|--------------|----------------|-------------|------|
| 1. D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).<br>2. MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH. | \$0          | \$0            | \$0         | 1994 |
|   | \$0          | \$0            | \$0         | 1995 |
|   | \$0          | \$0            | \$0         | 1996 |
|   | \$0          | \$0            | \$0         | 1997 |
|   | \$0          | \$0            | \$0         | 1998 |
|   | \$0          | \$0            | \$0         | 1999 |
|   | \$0          | \$0            | \$0         | 2000 |
|   | \$0          | \$0            | \$0         | 2001 |
|   | \$0          | \$0            | \$0         | 2002 |
|   | \$0          | \$0            | \$0         | 2003 |
|   | \$0          | \$0            | \$0         | 2004 |
|   | \$0          | \$0            | \$0         | 2005 |
|   | \$103,000    | \$535,000      | \$638,000   | 2006 |
|   | \$206,000    | \$1,069,000    | \$1,275,000 | 2007 |
|   | \$69,000     | \$356,000      | \$425,000   | 2008 |
|   | \$0          | \$0            | \$0         | 2009 |
|   | \$0          | \$0            | \$0         | 2010 |
|   | \$0          | \$0            | \$0         | 2011 |
|   | \$0          | \$0            | \$0         | 2012 |
|   | \$0          | \$0            | \$0         | 2013 |
|   | \$0          | \$0            | \$0         | 2014 |
|   | \$0          | \$0            | \$0         | 2015 |
|   | \$0          | \$0            | \$0         | 2016 |
|   |              |                | 2017        |      |
|   |              |                | 2018        |      |
|   |              |                | 2019        |      |
|   |              |                | 2020        |      |
|   |              |                | 2021        |      |
|   |              |                | 2022        |      |
|   |              |                | 2023        |      |
|   |              |                | 2024        |      |

INFORMATION SOURCE

1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN.  
 LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

CHARGE NO.: 3AAA7  
 CLIENT: DOB  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/TJ  
 DATE: 10/12/93  
 PAGE: 21 OF 30

DESCRIPTION  
 PACKAGE 21C  
 PADS

LCC ANALYSIS TITLE: INTERIM DECONTAMINATION  
 OF EXPOSED SURFACES  
 2  
 ALTERNATIVE: 1994  
 BASE DATE: 23 YRS.  
 STUDY PERIOD:  
 REAL DISCOUNT RATE: 4.4%  
 DOCUMENT NO.: LCC-93-10-001

- ASSUMPTIONS
1. D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).
  2. MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH.

INFORMATION SOURCE

1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN. LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

| YEAR | DIRECT COSTS | INDIRECT COSTS | CASH FLOW   |
|------|--------------|----------------|-------------|
| 1994 | \$0          | \$0            | \$0         |
| 1995 | \$0          | \$0            | \$0         |
| 1996 | \$0          | \$0            | \$0         |
| 1997 | \$0          | \$0            | \$0         |
| 1998 | \$0          | \$0            | \$0         |
| 1999 | \$0          | \$0            | \$0         |
| 2000 | \$0          | \$0            | \$0         |
| 2001 | \$0          | \$0            | \$0         |
| 2002 | \$0          | \$0            | \$0         |
| 2003 | \$0          | \$0            | \$0         |
| 2004 | \$0          | \$0            | \$0         |
| 2005 | \$0          | \$0            | \$0         |
| 2006 | \$0          | \$0            | \$0         |
| 2007 | \$0          | \$0            | \$0         |
| 2008 | \$0          | \$0            | \$0         |
| 2009 | \$0          | \$0            | \$0         |
| 2010 | \$0          | \$0            | \$0         |
| 2011 | \$0          | \$0            | \$0         |
| 2012 | \$0          | \$0            | \$0         |
| 2013 | \$91,000     | \$470,000      | \$561,000   |
| 2014 | \$182,000    | \$941,000      | \$1,123,000 |
| 2015 | \$106,000    | \$549,000      | \$655,000   |
| 2016 | \$0          | \$0            | \$0         |
| 2017 | \$0          | \$0            | \$0         |
| 2018 |              |                |             |
| 2019 |              |                |             |
| 2020 |              |                |             |
| 2021 |              |                |             |
| 2022 |              |                |             |
| 2023 |              |                |             |
| 2024 |              |                |             |

| LCC ANALYSIS TITLE: INTERIM DECONTAMINATION OF EXPOSED SURFACES   |                                      | CHARGENO.: 3AAA7      |           |             |
|---|--------------------------------------|-----------------------|-----------|-------------|
| ALTERNATIVE: 2  |                                      | CLIENT: DOE           |           |             |
| BASE DATE: 1994   |                                      | LOCATION: FERNALD, OH |           |             |
| STUDY PERIOD: 23 YRS.   |                                      | ANALYST: JJ/TP        |           |             |
| REAL DISCOUNT RATE: 4.4%  |                                      | DATE: 10/12/93        |           |             |
| DOCUMENT NO.: LCC-93-10-001   |                                      | PAGE: 22 OF 30        |           |             |
| ASSUMPTIONS   | DESCRIPTION                          | INDIRECT COSTS        | CASH FLOW | YEAR        |
| 1. D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).<br>2. MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH. | DESCRIPTION<br>PACKAGE B 21D<br>PADS | \$0                   | \$0       | 1994        |
|   |                                      | \$0                   | \$0       | 1995        |
|   |                                      | \$0                   | \$0       | 1996        |
|   |                                      | \$0                   | \$0       | 1997        |
|   |                                      | \$0                   | \$0       | 1998        |
|   |                                      | \$0                   | \$0       | 1999        |
|   |                                      | \$0                   | \$0       | 2000        |
|   |                                      | \$0                   | \$0       | 2001        |
|   |                                      | \$0                   | \$0       | 2002        |
|   |                                      | \$0                   | \$0       | 2003        |
|   |                                      | \$0                   | \$0       | 2004        |
|   |                                      | \$0                   | \$0       | 2005        |
|   |                                      | \$0                   | \$0       | 2006        |
|   |                                      | \$0                   | \$0       | 2007        |
|   |                                      | \$0                   | \$0       | 2008        |
|   |                                      | \$0                   | \$0       | 2009        |
|   |                                      | \$0                   | \$0       | 2010        |
|   |                                      | \$0                   | \$0       | 2011        |
|   |                                      | \$0                   | \$0       | 2012        |
|   |                                      | \$0                   | \$0       | 2013        |
|   |                                      | \$0                   | \$0       | 2014        |
|   |                                      | \$0                   | \$0       | 2015        |
|   |                                      |                       |           | \$1,960,000 |
|   |                                      |                       |           | 2017        |
|   |                                      |                       |           | 2018        |
|   |                                      |                       |           | 2019        |
|   |                                      |                       |           | 2020        |
|   |                                      |                       |           | 2021        |
|   |                                      |                       |           | 2022        |
|   |                                      |                       |           | 2023        |
|   |                                      |                       |           | 2024        |
| INFORMATION SOURCE<br>1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN.<br>LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.            |                                      |                       |           |             |

LCC ANALYSIS TITLE: INTERIM DECONTAMINATION OF EXPOSED SURFACES  
 ALTERNATIVE: 2  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%  
 DOCUMENT NO.: LCC-93-10-001

ASSUMPTIONS  
 1. D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).  
 2. MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH.

INFORMATION SOURCE  
 1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN.  
 LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

DESCRIPTION  
 PACKAGE 22A  
 FOUNDATIONS

CHARGE NO.: 3AAA7  
 CLIENT: DOB  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/TP  
 DATE: 10/12/93  
 PAGE: 23 OF 30

| DIRECT COSTS | INDIRECT COSTS | CASH FLOW    | YEAR |
|--------------|----------------|--------------|------|
| \$0          | \$0            | \$0          | 1994 |
| \$0          | \$0            | \$0          | 1995 |
| \$0          | \$0            | \$0          | 1996 |
| \$0          | \$0            | \$0          | 1997 |
| \$0          | \$0            | \$0          | 1998 |
| \$0          | \$0            | \$0          | 1999 |
| \$0          | \$0            | \$0          | 2000 |
| \$0          | \$0            | \$0          | 2001 |
| \$0          | \$0            | \$0          | 2002 |
| \$0          | \$0            | \$0          | 2003 |
| \$0          | \$0            | \$0          | 2004 |
| \$0          | \$0            | \$0          | 2005 |
| \$0          | \$0            | \$0          | 2006 |
| \$0          | \$0            | \$0          | 2007 |
| \$0          | \$0            | \$0          | 2008 |
| \$0          | \$0            | \$0          | 2009 |
| \$0          | \$0            | \$0          | 2010 |
| \$0          | \$0            | \$0          | 2011 |
| \$0          | \$0            | \$0          | 2012 |
| \$1,919,000  | \$9,937,000    | \$11,856,000 | 2012 |
| \$3,838,000  | \$19,873,000   | \$23,711,000 | 2013 |
| \$2,239,000  | \$11,593,000   | \$13,832,000 | 2014 |
| \$0          | \$0            | \$0          | 2015 |
| \$0          | \$0            | \$0          | 2016 |
| \$0          | \$0            | \$0          | 2017 |
| \$0          | \$0            | \$0          | 2018 |
| \$0          | \$0            | \$0          | 2019 |
| \$0          | \$0            | \$0          | 2020 |
| \$0          | \$0            | \$0          | 2021 |
| \$0          | \$0            | \$0          | 2022 |
| \$0          | \$0            | \$0          | 2023 |
| \$0          | \$0            | \$0          | 2024 |

**LCC ANALYSIS TITLE: INTERIM DECONTAMINATION OF EXPOSED SURFACES**

ALTERNATIVE: 2  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%

DESCRIPTION  
 PACKAGE 22B  
 FOUNDATIONS

CHARGE NO.: 3AAA7  
 CLIENT: DOB  
 LOCATION: FBARNALD, OH  
 ANALYST: JJ/T  
 DATE: 10/12/93  
 PAGE: 24 OF 30

DOCUMENT NO.: LCC-93-10-001

**ASSUMPTIONS**

1. D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).
2. MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH.

**INFORMATION SOURCE**

1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN.  
 LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

| YEAR | DIRECT COSTS | INDIRECT COSTS | CASH FLOW    |
|------|--------------|----------------|--------------|
| 1994 | \$0          | \$0            | \$0          |
| 1995 | \$0          | \$0            | \$0          |
| 1996 | \$0          | \$0            | \$0          |
| 1997 | \$0          | \$0            | \$0          |
| 1998 | \$0          | \$0            | \$0          |
| 1999 | \$0          | \$0            | \$0          |
| 2000 | \$0          | \$0            | \$0          |
| 2001 | \$0          | \$0            | \$0          |
| 2002 | \$0          | \$0            | \$0          |
| 2003 | \$0          | \$0            | \$0          |
| 2004 | \$0          | \$0            | \$0          |
| 2005 | \$0          | \$0            | \$0          |
| 2006 | \$0          | \$0            | \$0          |
| 2007 | \$0          | \$0            | \$0          |
| 2008 | \$0          | \$0            | \$0          |
| 2009 | \$0          | \$0            | \$0          |
| 2010 | \$0          | \$0            | \$0          |
| 2011 | \$0          | \$0            | \$0          |
| 2012 | \$0          | \$0            | \$0          |
| 2013 | \$0          | \$0            | \$0          |
| 2014 | \$0          | \$0            | \$0          |
| 2015 | \$0          | \$0            | \$0          |
| 2016 | \$0          | \$0            | \$0          |
| 2017 | \$7,996,000  | \$41,403,000   | \$49,399,000 |
| 2018 |              |                |              |
| 2019 |              |                |              |
| 2020 |              |                |              |
| 2021 |              |                |              |
| 2022 |              |                |              |
| 2023 |              |                |              |
| 2024 |              |                |              |

LCC ANALYSIS TITLE: INTERIM DECONTAMINATION  
OF EXPOSED SURFACES  
ALTERNATIVE: 2  
BASE DATE: 1994  
STUDY PERIOD: 23 YRS.  
REAL DISCOUNT RATE: 4.4%  
DOCUMENT NO.: LCC-93-10-001

DESCRIPTION  
PACKAGE 23A  
UTILITIES

CHARGE NO.: 3AAA7  
CLIENT: DOE  
LOCATION: FERNALD, OH  
ANALYST: JJ/TP  
DATE: 10/12/93  
PAGE: 25 OF 30

| ASSUMPTIONS  | DIRECT COSTS | INDIRECT COSTS | CASH FLOW   | YEAR |
|--|--------------|----------------|-------------|------|
| 1. D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).                        | \$0          | \$0            | \$0         | 1994 |
| 2. MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH. | \$0          | \$0            | \$0         | 1995 |
|  | \$0          | \$0            | \$0         | 1996 |
|  | \$0          | \$0            | \$0         | 1997 |
|  | \$0          | \$0            | \$0         | 1998 |
|  | \$0          | \$0            | \$0         | 1999 |
|  | \$0          | \$0            | \$0         | 2000 |
|  | \$0          | \$0            | \$0         | 2001 |
|  | \$0          | \$0            | \$0         | 2002 |
|  | \$948,000    | \$4,911,000    | \$5,859,000 | 2003 |
|  | \$474,000    | \$2,455,000    | \$2,929,000 | 2004 |
|  | \$0          | \$0            | \$0         | 2005 |
|  | \$0          | \$0            | \$0         | 2006 |
|  | \$0          | \$0            | \$0         | 2007 |
|  | \$0          | \$0            | \$0         | 2008 |
|  | \$0          | \$0            | \$0         | 2009 |
|  | \$0          | \$0            | \$0         | 2010 |
|  | \$0          | \$0            | \$0         | 2011 |
|  | \$0          | \$0            | \$0         | 2012 |
|  | \$0          | \$0            | \$0         | 2013 |
|  | \$0          | \$0            | \$0         | 2014 |
|  | \$0          | \$0            | \$0         | 2015 |
|  | \$0          | \$0            | \$0         | 2016 |
|  | \$0          | \$0            | \$0         | 2017 |
|  |              |                |             | 2018 |
|  |              |                |             | 2019 |
|  |              |                |             | 2020 |
|  |              |                |             | 2021 |
|  |              |                |             | 2022 |
|  |              |                |             | 2023 |
|  |              |                |             | 2024 |

INFORMATION SOURCE

1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN.  
LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

LCC ANALYSIS TITLE: INTERIM DECONTAMINATION OF EXPOSED SURFACES  
 ALTERNATIVE: 2  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%  
 DOCUMENT NO.: LCC-93-10-001

DESCRIPTION  
 PACKAGE B 23B  
 UTILITIES

CHARGE NO.: 3AAA7  
 CLIENT: DOB  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/T  
 DATE: 10/12/93  
 PAGE: 26 OF 30

| ASSUMPTIONS  | DIRECT COSTS | INDIRECT COSTS | CASH FLOW   | YEAR |
|--|--------------|----------------|-------------|------|
| 1. D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).                        | \$0          | \$0            | \$0         | 1994 |
| 2. MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH. | \$0          | \$0            | \$0         | 1995 |
|  | \$0          | \$0            | \$0         | 1996 |
|  | \$0          | \$0            | \$0         | 1997 |
|  | \$0          | \$0            | \$0         | 1998 |
|  | \$0          | \$0            | \$0         | 1999 |
|  | \$0          | \$0            | \$0         | 2000 |
|  | \$0          | \$0            | \$0         | 2001 |
|  | \$0          | \$0            | \$0         | 2002 |
|  | \$0          | \$0            | \$0         | 2003 |
|  | \$0          | \$0            | \$0         | 2004 |
|  | \$683,000    | \$3,536,000    | \$4,219,000 | 2005 |
|  | \$683,000    | \$3,536,000    | \$4,219,000 | 2006 |
|  | \$57,000     | \$295,000      | \$352,000   | 2007 |
|  | \$0          | \$0            | \$0         | 2008 |
|  | \$0          | \$0            | \$0         | 2009 |
|  | \$0          | \$0            | \$0         | 2010 |
|  | \$0          | \$0            | \$0         | 2011 |
|  | \$0          | \$0            | \$0         | 2012 |
|  | \$0          | \$0            | \$0         | 2013 |
|  | \$0          | \$0            | \$0         | 2014 |
|  | \$0          | \$0            | \$0         | 2015 |
|  | \$0          | \$0            | \$0         | 2016 |
|  |              |                |             | 2017 |
|  |              |                |             | 2018 |
|  |              |                |             | 2019 |
|  |              |                |             | 2020 |
|  |              |                |             | 2021 |
|  |              |                |             | 2022 |
|  |              |                |             | 2023 |
|  |              |                |             | 2024 |

INFORMATION SOURCE

1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN.  
 LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

LCC ANALYSIS TITLE: INTERIM DECONTAMINATION  
 OF EXPOSED SURFACES  
 ALTERNATIVE: 2  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%  
 DOCUMENT NO.: LCC-93-10-001

DESCRIPTION  
 PACKAGE 23C  
 UTILITIES

CHARGE NO.: 3AAA7  
 CLIENT: DOE  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/TP  
 DATE: 10/12/93  
 PAGE: 27 OF 30

| ASSUMPTIONS  | DIRECT COSTS | INDIRECT COSTS | CASH FLOW   | YEAR |
|--|--------------|----------------|-------------|------|
| 1. D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).                        | \$0          | \$0            | \$0         | 1994 |
| 2. MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH. | \$0          | \$0            | \$0         | 1995 |
|  | \$0          | \$0            | \$0         | 1996 |
|  | \$0          | \$0            | \$0         | 1997 |
|  | \$0          | \$0            | \$0         | 1998 |
|  | \$0          | \$0            | \$0         | 1999 |
|  | \$0          | \$0            | \$0         | 2000 |
|  | \$0          | \$0            | \$0         | 2001 |
|  | \$0          | \$0            | \$0         | 2002 |
|  | \$0          | \$0            | \$0         | 2003 |
|  | \$0          | \$0            | \$0         | 2004 |
|  | \$0          | \$0            | \$0         | 2005 |
|  | \$0          | \$0            | \$0         | 2006 |
|  | \$0          | \$0            | \$0         | 2007 |
|  | \$0          | \$0            | \$0         | 2008 |
|  | \$0          | \$0            | \$0         | 2009 |
|  | \$0          | \$0            | \$0         | 2010 |
|  | \$0          | \$0            | \$0         | 2011 |
|  | \$178,000    | \$921,000      | \$1,099,000 | 2012 |
|  | \$711,000    | \$3,683,000    | \$4,394,000 | 2013 |
|  | \$533,000    | \$2,762,000    | \$3,295,000 | 2014 |
|  | \$0          | \$0            | \$0         | 2015 |
|  | \$0          | \$0            | \$0         | 2016 |
|  |              |                |             | 2017 |
|  |              |                |             | 2018 |
|  |              |                |             | 2019 |
|  |              |                |             | 2020 |
|  |              |                |             | 2021 |
|  |              |                |             | 2022 |
|  |              |                |             | 2023 |
|  |              |                |             | 2024 |

INFORMATION SOURCE  
 1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN.  
 LANDLORD COST IS BASED ON THE JULY 21, 1990 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

**LCC ANALYSIS TITLE: INTERIM DECONTAMINATION OF EXPOSED SURFACES**

ALTERNATIVE: 2  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%  
 DOCUMENT NO.: LCC-93-10-001

**DESCRIPTION**  
 PACKAGE 24  
 ROADS, R/R, LOTS

CHARGE NO.: 3AAA7  
 CLIENT: DOE  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/TP  
 DATE: 10/12/93  
 PAGE: 28 OF 30

| ASSUMPTIONS  | DIRECT COSTS | INDIRECT COSTS | CASH FLOW   | YEAR |
|--|--------------|----------------|-------------|------|
| 1. D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).                        | \$0          | \$0            | \$0         | 1994 |
| 2. MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH. | \$0          | \$0            | \$0         | 1995 |
|  | \$0          | \$0            | \$0         | 1996 |
|  | \$0          | \$0            | \$0         | 1997 |
|  | \$0          | \$0            | \$0         | 1998 |
|  | \$0          | \$0            | \$0         | 1999 |
|  | \$0          | \$0            | \$0         | 2000 |
|  | \$0          | \$0            | \$0         | 2001 |
|  | \$0          | \$0            | \$0         | 2002 |
|  | \$0          | \$0            | \$0         | 2003 |
|  | \$0          | \$0            | \$0         | 2004 |
|  | \$0          | \$0            | \$0         | 2005 |
|  | \$1,631,000  | \$7,731,000    | \$9,362,000 | 2006 |
|  | \$408,000    | \$1,933,000    | \$2,341,000 | 2007 |
|  | \$0          | \$0            | \$0         | 2008 |
|  | \$0          | \$0            | \$0         | 2009 |
|  | \$0          | \$0            | \$0         | 2010 |
|  | \$0          | \$0            | \$0         | 2011 |
|  | \$0          | \$0            | \$0         | 2012 |
|  | \$0          | \$0            | \$0         | 2013 |
|  | \$0          | \$0            | \$0         | 2014 |
|  | \$0          | \$0            | \$0         | 2015 |
|  | \$0          | \$0            | \$0         | 2016 |
|  | \$0          | \$0            | \$0         | 2017 |
|  |              |                |             | 2018 |
|  |              |                |             | 2019 |
|  |              |                |             | 2020 |
|  |              |                |             | 2021 |
|  |              |                |             | 2022 |
|  |              |                |             | 2023 |
|  |              |                |             | 2024 |

**INFORMATION SOURCE**

1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN.  
 LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

LCC ANALYSIS TITLE: INTERIM DECONTAMINATION OF EXPOSED SURFACES

ALTERNATIVE: 2  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%  
 DOCUMENT NO.: LCC-93-10-001

ASSUMPTIONS  
 1. D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).  
 2. MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH.

INFORMATION SOURCE  
 1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN.  
 LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

DESCRIPTION  
 MISCELLANEOUS BUILDINGS/TRAILERS  
 (PKG 25 IMPOUNDMENTS)

DIRECT COSTS

INDIRECT COSTS

CASH FLOW

YEAR

CHARGE NO.: 3AAA7  
 CLIENT: DOB  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/TP  
 DATE: 10/12/93  
 PAGE: 29 OF 30

| DESCRIPTION | DIRECT COSTS | INDIRECT COSTS | CASH FLOW    | YEAR |
|-------------|--------------|----------------|--------------|------|
|             | \$0          | \$0            | \$0          | 1994 |
|             | \$0          | \$0            | \$0          | 1995 |
|             | \$0          | \$0            | \$0          | 1996 |
|             | \$0          | \$0            | \$0          | 1997 |
|             | \$0          | \$0            | \$0          | 1998 |
|             | \$0          | \$0            | \$0          | 1999 |
|             | \$0          | \$0            | \$0          | 2000 |
|             | \$1,053,000  | \$2,279,000    | \$3,332,000  | 2001 |
|             | \$2,054,000  | \$4,445,000    | \$6,499,000  | 2002 |
|             | \$2,137,000  | \$4,623,000    | \$6,760,000  | 2003 |
|             | \$2,426,000  | \$5,250,000    | \$7,676,000  | 2004 |
|             | \$735,000    | \$1,506,000    | \$2,241,000  | 2005 |
|             | \$6,829,000  | \$14,776,000   | \$21,605,000 | 2006 |
|             | \$9,555,000  | \$20,675,000   | \$30,230,000 | 2007 |
|             | \$1,556,000  | \$3,368,000    | \$4,924,000  | 2008 |
|             | \$1,534,000  | \$3,319,000    | \$4,853,000  | 2009 |
|             | \$2,760,000  | \$5,971,000    | \$8,731,000  | 2010 |
|             | \$1,080,000  | \$2,337,000    | \$3,417,000  | 2011 |
|             | \$1,663,000  | \$3,599,000    | \$5,262,000  | 2012 |
|             | \$2,628,000  | \$5,786,000    | \$8,414,000  | 2013 |
|             | \$2,871,000  | \$6,311,000    | \$9,182,000  | 2014 |
|             | \$2,394,000  | \$5,281,000    | \$7,675,000  | 2015 |
|             | \$884,000    | \$1,797,000    | \$2,681,000  | 2016 |
|             | \$3,204,000  | \$6,834,000    | \$10,038,000 | 2017 |
|             |              |                |              | 2018 |
|             |              |                |              | 2019 |
|             |              |                |              | 2020 |
|             |              |                |              | 2021 |
|             |              |                |              | 2022 |
|             |              |                |              | 2023 |
|             |              |                |              | 2024 |

LCC ANALYSIS TITLE: INTERIM DECONTAMINATION  
 OF EXPOSED SURFACES

ALTERNATIVE: 2

BASE DATE: 1994

STUDY PERIOD: 23 YRS.

REAL DISCOUNT RATE: 4.4%

DOCUMENT NO.: LCC-93-10-001

CHARGE NO.: 3AAA7

CLIENT: DOB

LOCATION: FBRNALD, OH

ANALYST: JJ/TP

DATE: 10/12/93

PAGE: 30 OF 30

DESCRIPTION  
 GROSS DECONTAMINATION

| ASSUMPTIONS   | DIRECT COSTS | INDIRECT COSTS | CASH FLOW    | YEAR |
|---|--------------|----------------|--------------|------|
| 1. GROSS DECONTAMINATION COSTS WERE AVERAGED ACROSS THE YEARS THE WORK IS SCHEDULED TO OCCUR. | \$0          | \$0            | \$0          | 1994 |
|   | \$0          | \$0            | \$0          | 1995 |
|   | \$3,921,225  | \$16,624,250   | \$20,545,500 | 1996 |
|   | \$3,921,225  | \$16,624,250   | \$20,545,500 | 1997 |
|   | \$3,921,225  | \$16,624,250   | \$20,545,500 | 1998 |
|   | \$3,921,225  | \$16,624,250   | \$20,545,500 | 1999 |
|   | \$0          | \$0            | \$0          | 2000 |
|   | \$0          | \$0            | \$0          | 2001 |
|   | \$0          | \$0            | \$0          | 2002 |
|   | \$0          | \$0            | \$0          | 2003 |
|   | \$0          | \$0            | \$0          | 2004 |
|   | \$0          | \$0            | \$0          | 2005 |
|   | \$0          | \$0            | \$0          | 2006 |
|   | \$0          | \$0            | \$0          | 2007 |
|   | \$0          | \$0            | \$0          | 2008 |
|   | \$0          | \$0            | \$0          | 2009 |
|   | \$0          | \$0            | \$0          | 2010 |
|   | \$0          | \$0            | \$0          | 2011 |
|   | \$0          | \$0            | \$0          | 2012 |
|   | \$0          | \$0            | \$0          | 2013 |
| \$0   | \$0          | \$0            | 2014         |      |
| \$0   | \$0          | \$0            | 2015         |      |
| \$0   | \$0          | \$0            | 2016         |      |
|   |              |                | \$0          | 2017 |
|   |              |                |              | 2018 |
|   |              |                |              | 2019 |
|   |              |                |              | 2020 |
|   |              |                |              | 2021 |
|   |              |                |              | 2022 |
|   |              |                |              | 2023 |
|   |              |                |              | 2024 |

2. ESTIMATE - CRU3 PROPOSED WORKPLAN FOR GROSS DECONTAMINATION.

INFORMATION SOURCE

071

**ALTERNATIVE 3  
ACCELERATED D&D OF STRUCTURES  
AND FACILITIES**

LCC ANALYSIS TITLE:

ACCELERATED D&D OF  
STRUCTURES & FACILITIES

CHARGE NO.: 3AAA7

ALTERNATIVE: 3

BASE DATE: 1994

STUDY PERIOD: 23 YRS.

REAL DISCOUNT RATE: 4.4%

DOCUMENT NO.: LCC-93-10-001

DESCRIPTION

PRESENT WORTH ANALYSIS

CLIENT: DOB

LOCATION: FBARNALD, OH

ANALYST: JJ/TP

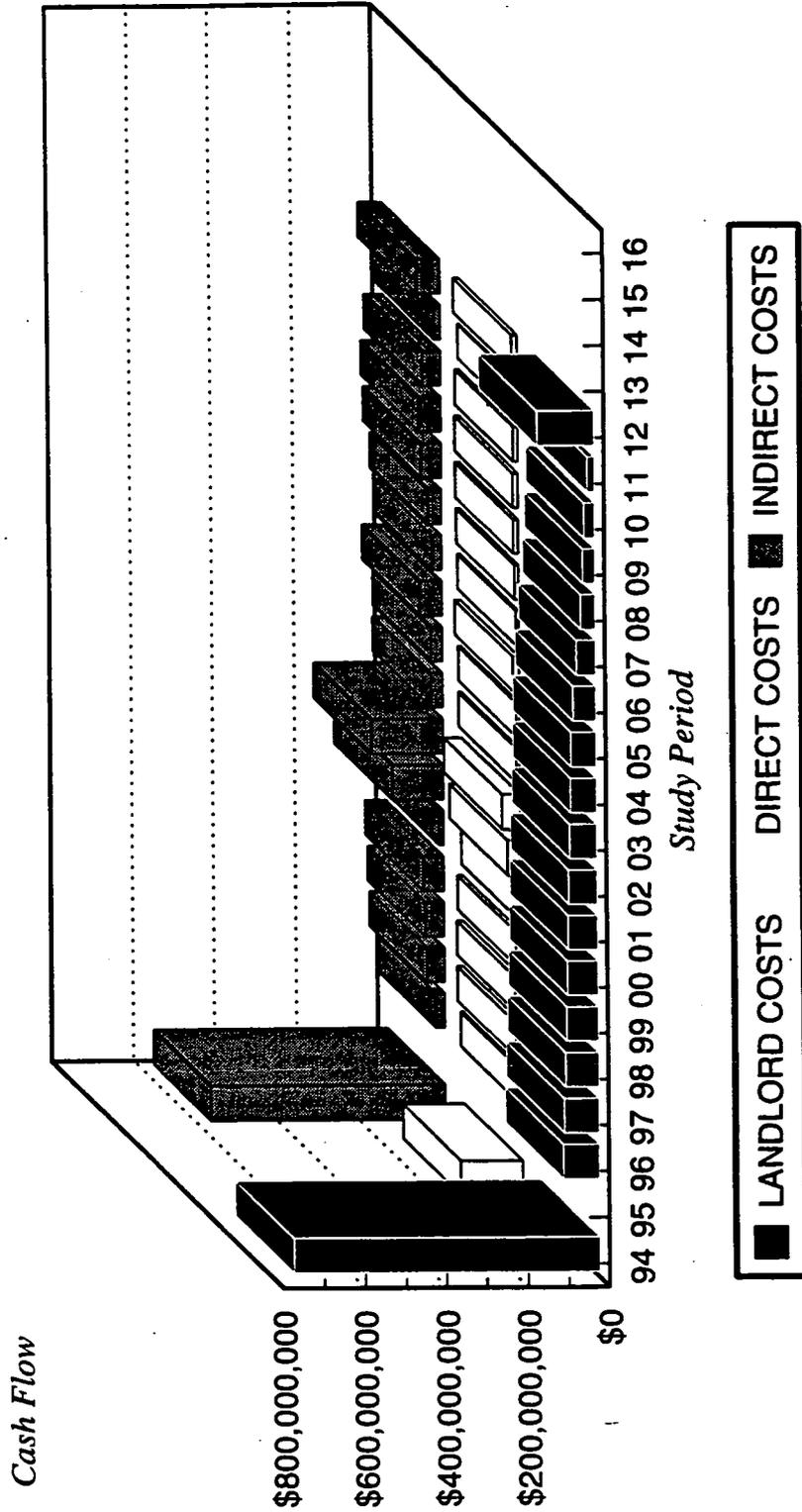
DATE: 10/12/93

PAGE: 1 OF 29

| LANDLORD COST          | D&D (DIRECT) COST    | D&D (INDIRECT) COST  | ANNUAL CASH FLOW       | CASH FLOW YEAR |
|------------------------|----------------------|----------------------|------------------------|----------------|
| \$0                    | \$0                  | \$0                  | \$0                    | 1994           |
| \$0                    | \$0                  | \$0                  | \$0                    | 1995           |
| \$87,909,000           | \$7,510,250          | \$21,942,950         | \$117,362,200          | 1996           |
| \$84,732,000           | \$14,249,500         | \$42,000,900         | \$140,982,400          | 1997           |
| \$80,794,000           | \$14,715,500         | \$45,636,900         | \$141,146,400          | 1998           |
| \$77,174,000           | \$12,405,000         | \$50,017,000         | \$139,596,000          | 1999           |
| \$74,464,000           | \$2,457,000          | \$10,052,000         | \$86,973,000           | 2000           |
| \$72,107,000           | \$31,484,000         | \$125,403,000        | \$228,994,000          | 2001           |
| \$69,245,000           | \$44,009,000         | \$175,514,000        | \$288,768,000          | 2002           |
| \$65,625,000           | \$7,141,000          | \$28,617,000         | \$101,383,000          | 2003           |
| \$63,453,000           | \$6,912,000          | \$28,327,000         | \$98,692,000           | 2004           |
| \$61,487,000           | \$14,312,000         | \$52,980,400         | \$128,779,400          | 2005           |
| \$55,422,000           | \$6,701,000          | \$22,001,400         | \$84,124,400           | 2006           |
| \$46,259,000           | \$9,066,000          | \$33,035,400         | \$88,360,400           | 2007           |
| \$36,190,000           | \$11,693,000         | \$48,682,000         | \$96,565,000           | 2008           |
| \$29,893,000           | \$12,464,000         | \$53,486,000         | \$95,843,000           | 2009           |
| \$25,835,000           | \$10,482,000         | \$44,526,000         | \$80,843,000           | 2010           |
| \$17,709,000           | \$3,477,000          | \$14,537,000         | \$35,723,000           | 2011           |
| \$140,318,200          | \$12,848,000         | \$56,980,000         | \$210,146,200          | 2012           |
| \$0                    | \$0                  | \$0                  | \$0                    | 2013           |
| \$0                    | \$0                  | \$0                  | \$0                    | 2014           |
| \$0                    | \$0                  | \$0                  | \$0                    | 2015           |
| \$0                    | \$0                  | \$0                  | \$0                    | 2016           |
|                        |                      |                      |                        | 2017           |
|                        |                      |                      |                        | 2018           |
|                        |                      |                      |                        | 2019           |
|                        |                      |                      |                        | 2020           |
|                        |                      |                      |                        | 2021           |
|                        |                      |                      |                        | 2022           |
|                        |                      |                      |                        | 2023           |
|                        |                      |                      |                        | 2024           |
| <b>\$1,088,616,200</b> | <b>\$221,926,300</b> | <b>\$853,739,000</b> | <b>\$2,164,281,400</b> | <b>TOTAL</b>   |

# LCC CASH FLOW DIAGRAM

## ACCELERATED D&D OF STRUCTURES & FACILITIES ALTERNATIVE 3



LCC ANALYSIS TITLE: ACCELERATED D&D OF STRUCTURES & FACILITIES

ALTERNATIVE: 3

BASE DATE: 1994

STUDY PERIOD: 23 YRS.

REAL DISCOUNT RATE: 4.4%

DOCUMENT NO.: LCC-93-10-001

CHARGE NO.: 3AAA7

CLIENT: DOE

LOCATION: FBRNALD,OH

ANALYST: JJ/TJ

DATE: 10/12/93

PAGE: 3 OF 29

DESCRIPTION  
CENTRAL STORAGE FACILITY

| ASSUMPTIONS  | DIRECT COSTS | INDIRECT COSTS | CASH FLOW   | YEAR |
|--|--------------|----------------|-------------|------|
| 1. 5 TENSION SUPPORT STRUCTURES WILL BE CONSTRUCTED BETWEEN YEARS 1996-1998. 1 STRUCTURE PRESENTLY EXISTS. | \$0          | \$0            | \$0         | 1994 |
|  | \$0          | \$0            | \$0         | 1995 |
| 2. SKIN REPLACEMENT WILL OCCUR IN YEARS 2003-2007 ON ALL 6 STRUCTURES.                                     | \$2,289,250  | \$2,065,950    | \$4,355,200 | 1996 |
|  | \$4,578,500  | \$4,131,900    | \$8,710,400 | 1997 |
|  | \$4,578,500  | \$4,131,900    | \$8,710,400 | 1998 |
|  | \$0          | \$0            | \$0         | 1999 |
|  | \$0          | \$0            | \$0         | 2000 |
|  | \$0          | \$0            | \$0         | 2001 |
|  | \$0          | \$0            | \$0         | 2002 |
|  | \$0          | \$0            | \$0         | 2003 |
|  | \$0          | \$0            | \$0         | 2004 |
|  | \$1,760,000  | \$2,129,400    | \$3,889,400 | 2005 |
|  | \$1,760,000  | \$2,129,400    | \$3,889,400 | 2006 |
|  | \$1,760,000  | \$2,129,400    | \$3,889,400 | 2007 |
|  | \$0          | \$0            | \$0         | 2008 |
|  | \$0          | \$0            | \$0         | 2009 |
|  | \$0          | \$0            | \$0         | 2010 |
|  | \$0          | \$0            | \$0         | 2011 |
|  | \$0          | \$0            | \$0         | 2012 |
|  | \$0          | \$0            | \$0         | 2013 |
|  | \$0          | \$0            | \$0         | 2014 |
|  | \$0          | \$0            | \$0         | 2015 |
|  | \$0          | \$0            | \$0         | 2016 |
|  | \$0          | \$0            | \$0         | 2017 |
|  | \$0          | \$0            | \$0         | 2018 |
|  |              |                |             | 2019 |
|  |              |                |             | 2020 |
|  |              |                |             | 2021 |
|  |              |                |             | 2022 |
|  |              |                |             | 2023 |
|  |              |                |             | 2024 |

INFORMATION SOURCE

1. COST DATA - O & M, CONSTRUCTION, AND SKIN REPLACEMENT  
CENTRAL STORAGE FACILITY COST ESTIMATES.

075

LCC ANALYSIS TITLE: **ACCELERATED D&D OF STRUCTURES & FACILITIES**  
 ALTERNATIVE: **3**  
 BASE DATE: **1994**  
 STUDY PERIOD: **23 YRS.**  
 REAL DISCOUNT RATE: **4.4%**  
 DOCUMENT NO.: **LCC-93-10-001**

CHARGE NO.: **3AAA7**  
 CLIENT: **DOB**  
 LOCATION: **FERNALD, OH**  
 ANALYST: **JJ/TP**  
 DATE: **10/12/93**  
 PAGE: **4 OF 29**

DESCRIPTION  
**PACKAGE 1**  
**PLANT 4**

| ASSUMPTIONS  | DIRECT COSTS | INDIRECT COSTS | CASH FLOW    | YEAR |
|--|--------------|----------------|--------------|------|
| 1. D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).                        | \$0          | \$0            | \$0          | 1994 |
|  | \$0          | \$0            | \$0          | 1995 |
| 2. MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH. | \$4,129,000  | \$17,513,000   | \$21,642,000 | 1996 |
|  | \$5,506,000  | \$23,351,000   | \$28,857,000 | 1997 |
|  | \$0          | \$0            | \$0          | 1998 |
|  | \$0          | \$0            | \$0          | 1999 |
|  | \$0          | \$0            | \$0          | 2000 |
|  | \$0          | \$0            | \$0          | 2001 |
|  | \$0          | \$0            | \$0          | 2002 |
|  | \$0          | \$0            | \$0          | 2003 |
|  | \$0          | \$0            | \$0          | 2004 |
|  | \$0          | \$0            | \$0          | 2005 |
|  | \$0          | \$0            | \$0          | 2006 |
|  | \$0          | \$0            | \$0          | 2007 |
|  | \$0          | \$0            | \$0          | 2008 |
|  | \$0          | \$0            | \$0          | 2009 |
|  | \$0          | \$0            | \$0          | 2010 |
|  | \$0          | \$0            | \$0          | 2011 |
|  | \$0          | \$0            | \$0          | 2012 |
|  | \$0          | \$0            | \$0          | 2013 |
|  | \$0          | \$0            | \$0          | 2014 |
|  | \$0          | \$0            | \$0          | 2015 |
|  | \$0          | \$0            | \$0          | 2016 |
|  | \$0          | \$0            | \$0          | 2017 |
|  |              |                |              | 2018 |
|  |              |                |              | 2019 |
|  |              |                |              | 2020 |
|  |              |                |              | 2021 |
|  |              |                |              | 2022 |
|  |              |                |              | 2023 |
|  |              |                |              | 2024 |

INFORMATION SOURCE  
 1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN.  
 LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

LCC ANALYSIS TITLE: ACCELERATED D&D OF STRUCTURES & FACILITIES

ALTERNATIVE: 3

BASE DATE: 1994

STUDY PERIOD: 23 YRS.

REAL DISCOUNT RATE: 4.4%

DOCUMENT NO.: LCC-93-10-001

ASSUMPTIONS

1. D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).
2. MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH.

INFORMATION SOURCE

1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 3, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN. LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

077

CHARGE NO.: 3AAA7  
 CLIENT: DOE  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/TP  
 DATE: 10/12/93  
 PAGE: 5 OF 29

DESCRIPTION  
 PACKAGE 2  
 PLANT 3

| YEAR | CASH FLOW    | INDIRECT COSTS | DIRECT COSTS |
|------|--------------|----------------|--------------|
| 1994 | \$0          | \$0            | \$0          |
| 1995 | \$0          | \$0            | \$0          |
| 1996 | \$0          | \$0            | \$0          |
| 1997 | \$931,000    | \$761,000      | \$170,000    |
| 1998 | \$11,179,000 | \$9,134,000    | \$2,045,000  |
| 1999 | \$9,316,000  | \$7,612,000    | \$1,704,000  |
| 2000 | \$0          | \$0            | \$0          |
| 2001 | \$0          | \$0            | \$0          |
| 2002 | \$0          | \$0            | \$0          |
| 2003 | \$0          | \$0            | \$0          |
| 2004 | \$0          | \$0            | \$0          |
| 2005 | \$0          | \$0            | \$0          |
| 2006 | \$0          | \$0            | \$0          |
| 2007 | \$0          | \$0            | \$0          |
| 2008 | \$0          | \$0            | \$0          |
| 2009 | \$0          | \$0            | \$0          |
| 2010 | \$0          | \$0            | \$0          |
| 2011 | \$0          | \$0            | \$0          |
| 2012 | \$0          | \$0            | \$0          |
| 2013 | \$0          | \$0            | \$0          |
| 2014 | \$0          | \$0            | \$0          |
| 2015 | \$0          | \$0            | \$0          |
| 2016 | \$0          | \$0            | \$0          |
| 2017 | \$0          | \$0            | \$0          |
| 2018 | \$0          | \$0            | \$0          |
| 2019 | \$0          | \$0            | \$0          |
| 2020 | \$0          | \$0            | \$0          |
| 2021 | \$0          | \$0            | \$0          |
| 2022 | \$0          | \$0            | \$0          |
| 2023 | \$0          | \$0            | \$0          |
| 2024 | \$0          | \$0            | \$0          |

LCC ANALYSIS TITLE: ACCELERATED D&D OF STRUCTURES & FACILITIES

ALTERNATIVE: 3  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%  
 DOCUMENT NO.: LCC-93-10-001

DESCRIPTION  
 PACKAGE 3  
 PLANT 2/3

CHARGE NO.: 3AAA7  
 CLIENT: DOE  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/T  
 DATE: 10/12/93  
 PAGE: 6 OF 29

| ASSUMPTIONS  | DIRECT COSTS | INDIRECT COSTS | CASH FLOW    | YEAR |
|--|--------------|----------------|--------------|------|
| 1. D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).                        | \$0          | \$0            | \$0          | 1994 |
| 2. MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH. | \$0          | \$0            | \$0          | 1995 |
|  | \$0          | \$0            | \$0          | 1996 |
|  | \$0          | \$0            | \$0          | 1997 |
|  | \$0          | \$0            | \$0          | 1998 |
|  | \$2,851,000  | \$12,702,000   | \$15,553,000 | 1999 |
|  | \$5,702,000  | \$25,404,000   | \$31,106,000 | 2000 |
|  | \$950,000    | \$4,234,000    | \$5,184,000  | 2001 |
|  | \$0          | \$0            | \$0          | 2002 |
|  | \$0          | \$0            | \$0          | 2003 |
|  | \$0          | \$0            | \$0          | 2004 |
|  | \$0          | \$0            | \$0          | 2005 |
|  | \$0          | \$0            | \$0          | 2006 |
|  | \$0          | \$0            | \$0          | 2007 |
|  | \$0          | \$0            | \$0          | 2008 |
|  | \$0          | \$0            | \$0          | 2009 |
|  | \$0          | \$0            | \$0          | 2010 |
|  | \$0          | \$0            | \$0          | 2011 |
|  | \$0          | \$0            | \$0          | 2012 |
|  | \$0          | \$0            | \$0          | 2013 |
|  | \$0          | \$0            | \$0          | 2014 |
|  | \$0          | \$0            | \$0          | 2015 |
|  | \$0          | \$0            | \$0          | 2016 |
|  | \$0          | \$0            | \$0          | 2017 |
|  |              |                |              | 2018 |
|  |              |                |              | 2019 |
|  |              |                |              | 2020 |
|  |              |                |              | 2021 |
|  |              |                |              | 2022 |
|  |              |                |              | 2023 |
|  |              |                |              | 2024 |

INFORMATION SOURCE

1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN.  
 LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

LCC ANALYSIS TITLE: ACCELERATED D&D OF STRUCTURES & FACILITIES

ALTERNATIVE: 3

BASE DATE: 1994

STUDY PERIOD: 23 YRS.

REAL DISCOUNT RATE: 4.4%

DOCUMENT NO.: LCC-93-10-001

DESCRIPTION  
PACKAGE 4  
PILOT PLANT

CHARGE NO.: 3AAA7  
CLIENT: DOB  
LOCATION: FERNALD, OH  
ANALYST: JJ/TP  
DATE: 10/12/93  
PAGE: 7 OF 29

| ASSUMPTIONS  | DIRECT COSTS | INDIRECT COSTS | CASH FLOW    | YEAR |
|--|--------------|----------------|--------------|------|
| 1. D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).                        | \$0          | \$0            | \$0          | 1994 |
| 2. MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH. | \$0          | \$0            | \$0          | 1995 |
|  | \$0          | \$0            | \$0          | 1996 |
|  | \$1,926,000  | \$9,280,000    | \$11,206,000 | 1997 |
|  | \$1,926,000  | \$9,280,000    | \$11,206,000 | 1998 |
|  | \$1,926,000  | \$9,280,000    | \$11,206,000 | 1999 |
|  | \$963,000    | \$4,640,000    | \$5,603,000  | 2000 |
|  | \$0          | \$0            | \$0          | 2001 |
|  | \$0          | \$0            | \$0          | 2002 |
|  | \$0          | \$0            | \$0          | 2003 |
|  | \$0          | \$0            | \$0          | 2004 |
|  | \$0          | \$0            | \$0          | 2005 |
|  | \$0          | \$0            | \$0          | 2006 |
|  | \$0          | \$0            | \$0          | 2007 |
|  | \$0          | \$0            | \$0          | 2008 |
|  | \$0          | \$0            | \$0          | 2009 |
|  | \$0          | \$0            | \$0          | 2010 |
|  | \$0          | \$0            | \$0          | 2011 |
|  | \$0          | \$0            | \$0          | 2012 |
|  | \$0          | \$0            | \$0          | 2013 |
|  | \$0          | \$0            | \$0          | 2014 |
|  | \$0          | \$0            | \$0          | 2015 |
|  | \$0          | \$0            | \$0          | 2016 |
|  |              |                |              | 2017 |
|  |              |                |              | 2018 |
|  |              |                |              | 2019 |
|  |              |                |              | 2020 |
|  |              |                |              | 2021 |
|  |              |                |              | 2022 |
|  |              |                |              | 2023 |
|  |              |                |              | 2024 |

INFORMATION SOURCE

1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN.  
LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

079

**LCC ANALYSIS TITLE: ACCELERATED D&D OF STRUCTURES & FACILITIES**

ALTERNATIVE: 3  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%  
 DOCUMENT NO.: LCC-93-10-001

DESCRIPTION  
 PACKAGE 5  
 PLANT 5

CHARGE NO.: 3AAA7  
 CLIENT: DOE  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/TP  
 DATE: 10/12/93  
 PAGE: 8 OF 29

| ASSUMPTIONS  | DIRECT COSTS | INDIRECT COSTS | CASH FLOW    | YEAR |
|--|--------------|----------------|--------------|------|
| 1. D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).                        | \$0          | \$0            | \$0          | 1994 |
| 2. MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH. | \$0          | \$0            | \$0          | 1995 |
|  | \$0          | \$0            | \$0          | 1996 |
|  | \$0          | \$0            | \$0          | 1997 |
|  | \$0          | \$0            | \$0          | 1998 |
|  | \$0          | \$0            | \$0          | 1999 |
|  | \$0          | \$0            | \$0          | 2000 |
|  | \$7,121,000  | \$30,534,000   | \$37,655,000 | 2001 |
|  | \$5,539,000  | \$23,748,000   | \$29,287,000 | 2002 |
|  | \$0          | \$0            | \$0          | 2003 |
|  | \$0          | \$0            | \$0          | 2004 |
|  | \$0          | \$0            | \$0          | 2005 |
|  | \$0          | \$0            | \$0          | 2006 |
|  | \$0          | \$0            | \$0          | 2007 |
|  | \$0          | \$0            | \$0          | 2008 |
|  | \$0          | \$0            | \$0          | 2009 |
|  | \$0          | \$0            | \$0          | 2010 |
|  | \$0          | \$0            | \$0          | 2011 |
|  | \$0          | \$0            | \$0          | 2012 |
|  | \$0          | \$0            | \$0          | 2013 |
|  | \$0          | \$0            | \$0          | 2014 |
|  | \$0          | \$0            | \$0          | 2015 |
|  | \$0          | \$0            | \$0          | 2016 |
|  | \$0          | \$0            | \$0          | 2017 |
|  |              |                |              | 2018 |
|  |              |                |              | 2019 |
|  |              |                |              | 2020 |
|  |              |                |              | 2021 |
|  |              |                |              | 2022 |
|  |              |                |              | 2023 |
|  |              |                |              | 2024 |

**INFORMATION SOURCE**

1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN.  
 LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

080

5448

LCC ANALYSIS TITLE: ACCELERATED D&D OF STRUCTURES & FACILITIES  
 ALTERNATIVE: 3  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%  
 DOCUMENT NO.: LCC-93-10-001

ASSUMPTIONS  
 1. D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).  
 2. MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH.

INFORMATION SOURCE  
 1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN.  
 LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

CHARGE NO.: 3AAA7  
 CLIENT: DOB  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/TP  
 DATE: 10/12/93  
 PAGE: 9 OF 29

DESCRIPTION  
 PACKAGE 6  
 PLANT 6

| YEAR | CASH FLOW    | INDIRECT COSTS | DIRECT COSTS |
|------|--------------|----------------|--------------|
| 1994 | \$0          | \$0            | \$0          |
| 1995 | \$0          | \$0            | \$0          |
| 1996 | \$0          | \$0            | \$0          |
| 1997 | \$0          | \$0            | \$0          |
| 1998 | \$0          | \$0            | \$0          |
| 1999 | \$0          | \$0            | \$0          |
| 2000 | \$0          | \$0            | \$0          |
| 2001 | \$0          | \$0            | \$0          |
| 2002 | \$62,255,000 | \$51,044,000   | \$11,211,000 |
| 2003 | \$0          | \$0            | \$0          |
| 2004 | \$0          | \$0            | \$0          |
| 2005 | \$0          | \$0            | \$0          |
| 2006 | \$0          | \$0            | \$0          |
| 2007 | \$0          | \$0            | \$0          |
| 2008 | \$0          | \$0            | \$0          |
| 2009 | \$0          | \$0            | \$0          |
| 2010 | \$0          | \$0            | \$0          |
| 2011 | \$0          | \$0            | \$0          |
| 2012 | \$0          | \$0            | \$0          |
| 2013 | \$0          | \$0            | \$0          |
| 2014 | \$0          | \$0            | \$0          |
| 2015 | \$0          | \$0            | \$0          |
| 2016 | \$0          | \$0            | \$0          |
| 2017 |              |                |              |
| 2018 |              |                |              |
| 2019 |              |                |              |
| 2020 |              |                |              |
| 2021 |              |                |              |
| 2022 |              |                |              |
| 2023 |              |                |              |
| 2024 |              |                |              |

081

**LCC ANALYSIS TITLE: ACCELERATED D&D OF STRUCTURES & FACILITIES**

ALTERNATIVE: 3  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%

DOCUMENT NO.: LCC-93-10-001

**DESCRIPTION  
 PACKAGE 8  
 BOILER PLANT**

CHARGE NO.: 3AAA7  
 CLIENT: DOB  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/TP  
 DATE: 10/12/93  
 PAGE: 11 OF 29

| ASSUMPTIONS  | DIRECT COSTS | INDIRECT COSTS | CASH FLOW    | YEAR |
|--|--------------|----------------|--------------|------|
| 1. D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).                        | \$0          | \$0            | \$0          | 1994 |
| 2. MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH. | \$0          | \$0            | \$0          | 1995 |
|  | \$0          | \$0            | \$0          | 1996 |
|  | \$0          | \$0            | \$0          | 1997 |
|  | \$0          | \$0            | \$0          | 1998 |
|  | \$0          | \$0            | \$0          | 1999 |
|  | \$0          | \$0            | \$0          | 2000 |
|  | \$0          | \$0            | \$0          | 2001 |
|  | \$0          | \$0            | \$0          | 2002 |
|  | \$0          | \$0            | \$0          | 2003 |
|  | \$0          | \$0            | \$0          | 2004 |
|  | \$643,000    | \$2,923,000    | \$3,566,000  | 2005 |
|  | \$3,861,000  | \$17,535,000   | \$21,396,000 | 2006 |
|  | \$3,861,000  | \$17,535,000   | \$21,396,000 | 2007 |
|  | \$643,000    | \$2,923,000    | \$3,566,000  | 2008 |
|  | \$0          | \$0            | \$0          | 2009 |
|  | \$0          | \$0            | \$0          | 2010 |
|  | \$0          | \$0            | \$0          | 2011 |
|  | \$0          | \$0            | \$0          | 2012 |
|  | \$0          | \$0            | \$0          | 2013 |
|  | \$0          | \$0            | \$0          | 2014 |
|  | \$0          | \$0            | \$0          | 2015 |
|  | \$0          | \$0            | \$0          | 2016 |
|  | \$0          | \$0            | \$0          | 2017 |
|  |              |                |              | 2018 |
|  |              |                |              | 2019 |
|  |              |                |              | 2020 |
|  |              |                |              | 2021 |
|  |              |                |              | 2022 |
|  |              |                |              | 2023 |
|  |              |                |              | 2024 |

**INFORMATION SOURCE**

1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 3, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN.  
 LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

082

**LCC ANALYSIS TITLE: ACCELERATED D&D OF STRUCTURES & FACILITIES**

ALTERNATIVE: 3  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%  
 DOCUMENT NO.: LCC-93-10-001

DESCRIPTION  
 PACKAGE 7  
 PLANT 9

CHARGE NO.: 3AAA7  
 CLIENT: DOE  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/TP  
 DATE: 10/12/93  
 PAGE: 10 OF 29

| ASSUMPTIONS  | DIRECT COSTS | INDIRECT COSTS | CASH FLOW    | YEAR |
|--|--------------|----------------|--------------|------|
| 1. D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).                        | \$0          | \$0            | \$0          | 1994 |
| 2. MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH. | \$0          | \$0            | \$0          | 1995 |
|  | \$0          | \$0            | \$0          | 1996 |
|  | \$0          | \$0            | \$0          | 1997 |
|  | \$0          | \$0            | \$0          | 1998 |
|  | \$0          | \$0            | \$0          | 1999 |
|  | \$0          | \$0            | \$0          | 2000 |
|  | \$0          | \$0            | \$0          | 2001 |
|  | \$0          | \$0            | \$0          | 2002 |
|  | \$0          | \$0            | \$0          | 2003 |
|  | \$668,000    | \$3,122,000    | \$3,790,000  | 2004 |
|  | \$3,677,000  | \$17,172,000   | \$20,849,000 | 2005 |
|  | \$0          | \$0            | \$0          | 2006 |
|  | \$0          | \$0            | \$0          | 2007 |
|  | \$0          | \$0            | \$0          | 2008 |
|  | \$0          | \$0            | \$0          | 2009 |
|  | \$0          | \$0            | \$0          | 2010 |
|  | \$0          | \$0            | \$0          | 2011 |
|  | \$0          | \$0            | \$0          | 2012 |
|  | \$0          | \$0            | \$0          | 2013 |
|  | \$0          | \$0            | \$0          | 2014 |
|  | \$0          | \$0            | \$0          | 2015 |
|  | \$0          | \$0            | \$0          | 2016 |
|  | \$0          | \$0            | \$0          | 2017 |
|  | \$0          | \$0            | \$0          | 2018 |
|  | \$0          | \$0            | \$0          | 2019 |
|  | \$0          | \$0            | \$0          | 2020 |
|  | \$0          | \$0            | \$0          | 2021 |
|  | \$0          | \$0            | \$0          | 2022 |
|  | \$0          | \$0            | \$0          | 2023 |
|  | \$0          | \$0            | \$0          | 2024 |

**INFORMATION SOURCE**

1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN.  
 LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

083

LCC ANALYSIS TITLE: ACCELERATED D&D OF STRUCTURES & FACILITIES  
 ALTERNATIVE: 3  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%  
 DOCUMENT NO.: LCC-93-10-001

DESCRIPTION  
 PACKAGE 9  
 MAINT AREA

CHARGE NO.: 3AAA7  
 CLIENT: DOB  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/TP  
 DATE: 10/12/93  
 PAGE: 12 OF 29

| ASSUMPTIONS  | DIRECT COSTS | INDIRECT COSTS | CASH FLOW    | YEAR |
|--|--------------|----------------|--------------|------|
| 1. D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).                        | \$0          | \$0            | \$0          | 1994 |
|  | \$0          | \$0            | \$0          | 1995 |
| 2. MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH. | \$0          | \$0            | \$0          | 1996 |
|  | \$0          | \$0            | \$0          | 1997 |
|  | \$0          | \$0            | \$0          | 1998 |
|  | \$0          | \$0            | \$0          | 1999 |
|  | \$0          | \$0            | \$0          | 2000 |
|  | \$0          | \$0            | \$0          | 2001 |
|  | \$0          | \$0            | \$0          | 2002 |
|  | \$0          | \$0            | \$0          | 2003 |
|  | \$0          | \$0            | \$0          | 2004 |
|  | \$0          | \$0            | \$0          | 2005 |
|  | \$0          | \$0            | \$0          | 2006 |
|  | \$2,434,000  | \$12,656,000   | \$15,090,000 | 2007 |
|  | \$0          | \$0            | \$0          | 2008 |
|  | \$0          | \$0            | \$0          | 2009 |
|  | \$0          | \$0            | \$0          | 2010 |
|  | \$0          | \$0            | \$0          | 2011 |
|  | \$0          | \$0            | \$0          | 2012 |
|  | \$0          | \$0            | \$0          | 2013 |
|  | \$0          | \$0            | \$0          | 2014 |
|  | \$0          | \$0            | \$0          | 2015 |
|  | \$0          | \$0            | \$0          | 2016 |
|  |              |                |              | 2017 |
|  |              |                |              | 2018 |
|  |              |                |              | 2019 |
|  |              |                |              | 2020 |
|  |              |                |              | 2021 |
|  |              |                |              | 2022 |
|  |              |                |              | 2023 |
|  |              |                |              | 2024 |

INFORMATION SOURCE  
 1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN.  
 LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

LCC ANALYSIS TITLE: ACCBLERATED D&D OF STRUCTURES & FACILITIES  
 ALTERNATIVE: 3  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%  
 DOCUMENT NO.: LCC-93-10-001

ASSUMPTIONS  
 1. D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).  
 2. MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH.

INFORMATION SOURCE  
 1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN.  
 LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

CHARGE NO.: 3AAA7  
 CLIENT: DOB  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/TP  
 DATE: 10/12/93  
 PAGE: 13 OF 29

DESCRIPTION  
 PACKAGE 10A  
 ADMIN BLDG

| DIRECT COSTS | INDIRECT COSTS | CASH FLOW    | YEAR |
|--------------|----------------|--------------|------|
| \$0          | \$0            | \$0          | 1994 |
| \$0          | \$0            | \$0          | 1995 |
| \$0          | \$0            | \$0          | 1996 |
| \$0          | \$0            | \$0          | 1997 |
| \$0          | \$0            | \$0          | 1998 |
| \$0          | \$0            | \$0          | 1999 |
| \$0          | \$0            | \$0          | 2000 |
| \$4,371,000  | \$20,149,000   | \$24,520,000 | 2001 |
| \$2,549,000  | \$11,753,000   | \$14,302,000 | 2002 |
| \$0          | \$0            | \$0          | 2003 |
| \$0          | \$0            | \$0          | 2004 |
| \$0          | \$0            | \$0          | 2005 |
| \$0          | \$0            | \$0          | 2006 |
| \$0          | \$0            | \$0          | 2007 |
| \$0          | \$0            | \$0          | 2008 |
| \$0          | \$0            | \$0          | 2009 |
| \$0          | \$0            | \$0          | 2010 |
| \$0          | \$0            | \$0          | 2011 |
| \$0          | \$0            | \$0          | 2012 |
| \$0          | \$0            | \$0          | 2013 |
| \$0          | \$0            | \$0          | 2014 |
| \$0          | \$0            | \$0          | 2015 |
| \$0          | \$0            | \$0          | 2016 |
| \$0          | \$0            | \$0          | 2017 |
| \$0          | \$0            | \$0          | 2018 |
| \$0          | \$0            | \$0          | 2019 |
| \$0          | \$0            | \$0          | 2020 |
| \$0          | \$0            | \$0          | 2021 |
| \$0          | \$0            | \$0          | 2022 |
| \$0          | \$0            | \$0          | 2023 |
| \$0          | \$0            | \$0          | 2024 |

085

LCC ANALYSIS TITLE: ACCELERATED D&D OF STRUCTURES & FACILITIES  
 ALTERNATIVE: 3  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%  
 DOCUMENT NO.: LCC-93-10-001

DESCRIPTION  
 PACKAGE 10B  
 ADMIN BLDG

CHARGE NO.: 3AAA7  
 CLIENT: DOB  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/TP  
 DATE: 10/12/93  
 PAGE: 14 OF 29

| ASSUMPTIONS  | DIRECT COSTS | INDIRECT COSTS | CASH FLOW    | YEAR |
|--|--------------|----------------|--------------|------|
| 1. D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).                        | \$0          | \$0            | \$0          | 1994 |
| 2. MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH. | \$0          | \$0            | \$0          | 1995 |
|  | \$0          | \$0            | \$0          | 1996 |
|  | \$0          | \$0            | \$0          | 1997 |
|  | \$0          | \$0            | \$0          | 1998 |
|  | \$0          | \$0            | \$0          | 1999 |
|  | \$0          | \$0            | \$0          | 2000 |
|  | \$0          | \$0            | \$0          | 2001 |
|  | \$0          | \$0            | \$0          | 2002 |
|  | \$0          | \$0            | \$0          | 2003 |
|  | \$0          | \$0            | \$0          | 2004 |
|  | \$989,000    | \$4,557,000    | \$5,546,000  | 2005 |
|  | \$5,931,000  | \$27,345,000   | \$33,276,000 | 2006 |
|  | \$0          | \$0            | \$0          | 2007 |
|  | \$0          | \$0            | \$0          | 2008 |
|  | \$0          | \$0            | \$0          | 2009 |
|  | \$0          | \$0            | \$0          | 2010 |
|  | \$0          | \$0            | \$0          | 2011 |
|  | \$0          | \$0            | \$0          | 2012 |
|  | \$0          | \$0            | \$0          | 2013 |
|  | \$0          | \$0            | \$0          | 2014 |
|  | \$0          | \$0            | \$0          | 2015 |
|  | \$0          | \$0            | \$0          | 2016 |
|  | \$0          | \$0            | \$0          | 2017 |
|  |              |                |              | 2018 |
|  |              |                |              | 2019 |
|  |              |                |              | 2020 |
|  |              |                |              | 2021 |
|  |              |                |              | 2022 |
|  |              |                |              | 2023 |
|  |              |                |              | 2024 |

INFORMATION SOURCE

1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN.  
 LANDLORD COST IS BASED ON THE JULY 21, 1990 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

086

**LCC ANALYSIS TITLE: ACCELERATED D&D OF STRUCTURES & FACILITIES**

ALTERNATIVE: 3

BASE DATE: 1994

STUDY PERIOD: 23 YRS.

REAL DISCOUNT RATE: 4.4%

DOCUMENT NO.: LCC-93-10-001

**ASSUMPTIONS**

1. D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).
2. MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH.

**INFORMATION SOURCE**

1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN. LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

087

CHARGE NO.: 3AAA7  
 CLIENT: DOB  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/TP  
 DATE: 10/12/93  
 PAGE: 15 OF 29

DESCRIPTION  
 PACKAGE 10C  
 ADMIN BLDG

| DIRECT COSTS | INDIRECT COSTS | CASH FLOW    | YEAR |
|--------------|----------------|--------------|------|
| \$0          | \$0            | \$0          | 1994 |
| \$0          | \$0            | \$0          | 1995 |
| \$0          | \$0            | \$0          | 1996 |
| \$0          | \$0            | \$0          | 1997 |
| \$0          | \$0            | \$0          | 1998 |
| \$0          | \$0            | \$0          | 1999 |
| \$0          | \$0            | \$0          | 2000 |
| \$0          | \$0            | \$0          | 2001 |
| \$0          | \$0            | \$0          | 2002 |
| \$0          | \$0            | \$0          | 2003 |
| \$0          | \$0            | \$0          | 2004 |
| \$0          | \$0            | \$0          | 2005 |
| \$0          | \$0            | \$0          | 2006 |
| \$0          | \$0            | \$0          | 2007 |
| \$0          | \$0            | \$0          | 2008 |
| \$1,887,000  | \$8,701,000    | \$10,588,000 | 2009 |
| \$3,775,000  | \$17,401,000   | \$21,176,000 | 2010 |
| \$1,258,000  | \$5,800,000    | \$7,058,000  | 2011 |
| \$0          | \$0            | \$0          | 2012 |
| \$0          | \$0            | \$0          | 2013 |
| \$0          | \$0            | \$0          | 2014 |
| \$0          | \$0            | \$0          | 2015 |
| \$0          | \$0            | \$0          | 2016 |
| \$0          | \$0            | \$0          | 2017 |
| \$0          | \$0            | \$0          | 2018 |
| \$0          | \$0            | \$0          | 2019 |
| \$0          | \$0            | \$0          | 2020 |
| \$0          | \$0            | \$0          | 2021 |
| \$0          | \$0            | \$0          | 2022 |
| \$0          | \$0            | \$0          | 2023 |
| \$0          | \$0            | \$0          | 2024 |

544 6

**LCC ANALYSIS TITLE: ACCELERATED D&D OF STRUCTURES & FACILITIES**

ALTERNATIVE: 3

BASE DATE: 1994

STUDY PERIOD: 23 YRS.

REAL DISCOUNT RATE: 4.4%

DOCUMENT NO.: LCC-93-10-001

DESCRIPTION  
PACKAGE 11  
PLANT 8

CHARGE NO.: 3AAA7  
CLIENT: DOB  
LOCATION: FERNALD, OH  
ANALYST: JJ/TP  
DATE: 10/12/93  
PAGE: 16 OF 29

| ASSUMPTIONS  |  | DIRECT COSTS | INDIRECT COSTS | CASH FLOW    | YEAR |
|--|--|--------------|----------------|--------------|------|
| 1. D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).                        |  | \$0          | \$0            | \$0          | 1994 |
| 2. MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH. |  | \$0          | \$0            | \$0          | 1995 |
|  |  | \$0          | \$0            | \$0          | 1996 |
|  |  | \$0          | \$0            | \$0          | 1997 |
|  |  | \$0          | \$0            | \$0          | 1998 |
|  |  | \$0          | \$0            | \$0          | 1999 |
|  |  | \$0          | \$0            | \$0          | 2000 |
|  |  | \$0          | \$0            | \$0          | 2001 |
|  |  | \$0          | \$0            | \$0          | 2002 |
|  |  | \$0          | \$0            | \$0          | 2003 |
|  |  | \$0          | \$0            | \$0          | 2004 |
|  |  | \$0          | \$0            | \$0          | 2005 |
|  |  | \$0          | \$0            | \$0          | 2006 |
|  |  | \$2,566,000  | \$11,728,000   | \$14,294,000 | 2007 |
|  |  | \$6,159,000  | \$28,148,000   | \$34,307,000 | 2008 |
|  |  | \$1,540,000  | \$7,037,000    | \$8,577,000  | 2009 |
|  |  | \$0          | \$0            | \$0          | 2010 |
|  |  | \$0          | \$0            | \$0          | 2011 |
|  |  | \$0          | \$0            | \$0          | 2012 |
|  |  | \$0          | \$0            | \$0          | 2013 |
|  |  | \$0          | \$0            | \$0          | 2014 |
|  |  | \$0          | \$0            | \$0          | 2015 |
|  |  | \$0          | \$0            | \$0          | 2016 |
|  |  |              |                |              | 2017 |
|  |  |              |                |              | 2018 |
|  |  |              |                |              | 2019 |
|  |  |              |                |              | 2020 |
|  |  |              |                |              | 2021 |
|  |  |              |                |              | 2022 |
|  |  |              |                |              | 2023 |
|  |  |              |                |              | 2024 |

**INFORMATION SOURCE**

- DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN.
- LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

008

CHARGE NO.: 3AAA7  
 CLIENT: DOE  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/TP  
 DATE: 10/12/93  
 PAGE: 17 OF 29

DESCRIPTION  
 PACKAGE 12  
 STORAGE

LCC ANALYSIS TITLE: ACCELERATED D&D OF  
 STRUCTURES & FACILITIES  
 3  
 ALTERNATIVE: 1994  
 BASE DATE: 23 YRS.  
 STUDY PERIOD: REAL DISCOUNT RATE: 4.4%  
 DOCUMENT NO.: LCC-93-10-001

ASSUMPTIONS  
 1. D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).  
 2. MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH.

INFORMATION SOURCE  
 1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN.  
 LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

| YEAR | CASH FLOW   | INDIRECT COSTS | DIRECT COSTS |
|------|-------------|----------------|--------------|
| 1994 | \$0         | \$0            | \$0          |
| 1995 | \$0         | \$0            | \$0          |
| 1996 | \$0         | \$0            | \$0          |
| 1997 | \$0         | \$0            | \$0          |
| 1998 | \$0         | \$0            | \$0          |
| 1999 | \$0         | \$0            | \$0          |
| 2000 | \$0         | \$0            | \$0          |
| 2001 | \$0         | \$0            | \$0          |
| 2002 | \$0         | \$0            | \$0          |
| 2003 | \$0         | \$0            | \$0          |
| 2004 | \$0         | \$0            | \$0          |
| 2005 | \$0         | \$0            | \$0          |
| 2006 | \$0         | \$0            | \$0          |
| 2007 | \$0         | \$0            | \$0          |
| 2008 | \$4,238,000 | \$3,520,000    | \$718,000    |
| 2009 | \$8,475,000 | \$7,040,000    | \$1,435,000  |
| 2010 | \$8,475,000 | \$7,040,000    | \$1,435,000  |
| 2011 | \$8,475,000 | \$7,040,000    | \$1,435,000  |
| 2012 | \$8,475,000 | \$7,040,000    | \$1,435,000  |
| 2013 | \$0         | \$0            | \$0          |
| 2014 | \$0         | \$0            | \$0          |
| 2015 | \$0         | \$0            | \$0          |
| 2016 | \$0         | \$0            | \$0          |
| 2017 |             |                |              |
| 2018 |             |                |              |
| 2019 |             |                |              |
| 2020 |             |                |              |
| 2021 |             |                |              |
| 2022 |             |                |              |
| 2023 |             |                |              |
| 2024 |             |                |              |

LCC ANALYSIS TITLE: ACCELERATED D&D OF STRUCTURES & FACILITIES  
 ALTERNATIVE: 3  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%  
 DOCUMENT NO.: LCC-93-10-001

DESCRIPTION  
 PACKAGE 13  
 PLANT 1

CHARGE NO.: 3AAA7  
 CLIENT: DOB  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/TP  
 DATE: 10/12/93  
 PAGE: 18 OF 29

| ASSUMPTIONS  |  | DIRECT COSTS | INDIRECT COSTS | CASH FLOW    | YEAR |
|--|--|--------------|----------------|--------------|------|
| 1. D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).                        |  | \$0          | \$0            | \$0          | 1994 |
| 2. MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH. |  | \$0          | \$0            | \$0          | 1995 |
|  |  | \$0          | \$0            | \$0          | 1996 |
|  |  | \$0          | \$0            | \$0          | 1997 |
|  |  | \$0          | \$0            | \$0          | 1998 |
|  |  | \$0          | \$0            | \$0          | 1999 |
|  |  | \$0          | \$0            | \$0          | 2000 |
|  |  | \$10,471,000 | \$46,717,000   | \$57,188,000 | 2001 |
|  |  | \$13,961,000 | \$62,290,000   | \$76,251,000 | 2002 |
|  |  | \$4,654,000  | \$20,763,000   | \$25,417,000 | 2003 |
|  |  | \$0          | \$0            | \$0          | 2004 |
|  |  | \$0          | \$0            | \$0          | 2005 |
|  |  | \$0          | \$0            | \$0          | 2006 |
|  |  | \$0          | \$0            | \$0          | 2007 |
|  |  | \$0          | \$0            | \$0          | 2008 |
|  |  | \$0          | \$0            | \$0          | 2009 |
|  |  | \$0          | \$0            | \$0          | 2010 |
|  |  | \$0          | \$0            | \$0          | 2011 |
|  |  | \$0          | \$0            | \$0          | 2012 |
|  |  | \$0          | \$0            | \$0          | 2013 |
|  |  | \$0          | \$0            | \$0          | 2014 |
|  |  | \$0          | \$0            | \$0          | 2015 |
|  |  | \$0          | \$0            | \$0          | 2016 |
|  |  | \$0          | \$0            | \$0          | 2017 |
|  |  |              |                |              | 2018 |
|  |  |              |                |              | 2019 |
|  |  |              |                |              | 2020 |
|  |  |              |                |              | 2021 |
|  |  |              |                |              | 2022 |
|  |  |              |                |              | 2023 |
|  |  |              |                |              | 2024 |

INFORMATION SOURCE

1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN. LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

LCC ANALYSIS TITLE: ACCELERATED D&D OF STRUCTURES & FACILITIES  
 ALTERNATIVE: 3  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%  
 DOCUMENT NO.: LCC-93-10-001

DESCRIPTION  
 PACKAGE B21A  
 PADS

CHARGE NO.: 3AAA7  
 CLIENT: DOE  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/TP  
 DATE: 10/12/93  
 PAGE: 19 OF 29

| ASSUMPTIONS  | DIRECT COSTS | INDIRECT COSTS | CASH FLOW   | YEAR |
|--|--------------|----------------|-------------|------|
| 1. D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).                        | \$0          | \$0            | \$0         | 1994 |
| 2. MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH. | \$0          | \$0            | \$0         | 1995 |
|  | \$0          | \$0            | \$0         | 1996 |
|  | \$0          | \$0            | \$0         | 1997 |
|  | \$0          | \$0            | \$0         | 1998 |
|  | \$0          | \$0            | \$0         | 1999 |
|  | \$0          | \$0            | \$0         | 2000 |
|  | \$378,000    | \$1,960,000    | \$2,338,000 | 2001 |
|  | \$0          | \$0            | \$0         | 2002 |
|  | \$0          | \$0            | \$0         | 2003 |
|  | \$0          | \$0            | \$0         | 2004 |
|  | \$0          | \$0            | \$0         | 2005 |
|  | \$0          | \$0            | \$0         | 2006 |
|  | \$0          | \$0            | \$0         | 2007 |
|  | \$0          | \$0            | \$0         | 2008 |
|  | \$0          | \$0            | \$0         | 2009 |
|  | \$0          | \$0            | \$0         | 2010 |
|  | \$0          | \$0            | \$0         | 2011 |
|  | \$0          | \$0            | \$0         | 2012 |
|  | \$0          | \$0            | \$0         | 2013 |
|  | \$0          | \$0            | \$0         | 2014 |
|  | \$0          | \$0            | \$0         | 2015 |
|  | \$0          | \$0            | \$0         | 2016 |
|  |              |                |             | 2017 |
|  |              |                |             | 2018 |
|  |              |                |             | 2019 |
|  |              |                |             | 2020 |
|  |              |                |             | 2021 |
|  |              |                |             | 2022 |
|  |              |                |             | 2023 |
|  |              |                |             | 2024 |

INFORMATION SOURCE  
 1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN.  
 LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

LCC ANALYSIS TITLE: ACCELERATED D&D OF  
 STRUCTURES & FACILITIES  
 ALTERNATIVE: 3  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%  
 DOCUMENT NO.: LCC-93-10-001

DESCRIPTION  
 PACKAGE 21B  
 PADS

CHARGE NO.: 3AAA7  
 CLIENT: DOE  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/TP  
 DATE: 10/12/93  
 PAGE: 20 OF 29

| ASSUMPTIONS  |  | DIRECT COSTS | INDIRECT COSTS | CASH FLOW   | YEAR |
|--|--|--------------|----------------|-------------|------|
| 1. D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).                        |  | \$0          | \$0            | \$0         | 1994 |
| 2. MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH. |  | \$0          | \$0            | \$0         | 1995 |
|  |  | \$0          | \$0            | \$0         | 1996 |
|  |  | \$0          | \$0            | \$0         | 1997 |
|  |  | \$0          | \$0            | \$0         | 1998 |
|  |  | \$0          | \$0            | \$0         | 1999 |
|  |  | \$0          | \$0            | \$0         | 2000 |
|  |  | \$0          | \$0            | \$0         | 2001 |
|  |  | \$103,000    | \$535,000      | \$638,000   | 2002 |
|  |  | \$206,000    | \$1,069,000    | \$1,275,000 | 2003 |
|  |  | \$69,000     | \$356,000      | \$425,000   | 2004 |
|  |  | \$0          | \$0            | \$0         | 2005 |
|  |  | \$0          | \$0            | \$0         | 2006 |
|  |  | \$0          | \$0            | \$0         | 2007 |
|  |  | \$0          | \$0            | \$0         | 2008 |
|  |  | \$0          | \$0            | \$0         | 2009 |
|  |  | \$0          | \$0            | \$0         | 2010 |
|  |  | \$0          | \$0            | \$0         | 2011 |
|  |  | \$0          | \$0            | \$0         | 2012 |
|  |  | \$0          | \$0            | \$0         | 2013 |
|  |  | \$0          | \$0            | \$0         | 2014 |
|  |  | \$0          | \$0            | \$0         | 2015 |
|  |  | \$0          | \$0            | \$0         | 2016 |
|  |  |              |                |             | 2017 |
|  |  |              |                |             | 2018 |
|  |  |              |                |             | 2019 |
|  |  |              |                |             | 2020 |
|  |  |              |                |             | 2021 |
|  |  |              |                |             | 2022 |
|  |  |              |                |             | 2023 |
|  |  |              |                |             | 2024 |

INFORMATION SOURCE

1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN.  
 LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

LCC ANALYSIS TITLE: ACCELERATED D&D OF STRUCTURES & FACILITIES

ALTERNATIVE: 3

BASE DATE: 1994

STUDY PERIOD: 23 YRS.

REAL DISCOUNT RATE: 4.4%

DOCUMENT NO.: LCC-93-10-001

ASSUMPTIONS

1. D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).
2. MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH.

INFORMATION SOURCE

1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN. LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

CHARGE NO.: 3AAA7  
 CLIENT: DOB  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/TP  
 DATE: 10/12/93  
 PAGE: 21 OF 29

DESCRIPTION  
 PACKAGE 21C  
 PADS

| DIRECT COSTS | INDIRECT COSTS | CASH FLOW   | YEAR |
|--------------|----------------|-------------|------|
| \$0          | \$0            | \$0         | 1994 |
| \$0          | \$0            | \$0         | 1995 |
| \$0          | \$0            | \$0         | 1996 |
| \$0          | \$0            | \$0         | 1997 |
| \$0          | \$0            | \$0         | 1998 |
| \$0          | \$0            | \$0         | 1999 |
| \$0          | \$0            | \$0         | 2000 |
| \$0          | \$0            | \$0         | 2001 |
| \$0          | \$0            | \$0         | 2002 |
| \$0          | \$0            | \$0         | 2003 |
| \$0          | \$0            | \$0         | 2004 |
| \$0          | \$0            | \$0         | 2005 |
| \$0          | \$0            | \$0         | 2006 |
| \$0          | \$0            | \$0         | 2007 |
| \$91,000     | \$470,000      | \$561,000   | 2008 |
| \$182,000    | \$941,000      | \$1,123,000 | 2009 |
| \$106,000    | \$549,000      | \$655,000   | 2010 |
| \$0          | \$0            | \$0         | 2011 |
| \$0          | \$0            | \$0         | 2012 |
| \$0          | \$0            | \$0         | 2013 |
| \$0          | \$0            | \$0         | 2014 |
| \$0          | \$0            | \$0         | 2015 |
| \$0          | \$0            | \$0         | 2016 |
| \$0          | \$0            | \$0         | 2017 |
| \$0          | \$0            | \$0         | 2018 |
| \$0          | \$0            | \$0         | 2019 |
| \$0          | \$0            | \$0         | 2020 |
| \$0          | \$0            | \$0         | 2021 |
| \$0          | \$0            | \$0         | 2022 |
| \$0          | \$0            | \$0         | 2023 |
| \$0          | \$0            | \$0         | 2024 |

5440

LCC ANALYSIS TITLE: ACCELERATED D&D OF STRUCTURES & FACILITIES

ALTERNATIVE: 3  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%

DOCUMENT NO.: LCC-93-10-001

DESCRIPTION  
 PACKAGE 21D  
 PADS

CHARGE NO.: 3AAA7  
 CLIENT: DOB  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/TP  
 DATE: 10/12/93  
 PAGE: 22 OF 29

| ASSUMPTIONS   | DIRECT COSTS | INDIRECT COSTS | CASH FLOW   | YEAR |
|---|--------------|----------------|-------------|------|
| 1. D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).<br>2. MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH. | \$0          | \$0            | \$0         | 1994 |
|   | \$0          | \$0            | \$0         | 1995 |
|   | \$0          | \$0            | \$0         | 1996 |
|   | \$0          | \$0            | \$0         | 1997 |
|   | \$0          | \$0            | \$0         | 1998 |
|   | \$0          | \$0            | \$0         | 1999 |
|   | \$0          | \$0            | \$0         | 2000 |
|   | \$0          | \$0            | \$0         | 2001 |
|   | \$0          | \$0            | \$0         | 2002 |
|   | \$0          | \$0            | \$0         | 2003 |
|   | \$0          | \$0            | \$0         | 2004 |
|   | \$0          | \$0            | \$0         | 2005 |
|   | \$0          | \$0            | \$0         | 2006 |
|   | \$0          | \$0            | \$0         | 2007 |
|   | \$0          | \$0            | \$0         | 2008 |
|   | \$0          | \$0            | \$0         | 2009 |
|   | \$0          | \$0            | \$0         | 2010 |
|   | \$0          | \$0            | \$0         | 2011 |
|   | \$378,000    | \$1,960,000    | \$2,338,000 | 2012 |
|   | \$0          | \$0            | \$0         | 2013 |
|   | \$0          | \$0            | \$0         | 2014 |
|   | \$0          | \$0            | \$0         | 2015 |
|   | \$0          | \$0            | \$0         | 2016 |
|   |              |                | 2017        |      |
|   |              |                | 2018        |      |
|   |              |                | 2019        |      |
|   |              |                | 2020        |      |
|   |              |                | 2021        |      |
|   |              |                | 2022        |      |
|   |              |                | 2023        |      |
|   |              |                | 2024        |      |

INFORMATION SOURCE

1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN.  
 LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

**LCC ANALYSIS TITLE: ACCELERATED D&D OF STRUCTURES & FACILITIES**

ALTERNATIVE: 3  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%

DOCUMENT NO.: LCC-93-10-001

DESCRIPTION  
 PACKAGE 22A  
 FOUNDATIONS

CHARGE NO.: 3AAA7  
 CLIENT: DOB  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/TJ  
 DATE: 10/12/93  
 PAGE: 23 OF 29

| ASSUMPTIONS  | DIRECT COSTS | INDIRECT COSTS | CASH FLOW    | YEAR |
|--|--------------|----------------|--------------|------|
| 1. D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).                        | \$0          | \$0            | \$0          | 1994 |
| 2. MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH. | \$0          | \$0            | \$0          | 1995 |
|  | \$0          | \$0            | \$0          | 1996 |
|  | \$0          | \$0            | \$0          | 1997 |
|  | \$0          | \$0            | \$0          | 1998 |
|  | \$0          | \$0            | \$0          | 1999 |
|  | \$0          | \$0            | \$0          | 2000 |
|  | \$0          | \$0            | \$0          | 2001 |
|  | \$0          | \$0            | \$0          | 2002 |
|  | \$0          | \$0            | \$0          | 2003 |
|  | \$0          | \$0            | \$0          | 2004 |
|  | \$0          | \$0            | \$0          | 2005 |
|  | \$0          | \$0            | \$0          | 2006 |
|  | \$0          | \$0            | \$0          | 2007 |
|  | \$0          | \$0            | \$0          | 2008 |
|  | \$1,919,000  | \$9,937,000    | \$11,856,000 | 2009 |
|  | \$3,838,000  | \$19,873,000   | \$23,711,000 | 2010 |
|  | \$2,239,000  | \$11,593,000   | \$13,832,000 | 2011 |
|  | \$0          | \$0            | \$0          | 2012 |
|  | \$0          | \$0            | \$0          | 2013 |
|  | \$0          | \$0            | \$0          | 2014 |
|  | \$0          | \$0            | \$0          | 2015 |
|  | \$0          | \$0            | \$0          | 2016 |
|  | \$0          | \$0            | \$0          | 2017 |
|  |              |                |              | 2018 |
|  |              |                |              | 2019 |
|  |              |                |              | 2020 |
|  |              |                |              | 2021 |
|  |              |                |              | 2022 |
|  |              |                |              | 2023 |
|  |              |                |              | 2024 |

**INFORMATION SOURCE**

1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 3, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN.  
 LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

**LCC ANALYSIS TITLE: ACCELERATED D&D OF STRUCTURES & FACILITIES**

ALTERNATIVE: 3  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%

DOCUMENT NO.: LCC-93-10-001

DESCRIPTION  
 PACKAGE 22B  
 FOUNDATIONS

CHARGE NO.: 3AAA7  
 CLIENT: DOB  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/TP  
 DATE: 10/12/93  
 PAGE: 24 OF 29

| ASSUMPTIONS  | DIRECT COSTS | INDIRECT COSTS | CASH FLOW    | YEAR |
|--|--------------|----------------|--------------|------|
| 1. D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).<br>2. MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH.<br><br><b>INFORMATION SOURCE</b><br>1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN.<br>LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN. | \$0          | \$0            | \$0          | 1994 |
|  | \$0          | \$0            | \$0          | 1995 |
|  | \$0          | \$0            | \$0          | 1996 |
|  | \$0          | \$0            | \$0          | 1997 |
|  | \$0          | \$0            | \$0          | 1998 |
|  | \$0          | \$0            | \$0          | 1999 |
|  | \$0          | \$0            | \$0          | 2000 |
|  | \$0          | \$0            | \$0          | 2001 |
|  | \$0          | \$0            | \$0          | 2002 |
|  | \$0          | \$0            | \$0          | 2003 |
|  | \$0          | \$0            | \$0          | 2004 |
|  | \$0          | \$0            | \$0          | 2005 |
|  | \$0          | \$0            | \$0          | 2006 |
|  | \$0          | \$0            | \$0          | 2007 |
|  | \$0          | \$0            | \$0          | 2008 |
|  | \$0          | \$0            | \$0          | 2009 |
|  | \$0          | \$0            | \$0          | 2010 |
|  | \$0          | \$0            | \$0          | 2011 |
|  | \$7,996,000  | \$41,403,000   | \$49,399,000 | 2012 |
|  | \$0          | \$0            | \$0          | 2013 |
|  | \$0          | \$0            | \$0          | 2014 |
|  | \$0          | \$0            | \$0          | 2015 |
|  | \$0          | \$0            | \$0          | 2016 |
|  |              |                |              | 2017 |
|  |              |                | 2018         |      |
|  |              |                | 2019         |      |
|  |              |                | 2020         |      |
|  |              |                | 2021         |      |
|  |              |                | 2022         |      |
|  |              |                | 2023         |      |
|  |              |                | 2024         |      |

LCC ANALYSIS TITLE: ACCELERATED D&D OF STRUCTURES & FACILITIES  
 ALTERNATIVE: 3  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%  
 DOCUMENT NO.: LCC-93-10-001

DESCRIPTION  
 PACKAGE 23A  
 UTILITIES

CHARGE NO.: 3AAA7  
 CLIENT: DOE  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/TP  
 DATE: 10/12/93  
 PAGE: 25 OF 29

| ASSUMPTIONS  | DIRECT COSTS | INDIRECT COSTS | CASH FLOW   | YEAR |
|--|--------------|----------------|-------------|------|
| 1. D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).                        | \$0          | \$0            | \$0         | 1994 |
| 2. MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH. | \$0          | \$0            | \$0         | 1995 |
|  | \$0          | \$0            | \$0         | 1996 |
|  | \$0          | \$0            | \$0         | 1997 |
|  | \$1,067,000  | \$5,525,000    | \$6,592,000 | 1998 |
|  | \$356,000    | \$1,842,000    | \$2,198,000 | 1999 |
|  | \$0          | \$0            | \$0         | 2000 |
|  | \$0          | \$0            | \$0         | 2001 |
|  | \$0          | \$0            | \$0         | 2002 |
|  | \$0          | \$0            | \$0         | 2003 |
|  | \$0          | \$0            | \$0         | 2004 |
|  | \$0          | \$0            | \$0         | 2005 |
|  | \$0          | \$0            | \$0         | 2006 |
|  | \$0          | \$0            | \$0         | 2007 |
|  | \$0          | \$0            | \$0         | 2008 |
|  | \$0          | \$0            | \$0         | 2009 |
|  | \$0          | \$0            | \$0         | 2010 |
|  | \$0          | \$0            | \$0         | 2011 |
|  | \$0          | \$0            | \$0         | 2012 |
|  | \$0          | \$0            | \$0         | 2013 |
|  | \$0          | \$0            | \$0         | 2014 |
|  | \$0          | \$0            | \$0         | 2015 |
|  | \$0          | \$0            | \$0         | 2016 |
|  | \$0          | \$0            | \$0         | 2017 |
|  |              |                |             | 2018 |
|  |              |                |             | 2019 |
|  |              |                |             | 2020 |
|  |              |                |             | 2021 |
|  |              |                |             | 2022 |
|  |              |                |             | 2023 |
|  |              |                |             | 2024 |

INFORMATION SOURCE  
 1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN.  
 LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

| LCC ANALYSIS TITLE: ACCELERATED D&D OF STRUCTURES & FACILITIES   |  | CHARGE NO.: 3AAA7     |                |             |      |
|--|--|-----------------------|----------------|-------------|------|
| ALTERNATIVE: 3   |  | CLIENT: DOB           |                |             |      |
| BASE DATE: 1994  |  | LOCATION: FERNALD, OH |                |             |      |
| STUDY PERIOD: 23 YRS.  |  | ANALYST: JJ/TP        |                |             |      |
| REAL DISCOUNT RATE: 4.4%   |  | DATE: 10/12/93        |                |             |      |
| DOCUMENT NO.: LCC-93-10-001  |  | PAGE: 26 OF 29        |                |             |      |
| ASSUMPTIONS  |  | DIRECT COSTS          | INDIRECT COSTS | CASH FLOW   | YEAR |
| 1. D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).                        |  | \$0                   | \$0            | \$0         | 1994 |
|  |  | \$0                   | \$0            | \$0         | 1995 |
| 2. MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH. |  | \$0                   | \$0            | \$0         | 1996 |
|  |  | \$0                   | \$0            | \$0         | 1997 |
| FOR THE MONTH.   |  | \$0                   | \$0            | \$0         | 1998 |
|  |  | \$0                   | \$0            | \$0         | 1999 |
|  |  | \$0                   | \$0            | \$0         | 2000 |
|  |  | \$683,000             | \$3,536,000    | \$4,219,000 | 2001 |
|  |  | \$683,000             | \$3,536,000    | \$4,219,000 | 2002 |
|  |  | \$57,000              | \$295,000      | \$352,000   | 2003 |
|  |  | \$0                   | \$0            | \$0         | 2004 |
|  |  | \$0                   | \$0            | \$0         | 2005 |
|  |  | \$0                   | \$0            | \$0         | 2006 |
|  |  | \$0                   | \$0            | \$0         | 2007 |
|  |  | \$0                   | \$0            | \$0         | 2008 |
|  |  | \$0                   | \$0            | \$0         | 2009 |
|  |  | \$0                   | \$0            | \$0         | 2010 |
|  |  | \$0                   | \$0            | \$0         | 2011 |
|  |  | \$0                   | \$0            | \$0         | 2012 |
|  |  | \$0                   | \$0            | \$0         | 2013 |
|  |  | \$0                   | \$0            | \$0         | 2014 |
|  |  | \$0                   | \$0            | \$0         | 2015 |
|  |  | \$0                   | \$0            | \$0         | 2016 |
|  |  |                       |                |             | 2017 |
|  |  |                       |                |             | 2018 |
|  |  |                       |                |             | 2019 |
|  |  |                       |                |             | 2020 |
|  |  |                       |                |             | 2021 |
|  |  |                       |                |             | 2022 |
|  |  |                       |                |             | 2023 |
|  |  |                       |                |             | 2024 |

INFORMATION SOURCE

1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN.

LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

LCC ANALYSIS TITLE: ACCELERATED D&D OF STRUCTURES & FACILITIES

ALTERNATIVE: 3  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%  
 DOCUMENT NO.: LCC-93-10-001

DESCRIPTION  
 PACKAGE B 23C  
 UTILITIES

CHARGE NO.: 3AAA7  
 CLIENT: DOB  
 LOCATION: FBRNALD,OH  
 ANALYST: JJ/TP  
 DATE: 10/12/93  
 PAGE: 27 OF 29

| ASSUMPTIONS  | DIRECT COSTS | INDIRECT COSTS | CASH FLOW   | YEAR |
|--|--------------|----------------|-------------|------|
| 1. D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).                        | \$0          | \$0            | \$0         | 1994 |
|  | \$0          | \$0            | \$0         | 1995 |
| 2. MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH. | \$0          | \$0            | \$0         | 1996 |
|  | \$0          | \$0            | \$0         | 1997 |
|  | \$0          | \$0            | \$0         | 1998 |
|  | \$0          | \$0            | \$0         | 1999 |
|  | \$0          | \$0            | \$0         | 2000 |
|  | \$0          | \$0            | \$0         | 2001 |
|  | \$0          | \$0            | \$0         | 2002 |
|  | \$0          | \$0            | \$0         | 2003 |
|  | \$0          | \$0            | \$0         | 2004 |
|  | \$0          | \$0            | \$0         | 2005 |
|  | \$0          | \$0            | \$0         | 2006 |
|  | \$0          | \$0            | \$0         | 2007 |
|  | \$178,000    | \$921,000      | \$1,099,000 | 2008 |
|  | \$711,000    | \$3,683,000    | \$4,394,000 | 2009 |
|  | \$533,000    | \$2,762,000    | \$3,295,000 | 2010 |
|  | \$0          | \$0            | \$0         | 2011 |
|  | \$0          | \$0            | \$0         | 2012 |
|  | \$0          | \$0            | \$0         | 2013 |
|  | \$0          | \$0            | \$0         | 2014 |
|  | \$0          | \$0            | \$0         | 2015 |
|  | \$0          | \$0            | \$0         | 2016 |
|  |              |                |             | 2017 |
|  |              |                |             | 2018 |
|  |              |                |             | 2019 |
|  |              |                |             | 2020 |
|  |              |                |             | 2021 |
|  |              |                |             | 2022 |
|  |              |                |             | 2023 |
|  |              |                |             | 2024 |

INFORMATION SOURCE

1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN.  
 LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

**LCC ANALYSIS TITLE: ACCELERATED D&D OF STRUCTURES & FACILITIES**

ALTERNATIVE: 3  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%  
 DOCUMENT NO.: LCC-93-10-001

**DESCRIPTION**  
 PACKAGE 24  
 ROADS, R/R, LOTS

CHARGE NO.: 3AAA7  
 CLIENT: DOE  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/TP  
 DATE: 10/12/93  
 PAGE: 28 OF 29

| ASSUMPTIONS  | DIRECT COSTS | INDIRECT COSTS | CASH FLOW   | YEAR |
|--|--------------|----------------|-------------|------|
| 1. D&D COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).                        | \$0          | \$0            | \$0         | 1994 |
|  | \$0          | \$0            | \$0         | 1995 |
| 2. MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH. | \$0          | \$0            | \$0         | 1996 |
|  | \$0          | \$0            | \$0         | 1997 |
|  | \$0          | \$0            | \$0         | 1998 |
|  | \$0          | \$0            | \$0         | 1999 |
|  | \$0          | \$0            | \$0         | 2000 |
|  | \$1,631,000  | \$7,731,000    | \$9,362,000 | 2001 |
|  | \$408,000    | \$1,933,000    | \$2,341,000 | 2002 |
|  | \$0          | \$0            | \$0         | 2003 |
|  | \$0          | \$0            | \$0         | 2004 |
|  | \$0          | \$0            | \$0         | 2005 |
|  | \$0          | \$0            | \$0         | 2006 |
|  | \$0          | \$0            | \$0         | 2007 |
|  | \$0          | \$0            | \$0         | 2008 |
|  | \$0          | \$0            | \$0         | 2009 |
|  | \$0          | \$0            | \$0         | 2010 |
|  | \$0          | \$0            | \$0         | 2011 |
|  | \$0          | \$0            | \$0         | 2012 |
|  | \$0          | \$0            | \$0         | 2013 |
|  | \$0          | \$0            | \$0         | 2014 |
|  | \$0          | \$0            | \$0         | 2015 |
|  | \$0          | \$0            | \$0         | 2016 |
|  | \$0          | \$0            | \$0         | 2017 |
|  |              |                |             | 2018 |
|  |              |                |             | 2019 |
|  |              |                |             | 2020 |
|  |              |                |             | 2021 |
|  |              |                |             | 2022 |
|  |              |                |             | 2023 |
|  |              |                |             | 2024 |

**INFORMATION SOURCE**

1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN.  
 LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

LCC ANALYSIS TITLE: ACCELERATED D&D OF STRUCTURES & FACILITIES  
 ALTERNATIVE: 3  
 BASE DATE: 1994  
 STUDY PERIOD: 23 YRS.  
 REAL DISCOUNT RATE: 4.4%  
 DOCUMENT NO.: LCC-93-10-001

DESCRIPTION  
 MISCELLANEOUS BUILDINGS/TRAILERS  
 (PKG 25 IMPOUNDMENTS)

CHARGE NO.: 3AAA7  
 CLIENT: DOE  
 LOCATION: FERNALD, OH  
 ANALYST: JJ/TP  
 DATE: 10/12/93  
 PAGE: 29 OF 29

| ASSUMPTIONS  | DIRECT COSTS | INDIRECT COSTS | CASH FLOW    | YEAR |
|--|--------------|----------------|--------------|------|
| 1. DAD COST IS SPREAD EVENLY BY MONTH OVER THE LIFE OF THE PACKAGE (MONTHLY CASH FLOW IS ASSUMED TO BE FLAT).                        | \$0          | \$0            | \$0          | 1994 |
| 2. MISCELLANEOUS BUILDINGS COST IS PRORATED BASED ON THE SUM OF THE PACKAGES BY MONTH, OVER THE TOTAL OF THE PACKAGES FOR THE MONTH. | \$0          | \$0            | \$0          | 1995 |
|  | \$1,092,000  | \$2,364,000    | \$3,456,000  | 1996 |
|  | \$2,069,000  | \$4,477,000    | \$6,546,000  | 1997 |
|  | \$2,248,000  | \$4,864,000    | \$7,112,000  | 1998 |
|  | \$2,717,000  | \$5,879,000    | \$8,596,000  | 1999 |
|  | \$544,000    | \$1,178,000    | \$1,722,000  | 2000 |
|  | \$6,829,000  | \$14,776,000   | \$21,605,000 | 2001 |
|  | \$9,555,000  | \$20,675,000   | \$30,230,000 | 2002 |
|  | \$1,556,000  | \$3,368,000    | \$4,924,000  | 2003 |
|  | \$1,534,000  | \$3,319,000    | \$4,853,000  | 2004 |
|  | \$2,760,000  | \$5,971,000    | \$8,731,000  | 2005 |
|  | \$1,080,000  | \$2,337,000    | \$3,417,000  | 2006 |
|  | \$1,663,000  | \$3,599,000    | \$5,262,000  | 2007 |
|  | \$2,628,000  | \$5,686,000    | \$8,314,000  | 2008 |
|  | \$2,871,000  | \$6,211,000    | \$9,082,000  | 2009 |
|  | \$2,394,000  | \$5,181,000    | \$7,575,000  | 2010 |
|  | \$784,000    | \$1,697,000    | \$2,481,000  | 2011 |
|  | \$3,039,000  | \$6,577,000    | \$9,616,000  | 2012 |
|  | \$0          | \$0            | \$0          | 2013 |
|  | \$0          | \$0            | \$0          | 2014 |
|  | \$0          | \$0            | \$0          | 2015 |
|  | \$0          | \$0            | \$0          | 2016 |
|  |              |                |              | 2017 |
|  |              |                |              | 2018 |
|  |              |                |              | 2019 |
|  |              |                |              | 2020 |
|  |              |                |              | 2021 |
|  |              |                |              | 2022 |
|  |              |                |              | 2023 |
|  |              |                |              | 2024 |

INFORMATION SOURCE

1. DIRECT, INDIRECT, AND TOTAL INSTALLED COSTS ARE BASED ON THE AUGUST 5, 1993 ESTIMATE OF THE OVERALL PROPOSED PLAN.  
 LANDLORD COST IS BASED ON THE JULY 21, 1993 ESTIMATE ISSUED WITH THE OVERALL PROPOSED PLAN.

**OMB CIRCULAR NO. A-94 APPENDIX C**

APPENDIX C

DISCOUNT RATES FOR COST-EFFECTIVENESS, LEASE PURCHASE,  
 AND RELATED ANALYSES

Effective Dates. This appendix is updated annually around the time of the President's budget submission to Congress. This version of the appendix is valid only through February, 1994. Updates of this appendix will be available upon request from the Office of Economic Policy in OMB (202-395-3381). Copies of the appendix and the Circular may also be obtained from the OMB Publications Office (202-395-7332).

Nominal Discount Rates. Nominal interest rates based on the economic assumptions from the budget are presented in the table below. These nominal rates are to be used for discounting nominal flows, as in lease-purchase analysis.

Nominal Interest Rates on Treasury Notes and Bonds  
 of Specified Maturities (in percent)

| <u>3-Year</u> | <u>5-Year</u> | <u>7-Year</u> | <u>10-Year</u> | <u>30-Year</u> |
|---------------|---------------|---------------|----------------|----------------|
| 5.6           | 6.0           | 6.3           | 6.7            | 6.8            |

Analyses of programs with terms different from those presented above may use a linear interpolation. For example, a four-year project can be evaluated with a rate equal to the average of the three-year and five-year rates. Programs with durations longer than 30 years may use the 30-year interest rate.

Real Discount Rates. Real interest rates based on the economic assumptions from the budget are presented below. These real rates are to be used for discounting real (constant-dollar) flows, as in cost-effectiveness analysis.

Real Interest Rates on Treasury Notes and Bonds  
 of Specified Maturities (in percent)

| <u>3-Year</u> | <u>5-Year</u> | <u>7-Year</u> | <u>10-Year</u> | <u>30-Year</u> |
|---------------|---------------|---------------|----------------|----------------|
| 3.1           | 3.6           | 4.0           | 4.3            | 4.5            |

*20 year = 4.4%*

Analyses of programs with terms different from those presented above may use a linear interpolation. For example, a four-year project can be evaluated with a rate equal to the average of the three-year and five-year rates. Programs with durations longer than 30 years may use the 30-year interest rate.

- 544 6

**OU3 PROPOSED PLAN  
COST SCHEDULE**





QUI PROPOSED PLAN - SUPPORT FOR LIFE CYCLE COST ANALYSIS - ALL

FORECAST OF 'D' & 'D' FOR PLANTS / BUILDINGS

| PACKAGE DESCRIPTION | TOTAL       |             | MONTHS |       |       |       |        |        |        |        |        |       |       |       | TOTAL |       |       |       |       |       |       |       |       |       |           |             |
|---------------------|-------------|-------------|--------|-------|-------|-------|--------|--------|--------|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----------|-------------|
|                     | DIRECTS     | INDIRECTS   | FY96   | FY97  | FY98  | FY99  | FY00   | FY01   | FY02   | FY03   | FY04   | FY05  | FY06  | FY07  |       | FY08  | FY09  | FY10  | FY11  | FY12  | FY13  | FY14  | FY15  | FY16  | FY17      | TOTAL       |
| 1 PLANT 1           | \$9,635.0   | \$40,853.6  | 21     | 986   | 986   | 986   | 21,842 | 28,858 | 10,714 | 9,821  |        |       |       |       |       |       |       |       |       |       |       |       |       |       | \$84,481  |             |
| 2 PLANT 2           | \$1,919.9   | \$17,807.4  | 24     | 423   | 423   | 423   |        | 893    | 14,613 | 29,825 | 7,406  |       |       |       |       |       |       |       |       |       |       |       |       |       | \$23,116  |             |
| 3 PLANT 3           | \$9,603.2   | \$42,340.6  | 21     | 1,023 | 1,023 | 1,023 |        | 10,845 | 10,845 | 10,845 | 6,384  |       |       |       |       |       |       |       |       |       |       |       |       |       | \$86,934  |             |
| 4 PILOT PLANT       | \$6,739.3   | \$32,476.9  | 43     | 774   | 774   | 774   |        | 10,845 | 10,845 | 10,845 | 6,384  |       |       |       |       |       |       |       |       |       |       |       |       |       | \$72,221  |             |
| 5 PLANT 4           | \$12,669.5  | \$54,281.8  | 16     | 1,320 | 1,320 | 1,320 |        | 1,228  | 37,664 | 29,297 |        |       |       |       |       |       |       |       |       |       |       |       |       |       | \$87,166  |             |
| 6 PLANT 5           | \$11,310.5  | \$51,043.9  | 4      | 1,228 | 1,228 | 1,228 |        | 488    | 62,264 |        |        |       |       |       |       |       |       |       |       |       |       |       |       |       | \$70,855  |             |
| 7 PLANT 6           | \$4,346.2   | \$20,233.9  | 13     | 488   | 488   | 488   |        | 986    | 3,791  | 20,868 |        |       |       |       |       |       |       |       |       |       |       |       |       |       | \$25,962  |             |
| 8 ROLLER PLANT      | \$9,005.2   | \$40,915.0  | 26     | 986   | 986   | 986   |        | 298    | 24,819 | 14,303 |        |       |       |       |       |       |       |       |       |       |       |       |       |       | \$53,982  |             |
| 9 MAINT AREA        | \$2,433.7   | \$12,685.7  | 10     | 298   | 298   | 298   |        | 5,566  | 30,276 |        |        |       |       |       |       |       |       |       |       |       |       |       |       |       | \$41,808  |             |
| 10a ADMIN BLDG      | \$6,920.1   | \$31,902.1  | 19     | 788   | 788   | 788   |        | 788    |        |        |        |       |       |       |       |       |       |       |       |       |       |       |       |       | \$41,808  |             |
| 10b ADMIN BLDG      | \$6,920.1   | \$31,902.1  | 7      | 788   | 788   | 788   |        | 788    |        |        |        |       |       |       |       |       |       |       |       |       |       |       |       |       | \$41,808  |             |
| 10c ADMIN BLDG      | \$6,920.1   | \$31,902.1  | 22     | 1,128 | 1,128 | 1,128 |        | 1,128  |        |        |        |       |       |       |       |       |       |       |       |       |       |       |       |       | \$41,808  |             |
| 11 PLANT 8          | \$10,264.5  | \$46,912.6  | 54     | 1,128 | 1,128 | 1,128 |        | 783    | 67,189 | 74,251 | 26,417 |       |       |       |       |       |       |       |       |       |       |       |       |       | \$171,389 |             |
| 12 STORAGE          | \$29,058.4  | \$129,770.1 | 28     | 3,133 | 3,133 | 3,133 |        | 46     | 2,338  | 638    | 1,276  | 425   |       |       |       |       |       |       |       |       |       |       |       |       | \$2,623   |             |
| 13 PLANT 9          | \$378.5     | \$1,980.0   | 3      | 46    | 46    | 46    |        | 46     |        |        |        |       |       |       |       |       |       |       |       |       |       |       |       |       | \$1,180   |             |
| 21a PADS            | \$378.5     | \$1,980.0   | 22     | 46    | 46    | 46    |        | 46     |        |        |        |       |       |       |       |       |       |       |       |       |       |       |       |       | \$2,623   |             |
| 21b PADS            | \$378.5     | \$1,980.0   | 28     | 46    | 46    | 46    |        | 46     |        |        |        |       |       |       |       |       |       |       |       |       |       |       |       |       | \$2,623   |             |
| 21c PADS            | \$378.5     | \$1,980.0   | 11     | 46    | 46    | 46    |        | 46     |        |        |        |       |       |       |       |       |       |       |       |       |       |       |       |       | \$2,623   |             |
| 22a FOUNDATIONS     | \$7,896.3   | \$41,402.9  | 28     | 976   | 976   | 976   |        | 976    | 6,069  | 2,930  |        |       |       |       |       |       |       |       |       |       |       |       |       |       | \$83,300  |             |
| 22b FOUNDATIONS     | \$7,896.3   | \$41,402.9  | 11     | 976   | 976   | 976   |        | 976    | 6,069  | 2,930  |        |       |       |       |       |       |       |       |       |       |       |       |       |       | \$83,300  |             |
| 23a UTILITIES       | \$1,422.6   | \$7,356.4   | 9      | 173   | 173   | 173   |        | 173    | 4,219  | 4,219  | 362    |       |       |       |       |       |       |       |       |       |       |       |       |       | \$9,483   |             |
| 23b UTILITIES       | \$1,422.6   | \$7,356.4   | 26     | 173   | 173   | 173   |        | 173    | 4,219  | 4,219  | 362    |       |       |       |       |       |       |       |       |       |       |       |       |       | \$9,483   |             |
| 23c UTILITIES       | \$1,422.6   | \$7,356.4   | 24     | 173   | 173   | 173   |        | 173    | 4,219  | 4,219  | 362    |       |       |       |       |       |       |       |       |       |       |       |       |       | \$9,483   |             |
| 24 ROADWAYS/LOTS    | \$2,036.6   | \$9,664.2   | 6      | 231   | 231   | 231   |        | 231    | 9,362  | 2,341  |        |       |       |       |       |       |       |       |       |       |       |       |       |       | \$12,626  |             |
| 26 IMPROVEMENTS     | \$46,363.4  | \$99,186.1  | 6      | 2,816 | 2,816 | 2,816 |        | 2,816  | 2,816  | 2,816  | 2,816  | 2,816 | 2,816 | 2,816 | 2,816 | 2,816 | 2,816 | 2,816 | 2,816 | 2,816 | 2,816 | 2,816 | 2,816 | 2,816 | \$184,785 |             |
| MISC                | \$16,726.3  | \$16,716.0  | 202    | 4,315 | 4,315 | 4,315 |        | 4,315  | 4,315  | 4,315  | 4,315  | 4,315 | 4,315 | 4,315 | 4,315 | 4,315 | 4,315 | 4,315 | 4,315 | 4,315 | 4,315 | 4,315 | 4,315 | 4,315 | \$13,444  |             |
| CSF                 | \$21,927.1  | \$82,732.0  |        |       |       |       |        |        |        |        |        |       |       |       |       |       |       |       |       |       |       |       |       |       |           | \$1,157,842 |
| 66a GROSS DISCON    | \$237,912.0 | \$920,230.2 |        |       |       |       |        |        |        |        |        |       |       |       |       |       |       |       |       |       |       |       |       |       |           | \$1,157,842 |

66a GROSS DISCON \$237,912.0 \$920,230.2

66b NET COST \$1,157,842.0 \$1,157,842.0



Q13 PROPOSED PLAN - SUPPORT FOR LIFE CYCLE COST ANALYSIS - ALL 3

FORECAST OF 'D' & 'D' FOR PLANTS / BUILDINGS

| PACKAGB DESCRIPTION | DOLLARS IN THOUSANDS |             | # MONTHS | FY       |          |          |          |          |           |           |          |          |          |          |          | TOTAL    |          |          |          |          |      |      |          |             |
|---------------------|----------------------|-------------|----------|----------|----------|----------|----------|----------|-----------|-----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------|------|----------|-------------|
|                     | DIRECTS              | INDIRECTS   |          | FY96     | FY97     | FY98     | FY99     | FY00     | FY01      | FY02      | FY03     | FY04     | FY05     | FY06     | FY07     |          | FY08     | FY09     | FY10     | FY11     | FY12 | FY13 |          |             |
| 1 PLANT 4           | \$9,635.0            | \$40,863.6  | 21       | 21,642   | 28,856   |          |          |          |           |           |          |          |          |          |          |          |          |          |          |          |      |      | \$50,499 |             |
| 2 PLANT 3           | \$3,919.9            | \$17,507.4  | 23       |          | 932      |          | 9,316    |          |           |           |          |          |          |          |          |          |          |          |          |          |      |      |          | \$21,427    |
| 3 PLANT 23          | \$9,505.2            | \$42,340.6  | 20       |          |          |          | 31,106   | 5,164    |           |           |          |          |          |          |          |          |          |          |          |          |      |      |          | \$51,644    |
| 4 PILOT PLANT       | \$8,739.3            | \$32,476.9  | 42       |          | 11,205   |          | 11,205   |          |           |           |          |          |          |          |          |          |          |          |          |          |      |      |          | \$39,216    |
| 5 PLANT 3           | \$12,659.3           | \$54,281.8  | 16       |          |          |          |          | 37,854   | 28,287    |           |          |          |          |          |          |          |          |          |          |          |      |      |          | \$66,941    |
| 6 PLANT 6           | \$11,210.5           | \$51,043.9  | 4        |          |          |          |          |          | 62,254    |           |          |          |          |          |          |          |          |          |          |          |      |      |          | \$62,254    |
| 7 PLANT 9           | \$4,345.2            | \$20,293.9  | 13       |          |          |          |          |          |           |           |          |          |          |          |          |          |          |          |          |          |      |      |          | \$24,639    |
| 8 BOILER PLANT      | \$9,009.2            | \$40,915.0  | 28       |          |          |          |          |          |           |           |          |          |          |          |          |          |          |          |          |          |      |      |          | \$49,923    |
| 9 MANT ARBA         | \$2,433.7            | \$12,655.7  | 10       |          |          |          |          |          |           |           |          |          |          |          |          |          |          |          |          |          |      |      |          | \$38,822    |
| 10B ADMIN BLDG      | \$6,920.1            | \$31,902.1  | 19       |          |          |          |          |          |           |           |          |          |          |          |          |          |          |          |          |          |      |      |          | \$38,822    |
| 10C ADMIN BLDG      | \$6,920.1            | \$31,902.1  | 7        |          |          |          |          |          |           |           |          |          |          |          |          |          |          |          |          |          |      |      |          | \$38,822    |
| 11 PLANT 4          | \$10,264.5           | \$46,912.8  | 22       |          |          |          |          |          |           |           |          |          |          |          |          |          |          |          |          |          |      |      |          | \$57,177.1  |
| 12 STORAGE          | \$8,459.1            | \$31,680.1  | 20       |          |          |          |          |          |           |           |          |          |          |          |          |          |          |          |          |          |      |      |          | \$38,139    |
| 13 PLANT 1          | \$29,066.4           | \$129,770.1 | 54       |          |          |          |          |          |           |           |          |          |          |          |          |          |          |          |          |          |      |      |          | \$156,856.5 |
| 21a PADS            | \$376.5              | \$1,960.0   | 25       |          |          |          |          |          |           |           |          |          |          |          |          |          |          |          |          |          |      |      |          | \$2,338     |
| 21b PADS            | \$376.5              | \$1,960.0   | 3        |          |          |          |          |          |           |           |          |          |          |          |          |          |          |          |          |          |      |      |          | \$2,338     |
| 21c PADS            | \$376.5              | \$1,960.0   | 22       |          |          |          |          |          |           |           |          |          |          |          |          |          |          |          |          |          |      |      |          | \$2,338     |
| 21d PADS            | \$376.5              | \$1,960.0   | 25       |          |          |          |          |          |           |           |          |          |          |          |          |          |          |          |          |          |      |      |          | \$2,338     |
| 22B FOUNDATIONS     | \$7,995.3            | \$41,402.9  | 11       |          |          |          |          |          |           |           |          |          |          |          |          |          |          |          |          |          |      |      |          | \$49,399    |
| 22B FOUNDATIONS     | \$7,995.3            | \$41,402.9  | 25       |          |          |          |          |          |           |           |          |          |          |          |          |          |          |          |          |          |      |      |          | \$49,399    |
| 23B UTILITIES       | \$1,422.6            | \$7,366.4   | 8        |          |          |          |          |          |           |           |          |          |          |          |          |          |          |          |          |          |      |      |          | \$8,789     |
| 23B UTILITIES       | \$1,422.6            | \$7,366.4   | 25       |          |          |          |          |          |           |           |          |          |          |          |          |          |          |          |          |          |      |      |          | \$8,789     |
| 23C UTILITIES       | \$1,422.6            | \$7,366.4   | 24       |          |          |          |          |          |           |           |          |          |          |          |          |          |          |          |          |          |      |      |          | \$8,789     |
| 24 ROADS,R/R,LOTS   | \$2,036.8            | \$9,684.2   | 5        |          |          |          |          |          |           |           |          |          |          |          |          |          |          |          |          |          |      |      |          | \$11,703    |
| 25 IMPOUNDMENTS     |                      |             | 5        |          |          |          |          |          |           |           |          |          |          |          |          |          |          |          |          |          |      |      |          | \$11,703    |
| MISC                | \$45,963.3           | \$98,156.2  | 205      | 3,458    | 6,547    | 7,111    | 6,596    | 1,723    | 21,604    | 30,229    | 4,924    | 4,853    | 8,791    | 3,417    | 5,262    | 8,314    | 9,082    | 7,575    | 2,461    | 9,616    |      |      |          | \$143,520   |
| CSP                 | \$16,729.3           | \$16,718.0  |          | 4,855    | 8,710    | 8,710    |          |          |           |           |          |          |          |          |          |          |          |          |          |          |      |      |          | \$33,444    |
| TOTAL               | \$221,927.0          | \$853,733.3 |          | \$29,454 | \$56,250 | \$60,351 | \$62,421 | \$12,510 | \$156,686 | \$219,522 | \$35,759 | \$35,238 | \$67,292 | \$28,702 | \$42,101 | \$60,373 | \$65,950 | \$55,009 | \$18,015 | \$69,629 |      |      |          | \$1,076,660 |

QUESTONAL AND/OR BLIP (CFY, WK) 13,119  
 CFY ADJUSTMENT: \$1,094,000  
 MYP1 ESTIMATE

- 5440

Q3 PROPOSED PLAN - SUPPORT FOR LIFE CYCLE COST ANALYSIS - ALL 3

FORECAST OF 'D' & 'D' FOR PLANTS / BUILDINGS

| PACKAGB DESCRIPTION | (DOLLARS IN THOUSANDS) |             | # MONTHS | FY    |       |       |       |      |         |          |          |          |         |          |          | TOTAL   |         |          |         |         |          |          |          |           |
|---------------------|------------------------|-------------|----------|-------|-------|-------|-------|------|---------|----------|----------|----------|---------|----------|----------|---------|---------|----------|---------|---------|----------|----------|----------|-----------|
|                     | DIRECTS                | INDIRECTS   |          | FY96  | FY97  | FY98  | FY99  | FY00 | FY01    | FY02     | FY03     | FY04     | FY05    | FY06     | FY07     |         | FY08    | FY09     | FY10    | FY11    | FY12     | FY13     |          |           |
| 1 PLANT 4           | \$9,835.0              | \$40,863.6  | 21       | 4,129 | 5,508 | 2,045 | 1,704 |      |         |          |          |          |         |          |          |         |         |          |         |         |          | \$9,835  |          |           |
| 2 PLANT 3           | \$3,919.9              | \$17,507.4  | 23       |       | 170   |       |       |      |         |          |          |          |         |          |          |         |         |          |         |         |          |          | \$3,920  |           |
| 3 PLANT 2/3         | \$9,503.2              | \$42,340.6  | 20       |       |       | 2,851 | 5,702 | 950  |         |          |          |          |         |          |          |         |         |          |         |         |          |          | \$9,503  |           |
| 4 PILOT PLANT       | \$6,739.3              | \$32,478.9  | 42       |       | 1,926 | 1,926 | 1,926 | 863  |         |          |          |          |         |          |          |         |         |          |         |         |          |          | \$6,739  |           |
| 5 PLANT 3           | \$12,659.5             | \$54,281.8  | 18       |       |       |       |       |      | 7,121   | 5,539    |          |          |         |          |          |         |         |          |         |         |          |          | \$12,660 |           |
| 6 PLANT 6           | \$11,210.5             | \$51,043.9  | 4        |       |       |       |       |      |         |          |          |          |         |          |          |         |         |          |         |         |          |          | \$11,211 |           |
| 7 PLANT 9           | \$4,345.2              | \$20,293.9  | 4        |       |       |       |       |      |         |          |          |          |         |          |          |         |         |          |         |         |          |          | \$4,345  |           |
| 8 BOILER PLANT      | \$9,008.2              | \$40,915.0  | 28       |       |       |       |       |      |         |          |          |          |         |          |          |         |         |          |         |         |          |          | \$9,008  |           |
| 9 MAINT AREA        | \$2,433.7              | \$12,655.7  | 10       |       |       |       |       |      | 4,371   | 2,549    |          |          |         |          |          |         |         |          |         |         |          |          | \$2,434  |           |
| 10a ADMIN BLDG      | \$6,920.1              | \$31,802.1  | 19       |       |       |       |       |      |         |          |          |          |         |          |          |         |         |          |         |         |          |          | \$6,920  |           |
| 10b ADMIN BLDG      | \$6,920.1              | \$31,802.1  | 7        |       |       |       |       |      |         |          |          |          |         |          |          |         |         |          |         |         |          |          | \$6,920  |           |
| 10c ADMIN BLDG      | \$6,920.1              | \$31,802.1  | 22       |       |       |       |       |      |         |          |          |          |         |          |          |         |         |          |         |         |          |          | \$6,920  |           |
| 11 PLANT 8          | \$10,264.5             | \$46,912.6  | 20       |       |       |       |       |      |         |          |          |          |         |          |          |         |         |          |         |         |          |          | \$10,264 |           |
| 12 STORAGE          | \$6,459.1              | \$31,680.1  | 54       |       |       |       |       |      |         |          |          |          |         |          |          |         |         |          |         |         |          |          | \$6,459  |           |
| 13 PLANT 1          | \$29,088.4             | \$129,770.1 | 5        |       |       |       |       |      | 10,471  | 13,961   | 4,854    |          |         |          |          |         |         |          |         |         |          |          | \$29,088 |           |
| 21a PADS            | \$378.5                | \$1,960.0   | 25       |       |       |       |       |      | 378     | 103      | 206      | 69       |         |          |          |         |         |          |         |         |          |          | \$378    |           |
| 21b PADS            | \$378.5                | \$1,960.0   | 22       |       |       |       |       |      |         |          |          |          |         |          |          |         |         |          |         |         |          |          | \$378    |           |
| 21c PADS            | \$378.5                | \$1,960.0   | 25       |       |       |       |       |      |         |          |          |          |         |          |          |         |         |          |         |         |          |          | \$378    |           |
| 22a FOUNDATIONS     | \$7,996.3              | \$41,402.9  | 25       |       |       |       |       |      |         |          |          |          |         |          |          |         |         |          |         |         |          |          | \$7,996  |           |
| 22b FOUNDATIONS     | \$7,996.3              | \$41,402.9  | 11       |       |       |       |       |      |         |          |          |          |         |          |          |         |         |          |         |         |          |          | \$7,996  |           |
| 23a UTILITIES       | \$1,422.6              | \$7,366.4   | 8        |       |       | 1,087 | 356   |      |         |          |          |          |         |          |          |         |         |          |         |         |          |          | \$1,423  |           |
| 23b UTILITIES       | \$1,422.6              | \$7,366.4   | 25       |       |       |       |       |      | 683     | 683      | 57       |          |         |          |          |         |         |          |         |         |          |          | \$1,423  |           |
| 23c UTILITIES       | \$1,422.6              | \$7,366.4   | 24       |       |       |       |       |      |         |          |          |          |         |          |          |         |         |          |         |         |          |          | \$1,423  |           |
| 24 ROADS/R/LOTS     | \$2,038.6              | \$9,664.2   | 5        |       |       |       |       |      | 1,931   | 408      |          |          |         |          |          |         |         |          |         |         |          |          | \$2,039  |           |
| 25 IMPROVEMENTS     | \$45,363.3             | \$98,156.2  | 205      |       |       |       |       |      | 1,092   | 2,069    | 2,248    | 2,717    | 544     | 6,929    | 9,555    | 1,556   | 1,534   | 2,760    | 1,080   | 1,683   | 2,628    | 2,871    | 2,384    | \$45,363  |
| MISC                | \$16,726.3             | \$16,716.0  |          |       |       |       |       |      | 2,269   | 4,579    |          |          |         |          |          |         |         |          |         |         |          |          |          | \$16,726  |
| CSP                 | \$221,927.0            | \$853,733.3 |          |       |       |       |       |      | \$7,511 | \$14,248 | \$14,715 | \$12,404 | \$2,458 | \$31,483 | \$44,009 | \$7,142 | \$6,911 | \$14,312 | \$6,701 | \$9,068 | \$11,692 | \$12,464 | \$10,483 | \$221,927 |
|                     |                        |             |          |       |       |       |       |      |         |          |          |          |         |          |          |         |         |          |         |         |          |          |          | \$129,118 |
|                     |                        |             |          |       |       |       |       |      |         |          |          |          |         |          |          |         |         |          |         |         |          |          |          | \$129,118 |

| PACKAGB DESCRIPTION | (DOLLARS IN THOUSANDS) |             | # MONTHS | FY     |        |        |        |       |          |          |          |          |          |           |           | TOTAL    |          |          |          |          |          |          |          |           |
|---------------------|------------------------|-------------|----------|--------|--------|--------|--------|-------|----------|----------|----------|----------|----------|-----------|-----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|
|                     | DIRECTS                | INDIRECTS   |          | FY96   | FY97   | FY98   | FY99   | FY00  | FY01     | FY02     | FY03     | FY04     | FY05     | FY06      | FY07      |          | FY08     | FY09     | FY10     | FY11     | FY12     | FY13     |          |           |
| 1 PLANT 4           | \$9,835.0              | \$40,863.6  | 21       | 17,513 | 23,351 | 9,134  | 7,612  |       |          |          |          |          |          |           |           |          |          |          |          |          |          |          | \$40,864 |           |
| 2 PLANT 3           | \$3,919.9              | \$17,507.4  | 23       |        | 761    |        |        |       |          |          |          |          |          |           |           |          |          |          |          |          |          |          |          | \$17,507  |
| 3 PLANT 2/3         | \$9,503.2              | \$42,340.6  | 20       |        |        | 12,702 | 25,404 | 4,234 |          |          |          |          |          |           |           |          |          |          |          |          |          |          |          | \$42,341  |
| 4 PILOT PLANT       | \$6,739.3              | \$32,478.9  | 42       |        | 9,280  | 9,280  | 9,280  | 4,640 |          |          |          |          |          |           |           |          |          |          |          |          |          |          |          | \$6,739   |
| 5 PLANT 3           | \$12,659.5             | \$54,281.8  | 18       |        |        |        |        |       | 30,534   | 23,748   |          |          |          |           |           |          |          |          |          |          |          |          |          | \$12,660  |
| 6 PLANT 6           | \$11,210.5             | \$51,043.9  | 4        |        |        |        |        |       |          |          |          |          |          |           |           |          |          |          |          |          |          |          |          | \$11,211  |
| 7 PLANT 9           | \$4,345.2              | \$20,293.9  | 4        |        |        |        |        |       |          |          |          |          |          |           |           |          |          |          |          |          |          |          |          | \$4,345   |
| 8 BOILER PLANT      | \$9,008.2              | \$40,915.0  | 28       |        |        |        |        |       |          |          |          |          |          |           |           |          |          |          |          |          |          |          |          | \$9,008   |
| 9 MAINT AREA        | \$2,433.7              | \$12,655.7  | 10       |        |        |        |        |       |          |          |          |          |          |           |           |          |          |          |          |          |          |          |          | \$2,434   |
| 10a ADMIN BLDG      | \$6,920.1              | \$31,802.1  | 19       |        |        |        |        |       |          |          |          |          |          |           |           |          |          |          |          |          |          |          |          | \$6,920   |
| 10b ADMIN BLDG      | \$6,920.1              | \$31,802.1  | 7        |        |        |        |        |       |          |          |          |          |          |           |           |          |          |          |          |          |          |          |          | \$6,920   |
| 10c ADMIN BLDG      | \$6,920.1              | \$31,802.1  | 22       |        |        |        |        |       |          |          |          |          |          |           |           |          |          |          |          |          |          |          |          | \$6,920   |
| 11 PLANT 8          | \$10,264.5             | \$46,912.6  | 20       |        |        |        |        |       |          |          |          |          |          |           |           |          |          |          |          |          |          |          |          | \$10,264  |
| 12 STORAGE          | \$6,459.1              | \$31,680.1  | 54       |        |        |        |        |       |          |          |          |          |          |           |           |          |          |          |          |          |          |          |          | \$6,459   |
| 13 PLANT 1          | \$29,088.4             | \$129,770.1 | 5        |        |        |        |        |       | 46,717   | 62,280   | 20,763   |          |          |           |           |          |          |          |          |          |          |          |          | \$29,088  |
| 21a PADS            | \$378.5                | \$1,960.0   | 25       |        |        |        |        |       | 1,960    | 535      | 1,069    | 356      |          |           |           |          |          |          |          |          |          |          |          | \$378     |
| 21b PADS            | \$378.5                | \$1,960.0   | 22       |        |        |        |        |       |          |          |          |          |          |           |           |          |          |          |          |          |          |          |          | \$378     |
| 21c PADS            | \$378.5                | \$1,960.0   | 25       |        |        |        |        |       |          |          |          |          |          |           |           |          |          |          |          |          |          |          |          | \$378     |
| 22a FOUNDATIONS     | \$7,996.3              | \$41,402.9  | 25       |        |        |        |        |       |          |          |          |          |          |           |           |          |          |          |          |          |          |          |          | \$7,996   |
| 22b FOUNDATIONS     | \$7,996.3              | \$41,402.9  | 11       |        |        |        |        |       |          |          |          |          |          |           |           |          |          |          |          |          |          |          |          | \$7,996   |
| 23a UTILITIES       | \$1,422.6              | \$7,366.4   | 8        |        |        | 5,525  | 1,842  |       |          |          |          |          |          |           |           |          |          |          |          |          |          |          |          | \$1,423   |
| 23b UTILITIES       | \$1,422.6              | \$7,366.4   | 25       |        |        |        |        |       | 3,536    | 3,536    | 295      |          |          |           |           |          |          |          |          |          |          |          |          | \$1,423   |
| 23c UTILITIES       | \$1,422.6              | \$7,366.4   | 24       |        |        |        |        |       |          |          |          |          |          |           |           |          |          |          |          |          |          |          |          | \$1,423   |
| 24 ROADS/R/LOTS     | \$2,038.6              | \$9,664.2   | 5        |        |        |        |        |       | 7,731    | 1,933    |          |          |          |           |           |          |          |          |          |          |          |          |          | \$2,039   |
| 25 IMPROVEMENTS     | \$45,363.3             | \$98,156.2  | 205      |        |        |        |        |       | 2,864    | 4,477    | 4,664    | 5,679    | 1,178    | 14,776    | 20,675    | 3,668    | 3,319    | 5,971    | 2,337    | 3,599    | 5,666    | 6,211    | 5,181    | \$45,363  |
| MISC                | \$16,726.3             | \$16,716.0  |          |        |        |        |        |       | 2,066    | 4,132    |          |          |          |           |           |          |          |          |          |          |          |          |          | \$16,716  |
| CSP                 | \$221,927.0            | \$853,733.3 |          |        |        |        |        |       | \$21,843 | \$42,001 | \$45,636 | \$50,019 | \$10,052 | \$125,402 | \$175,513 | \$29,617 | \$28,327 | \$52,960 | \$22,001 | \$33,055 | \$46,661 | \$53,466 | \$44,526 | \$853,733 |
|                     |                        |             |          |        |        |        |        |       |          |          |          |          |          |           |           |          |          |          |          |          |          |          |          | \$129,118 |
|                     |                        |             |          |        |        |        |        |       |          |          |          |          |          |           |           |          |          |          |          |          |          |          |          | \$129,118 |

QUESTIONS AND/OR COMMENTS

**OU3 PROPOSED PLAN  
SUPPORTING ESTIMATES AND  
DOCUMENTATION**

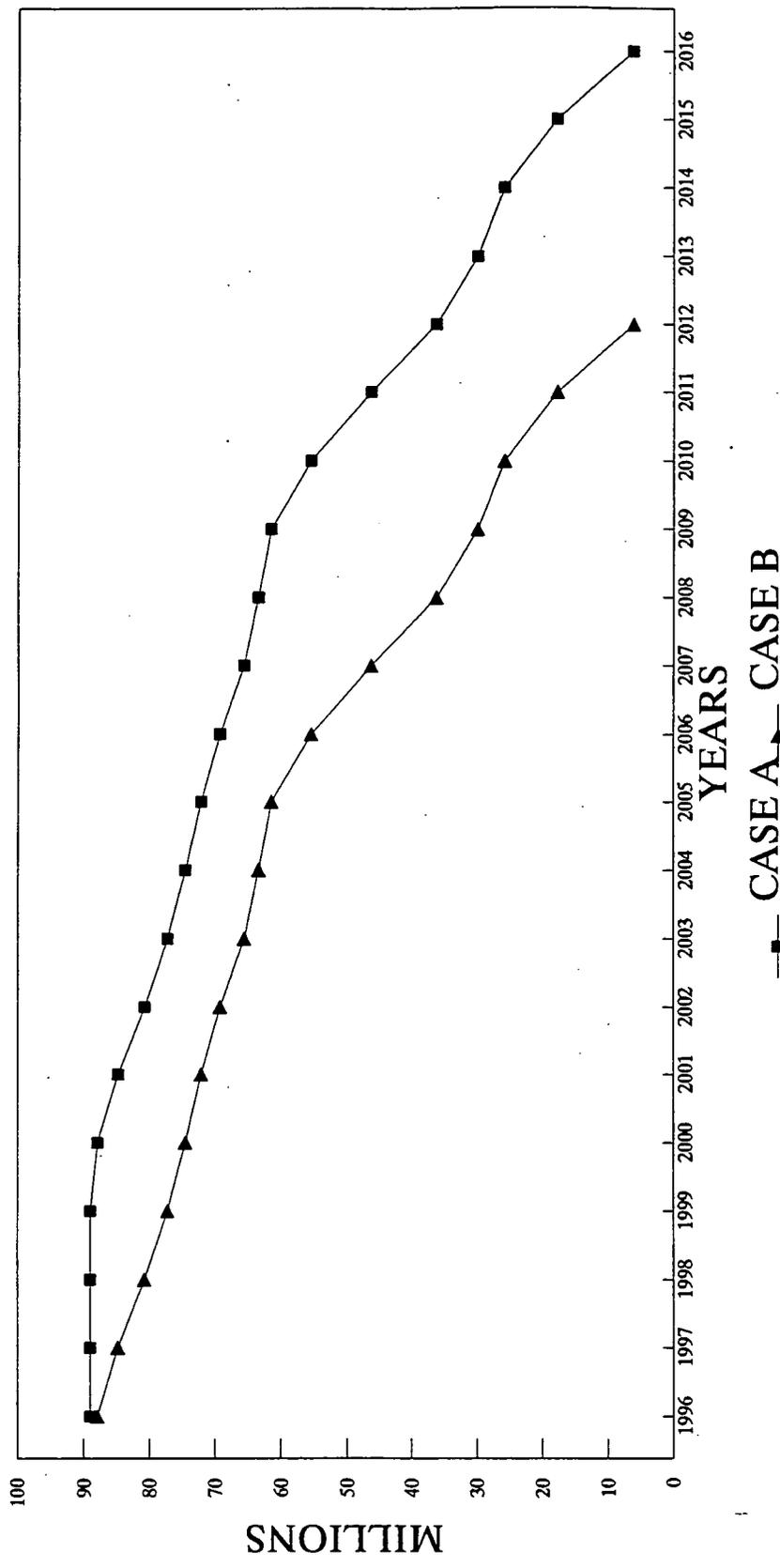
SCHEDULE OF START AND END DATES

- 5440

| <u>PACKAGE</u> | <u>START DATE</u> | <u>END DATE</u> |
|----------------|-------------------|-----------------|
| 1              | 01-Jan-96         | 30-Sep-97       |
| 2              | 01-Sep-97         | 30-Jul-99       |
| 3              | 01-Apr-98         | 30-Nov-99       |
| 4              | 01-Oct-96         | 30-Mar-2000     |
| 5              | 01-Jan-2001       | 30-Apr-2002     |
| 6              | 01-Apr-2002       | 30-Jul-2002     |
| 7              | 01-Aug-2003       | 30-Aug-2004     |
| 8              | 01-Aug-2004       | 30-Nov-2006     |
| 9              | 01-Nov-2006       | 30-Aug-2007     |
| 10             | 01-Oct-2000       | 30-Apr-2002     |
| 10             | 01-Sep-2004       | 30-Mar-2005     |
| 10             | 01-Apr-2009       | 30-Jan-2011     |
| 11             | 01-May-2007       | 30-Dec-2008     |
| 12             | 01-Apr-2008       | 30-Oct-2012     |
| 13             | 01-Jan-2001       | 30-Jan-2003     |
| 21             | 01-Oct-2000       | 30-Dec-2000     |
| 21             | 01-Apr-2002       | 30-Jan-2004     |
| 21             | 01-Apr-2008       | 30-Apr-2010     |
| 21             | 01-Nov-2011       | 30-Jan-2013     |
| 22             | 01-Apr-2008       | 30-Apr-2010     |
| 22             | 01-Nov-2011       | 30-Jan-2013     |
| 23             | 01-Apr-98         | 30-Nov-98       |
| 23             | 01-Oct-2000       | 30-Oct-2002     |
| 23             | 01-Jul-2008       | 30-Jun-2010     |
| 24             | 01-Jun-2001       | 30-Oct-2001     |
| 25             | 01-Jun-2010       | 30-Oct-2010     |
| MISC           | 01-Jan-96         | 30-Oct-2012     |

LANDLORD COST FORECAST  
(\$'s in Thousands)

| FX                 | 97          | 98     | 99     | 00        | 01     | 02     | 03     | 04     | 05     | 06     | 07     | 08     | 09     | 10     | 11     | 12     | 13     | 14     | 15     | 16    | 17 |
|--------------------|-------------|--------|--------|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|----|
| CASE A - ALT 1 & 2 | 89,000      | 89,000 | 89,000 | 87,909    | 84,732 | 80,784 | 77,174 | 74,464 | 72,107 | 69,245 | 65,625 | 63,453 | 61,487 | 55,422 | 48,259 | 38,190 | 29,683 | 25,635 | 17,709 | 6,174 |    |
| CASE B - ALT 3     | 87,809      | 84,732 | 80,784 | 77,174    | 74,464 | 72,107 | 69,245 | 65,625 | 61,487 | 55,422 | 48,259 | 38,190 | 29,683 | 25,635 | 17,709 | 6,174  |        |        |        |       |    |
| TOTAL              | 89,000      | 89,000 | 89,000 | 87,909    | 84,732 | 80,784 | 77,174 | 74,464 | 72,107 | 69,245 | 65,625 | 63,453 | 61,487 | 55,422 | 48,259 | 38,190 | 29,683 | 25,635 | 17,709 | 6,174 |    |
|                    | \$1,310,472 |        |        | \$934,472 |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |    |



NOTES: 1) CASE A (ALT 1 & 2) LANDLORD COST (LLC) FOR YEARS 1996 THROUGH 1999 WERE TAKEN FROM THE FOUR YEAR AVERAGE OF TARGET COSTS.  
 2) ALL FORECASTS OF LLC WERE DERIVED FROM THE PROVIDED TARGET COSTS REDUCED BY A PRO RATA SHARE OF ESTIMATED LLC. THE PRO RATA SHARE OF ESTIMATED LLC IS DIRECTLY PROPORTIONAL TO THE COST AND SCHEDULE OF PLANTS / BUILDINGS D&D.  
 3) CASE B (ALT 3) FORECAST OF LLC REFLECTS AN ACCELERATED SCHEDULE.

5440



ST FILE #:  
 CLIENT: US DOE  
 PROJECT TITLE:

SUMMARY SHEET  
 OU3 PROPOSED WORK PLAN

DATE: 05-Aug-93  
 ESTIMATOR: S.S., P.L. T.P. & A.S.  
 LOCATION: FERNALD  
 REV: 2

| DE  | ITEM DESCRIPTION   | M/H              | RATE     | LABOR \$             | S/C \$ | MAT'L \$             | TOTAL \$               |
|---|--|------------------|----------|----------------------|--------|----------------------|------------------------|
|   | SITE DEMO. (ROADS,RAILROADS,SIDEWALKS,PARKING LOTS,ETC.) | 860,365          | 16.51    | \$17,394,626         |        |                      | \$17,394,600           |
|   | CONCRETE   | 473,536          | 17.56    | \$8,315,252          |        |                      | \$8,315,300            |
|   | STRUCTURAL STEEL   | 280,417          | 18.80    | \$5,425,000          |        | \$3,395,900          | \$8,820,900            |
|   | BUILDINGS  | 1,273,979        | 17.64    | \$43,007,500         |        | \$27,581,200         | \$70,588,700           |
|   | MACHINERY AND EQUIPMENT                                  | 880,123          | 19.75    | \$17,380,300         |        |                      | \$17,380,300           |
|   | PIPING   | 259,770          | 19.00    | \$4,938,000          |        |                      | \$4,938,000            |
|   | ELECTRICAL   | 118,911          | 18.09    | \$2,151,200          |        |                      | \$2,151,200            |
|   | INSTRUMENTS  |                  |          |                      |        |                      |                        |
|   | PAINTING AND SCAFFOLD                                    | 55,220           | 16.43    | \$907,100            |        | \$131,400            | \$1,038,500            |
|   | INSULATION   | 1,421,053        | 18.53    | \$24,729,600         |        | \$17,164,500         | \$41,894,100           |
|   | SEALAND CONTAINERS                                       |                  |          |                      |        | \$56,207,100         | \$56,207,100           |
|   | HAUL SEALAND CONTAINERS                                  | 22,042           | 19.49    | \$429,599            |        |                      | \$429,700              |
| <b>DIRECT FIELD COSTS</b>                     |  | <b>5,645,415</b> |          | <b>\$124,678,133</b> |        | <b>\$104,480,100</b> | <b>\$229,158,452</b>   |
|   | SUPERVISION - CONTRACTOR                                 |                  |          | \$21,197,000         |        |                      | \$21,197,000           |
|   | TOOLS/CONSUMABLES  |                  |          |                      |        | \$7,480,800          | \$7,480,800            |
|   | EQUIPMENT RENTAL   |                  |          |                      |        | \$27,476,500         | \$27,476,500           |
|   | EMP. FACILITIES  |                  |          | \$2,618,300          |        | \$4,862,500          | \$7,480,800            |
|   | EMP UTIL'S HOOK-UP                                       |                  |          | \$1,309,400          |        | \$2,431,300          | \$3,740,700            |
|   | JOB CLEAN-UP   |                  |          | \$2,618,300          |        | \$4,862,500          | \$7,480,800            |
|   | SAFETY   |                  |          | \$1,309,400          |        | \$2,431,300          | \$3,740,700            |
|   | HEALTH PHYSICS   |                  |          | \$7,168,500          |        | \$139,230,156        | \$146,398,700          |
|   | PERCLA \$22,500 PER PERSON                               |                  |          |                      |        | \$4,234,300          | \$4,234,300            |
|   | OND  |                  |          |                      |        | \$2,291,600          | \$2,291,600            |
|   | OVERHEAD & PROFIT  |                  |          |                      |        | \$41,461,200         | \$41,461,200           |
|   | MISSION MODELING   |                  |          | \$359,300            |        | \$666,800            | \$1,026,100            |
|   | PAR/PSAR(SAFE RPT)                                       |                  |          | \$359,300            |        | \$666,800            | \$1,026,100            |
|   | DAYRL BRD.&BENFT.  |                  |          | \$84,041,200         |        |                      | \$84,041,200           |
|   | CONSTR MGMT  |                  |          | \$23,529,400         |        |                      | \$23,529,400           |
| <b>DIRECT FIELD COSTS</b>                     |  |                  |          | <b>\$144,510,100</b> |        | <b>\$238,095,800</b> | <b>\$382,605,900</b>   |
| <b>DIRECT &amp; INDIRECT FIELD COSTS</b>      |  |                  |          | <b>\$269,188,300</b> |        | <b>\$342,575,900</b> | <b>\$611,764,400</b>   |
|   | WATER/AIR  |                  |          | \$1,604,000          |        | \$2,979,100          | \$4,583,100            |
|   | SA (HO EXP)  |                  |          |                      |        |                      | \$6,117,800            |
|   | PROJ.MGMT-FERMCO   |                  |          |                      |        |                      | \$48,941,300           |
|   | ENGINEERING  | TITLE I          | TITLE II | TITLE III            |        |                      | \$224,356,300          |
| <b>ENGINEERING/FIELD SUPPORT/SUBCONTRACTS</b> |  |                  |          |                      |        |                      | <b>\$283,998,500</b>   |
| <b>TOTAL FIELD &amp; ENGINEERING COSTS</b>    |  |                  |          |                      |        |                      | <b>\$895,762,900</b>   |
|   | SALES TAX 90.0%  | \$342,575,900    |          |                      |        |                      | \$20,554,500           |
| <b>SUB-TOTAL</b>                              |  |                  |          |                      |        |                      | <b>\$916,317,400</b>   |
| <b>INFLATION</b>                              |  |                  |          |                      |        |                      | <b>\$916,317,400</b>   |
| <b>SUB-TOTAL</b>                              |  |                  |          |                      |        |                      | <b>\$916,317,400</b>   |
|   | CONTINGENCY 290.0%                                       |                  |          |                      |        |                      | \$178,482,700          |
| <b>TOTAL ESTIMATED INSTALLED COST</b>         |  |                  |          |                      |        |                      | <b>\$1,094,800,100</b> |

**PRELIMINARY**

114

ITEM: LANDLORD COSTS  
 ADJUSTED TOTAL:

\$954,472.00  
**\$2,049,272,100**


  
**ESTIMATING SERVICES**  
**SUMMARY SHEET**  
**D&D PACKAGE #1**

FILE #:  
 AGENT: US DOE  
 PROJECT TITLE:

DATE: 05-Aug-93  
 ESTIMATOR: S.S., P.L. T.P. & A.S.  
 LOCATION: FERNALD  
 REV: 2

| ITEM DESCRIPTION                                   | M/H            | RATE     | LABOR \$            | SC \$     | MATL \$             | TOTAL \$            |
|--|----------------|----------|---------------------|-----------|---------------------|---------------------|
| EXCAVATION   |                |          |                     |           |                     |                     |
| CONCRETE   |                |          |                     |           |                     |                     |
| STRUCTURAL STEEL                                   | 45,057         | 18.80    | \$931,800           |           | \$566,000           | \$1,497,800         |
| BUILDINGS  | 53,039         | 17.64    | \$935,700           |           |                     | \$935,700           |
| MACHINERY AND EQUIPMENT                            | 112,070        | 19.75    | \$2,213,400         |           |                     | \$2,213,400         |
| PIPING   | 9,905          | 19.00    | \$188,200           |           |                     | \$188,200           |
| ELECTRICAL   | 6,626          | 18.09    | \$119,900           |           |                     | \$119,900           |
| INSTRUMENTS  |                |          |                     |           |                     |                     |
| PAINTING AND SCAFFOLD                              | 6,149          | 16.43    | \$101,000           |           | \$14,600            | \$115,600           |
| INSULATION   | 55,163         | 18.53    | \$962,200           |           | \$642,100           | \$1,604,300         |
| SEALAND CONTAINERS (20'x8'x8')(\$5,100 EA)(576 EA) |                |          |                     |           | \$2,937,600         | \$2,937,600         |
| HAUL SEALAND CONTAINERS (4 MILE ROUND TRIP)        | 1,152          | 19.49    | \$22,452            |           |                     | \$22,500            |
| <b>DIRECT FIELD COSTS</b>                          | <b>289,162</b> |          | <b>\$5,474,652</b>  |           | <b>\$4,160,300</b>  | <b>\$9,634,952</b>  |
| PERMISSION - CONTRACTOR                            |                |          | \$931,000           |           |                     | \$931,000           |
| TOOLS/CONSUMABLES                                  |                |          |                     |           | \$328,500           | \$328,500           |
| EQUIPMENT RENTAL                                   |                |          |                     |           | \$1,526,600         | \$1,526,600         |
| TEMP. FACILITIES                                   |                |          | \$115,000           |           | \$213,500           | \$328,500           |
| TEMP UTIL'S HOOK-UP                                |                |          | \$57,500            |           | \$106,800           | \$164,300           |
| DEBRIS CLEAN-UP                                    |                |          | \$115,000           |           | \$213,500           | \$328,500           |
| SAFETY   |                |          | \$57,500            |           | \$106,800           | \$164,300           |
| HEALTH PHYSICS                                     |                |          | \$337,500           |           | \$7,229,042         | \$7,566,500         |
| PERMITS \$1,500 PER PERSON                         |                |          |                     |           | \$216,900           | \$216,900           |
| INDIRECT   |                |          |                     |           | \$96,300            | \$96,300            |
| OVERHEAD & PROFIT                                  |                |          |                     |           | \$1,915,800         | \$1,915,800         |
| MISSION MODELING                                   |                |          | \$16,900            |           | \$31,300            | \$48,200            |
| PERMITS/SAR(SAFE RPT)                              |                |          | \$16,900            |           | \$31,300            | \$48,200            |
| ANNUAL BRD.&BENFT.                                 |                |          | \$3,703,400         |           |                     | \$3,703,400         |
| CONSTRUCTION MGMT                                  |                |          | \$1,080,100         |           |                     | \$1,080,100         |
| <b>DIRECT FIELD COSTS</b>                          |                |          | <b>\$6,430,800</b>  |           | <b>\$12,016,300</b> | <b>\$18,447,100</b> |
| <b>DIRECT &amp; INDIRECT FIELD COSTS</b>           |                |          | <b>\$11,905,500</b> |           | <b>\$16,176,600</b> | <b>\$28,082,100</b> |
| WATER/AIR  |                |          | \$67,400            |           | \$125,300           | \$192,700           |
| LABOR (HO EXP)                                     |                |          |                     |           |                     | \$280,800           |
| CONSTRUCTION MGMT - FERMCO                         |                |          |                     |           |                     | \$2,246,600         |
| ENGINEERING  | TITLE I        | TITLE II |                     | TITLE III |                     | \$10,309,400        |
| <b>ENGINEERING/FIELD SUPPORT/SUBCONTRACTS</b>      |                |          |                     |           |                     | <b>\$13,029,500</b> |
| <b>TOTAL FIELD &amp; ENGINEERING COSTS</b>         |                |          |                     |           |                     | <b>\$41,111,600</b> |
| SALES TAX 6.0%                                     |                |          |                     |           |                     | \$970,600           |
| <b>SUB-TOTAL</b>                                   |                |          |                     |           |                     | <b>\$42,082,200</b> |
| CONTINGENCY  |                | 20.0%    |                     |           |                     | \$8,416,400         |
| <b>TOTAL ESTIMATED INSTALLED COST</b>              |                |          |                     |           |                     | <b>\$50,498,600</b> |

**PRELIMINARY**



FILE #:  
AGENT: US DOE  
OBJECT TITLE:

DATE: 05-Aug-93  
ESTIMATOR: S.S. P.L. T.P. & A.S.  
LOCATION: FERNALD  
REV: 2

| QTY   | ITEM DESCRIPTION                                    | M/H            | RATE     | LABOR \$           | SC \$     | MATL \$            | TOTAL \$            |
|---|---|----------------|----------|--------------------|-----------|--------------------|---------------------|
|   | EXCAVATION  |                |          |                    |           |                    |                     |
|   | CONCRETE  | 21,802         | 17.56    | \$382,839          |           |                    | \$382,800           |
|   | STRUCTURAL STEEL                                    | 7,143          | 18.80    | \$147,700          |           | \$566,000          | \$713,700           |
|   | BUILDINGS   | 21,243         | 17.64    | \$374,800          |           |                    | \$374,800           |
|   | MACHINERY AND EQUIPMENT                             | 14,654         | 19.75    | \$289,400          |           |                    | \$289,400           |
|   | PIPING  | 8,658          | 19.00    | \$164,200          |           |                    | \$164,200           |
|   | ELECTRICAL  | 2,180          | 18.09    | \$39,400           |           |                    | \$39,400            |
|   | INSTRUMENTS   |                |          |                    |           |                    |                     |
|   | PAINTING AND SCAFFOLD                               | 2,911          | 16.43    | \$47,800           |           | \$6,900            | \$54,700            |
|   | INSULATION  | 46,604         | 18.53    | \$811,300          |           | \$560,200          | \$1,371,500         |
|   | SEA/LAND CONTAINERS (20'x8'x8')(\$5,100 EA)(103 EA) |                |          |                    |           | \$525,300          | \$525,300           |
|   | HAUL SEA/LAND CONTAINERS (2 MILE ROUND TRIP)        | 206            | 19.49    | \$4,015            |           |                    | \$4,000             |
| <b>DIRECT FIELD COSTS</b>                                 |   | <b>125,402</b> |          | <b>\$2,261,454</b> |           | <b>\$1,658,400</b> | <b>\$3,919,900</b>  |
|   | SUPERVISION - CONTRACTOR                            |                |          | \$384,000          |           |                    | \$384,000           |
|   | TOOLS/CONSUMABLES                                   |                |          |                    |           | \$135,700          | \$135,700           |
|   | EQUIPMENT RENTAL                                    |                |          |                    |           | \$953,400          | \$953,400           |
|   | TEMP. FACILITIES                                    |                |          | \$47,500           |           | \$88,200           | \$135,700           |
|   | TEMP UTIL'S HOOK-UP                                 |                |          | \$23,700           |           | \$44,100           | \$67,800            |
|   | TEMP CLEAN-UP                                       |                |          | \$47,500           |           | \$88,200           | \$135,700           |
|   | SAFETY  |                |          | \$23,700           |           | \$44,100           | \$67,800            |
|   | SAFETY PHYSICS                                      |                |          | \$139,400          |           | \$3,135,046        | \$3,274,400         |
|   | PERMITS \$1,500 PER PERSON                          |                |          |                    |           | \$94,100           | \$94,100            |
|   | INDIRECT  |                |          |                    |           | \$39,200           | \$39,200            |
|   | OVERHEAD & PROFIT                                   |                |          |                    |           | \$828,700          | \$828,700           |
|   | MISSION MODELING                                    |                |          | \$6,900            |           | \$12,700           | \$19,600            |
|   | ENVIRONMENTAL/PSAR(SAFE RPT)                        |                |          | \$6,900            |           | \$12,700           | \$19,600            |
|   | ENVIRONMENTAL BRD.&BENFT.                           |                |          | \$1,529,300        |           |                    | \$1,529,300         |
|   | CONSTRUCTION MGMT                                   |                |          | \$464,200          |           |                    | \$464,200           |
| <b>DIRECT FIELD COSTS</b>                                 |   |                |          | <b>\$2,673,100</b> |           | <b>\$5,476,100</b> | <b>\$8,149,200</b>  |
| <b>DIRECT &amp; INDIRECT FIELD COSTS</b>                  |   |                |          | <b>\$4,934,600</b> |           | <b>\$7,134,500</b> | <b>\$12,069,100</b> |
|   | UTIL/WATER/AIR                                      |                |          | \$27,400           |           | \$51,000           | \$78,400            |
|   | EXHAUST (HO EXP)                                    |                |          |                    |           |                    | \$120,700           |
|   | CONSTRUCTION MGMT - FERMC                           |                |          |                    |           |                    | \$965,500           |
|   | ENGINEERING   | TITLE I        | TITLE II |                    | TITLE III |                    | \$4,194,300         |
|   | ENGINEERING/FIELD SUPPORT/SUBCONTRACTS              |                |          |                    |           |                    | \$5,358,900         |
| <b>TOTAL FIELD &amp; ENGINEERING COSTS</b>                |   |                |          |                    |           |                    | <b>\$17,428,000</b> |
|   | SALES TAX 6.0%                                      | \$7,134,500    |          |                    |           |                    | \$428,100           |
| <b>SUB-TOTAL</b>  |   |                |          |                    |           |                    | <b>\$17,856,100</b> |
|   | CONTINGENCY   |                | 20.0%    |                    |           |                    | \$3,571,200         |
| <b>TOTAL ESTIMATED INSTALLED COST (FPSC bid w/cont.-)</b> |   |                |          |                    |           |                    | <b>\$21,427,300</b> |

**PRELIMINARY**

  
**ERMCO**  
 ESTIMATING SERVICES  
**SUMMARY SHEET**  
**D&D PACKAGE #3**

FILE #:  
 AGENT: US DOE  
 OBJECT TITLE:

DATE: 05-Aug-93  
 ESTIMATOR: S.S., P.L., T.P. & A.S.  
 LOCATION: FERNALD  
 REV: 2

| ITEM DESCRIPTION                                    | M/H            | RATE            | LABOR \$            | S/C \$           | MAT'L \$            | TOTAL \$            |
|---|----------------|-----------------|---------------------|------------------|---------------------|---------------------|
| EXCAVATION  |                |                 |                     |                  |                     |                     |
| CONCRETE  | 26,995         | 17.56           | \$474,040           |                  |                     | \$474,000           |
| STRUCTURAL STEEL                                    | 22,548         | 18.80           | \$423,900           |                  | \$566,000           | \$989,900           |
| BUILDINGS   | 46,979         | 17.64           | \$828,700           |                  | \$700               | \$829,400           |
| MACHINERY AND EQUIPMENT                             | 78,111         | 19.75           | \$1,542,500         |                  |                     | \$1,542,500         |
| PIPING  | 19,669         | 19.00           | \$373,500           |                  |                     | \$373,500           |
| ELECTRICAL  | 7,334          | 18.09           | \$132,700           |                  |                     | \$132,700           |
| INSTRUMENTS   |                |                 |                     |                  |                     |                     |
| PAINTING AND SCAFFOLD                               | 6,100          | 16.43           | \$100,200           |                  | \$14,500.00         | \$114,700           |
| INSULATION  | 108,241        | 18.53           | \$1,886,800         |                  | \$1,273,700         | \$3,160,500         |
| SEA/LAND CONTAINERS (20'x8'x8')(\$5,100 EA)(367 EA) |                |                 |                     |                  | \$1,871,700         | \$1,871,700         |
| HAUL SEA/LAND CONTAINERS (4 MILE ROUND TRIP)        | 734            | 19.49           | \$14,306            |                  |                     | \$14,300            |
| <b>DIRECT FIELD COSTS</b>                           | <b>316,711</b> |                 | <b>\$5,776,646</b>  |                  | <b>\$3,726,600</b>  | <b>\$9,503,200</b>  |
| PERVISION - CONTRACTOR                              |                |                 | \$982,000           |                  |                     | \$982,000           |
| TOOLS/CONSM/BLS                                     |                |                 |                     |                  | \$346,600           | \$346,600           |
| EQUIPMENT RENTAL                                    |                |                 |                     |                  | \$1,623,000         | \$1,623,000         |
| EMP. FACILITIES                                     |                |                 | \$121,300           |                  | \$225,300           | \$346,600           |
| EMP UTIL'S HOOK-UP                                  |                |                 | \$60,700            |                  | \$112,600           | \$173,300           |
| EMP CLEAN-UP  |                |                 | \$121,300           |                  | \$225,300           | \$346,600           |
| SAFETY  |                |                 | \$60,700            |                  | \$112,600           | \$173,300           |
| RADIATION PHYSICS                                   |                |                 | \$356,100           |                  | \$7,917,776         | \$8,273,900         |
| PERMIT \$1,500 PER PERSON                           |                |                 |                     |                  | \$237,500           | \$237,500           |
| INDUSTRIAL  |                |                 |                     |                  | \$95,000            | \$95,000            |
| OVERHEAD & PROFIT                                   |                |                 |                     |                  | \$1,989,100         | \$1,989,100         |
| MISSION MODELING                                    |                |                 | \$16,600            |                  | \$30,900            | \$47,500            |
| HAZARDOUS WASTE (SAFE RPT)                          |                |                 | \$16,600            |                  | \$30,900            | \$47,500            |
| HAZARDOUS WASTE (SAFE RPT)                          |                |                 | \$3,906,200         |                  |                     | \$3,906,200         |
| HAZARDOUS WASTE (SAFE RPT)                          |                |                 | \$1,123,700         |                  |                     | \$1,123,700         |
| HAZARDOUS WASTE (SAFE RPT)                          |                |                 |                     |                  | \$12,946,600        | \$12,946,600        |
| <b>DIRECT FIELD COSTS</b>                           |                |                 | <b>\$6,765,200</b>  |                  | <b>\$12,946,600</b> | <b>\$19,711,800</b> |
| <b>DIRECT &amp; INDIRECT FIELD COSTS</b>            |                |                 | <b>\$12,541,800</b> |                  | <b>\$16,673,200</b> | <b>\$29,215,000</b> |
| UTIL/WATER/AIR                                      |                |                 | \$66,500            |                  | \$123,500           | \$190,000           |
| UTIL/WATER/AIR                                      |                |                 |                     |                  |                     | \$292,200           |
| UTIL/WATER/AIR                                      |                |                 |                     |                  |                     | \$2,337,200         |
| UTIL/WATER/AIR                                      |                |                 |                     |                  |                     | \$10,168,400        |
| <b>ENGINEERING</b>                                  | <b>TITLE I</b> | <b>TITLE II</b> |                     | <b>TITLE III</b> |                     | <b>\$12,987,800</b> |
| <b>ENGINEERING/FIELD SUPPORT/SUBCONTRACTS</b>       |                |                 |                     |                  |                     | <b>\$42,202,800</b> |
| <b>TOTAL FIELD &amp; ENGINEERING COSTS</b>          |                |                 |                     |                  |                     | <b>\$55,190,600</b> |
| SALES TAX 6.0%                                      |                | \$16,673,200    |                     |                  |                     | \$1,000,400         |
| <b>SUB-TOTAL</b>                                    |                |                 |                     |                  |                     | <b>\$43,203,200</b> |
| <b>ADJUSTMENT</b>                                   |                |                 |                     |                  |                     | <b>\$43,203,200</b> |
| <b>SUB-TOTAL</b>                                    |                |                 |                     |                  |                     | <b>\$8,640,600</b>  |
| <b>CONTINGENCY 20.0%</b>                            |                |                 |                     |                  |                     | <b>\$8,640,600</b>  |
| <b>TOTAL ESTIMATED INSTALLED COST</b>               |                |                 |                     |                  |                     | <b>\$51,843,800</b> |

**PRELIMINARY**

- 5446


  
**ESTIMATING SERVICES**  
**SUMMARY SHEET**  
**D&D PACKAGE #4**

FILE #:  
 CLIENT: US DOE  
 PROJECT TITLE:

DATE: 05-Aug-93  
 ESTIMATOR: S.S., P.L., T.P. & A.S.  
 LOCATION: FERNALD  
 REV: 2

| ITEM DESCRIPTION                                    | M/H            | RATE     | LABOR \$           | SC \$     | MAT'L \$            | TOTAL \$            |
|---|----------------|----------|--------------------|-----------|---------------------|---------------------|
| EXCAVATION  |                |          |                    |           |                     |                     |
| CONCRETE  | 33,941         | 17.56    | \$596,014          |           |                     | \$596,000           |
| STRUCTURAL STEEL                                    | 3,180          | 18.80    | \$59,800           |           |                     | \$59,800            |
| BUILDINGS   | 59,474         | 17.64    | \$1,049,200        |           | \$86,500            | \$1,135,700         |
| MACHINERY AND EQUIPMENT                             | 16,205         | 19.75    | \$319,600          |           |                     | \$319,600           |
| PIPING  | 22,167         | 19.00    | \$421,500          |           |                     | \$421,500           |
| ELECTRICAL  | 2,847          | 18.09    | \$51,500           |           |                     | \$51,500            |
| INSTRUMENTS   |                |          |                    |           |                     |                     |
| PAINTING AND SCAFFOLD                               | 1,220          | 16.43    | \$20,000           |           | \$2,900             | \$22,900            |
| INSULATION  | 117,730        | 18.53    | \$2,047,300        |           | \$1,437,500         | \$3,484,800         |
| SEA/LAND CONTAINERS (20'x8'x8')(\$5,100 EA)(126 EA) |                |          |                    |           | \$642,600           | \$642,600           |
| HAUL SEA/LAND CONTAINERS (4 MILE ROUND TRIP)        | 252            | 19.49    | \$4,911            |           |                     | \$4,900             |
| <b>PROJECT FIELD COSTS</b>                          | <b>257,015</b> |          | <b>\$4,569,825</b> |           | <b>\$2,169,500</b>  | <b>\$6,739,300</b>  |
| PROVISION - CONTRACTOR                              |                |          | \$777,000          |           |                     | \$777,000           |
| TOOLS/CONSUMABLES                                   |                |          |                    |           | \$274,200           | \$274,200           |
| EQUIPMENT RENTAL                                    |                |          |                    |           | \$1,414,100         | \$1,414,100         |
| TEMP. FACILITIES                                    |                |          | \$96,000           |           | \$178,200           | \$274,200           |
| TEMP. UTIL'S HOOK-UP                                |                |          | \$48,000           |           | \$89,100            | \$137,100           |
| DEBRIS CLEAN-UP                                     |                |          | \$96,000           |           | \$178,200           | \$274,200           |
| SAFETY  |                |          | \$48,000           |           | \$89,100            | \$137,100           |
| HEALTH PHYSICS                                      |                |          | \$281,700          |           | \$6,425,371         | \$6,707,100         |
| PERMITS \$1,500 PER PERSON                          |                |          |                    |           | \$192,800           | \$192,800           |
| GENERAL   |                |          |                    |           | \$67,400            | \$67,400            |
| OVERHEAD & PROFIT                                   |                |          |                    |           | \$1,529,500         | \$1,529,500         |
| MISSION MODELING                                    |                |          | \$11,800           |           | \$21,900            | \$33,700            |
| PERMITS/FSAR(SAFE RPT)                              |                |          | \$11,800           |           | \$21,900            | \$33,700            |
| PERMITS BRD.&BENFT.                                 |                |          | \$3,088,900        |           |                     | \$3,088,900         |
| CONSTRUCTION MGMT                                   |                |          | \$867,200          |           |                     | \$867,200           |
| <b>DIRECT FIELD COSTS</b>                           |                |          | <b>\$5,326,400</b> |           | <b>\$10,481,800</b> | <b>\$15,808,200</b> |
| <b>DIRECT &amp; INDIRECT FIELD COSTS</b>            |                |          | <b>\$9,896,200</b> |           | <b>\$12,651,300</b> | <b>\$22,547,500</b> |
| OIL/WATER/AIR                                       |                |          | \$47,200           |           | \$87,600            | \$134,800           |
| PERMITS (HO EXP)                                    |                |          |                    |           |                     | \$225,500           |
| CONSTRUCTION MGMT - FERMCO                          |                |          |                    |           |                     | \$1,803,800         |
| ENGINEERING   | TITLE I        | TITLE II |                    | TITLE III |                     | \$7,211,100         |
| ENGINEERING/FIELD SUPPORT/SUBCONTRACTS              |                |          |                    |           |                     | \$9,375,200         |
| <b>TOTAL FIELD &amp; ENGINEERING COSTS</b>          |                |          |                    |           |                     | <b>\$31,922,700</b> |
| SALES TAX 6.0%                                      |                |          | \$12,651,300       |           |                     | \$759,100           |
| <b>SUB-TOTAL</b>                                    |                |          |                    |           |                     | <b>\$32,681,800</b> |
| INFLATION   |                |          |                    |           |                     |                     |
| <b>SUB-TOTAL</b>                                    |                |          |                    |           |                     | <b>\$32,681,800</b> |
| CONTINGENCY 20.0%                                   |                |          |                    |           |                     | \$6,536,400         |
| <b>TOTAL ESTIMATED INSTALLED COST</b>               |                |          |                    |           |                     | <b>\$39,218,200</b> |

**PRELIMINARY**

  
**ESTIMATING SERVICES**  
**SUMMARY SHEET**  
**D&D PACKAGE #5**

**- 5448**      **PAGE 1**  
 DATE: 05-Aug-93  
 ESTIMATOR: S.S., P.L., T.P., & A.S.  
 LOCATION: FERNALD  
 REV: 2

FILE #:  
 NT: US DOE  
 ECT TITLE:

| E   | ITEM DESCRIPTION                                   | M/H            | RATE     | LABOR \$            | SC \$ | MAT'L \$            | TOTAL \$            |
|---|--|----------------|----------|---------------------|-------|---------------------|---------------------|
|   | EXCAVATION   |                |          |                     |       |                     |                     |
|   | CONCRETE   | 27,599         | 17.56    | \$484,680           |       |                     | \$484,700           |
|   | STRUCTURAL STEEL                                   | 52,689         | 18.80    | \$990,600           |       | \$1,131,900         | \$2,122,500         |
|   | BUILDINGS  | 86,876         | 17.64    | \$1,532,400         |       | \$18,000            | \$1,550,400         |
|   | MACHINERY AND EQUIPMENT                            | 122,357        | 19.75    | \$2,415,200         |       |                     | \$2,415,200         |
|   | PIPING   | 13,372         | 19.00    | \$254,400           |       |                     | \$254,400           |
|   | ELECTRICAL   | 8,890          | 18.09    | \$160,800           |       |                     | \$160,800           |
|   | INSTRUMENTS  |                |          |                     |       |                     |                     |
|   | PAINTING AND SCAFFOLD                              | 8,195          | 16.43    | \$134,600           |       | \$19,500            | \$154,100           |
|   | INSULATION   | 73,921         | 18.53    | \$1,288,800         |       | \$867,700           | \$2,156,500         |
|   | SEA/LAND CONTAINERS (20'x8'x8')(35,100 EA)(654 EA) |                |          |                     |       | \$3,335,400         | \$3,335,400         |
|   | HAUL SEA/LAND CONTAINERS (4 MILE ROUND TRIP)       | 1,308          | 19.49    | \$25,493            |       |                     | \$25,500            |
| <b>LECT FIELD COSTS</b>                                   |  | <b>395,206</b> |          | <b>\$7,286,973</b>  |       | <b>\$5,372,500</b>  | <b>\$12,659,500</b> |
|   | PERVISION - CONTRACTOR                             |                |          | \$1,239,000         |       |                     | \$1,239,000         |
|   | TOOLS/CONSM'BLS                                    |                |          |                     |       | \$437,200           | \$437,200           |
|   | EQUIPMENT RENTAL                                   |                |          |                     |       | \$1,897,700         | \$1,897,700         |
|   | MP. FACILITIES                                     |                |          | \$153,000           |       | \$284,200           | \$437,200           |
|   | MP UTIL'S HOOK-UP                                  |                |          | \$76,500            |       | \$142,100           | \$218,600           |
|   | B CLEAN-UP   |                |          | \$153,000           |       | \$284,200           | \$437,200           |
|   | UTILITY  |                |          | \$76,500            |       | \$142,100           | \$218,600           |
|   | HEALTH PHYSICS                                     |                |          | \$449,200           |       | \$9,880,154         | \$10,329,400        |
|   | TRCLA \$1,500 PER PERSON                           |                |          |                     |       | \$296,400           | \$296,400           |
|   | IND  |                |          |                     |       | \$126,600           | \$126,600           |
|   | OVERHEAD & PROFIT                                  |                |          |                     |       | \$2,546,800         | \$2,546,800         |
|   | MISSION MODELING                                   |                |          | \$22,200            |       | \$41,100            | \$63,300            |
|   | BAR/FSAR(SAFE RPT)                                 |                |          | \$22,200            |       | \$41,100            | \$63,300            |
|   | LYRL BRD.&BENFT.                                   |                |          | \$4,928,900         |       |                     | \$4,928,900         |
|   | ONSTR MGMT   |                |          | \$1,436,000         |       |                     | \$1,436,000         |
| <b>DIRECT FIELD COSTS</b>                                 |  |                |          | <b>\$8,556,500</b>  |       | <b>\$16,119,700</b> | <b>\$24,676,200</b> |
| <b>IRECT &amp; INDIRECT FIELD COSTS</b>                   |  |                |          | <b>\$15,843,500</b> |       | <b>\$21,492,200</b> | <b>\$37,335,700</b> |
|   | DL/WATER/AIR                                       |                |          | \$88,600            |       | \$164,600           | \$253,200           |
|   | &A (HO EXP)  |                |          |                     |       |                     | \$373,400           |
|   | ROJ.MGMT-FERMCO                                    |                |          |                     |       |                     | \$2,986,900         |
|   | ENGINEERING  | TITLE I        | TITLE II | TITLE III           |       |                     | \$13,545,700        |
|   | ENGINEERING/FIELD SUPPORT/SUBCONTRACTS             |                |          |                     |       |                     | \$17,159,200        |
| <b>TOTAL FIELD &amp; ENGINEERING COSTS</b>                |  |                |          |                     |       |                     | <b>\$54,494,900</b> |
|   | SALES TAX 6.0%                                     | \$21,492,200   |          |                     |       |                     | \$1,289,500         |
| <b>SUB-TOTAL</b>  |  |                |          |                     |       |                     | <b>\$55,784,400</b> |
| <b>SCALATION</b>  |  |                |          |                     |       |                     |                     |
| <b>SUB-TOTAL</b>  |  |                |          |                     |       |                     | <b>\$55,784,400</b> |
|   | CONTINGENCY 20.0%                                  |                |          |                     |       |                     | \$11,156,900        |
| <b>TOTAL ESTIMATED INSTALLED COST (FFSC bid w/cont.-)</b> |  |                |          |                     |       |                     | <b>\$66,941,300</b> |

PRELIMINARY


  
**ESTIMATING SERVICES**  
**SUMMARY SHEET**  
**D&D PACKAGE #6**

FILE #:   
 ENT: US DOE   
 PROJECT TITLE:

DATE: 05-Aug-93   
 ESTIMATOR: S.S., P.L., T.P., & A.S.   
 LOCATION: FERNALD   
 REV: 2

| ITEM DESCRIPTION                                    | M/H            | RATE     | LABOR \$            | S/C \$    | MAT'L \$            | TOTAL \$            |
|---|----------------|----------|---------------------|-----------|---------------------|---------------------|
| EXCAVATION  |                |          |                     |           |                     |                     |
| CONCRETE  |                |          |                     |           |                     |                     |
| STRUCTURAL STEEL                                    | 41,704         | 18.80    | \$784,000           |           |                     | \$784,000           |
| BUILDINGS   | 98,952         | 17.64    | \$1,745,500         |           |                     | \$1,745,500         |
| MACHINERY AND EQUIPMENT                             | 129,027        | 19.75    | \$2,548,300         |           |                     | \$2,548,300         |
| PIPING  | 15,126         | 19.00    | \$286,900           |           |                     | \$286,900           |
| ELECTRICAL  | 9,866          | 18.09    | \$178,500           |           |                     | \$178,500           |
| INSTRUMENTS   |                |          |                     |           |                     |                     |
| PAINTING AND SCAFFOLD                               | 11,901         | 16.43    | \$195,500           |           | \$28,300            | \$223,800           |
| INSULATION  | 80,883         | 18.53    | \$1,407,400         |           | \$978,400           | \$2,385,800         |
| SEA/LAND CONTAINERS (20'x8'x8")(\$5,100 EA)(595 EA) |                |          |                     |           | \$3,034,500         | \$3,034,500         |
| HAUL SEA/LAND CONTAINERS (4 MILE ROUND TRIP)        | 1,190          | 19.49    | \$23,193            |           |                     | \$23,200            |
| <b>DIRECT FIELD COSTS</b>                           | <b>388,649</b> |          | <b>\$7,169,293</b>  |           | <b>\$4,041,200</b>  | <b>\$11,210,500</b> |
| PERVISION - CONTRACTOR                              |                |          | \$1,219,000         |           |                     | \$1,219,000         |
| TOOLS/CONSUM'LS                                     |                |          |                     |           | \$430,200           | \$430,200           |
| EQUIPMENT RENTAL                                    |                |          |                     |           | \$1,874,800         | \$1,874,800         |
| MP. FACILITIES                                      |                |          | \$150,600           |           | \$279,600           | \$430,200           |
| MP UTIL'S HOOK-UP                                   |                |          | \$75,300            |           | \$139,800           | \$215,100           |
| WASTE CLEAN-UP                                      |                |          | \$150,600           |           | \$279,600           | \$430,200           |
| SAFETY  |                |          | \$75,300            |           | \$139,800           | \$215,100           |
| HEALTH PHYSICS                                      |                |          | \$442,000           |           | \$9,716,224         | \$10,158,200        |
| TRCLA \$1,500 PER PERSON                            |                |          |                     |           | \$291,500           | \$291,500           |
| OVERHEAD  |                |          |                     |           | \$112,100           | \$112,100           |
| OVERHEAD & PROFIT                                   |                |          |                     |           | \$2,392,800         | \$2,392,800         |
| MISSION MODELING                                    |                |          | \$19,600            |           | \$36,400            | \$56,000            |
| VAR/FSAR(SAFE RPT)                                  |                |          | \$19,600            |           | \$36,400            | \$56,000            |
| LYRL BRD.&BENFT.                                    |                |          | \$4,847,100         |           |                     | \$4,847,100         |
| CONSTR MGMT   |                |          | \$1,357,600         |           |                     | \$1,357,600         |
| <b>INDIRECT FIELD COSTS</b>                         |                |          | <b>\$8,356,700</b>  |           | <b>\$15,729,200</b> | <b>\$24,085,900</b> |
| <b>DIRECT &amp; INDIRECT FIELD COSTS</b>            |                |          | <b>\$15,526,000</b> |           | <b>\$19,770,400</b> | <b>\$35,296,400</b> |
| OIL/WATER/AIR & A (HO EXP)                          |                |          | \$78,500            |           | \$145,700           | \$224,200           |
| ROJ.MGMT-FERMCO                                     |                |          |                     |           |                     | \$353,000           |
| ENGINEERING   | TITLE I        | TITLE II |                     | TITLE III |                     | \$2,823,700         |
| ENGINEERING/FIELD SUPPORT/SUBCONTRACTS              |                |          |                     |           |                     | \$11,995,200        |
| <b>TOTAL FIELD &amp; ENGINEERING COSTS</b>          |                |          |                     |           |                     | <b>\$15,396,100</b> |
| <b>TOTAL FIELD &amp; ENGINEERING COSTS</b>          |                |          |                     |           |                     | <b>\$50,692,500</b> |
| SALES TAX 6.0%                                      |                |          | \$19,770,400        |           |                     | \$1,186,200         |
| <b>SUB-TOTAL</b>                                    |                |          |                     |           |                     | <b>\$51,878,700</b> |
| SCALATION   |                |          |                     |           |                     |                     |
| <b>SUB-TOTAL</b>                                    |                |          |                     |           |                     | <b>\$51,878,700</b> |
| CONTINGENCY 20.0%                                   |                |          |                     |           |                     | \$10,375,700        |
| <b>TOTAL ESTIMATED INSTALLED COST</b>               |                |          |                     |           |                     | <b>\$62,254,400</b> |

**PRELIMINARY**



ESTIMATING SERVICES  
SUMMARY SHEET  
D&D PACKAGE #7

FILE #:  
CLIENT: US DOE  
PROJECT TITLE:

DATE: 05-Aug-93  
ESTIMATOR: S.S., P.L., T.P. & A.S.  
LOCATION: FERNALD  
REV: 2

| QTY   | ITEM DESCRIPTION                                    | M/H            | RATE     | LABOR \$           | S/C \$    | MAT'L \$           | TOTAL \$            |
|---|---|----------------|----------|--------------------|-----------|--------------------|---------------------|
|   | EXCAVATION  |                |          |                    |           |                    |                     |
|   | CONCRETE  |                |          |                    |           |                    |                     |
|   | STRUCTURAL STEEL                                    | 13,192         | 18.80    | \$248,000          |           |                    | \$248,000           |
|   | BUILDINGS   | 54,997         | 17.64    | \$970,200          |           | \$58,900           | \$1,029,100         |
|   | MACHINERY AND EQUIPMENT                             | 52,372         | 19.75    | \$1,034,300        |           |                    | \$1,034,300         |
|   | PIPING  | 3,671          | 19.00    | \$70,400           |           |                    | \$70,400            |
|   | ELECTRICAL  | 3,564          | 18.09    | \$64,500           |           |                    | \$64,500            |
|   | INSTRUMENTS   |                |          |                    |           |                    |                     |
|   | PAINTING AND SCAFFOLD                               | 1,824          | 16.43    | \$30,000           |           | \$4,400            | \$34,400            |
|   | INSULATION  | 20,633         | 18.53    | \$359,900          |           | \$240,400          | \$600,300           |
|   | SEA/LAND CONTAINERS (20'x8'x8')(\$5,100 EA)(246 EA) |                |          |                    |           | \$1,254,600        | \$1,254,600         |
|   | HAUL SEA/LAND CONTAINERS (4 MILE ROUND TRIP)        | 492            | 19.49    | \$9,589            |           |                    | \$9,600             |
| <b>DIRECT FIELD COSTS</b>                                 |   | <b>150,744</b> |          | <b>\$2,786,889</b> |           | <b>\$1,558,300</b> | <b>\$4,345,200</b>  |
|   | SUPERVISION - CONTRACTOR                            |                |          | \$474,000          |           |                    | \$474,000           |
|   | TOOLS/CONSUM'LS                                     |                |          |                    |           | \$167,200          | \$167,200           |
|   | EQUIPMENT RENTAL                                    |                |          |                    |           | \$1,042,100        | \$1,042,100         |
|   | EMP. FACILITIES                                     |                |          | \$58,500           |           | \$108,700          | \$167,200           |
|   | EMP UTIL'S HOOK-UP                                  |                |          | \$29,300           |           | \$54,300           | \$83,600            |
|   | JOB CLEAN-UP  |                |          | \$58,500           |           | \$108,700          | \$167,200           |
|   | CITY  |                |          | \$29,300           |           | \$54,300           | \$83,600            |
|   | HEALTH PHYSICS                                      |                |          | \$171,800          |           | \$3,940,400        | \$3,940,400         |
|   | PERCLA \$1,500 PER PERSON                           |                |          |                    |           | \$113,100          | \$113,100           |
|   | BOND  |                |          |                    |           | \$43,500           | \$43,500            |
|   | OVERHEAD & PROFIT                                   |                |          |                    |           | \$956,400          | \$956,400           |
|   | EMISSION MODELING                                   |                |          | \$7,600            |           | \$14,100           | \$21,700            |
|   | FSAR/FSAR(SAFE RPT)                                 |                |          | \$7,600            |           | \$14,100           | \$21,700            |
|   | PAYRL BRD.&BENFT.                                   |                |          | \$1,884,200        |           |                    | \$1,884,200         |
|   | CONSTR MGMT   |                |          | \$540,400          |           |                    | \$540,400           |
| <b>INDIRECT FIELD COSTS</b>                               |   |                |          | <b>\$3,261,200</b> |           | <b>\$6,445,100</b> | <b>\$9,706,300</b>  |
| <b>DIRECT &amp; INDIRECT FIELD COSTS</b>                  |   |                |          | <b>\$6,048,100</b> |           | <b>\$8,003,400</b> | <b>\$14,051,500</b> |
|   | SOIL/WATER/AIR                                      |                |          | \$30,400           |           | \$56,500           | \$86,900            |
|   | G&A (HO EXP)  |                |          |                    |           |                    | \$140,500           |
|   | PROJ.MGMT-FERMCO                                    |                |          |                    |           |                    | \$1,124,100         |
|   | ENGINEERING   | TITLE I        | TITLE II |                    | TITLE III |                    | \$4,649,400         |
| <b>ENGINEERING/FIELD SUPPORT/SUBCONTRACTS</b>             |   |                |          |                    |           |                    | <b>\$6,000,900</b>  |
| <b>TOTAL FIELD &amp; ENGINEERING COSTS</b>                |   |                |          |                    |           |                    | <b>\$20,052,400</b> |
| SALES TAX 6.0%  |   | \$8,003,400    |          |                    |           |                    | \$480,200           |
| <b>SUB-TOTAL</b>  |   |                |          |                    |           |                    | <b>\$20,532,600</b> |
| <b>ESCALATION</b>   |   |                |          |                    |           |                    |                     |
| <b>SUB-TOTAL</b>  |   |                |          |                    |           |                    | <b>\$20,532,600</b> |
| CONTINGENCY 20.0%   |   |                |          |                    |           |                    | \$4,106,500         |
| <b>TOTAL ESTIMATED INSTALLED COST (FPSC bid w/cost.-)</b> |   |                |          |                    |           |                    | <b>\$24,639,100</b> |

**PRELIMINARY**


  
**ESTIMATING SERVICES**  
**SUMMARY SHEET**  
**D&D PACKAGE #8**

FILE #:  
 PROJECT: US DOE  
 PROJECT TITLE:

DATE: 05-Aug-93  
 ESTIMATOR: S.S., P.L., T.P. & A.S.  
 LOCATION: FERNALD  
 REV: 2

| ITEM DESCRIPTION                                    | M/H            | RATE     | LABOR \$            | SC \$     | MAT'L \$            | TOTAL \$            |
|---|----------------|----------|---------------------|-----------|---------------------|---------------------|
| EXCAVATION  |                |          |                     |           |                     |                     |
| CONCRETE  | 28,142         | 17.56    | \$494,155           |           |                     | \$494,200           |
| STRUCTURAL STEEL                                    | 14,952         | 18.80    | \$281,100           |           |                     | \$281,100           |
| BUILDINGS   | 30,413         | 17.64    | \$536,600           |           | \$11,000            | \$547,600           |
| MACHINERY AND EQUIPMENT                             | 136,683        | 19.75    | \$2,699,400         |           |                     | \$2,699,400         |
| PIPING  | 13,576         | 19.00    | \$258,700           |           |                     | \$258,700           |
| ELECTRICAL  | 8,287          | 18.09    | \$149,900           |           |                     | \$149,900           |
| INSTRUMENTS   |                |          |                     |           |                     |                     |
| PAINTING AND SCAFFOLD                               | 2,329          | 16.43    | \$38,300            |           | \$5,600             | \$43,900            |
| INSULATION  | 72,251         | 18.53    | \$1,256,400         |           | \$882,200           | \$2,138,600         |
| SEA/LAND CONTAINERS (20'x8'x8')(\$5,100 EA)(466 EA) |                |          |                     |           | \$2,376,600         | \$2,376,600         |
| HAUL SEA/LAND CONTAINERS (4 MILE ROUND TRIP)        | 932            | 19.49    | \$18,165            |           |                     | \$18,200            |
| <b>PROJECT FIELD COSTS</b>                          | <b>307,565</b> |          | <b>\$5,732,700</b>  |           | <b>\$3,275,400</b>  | <b>\$9,008,200</b>  |
| SUPERVISION - CONTRACTOR                            |                |          | \$975,000           |           |                     | \$975,000           |
| TOOLS/CONSUM'LS                                     |                |          |                     |           | \$344,000           | \$344,000           |
| EQUIPMENT RENTAL                                    |                |          |                     |           | \$1,591,000         | \$1,591,000         |
| TEMP. FACILITIES                                    |                |          | \$120,400           |           | \$223,600           | \$344,000           |
| TEMP. UTIL'S HOOK-UP                                |                |          | \$60,200            |           | \$111,800           | \$172,000           |
| DEBRIS CLEAN-UP                                     |                |          | \$120,400           |           | \$223,600           | \$344,000           |
| SAFETY  |                |          | \$60,200            |           | \$111,800           | \$172,000           |
| HEALTH-PHYSICS                                      |                |          | \$353,400           |           | \$7,689,137         | \$8,042,500         |
| PERMITS \$1,500 PER PERSON                          |                |          |                     |           | \$230,700           | \$230,700           |
| GENERAL   |                |          |                     |           | \$90,100            | \$90,100            |
| OVERHEAD & PROFIT                                   |                |          |                     |           | \$1,918,200         | \$1,918,200         |
| MISSION MODELING                                    |                |          | \$15,800            |           | \$29,300            | \$45,100            |
| ENVIRONMENTAL/PSAR(SAFE RPT)                        |                |          | \$15,800            |           | \$29,300            | \$45,100            |
| ANNUAL BRD.&BENFT.                                  |                |          | \$3,876,000         |           |                     | \$3,876,000         |
| CONSTRUCTION MGMT                                   |                |          | \$1,087,900         |           |                     | \$1,087,900         |
| <b>DIRECT FIELD COSTS</b>                           |                |          | <b>\$6,685,100</b>  |           | <b>\$12,592,500</b> | <b>\$19,277,600</b> |
| <b>DIRECT &amp; INDIRECT FIELD COSTS</b>            |                |          | <b>\$12,417,800</b> |           | <b>\$15,867,900</b> | <b>\$28,285,800</b> |
| PILE/WATER/AIR                                      |                |          | \$63,100            |           | \$117,100           | \$180,200           |
| PERMITS & A (HO EXP)                                |                |          |                     |           |                     | \$282,900           |
| PROJECT MGMT - FERMC                                |                |          |                     |           |                     | \$2,262,900         |
| ENGINEERING   | TITLE I        | TITLE II |                     | TITLE III |                     | \$9,638,800         |
| <b>ENGINEERING/FIELD SUPPORT/SUBCONTRACTS</b>       |                |          |                     |           |                     | <b>\$12,364,800</b> |
| <b>TOTAL FIELD &amp; ENGINEERING COSTS</b>          |                |          |                     |           |                     | <b>\$40,650,600</b> |
| SALES TAX 6.0%                                      |                |          |                     |           |                     | \$952,100           |
| <b>SUB-TOTAL</b>                                    |                |          |                     |           |                     | <b>\$41,602,700</b> |
| ESCALATION  |                |          |                     |           |                     |                     |
| <b>SUB-TOTAL</b>                                    |                |          |                     |           |                     | <b>\$41,602,700</b> |
| CONTINGENCY 20.0%                                   |                |          |                     |           |                     | \$8,320,500         |
| <b>TOTAL ESTIMATED INSTALLED COST</b>               |                |          |                     |           |                     | <b>\$49,923,200</b> |

**PRELIMINARY**

  
**ESTIMATING SERVICES**  
**SUMMARY SHEET**  
**D&D PACKAGE #9**

FILE #:   
 NT: US DOE   
 PROJECT TITLE:

DATE: 05-Aug-93   
 ESTIMATOR: S.S., P.L., T.P. & A.S.   
 LOCATION: FERNALD   
 REV: 2

| ITEM DESCRIPTION                                   | M/H           | RATE     | LABOR \$           | SC \$       | MATL \$            | TOTAL \$            |
|--|---------------|----------|--------------------|-------------|--------------------|---------------------|
| EXCAVATION   |               |          |                    |             |                    |                     |
| CONCRETE   | 4,227         | 17.56    | \$74,183           |             |                    | \$74,200            |
| STRUCTURAL STEEL                                   | 6,465         | 18.80    | \$121,500          |             |                    | \$121,500           |
| BUILDINGS  | 56,531        | 17.64    | \$997,300          |             | \$33,800           | \$1,031,100         |
| MACHINERY AND EQUIPMENT                            | 4,086         | 19.75    | \$80,700           |             |                    | \$80,700            |
| PIPING   | 2,608         | 19.00    | \$50,300           |             |                    | \$50,300            |
| ELECTRICAL   | 4,008         | 18.09    | \$72,500           |             |                    | \$72,500            |
| INSTRUMENTS  |               |          |                    |             |                    |                     |
| PAINTING AND SCAFFOLD                              | 6,354         | 16.43    | \$104,400          |             | \$15,100           | \$119,500           |
| INSULATION   | 14,066        | 18.53    | \$244,600          |             | \$171,700          | \$416,300           |
| SEA/LAND CONTAINERS (20'x8'x8")(\$5,100 EA)(91 EA) |               |          |                    |             | \$464,100          | \$464,100           |
| HAUL SEA/LAND CONTAINERS (4 MILE ROUND TRIP)       | 182           | 19.49    | \$3,547            |             |                    | \$3,500             |
| <b>RECT FIELD COSTS</b>                            | <b>98,527</b> |          | <b>\$1,749,000</b> |             | <b>\$684,700</b>   | <b>\$2,433,700</b>  |
| SUPERVISION - CONTRACTOR                           |               |          | \$297,000          |             |                    | \$297,000           |
| TOOLS/CONSUMABLES                                  |               |          |                    | \$104,900   |                    | \$104,900           |
| EQUIPMENT RENTAL                                   |               |          |                    | \$859,300   |                    | \$859,300           |
| OFFICE FACILITIES                                  |               |          | \$36,700           | \$68,200    |                    | \$104,900           |
| OFFICE UTILS HOOK-UP                               |               |          | \$18,400           | \$34,100    |                    | \$52,500            |
| CLEAN-UP   |               |          | \$36,700           | \$68,200    |                    | \$104,900           |
| SAFETY   |               |          | \$18,400           | \$34,100    |                    | \$52,500            |
| HEALTH PHYSICS                                     |               |          | \$107,800          | \$2,463,187 |                    | \$2,571,000         |
| OSHA \$1,500 PER PERSON                            |               |          |                    | \$73,900    |                    | \$73,900            |
| OVERHEAD   |               |          |                    | \$24,300    |                    | \$24,300            |
| OVERHEAD & PROFIT                                  |               |          |                    | \$601,100   |                    | \$601,100           |
| MISSION MODELING                                   |               |          | \$4,300            | \$7,900     |                    | \$12,200            |
| ENVIRONMENTAL/PSAR(SAFE RPT)                       |               |          | \$4,300            | \$7,900     |                    | \$12,200            |
| GENERAL BRD & BENFT.                               |               |          | \$1,181,800        |             |                    | \$1,181,800         |
| CONSTRUCTION MGMT                                  |               |          | \$339,400          |             |                    | \$339,400           |
| <b>DIRECT FIELD COSTS</b>                          |               |          | <b>\$2,044,800</b> |             | <b>\$4,347,100</b> | <b>\$6,391,900</b>  |
| <b>RECT &amp; INDIRECT FIELD COSTS</b>             |               |          | <b>\$3,793,800</b> |             | <b>\$5,031,800</b> | <b>\$8,825,600</b>  |
| WATER/AIR  |               |          | \$17,000           |             | \$31,600           | \$48,600            |
| WATER/AIR (HO EXP)                                 |               |          |                    |             |                    | \$88,300            |
| CONSTRUCTION MGMT - FERMC                          |               |          |                    |             |                    | \$706,000           |
| ENGINEERING  | TITLE I       | TITLE II | TITLE III          |             |                    | \$2,604,100         |
| ENGINEERING/FIELD SUPPORT/SUBCONTRACTS             |               |          |                    |             |                    | \$3,447,000         |
| <b>TOTAL FIELD &amp; ENGINEERING COSTS</b>         |               |          |                    |             |                    | <b>\$12,272,600</b> |
| SALES TAX 6.0%                                     |               |          |                    |             |                    | \$301,900           |
| <b>SUB-TOTAL</b>                                   |               |          |                    |             |                    | <b>\$12,574,500</b> |
| ADJUSTMENT   |               |          |                    |             |                    |                     |
| <b>SUB-TOTAL</b>                                   |               |          |                    |             |                    | <b>\$12,574,500</b> |
| CONTINGENCY 20.0%                                  |               |          |                    |             |                    | \$2,514,900         |
| <b>TOTAL ESTIMATED INSTALLED COST</b>              |               |          |                    |             |                    | <b>\$15,089,400</b> |

**PRELIMINARY**



**ESTIMATING SERVICES  
SUMMARY SHEET  
D&D PACKAGE #10**

DATE: 05-Aug-93  
ESTIMATOR: S.S., P.L., T.P. & A.S.  
LOCATION: FERNALD  
REV: 2

FILE #:  
AGENT: US DOE  
PROJECT TITLE:

| QTY   | ITEM DESCRIPTION                                     | M/H            | RATE  | LABOR \$            | SC \$ | MAT'L \$            | TOTAL \$             |
|---|--|----------------|-------|---------------------|-------|---------------------|----------------------|
|   | EXAVATION  |                |       |                     |       |                     |                      |
|   | CONCRETE   | 262,284        | 17.56 | \$4,605,706         |       |                     | \$4,605,700          |
|   | STRUCTURAL STEEL                                     | 9,535          | 18.80 | \$179,300           |       |                     | \$179,300            |
|   | BUILDINGS  | 364,450        | 17.64 | \$6,429,000         |       | \$592,700           | \$7,021,700          |
|   | MACHINERY AND EQUIPMENT                              | 19,727         | 19.75 | \$389,600           |       |                     | \$389,600            |
|   | PIPING   | 8,142          | 19.00 | \$155,500           |       |                     | \$155,500            |
|   | ELECTRICAL   | 20,219         | 18.09 | \$365,800           |       |                     | \$365,800            |
|   | INSTRUMENTS  |                |       |                     |       |                     |                      |
|   | PAINTING AND SCAFFOLD                                |                |       |                     |       |                     |                      |
|   | INSULATION   | 70,066         | 18.53 | \$1,218,700         |       | \$852,400           | \$2,071,100          |
|   | SEA/LAND CONTAINERS (20'x8'x8')(\$5,100 EA)(1162 EA) |                |       |                     |       | \$5,926,200         | \$5,926,200          |
|   | HAUL SEA/LAND CONTAINERS (4 MILE ROUND TRIP)         | 2,324          | 19.49 | \$45,295            |       |                     | \$45,300             |
| <b>DIRECT FIELD COSTS</b>                                 |  | <b>756,747</b> |       | <b>\$13,388,900</b> |       | <b>\$7,371,300</b>  | <b>\$20,760,200</b>  |
|   | SUPERVISION - CONTRACTOR                             |                |       | \$2,276,000         |       |                     | \$2,276,000          |
|   | M/TOOLS/CONSM/BLS                                    |                |       |                     |       | \$803,300           | \$803,300            |
|   | EQUIPMENT RENTAL                                     |                |       |                     |       | \$3,163,100         | \$3,163,100          |
|   | TEMP FACILITIES                                      |                |       | \$281,200           |       | \$522,200           | \$803,400            |
|   | TEMP UTL'S HOOK-UP                                   |                |       | \$140,600           |       | \$261,100           | \$401,700            |
|   | JOB CLEAN-UP   |                |       | \$281,200           |       | \$522,200           | \$803,400            |
|   | SAFETY   |                |       | \$140,600           |       | \$261,100           | \$401,700            |
|   | HEALTH PHYSICS                                       |                |       | \$825,400           |       | \$18,918,685        | \$19,744,100         |
|   | PERCLA \$1,500 PER PERSON                            |                |       |                     |       | \$567,600           | \$567,600            |
|   | BOND   |                |       |                     |       | \$207,600           | \$207,600            |
|   | OVERHEAD & PROFIT                                    |                |       |                     |       | \$4,493,900         | \$4,493,900          |
|   | EMISSION MODELING                                    |                |       | \$36,300            |       | \$67,500            | \$103,800            |
|   | PSAR/FSAR(SAFE RPT)                                  |                |       | \$36,300            |       | \$67,500            | \$103,800            |
|   | PAYRL BRD.&BENFT.                                    |                |       | \$9,051,400         |       |                     | \$9,051,400          |
|   | CONSTR MGMT  |                |       | \$2,547,400         |       |                     | \$2,547,400          |
| <b>INDIRECT FIELD COSTS</b>                               |  |                |       | <b>\$15,616,400</b> |       | <b>\$29,855,800</b> | <b>\$45,472,200</b>  |
| <b>DIRECT &amp; INDIRECT FIELD COSTS</b>                  |  |                |       | <b>\$29,005,300</b> |       | <b>\$37,227,100</b> | <b>\$66,232,400</b>  |
| SOIL/WATER/AIR  |  |                |       | \$145,300           |       | \$269,900           | \$415,200            |
| G&A (HO EXP)  |  |                |       |                     |       |                     | \$662,300            |
| PROJ.MGMT-FERMCO  |  |                |       |                     |       |                     | \$5,298,600          |
| ENGINEERING   |  |                |       |                     |       |                     | \$22,213,400         |
| <b>ENGINEERING/FIELD SUPPORT/SUBCONTRACTS</b>             |  |                |       |                     |       |                     | <b>\$28,589,500</b>  |
| <b>TOTAL FIELD &amp; ENGINEERING COSTS</b>                |  |                |       |                     |       |                     | <b>\$94,821,900</b>  |
| SALES TAX 6.0% \$37,227,100                               |  |                |       |                     |       |                     | \$2,233,600          |
| <b>SUB-TOTAL</b>  |  |                |       |                     |       |                     | <b>\$97,055,500</b>  |
| ESCALATION  |  |                |       |                     |       |                     |                      |
| <b>SUB-TOTAL</b>  |  |                |       |                     |       |                     | <b>\$97,055,500</b>  |
| CONTINGENCY 20.0%   |  |                |       |                     |       |                     | \$19,411,100         |
| <b>TOTAL ESTIMATED INSTALLED COST (FPSC bid w/cont.-)</b> |  |                |       |                     |       |                     | <b>\$116,466,600</b> |

**PRELIMINARY**

  
**ERMCO**  
 ESTIMATING SERVICES  
**SUMMARY SHEET**  
**D&D PACKAGE #11**

FILE #:  
 ENT: US DOE  
 OBJECT TITLE:

DATE: 05-Aug-93  
 ESTIMATOR: S.S., P.L., T.P. & A.S.  
 LOCATION: FERNALD  
 REV: 2

| ITEM DESCRIPTION                                    | M/H            | RATE     | LABOR \$            | SC \$ | MATL \$             | TOTAL \$            |
|---|----------------|----------|---------------------|-------|---------------------|---------------------|
| EXAVATION   |                |          |                     |       |                     |                     |
| CONCRETE  | 51,756         | 17.56    | \$908,816           |       |                     | \$908,800           |
| STRUCTURAL STEEL                                    | 19,735         | 18.80    | \$371,000           |       |                     | \$371,000           |
| BUILDINGS   | 47,139         | 17.64    | \$831,500           |       | \$8,000             | \$839,500           |
| MACHINERY AND EQUIPMENT                             | 144,620        | 19.75    | \$2,856,300         |       |                     | \$2,856,300         |
| PIPING  | 13,133         | 19.00    | \$249,400           |       |                     | \$249,400           |
| ELECTRICAL  | 5,295          | 18.09    | \$95,800            |       |                     | \$95,800            |
| INSTRUMENTS   |                |          |                     |       |                     |                     |
| PAINTING AND SCAFFOLD                               | 2,728          | 16.43    | \$44,800            |       | \$6,500             | \$51,300            |
| INSULATION  | 70,981         | 18.53    | \$1,235,900         |       | \$850,600           | \$2,086,500         |
| SEA/LAND CONTAINERS (20'x8'x8')(\$5,100 EA)(546 EA) |                |          |                     |       | \$2,784,600         | \$2,784,600         |
| HAUL SEA/LAND CONTAINERS (4 MILE ROUND TRIP)        | 1,092          | 19.49    | \$21,283            |       |                     | \$21,300            |
| <b>DIRECT FIELD COSTS</b>                           | <b>356,479</b> |          | <b>\$6,614,800</b>  |       | <b>\$3,649,700</b>  | <b>\$10,264,500</b> |
| SUPERVISION - CONTRACTOR                            |                |          | \$1,125,000         |       |                     | \$1,125,000         |
| TOOLS/CONSUMABLES                                   |                |          |                     |       | \$396,900           | \$396,900           |
| EQUIPMENT RENTAL                                    |                |          |                     |       | \$1,762,200         | \$1,762,200         |
| EMP. FACILITIES                                     |                |          | \$138,900           |       | \$258,000           | \$396,900           |
| EMP. UTIL'S HOOK-UP                                 |                |          | \$69,500            |       | \$129,000           | \$198,500           |
| WASTE CLEAN-UP                                      |                |          | \$138,900           |       | \$258,000           | \$396,900           |
| SAFETY  |                |          | \$69,500            |       | \$129,000           | \$198,500           |
| HEALTH PHYSICS                                      |                |          | \$407,800           |       | \$8,911,981         | \$9,319,800         |
| PERCLA \$1,500 PER PERSON                           |                |          |                     |       | \$267,400           | \$267,400           |
| GENERAL FUND  |                |          |                     |       | \$102,600           | \$102,600           |
| OVERHEAD & PROFIT                                   |                |          |                     |       | \$2,198,600         | \$2,198,600         |
| MISSION MODELING                                    |                |          | \$18,000            |       | \$33,400            | \$51,400            |
| SAR/FSAR(SAFE RPT)                                  |                |          | \$18,000            |       | \$33,400            | \$51,400            |
| YEARLY BRD.&BENFT.                                  |                |          | \$4,472,200         |       |                     | \$4,472,200         |
| CONSTRUCTION MGMT                                   |                |          | \$1,248,100         |       |                     | \$1,248,100         |
| <b>INDIRECT FIELD COSTS</b>                         |                |          | <b>\$7,705,900</b>  |       | <b>\$14,480,500</b> | <b>\$22,186,400</b> |
| <b>DIRECT &amp; INDIRECT FIELD COSTS</b>            |                |          | <b>\$14,320,700</b> |       | <b>\$18,130,200</b> | <b>\$32,450,900</b> |
| WATER/AIR   |                |          | \$71,900            |       | \$133,400           | \$205,300           |
| HO EXP  |                |          |                     |       |                     | \$324,500           |
| ROI.MGMT-FERMCO                                     |                |          |                     |       |                     | \$2,596,100         |
| ENGINEERING   | TITLE I        | TITLE II | TITLE III           |       |                     | \$10,983,000        |
| ENGINEERING/FIELD SUPPORT/SUBCONTRACTS              |                |          |                     |       |                     | \$14,108,900        |
| <b>TOTAL FIELD &amp; ENGINEERING COSTS</b>          |                |          |                     |       |                     | <b>\$46,559,800</b> |
| SALES TAX 6.0%                                      | \$18,130,200   |          |                     |       |                     | \$1,087,800         |
| <b>SUB-TOTAL</b>                                    |                |          |                     |       |                     | <b>\$47,647,600</b> |
| INFLATION   |                |          |                     |       |                     |                     |
| <b>SUB-TOTAL</b>                                    |                |          |                     |       |                     | <b>\$47,647,600</b> |
| CONTINGENCY 20.0%                                   |                |          |                     |       |                     | \$9,529,500         |
| <b>TOTAL ESTIMATED INSTALLED COST</b>               |                |          |                     |       |                     | <b>\$57,177,100</b> |

**PRELIMINARY**


  
**ESTIMATING SERVICES**  
**SUMMARY SHEET**  
**D&D PACKAGE #12**

DATE: 05-Aug-93  
 ESTIMATOR: S.S., P.L., T.P. & A.S.  
 LOCATION: FERNALD  
 REV: 2

PROJECT FILE #:   
 CLIENT: US DOE  
 PROJECT TITLE:

| LINE  | ITEM DESCRIPTION                                    | M/H            | RATE     | LABOR \$           | S/C \$ | MAT'L \$            | TOTAL \$            |
|---|---|----------------|----------|--------------------|--------|---------------------|---------------------|
|   | EXAVATION   |                |          |                    |        |                     |                     |
|   | CONCRETE  | 5,134          | 17.56    | \$90,153           |        |                     | \$90,200            |
|   | STRUCTURAL STEEL                                    | 14,952         | 18.80    | \$281,100          |        |                     | \$281,100           |
|   | BUILDINGS   | 135,073        | 17.64    | \$2,382,700        |        | \$113,400           | \$2,496,100         |
|   | MACHINERY AND EQUIPMENT                             | 34,946         | 19.75    | \$690,100          |        |                     | \$690,100           |
|   | PIPING  | 8,489          | 19.00    | \$160,700          |        |                     | \$160,700           |
|   | ELECTRICAL  | 7,744          | 18.09    | \$140,100          |        |                     | \$140,100           |
|   | INSTRUMENTS   |                |          |                    |        |                     |                     |
|   | PAINTING AND SCAFFOLD                               |                |          |                    |        |                     |                     |
|   | INSULATION  | 45,307         | 18.53    | \$788,400          |        | \$548,200           | \$1,336,600         |
|   | SEA/LAND CONTAINERS (20'x8'x8')(\$5,100 EA)(246 EA) |                |          |                    |        | \$1,254,600         | \$1,254,600         |
|   | HAUL SEA/LAND CONTAINERS (4 MILE ROUND TRIP)        | 492            | 19.49    | \$9,589            |        |                     | \$9,600             |
| <b>DIRECT FIELD COSTS</b>                                 |   | <b>252,136</b> |          | <b>\$4,542,800</b> |        | <b>\$1,916,200</b>  | <b>\$6,459,100</b>  |
|   | SUPERVISION - CONTRACTOR                            |                |          | \$772,000          |        |                     | \$772,000           |
|   | TOOLS/CONSUMABLES                                   |                |          |                    |        | \$272,600           | \$272,600           |
|   | EQUIPMENT RENTAL                                    |                |          |                    |        | \$1,397,000         | \$1,397,000         |
|   | EMP. FACILITIES                                     |                |          | \$95,400           |        | \$177,200           | \$272,600           |
|   | EMP. UTIL'S HOOK-UP                                 |                |          | \$47,700           |        | \$88,600            | \$136,300           |
|   | JOB CLEAN-UP  |                |          | \$95,400           |        | \$177,200           | \$272,600           |
|   | SAFETY  |                |          | \$47,700           |        | \$88,600            | \$136,300           |
|   | HEALTH PHYSICS                                      |                |          | \$280,100          |        | \$6,303,407         | \$6,583,500         |
|   | PERCLA \$1,500 PER PERSON                           |                |          |                    |        | \$189,100           | \$189,100           |
|   | PERMITS   |                |          |                    |        | \$64,600            | \$64,600            |
|   | OVERHEAD & PROFIT                                   |                |          |                    |        | \$1,490,000         | \$1,490,000         |
|   | EMISSION MODELING                                   |                |          | \$11,300           |        | \$21,000            | \$32,300            |
|   | SAR/PSAR(SAFE RPT)                                  |                |          | \$11,300           |        | \$21,000            | \$32,300            |
|   | YEARLY BRD.&BENFT.                                  |                |          | \$3,069,900        |        |                     | \$3,069,900         |
|   | CONSTR MGMT   |                |          | \$847,200          |        |                     | \$847,200           |
| <b>INDIRECT FIELD COSTS</b>                               |   |                |          | <b>\$5,278,000</b> |        | <b>\$10,290,300</b> | <b>\$15,568,300</b> |
| <b>DIRECT &amp; INDIRECT FIELD COSTS</b>                  |   |                |          | <b>\$9,820,800</b> |        | <b>\$12,206,500</b> | <b>\$22,027,400</b> |
|   | SOIL/WATER/AIR                                      |                |          | \$45,200           |        | \$84,000            | \$129,200           |
|   | DESIGN & A (HO EXP)                                 |                |          |                    |        |                     | \$220,300           |
|   | PROJ.MGMT - FERMCO                                  |                |          |                    |        |                     | \$1,762,200         |
|   | ENGINEERING   | TITLE I        | TITLE II | TITLE III          |        |                     | \$6,911,200         |
|   | ENGINEERING/FIELD SUPPORT/SUBCONTRACTS              |                |          |                    |        |                     | \$9,022,900         |
| <b>TOTAL FIELD &amp; ENGINEERING COSTS</b>                |   |                |          |                    |        |                     | <b>\$31,050,300</b> |
|   | SALES TAX 6.0%                                      |                |          | \$12,206,500       |        |                     | \$732,400           |
| <b>SUB-TOTAL</b>  |   |                |          |                    |        |                     | <b>\$31,782,700</b> |
|   | ESCALATION  |                |          |                    |        |                     |                     |
| <b>SUB-TOTAL</b>  |   |                |          |                    |        |                     | <b>\$31,782,700</b> |
|   | CONTINGENCY 20.0%                                   |                |          |                    |        |                     | \$6,356,500         |
| <b>TOTAL ESTIMATED INSTALLED COST (FPSC bid w/cont.-)</b> |   |                |          |                    |        |                     | <b>\$38,139,200</b> |

**PRELIMINARY**

126



ESTIMATING SERVICES

**SUMMARY SHEET**  
D&D PACKAGE #21  
PADS

**5448**

DATE: 08-Oct-93

ESTIMATOR: S.S., P.L., T.P., & A.S.

LOCATION: FERNALD

TASK ID NO.

FILE #: C3-D&D-21  
AGENT: US DOE  
PROJECT TITLE:  
# 1.1.1.1.3.3.21

| LINE                                       | ITEM DESCRIPTION                      | M/H     | RATE        | LABOR \$                        | SC \$            | MAT'L \$           | TOTAL \$           |
|--|---------------------------------------|---------|-------------|---------------------------------|------------------|--------------------|--------------------|
|  | EXCAVATION AND CIVIL                  | 55,546  |             | \$917,058                       |                  |                    | \$917,100          |
|  | CONCRETE                              |         |             |                                 |                  |                    |                    |
|  | STRUCTURAL STEEL                      |         |             |                                 |                  |                    |                    |
|  | BUILDINGS                             |         |             |                                 |                  |                    |                    |
|  | MACHINERY AND EQUIPMENT               |         |             |                                 |                  |                    |                    |
|  | PIPING                                |         |             |                                 |                  |                    |                    |
|  | ELECTRICAL                            |         |             |                                 |                  |                    |                    |
|  | INSTRUMENTS                           |         |             |                                 |                  |                    |                    |
|  | PAINTING AND SCAFFOLD                 |         |             |                                 |                  |                    |                    |
|  | INSULATION                            |         |             |                                 |                  |                    |                    |
|  | WASTE CONTAINERS                      |         |             |                                 |                  | \$592,300          | \$592,300          |
|  | MATERIAL HANDLING (4 MILE ROUND TRIP) | 232     |             | \$4,528                         |                  |                    | \$4,500            |
| <b>DIRECT FIELD COSTS</b>                  |                                       |         |             | <b>\$5,778</b>                  | <b>\$921,600</b> | <b>\$592,300</b>   | <b>\$1,513,900</b> |
|  | SUPERVISION - CONTRACTOR              |         |             | \$157,000                       |                  |                    | \$157,000          |
|  | TOOLS/CONSUMABLES                     |         |             |                                 |                  | \$55,300           | \$55,300           |
|  | EQUIPMENT RENTAL                      |         |             |                                 |                  | \$228,200          | \$228,200          |
|  | TEMP. FACILITIES                      |         |             | \$19,400                        |                  | \$35,900           | \$55,300           |
|  | TEMP. UTIL'S HOOK-UP                  |         |             | \$9,700                         |                  | \$18,000           | \$27,700           |
|  | DEBRIS CLEAN-UP                       |         |             | \$19,400                        |                  | \$35,900           | \$55,300           |
|  | SAFETY                                |         |             | \$9,700                         |                  | \$18,000           | \$27,700           |
|  | HEALTH PHYSICS                        |         |             | \$56,800                        |                  | \$1,394,450        | \$1,451,300        |
|  | TRCLA \$1,500 PER PERSON              |         |             |                                 |                  | \$41,800           | \$41,800           |
|  | TRND                                  |         |             |                                 |                  | \$15,100           | \$15,100           |
|  | OVERHEAD & PROFIT                     |         |             |                                 |                  | \$326,600          | \$326,600          |
|  | MISSION MODELING                      |         |             | \$2,600                         |                  | \$4,900            | \$7,500            |
|  | BAR/FSAR(SAFE RPT)                    |         |             | \$2,600                         |                  | \$4,900            | \$7,500            |
|  | YEARLY BRD.& BENFT.                   |         |             | \$623,400                       |                  |                    | \$623,400          |
|  | INSTR. MGMT                           |         |             | \$183,700                       |                  |                    | \$183,700          |
| <b>DIRECT FIELD COSTS</b>                  |                                       |         |             | <b>\$1,084,300</b>              |                  | <b>\$2,179,100</b> | <b>\$3,263,400</b> |
| <b>DIRECT &amp; INDIRECT FIELD COSTS</b>   |                                       |         |             | <b>\$2,005,900</b>              |                  | <b>\$2,771,400</b> | <b>\$4,777,300</b> |
|  | UTIL/WATER/AIR                        |         |             | \$10,600                        |                  | \$19,700           | \$30,300           |
|  | TRIA (HO EXP)                         |         |             |                                 |                  |                    | \$47,800           |
|  | TRJ.MGMT-FERMCO                       |         |             |                                 |                  |                    | \$382,200          |
|  | ENGINEERING                           | TITLE I | TITLE II    |                                 | TITLE III        |                    | \$2,390,900        |
| <b>HOME OFFICE COSTS</b>                   |                                       |         |             |                                 |                  |                    | <b>\$2,851,200</b> |
| <b>TOTAL FIELD &amp; HOME OFFICE COSTS</b> |                                       |         |             |                                 |                  |                    | <b>\$7,628,500</b> |
|  | SALES TAX                             | 6.0%    | \$2,771,400 |                                 |                  |                    | \$166,300          |
| <b>SUB-TOTAL</b>                           |                                       |         |             |                                 |                  |                    | <b>\$7,794,800</b> |
| <b>ADJUSTMENT</b>                          |                                       |         |             |                                 |                  |                    |                    |
| <b>SUB-TOTAL</b>                           |                                       |         |             |                                 |                  |                    | <b>\$7,794,800</b> |
|  | CONTINGENCY                           | 20.0%   |             |                                 |                  |                    | \$1,559,000        |
| <b>TOTAL ESTIMATED INSTALLED COST</b>      |                                       |         |             | <b>(FPSC bid w/esc./cont.-)</b> |                  |                    | <b>\$9,353,800</b> |

**PRELIMINARY**

127



5440

FILE #: C3-D&D-22  
 INT: US DOE  
 PROJECT TITLE:  
 # 1.1.1.1.3.3.22

**SUMMARY SHEET**  
**D&D PACKAGE #22**  
**FOUNDATIONS**

DATE: 08-Oct-93  
 ESTIMATOR: S.S., P.L., T.P., & A.S.  
 LOCATION: FERNALD  
 TASK ID NO.

| ITEM DESCRIPTION                           | M/H            | RATE     | LABOR \$            | SC \$     | MATL \$             | TOTAL \$            |
|--|----------------|----------|---------------------|-----------|---------------------|---------------------|
| EXCAVATION AND CIVIL                       | 586,770        |          | \$9,687,568         |           |                     | \$9,687,600         |
| CONCRETE                                   |                |          |                     |           |                     |                     |
| STRUCTURAL STEEL                           |                |          |                     |           |                     |                     |
| BUILDINGS                                  |                |          |                     |           |                     |                     |
| MACHINERY AND EQUIPMENT                    |                |          |                     |           |                     |                     |
| PIPING                                     |                |          |                     |           |                     |                     |
| ELECTRICAL                                 |                |          |                     |           |                     |                     |
| INSTRUMENTS                                |                |          |                     |           |                     |                     |
| PAINTING AND SCAFFOLD                      |                |          |                     |           |                     |                     |
| INSULATION                                 |                |          |                     |           |                     |                     |
| WASTE CONTAINERS                           |                |          |                     |           | \$6,257,200         | \$6,257,200         |
| MATERIAL HANDLING (4 MILE ROUND TRIP)      | 2,454          |          | \$47,833            |           |                     | \$47,800            |
| <b>NET FIELD COSTS</b>                     | <b>589,224</b> |          | <b>\$9,735,400</b>  |           | <b>\$6,257,200</b>  | <b>\$15,992,600</b> |
| OVERVISION - CONTRACTOR                    |                |          | \$1,655,000         |           |                     | \$1,655,000         |
| TOOLS/CONSUMABLES                          |                |          |                     |           | \$584,100           | \$584,100           |
| EQUIPMENT RENTAL                           |                |          |                     |           | \$2,410,300         | \$2,410,300         |
| OFFICE FACILITIES                          |                |          | \$204,400           |           | \$379,700           | \$584,100           |
| OFFICE UTILS HOOK-UP                       |                |          | \$102,200           |           | \$189,800           | \$292,000           |
| CLEAN-UP                                   |                |          | \$204,400           |           | \$379,700           | \$584,100           |
| SAFETY                                     |                |          | \$102,200           |           | \$189,800           | \$292,000           |
| HEALTH PHYSICS                             |                |          | \$600,200           |           | \$14,730,600        | \$15,330,800        |
| CLASSIFICATION \$1,500 PER PERSON          |                |          |                     |           | \$441,900           | \$441,900           |
| INDIRECT                                   |                |          |                     |           | \$159,900           | \$159,900           |
| OVERHEAD & PROFIT                          |                |          |                     |           | \$3,449,400         | \$3,449,400         |
| DESIGN MODELING                            |                |          | \$28,000            |           | \$52,000            | \$80,000            |
| DESIGN/R/SAR(SAFE RPT)                     |                |          | \$28,000            |           | \$52,000            | \$80,000            |
| REL. BRD.&BENFT.                           |                |          | \$6,583,100         |           |                     | \$6,583,100         |
| CONTRACT MGMT                              |                |          | \$1,940,800         |           |                     | \$1,940,800         |
| <b>INDIRECT FIELD COSTS</b>                |                |          | <b>\$11,448,300</b> |           | <b>\$23,019,200</b> | <b>\$34,467,500</b> |
| <b>NET &amp; INDIRECT FIELD COSTS</b>      |                |          | <b>\$21,183,700</b> |           | <b>\$29,276,400</b> | <b>\$50,460,100</b> |
| WATER/AIR                                  |                |          | \$111,900           |           | \$207,900           | \$319,800           |
| WATER (HO EXP)                             |                |          |                     |           |                     | \$504,600           |
| CONTRACT MGMT - FERMCO                     |                |          |                     |           |                     | \$4,036,800         |
| ENGINEERING                                | TITLE I        | TITLE II |                     | TITLE III |                     | \$25,254,100        |
| <b>HOME OFFICE COSTS</b>                   |                |          |                     |           |                     | <b>\$30,115,300</b> |
| <b>TOTAL FIELD &amp; HOME OFFICE COSTS</b> |                |          |                     |           |                     | <b>\$80,575,400</b> |
| EST TAX 6.0%                               |                |          | \$29,276,400        |           |                     | \$1,756,600         |
| <b>TOTAL - TOTAL</b>                       |                |          |                     |           |                     | <b>\$82,332,000</b> |
| CONTINGENCY                                |                |          |                     |           |                     | \$16,466,400        |
| <b>TOTAL ESTIMATED INSTALLED COST</b>      |                |          |                     |           |                     | <b>\$98,798,400</b> |

**PRELIMINARY**


  
**SUMMARY SHEET**  
**D&D PACKAGE #23**  
**UTILITIES**

= 5446

DATE: 08-Oct-93  
 ESTIMATOR: S.S., P.L., T.P., & A.S.  
 LOCATION: FERNALD  
 TASK ID NO.

FILE #: C3-D&D-23  
 ENT: US DOE  
 PROJECT TITLE:  
 : # 1.1.1.1.3.3.23

| DE  | ITEM DESCRIPTION                      | M/H            | RATE        | LABOR \$           | SC \$ | MATL \$            | TOTAL \$            |
|---|---------------------------------------|----------------|-------------|--------------------|-------|--------------------|---------------------|
|   | EXCAVATION AND CIVIL                  | 156,581        |             | \$2,585,145        |       |                    | \$2,585,100         |
|   | CONCRETE                              |                |             |                    |       |                    |                     |
|   | STRUCTURAL STEEL                      |                |             |                    |       |                    |                     |
|   | BUILDINGS                             |                |             |                    |       |                    |                     |
|   | MACHINERY AND EQUIPMENT               |                |             |                    |       |                    |                     |
|   | PIPING                                |                |             |                    |       |                    |                     |
|   | ELECTRICAL                            |                |             |                    |       |                    |                     |
|   | INSTRUMENTS                           |                |             |                    |       |                    |                     |
|   | PAINTING AND SCAFFOLD                 |                |             |                    |       |                    |                     |
|   | INSULATION                            |                |             |                    |       |                    |                     |
|   | WASTE CONTAINERS                      |                |             |                    |       | \$1,669,758        | \$1,669,800         |
|   | MATERIAL HANDLING (4 MILE ROUND TRIP) | 655            |             | \$12,764           |       |                    | \$12,800            |
| <b>NET FIELD COSTS</b>  |                                       | <b>157,236</b> |             | <b>\$2,597,900</b> |       | <b>\$1,669,800</b> | <b>\$4,267,700</b>  |
|   | OVERVISION - CONTRACTOR               |                |             | \$442,000          |       |                    | \$442,000           |
|   | TOOLS/CONSUM'BL                       |                |             |                    |       | \$155,900          | \$155,900           |
|   | EQUIPMENT RENTAL                      |                |             |                    |       | \$643,200          | \$643,200           |
|   | OFF FACILITIES                        |                |             | \$54,600           |       | \$101,300          | \$155,900           |
|   | OFF UTIL'S HOOK-UP                    |                |             | \$27,300           |       | \$50,700           | \$78,000            |
|   | CLEAN-UP                              |                |             | \$54,600           |       | \$101,300          | \$155,900           |
|   | UTILITY                               |                |             | \$27,300           |       | \$50,700           | \$78,000            |
|   | HEALTH PHYSICS                        |                |             | \$160,200          |       | \$3,930,900        | \$4,091,100         |
|   | INCLA \$1,500 PER PERSON              |                |             |                    |       | \$117,900          | \$117,900           |
|   | INSTRUMENTS                           |                |             |                    |       | \$42,700           | \$42,700            |
|   | OVERHEAD & PROFIT                     |                |             |                    |       | \$920,500          | \$920,500           |
|   | MISSION MODELING                      |                |             | \$7,500            |       | \$13,900           | \$21,400            |
|   | R/F/SAR(SAFE RPT)                     |                |             | \$7,500            |       | \$13,900           | \$21,400            |
|   | PERM BRD.&BENFT.                      |                |             | \$1,757,000        |       |                    | \$1,757,000         |
|   | CONSTR MGMT                           |                |             | \$517,900          |       |                    | \$517,900           |
| <b>INDIRECT FIELD COSTS</b>                                     |                                       |                |             | <b>\$3,055,900</b> |       | <b>\$6,142,900</b> | <b>\$9,198,800</b>  |
| <b>NET &amp; INDIRECT FIELD COSTS</b>                           |                                       |                |             | <b>\$5,653,800</b> |       | <b>\$7,812,700</b> | <b>\$13,466,500</b> |
|   | WATER/AIR                             |                |             | \$29,900           |       | \$55,500           | \$85,400            |
|   | EXP (HO EXP)                          |                |             |                    |       |                    | \$134,700           |
|   | CONSTR MGMT - FERMCO                  |                |             |                    |       |                    | \$1,077,300         |
|   | ENGINEERING                           | TITLE I        | TITLE II    | TITLE III          |       |                    | \$6,739,700         |
| <b>HOME OFFICE COSTS</b>  |                                       |                |             |                    |       |                    | <b>\$8,037,100</b>  |
| <b>NET FIELD &amp; HOME OFFICE COSTS</b>                        |                                       |                |             |                    |       |                    | <b>\$21,503,600</b> |
|   | SALES TAX                             | 6.0%           | \$7,812,700 |                    |       |                    | \$468,800           |
| <b>NET TOTAL</b>  |                                       |                |             |                    |       |                    | <b>\$21,972,400</b> |
| <b>CONTINGENCY</b>  |                                       |                |             |                    |       |                    | <b>\$4,394,500</b>  |
| <b>TOTAL ESTIMATED INSTALLED COST (FPSC bid w/esc./cont.--)</b> |                                       |                |             |                    |       |                    | <b>\$26,366,900</b> |

**PRELIMINARY**

129



- 5448

FILE #: C3-D&D-24  
 AGENT: US DOE  
 PROJECT TITLE:  
 # 1.1.1.1.3.3.24

ESTIMATING SERVICES  
**SUMMARY SHEET**  
 D&D PACKAGE #24  
 ROADS, R/R, LOTS, ETC.

DATE: 08-Oct-93  
 ESTIMATOR: S.S., P.L., T.P., & A.S.  
 LOCATION: FERNALD  
 TASK ID NO.

| ITEM   | ITEM DESCRIPTION                      | M/H           | RATE     | LABOR \$           | SC \$ | MATL \$            | TOTAL \$            |
|--|---------------------------------------|---------------|----------|--------------------|-------|--------------------|---------------------|
|  | EXCAVATION AND CIVIL                  | 61,469        |          | \$1,234,856        |       |                    | \$1,234,900         |
|  | CONCRETE                              |               |          |                    |       |                    |                     |
|  | STRUCTURAL STEEL                      |               |          |                    |       |                    |                     |
|  | BUILDINGS                             |               |          |                    |       |                    |                     |
|  | MACHINERY AND EQUIPMENT               |               |          |                    |       |                    |                     |
|  | PIPING                                |               |          |                    |       |                    |                     |
|  | ELECTRICAL                            |               |          |                    |       |                    |                     |
|  | INSTRUMENTS                           |               |          |                    |       |                    |                     |
|  | PAINTING AND SCAFFOLD                 |               |          |                    |       |                    |                     |
|  | INSULATION                            |               |          |                    |       |                    |                     |
|  | WASTE CONTAINERS                      |               |          |                    |       | \$797,599          | \$797,600           |
|  | MATERIAL HANDLING (4 MILE ROUND TRIP) | 313           |          | \$6,097            |       |                    | \$6,100             |
| <b>DIRECT FIELD COSTS</b>                                      |                                       | <b>61,782</b> |          | <b>\$1,241,000</b> |       | <b>\$797,600</b>   | <b>\$2,038,600</b>  |
|  | SUPERVISION - CONTRACTOR              |               |          | \$211,000          |       |                    | \$211,000           |
|  | TOOLS/CONSUMABLES                     |               |          |                    |       | \$74,500           | \$74,500            |
|  | EQUIPMENT RENTAL                      |               |          |                    |       | \$252,700          | \$252,700           |
|  | OFFICE FACILITIES                     |               |          | \$26,100           |       | \$48,400           | \$74,500            |
|  | UTILITY'S HOOK-UP                     |               |          | \$13,000           |       | \$24,200           | \$37,200            |
|  | CLEAN-UP                              |               |          | \$26,100           |       | \$48,400           | \$74,500            |
|  | SAFETY                                |               |          | \$13,000           |       | \$24,200           | \$37,200            |
|  | HEALTH PHYSICS                        |               |          | \$76,500           |       | \$1,544,550        | \$1,621,100         |
|  | PERSONNEL \$1,500 PER PERSON          |               |          |                    |       | \$46,300           | \$46,300            |
|  | PERMITS                               |               |          |                    |       | \$20,400           | \$20,400            |
|  | OVERHEAD & PROFIT                     |               |          |                    |       | \$403,900          | \$403,900           |
|  | MISSION MODELING                      |               |          | \$3,600            |       | \$6,600            | \$10,200            |
|  | DESIGN/FSAR(SAFE RPT)                 |               |          | \$3,600            |       | \$6,600            | \$10,200            |
|  | PERMITS BRD.&BENFT.                   |               |          | \$839,200          |       |                    | \$839,200           |
|  | CONSTRUCTION MGMT                     |               |          | \$230,100          |       |                    | \$230,100           |
| <b>DIRECT FIELD COSTS</b>                                      |                                       |               |          | <b>\$1,442,200</b> |       | <b>\$2,500,800</b> | <b>\$3,943,000</b>  |
| <b>INDIRECT &amp; INDIRECT FIELD COSTS</b>                     |                                       |               |          | <b>\$2,683,200</b> |       | <b>\$3,298,400</b> | <b>\$5,981,600</b>  |
|  | WATER/AIR                             |               |          | \$14,300           |       | \$26,500           | \$40,800            |
|  | INSURANCE (HO EXP)                    |               |          |                    |       |                    | \$59,800            |
|  | CONSTRUCTION MGMT - FERMCO            |               |          |                    |       |                    | \$478,500           |
|  | ENGINEERING                           | TITLE I       | TITLE II | TITLE III          |       |                    | \$2,993,700         |
| <b>HOME OFFICE COSTS</b>                                       |                                       |               |          |                    |       |                    | <b>\$3,572,800</b>  |
| <b>TOTAL FIELD &amp; HOME OFFICE COSTS</b>                     |                                       |               |          |                    |       |                    | <b>\$9,554,400</b>  |
|  | Sales Tax 6.0%                        | \$3,298,400   |          |                    |       |                    | \$197,900           |
| <b>Sub-TOTAL</b>   |                                       |               |          |                    |       |                    | <b>\$9,752,300</b>  |
|  | Contingency 20.0%                     |               |          |                    |       |                    | \$1,950,500         |
| <b>TOTAL ESTIMATED INSTALLED COST (FPSC bid w/exc./cont.-)</b> |                                       |               |          |                    |       |                    | <b>\$11,702,800</b> |

**PRELIMINARY**

130





PROJECT FILE #: C3-D&D-MISC  
 CLIENT: US DOE  
 PROJECT TITLE: 1.1.1.1.3.3

ESTIMATING SERVICES  
**SUMMARY SHEET**  
 D&D PACKAGE - MISC\*  
 MISC BLDGS OMITTED FROM PKGS 1-13

DATE: 20-Oct-93  
 ESTIMATOR: S.S., P.L., T.P., & A.S.  
 LOCATION: FERNALD  
 TASK ID NO.

| QTY  | ITEM DESCRIPTION                      | M/H     | RATE     | LABOR \$            | SC \$               | MAT'L \$            | TOTAL \$             |
|--|---------------------------------------|---------|----------|---------------------|---------------------|---------------------|----------------------|
|  | EXCAVATION AND CIVIL                  |         |          |                     |                     |                     |                      |
|  | CONCRETE                              |         |          |                     |                     |                     |                      |
|  | STRUCTURAL STEEL                      |         |          |                     |                     |                     |                      |
|  | BUILDINGS                             |         |          | \$16,449,899        |                     | \$11,029,008        | \$27,478,900         |
|  | MACHINERY AND EQUIPMENT               |         |          |                     |                     |                     |                      |
|  | PIPING                                |         |          |                     |                     |                     |                      |
|  | ELECTRICAL                            |         |          |                     |                     |                     |                      |
|  | INSTRUMENTS                           |         |          |                     |                     |                     |                      |
|  | PAINTING AND SCAFFOLD                 |         |          |                     |                     |                     |                      |
|  | INSULATION                            |         |          |                     |                     |                     |                      |
|  | WASTE CONTAINERS                      |         |          |                     |                     | \$17,748,762        | \$17,748,800         |
|  | MATERIAL HANDLING (4 MILE ROUND TRIP) | 6,960   |          | \$135,678           |                     |                     | \$135,700            |
| <b>DIRECT FIELD COSTS</b>                                      |                                       |         |          | <b>6,960</b>        | <b>\$16,585,600</b> | <b>\$28,777,800</b> | <b>\$45,363,400</b>  |
|  | OVERSEER SUPERVISION - CONTRACTOR     |         |          | \$2,820,000         |                     |                     | \$2,820,000          |
|  | TOOLS/CONSUMABLES                     |         |          |                     |                     | \$995,100           | \$995,100            |
|  | EQUIPMENT RENTAL                      |         |          |                     |                     | \$28,500            | \$28,500             |
|  | TEMP. FACILITIES                      |         |          | \$348,300           |                     | \$646,800           | \$995,100            |
|  | TEMP. UTIL'S HOOK-UP                  |         |          | \$174,100           |                     | \$323,400           | \$497,500            |
|  | DECONTAMINATION - UP                  |         |          | \$348,300           |                     | \$646,800           | \$995,100            |
|  | DECONTAMINATION - DWN                 |         |          | \$174,100           |                     | \$323,400           | \$497,500            |
|  | HEALTH PHYSICS                        |         |          | \$1,022,500         |                     | \$174,000           | \$1,196,500          |
|  | PERSONNEL \$1,500 PER PERSON          |         |          |                     |                     | \$5,200             | \$5,200              |
|  | INDIRECT COSTS                        |         |          |                     |                     | \$453,600           | \$453,600            |
|  | OVERHEAD & PROFIT                     |         |          |                     |                     | \$4,846,300         | \$4,846,300          |
|  | MISSION MODELING                      |         |          | \$79,400            |                     | \$147,400           | \$226,800            |
|  | OPERATIONAL/FSAR(SAFE RPT)            |         |          | \$79,400            |                     | \$147,400           | \$226,800            |
|  | YEARLY BRD.&BENFT.                    |         |          | \$11,248,500        |                     |                     | \$11,248,500         |
|  | CONSTRUCTION MGMT                     |         |          | \$2,815,800         |                     |                     | \$2,815,800          |
| <b>DIRECT FIELD COSTS</b>                                      |                                       |         |          | <b>\$19,110,400</b> |                     | <b>\$8,737,900</b>  | <b>\$27,848,300</b>  |
| <b>DIRECT &amp; INDIRECT FIELD COSTS</b>                       |                                       |         |          | <b>\$35,696,000</b> |                     | <b>\$37,515,700</b> | <b>\$73,211,700</b>  |
|  | UTILITIES/WATER/AIR                   |         |          | \$317,500           |                     | \$589,700           | \$907,200            |
|  | TRAVEL (HO EXP)                       |         |          |                     |                     |                     | \$732,100            |
|  | CONSTRUCTION MGMT - FERMCO            |         |          |                     |                     |                     | \$5,856,900          |
|  | ENGINEERING                           | TITLE I | TITLE II | TITLE III           |                     |                     | \$36,640,800         |
| <b>HOME OFFICE COSTS</b>                                       |                                       |         |          |                     |                     |                     | <b>\$44,137,000</b>  |
| <b>TOTAL FIELD &amp; HOME OFFICE COSTS</b>                     |                                       |         |          |                     |                     |                     | <b>\$117,348,700</b> |
|  | SALES TAX                             | 6.0%    |          | \$37,515,700        |                     |                     | \$2,250,900          |
| <b>SUB-TOTAL</b>   |                                       |         |          |                     |                     |                     | <b>\$119,599,600</b> |
| <b>CONTINGENCY</b>   |                                       |         |          |                     |                     |                     | <b>\$23,919,900</b>  |
| <b>TOTAL ESTIMATED INSTALLED COST (FPSC bid w/exc./cont.-)</b> |                                       |         |          |                     |                     |                     | <b>\$143,519,500</b> |

INCLUDES MISCELLANEOUS BUILDINGS, TRAILERS, AND IMPOUNDMENTS.  
 INCLUDES TENSION SUPPORT STRUCTURES FOR THE CENTRAL STORAGE FACILITY.

**PRELIMINARY**

06 132

SUPPORT FOR OU3 PROPOSED PLAN LIFE CYCLE COST ANALYSIS - D & D PACKAGES 21 - 25 AND MISC BLDGS  
 (INFO TAKEN FROM "D & D SITE DEMO" ESTIMATE DATED 05 - AUG - 93 .. SEE ATTACHED)

20 - Oct - 93

G:\EST\OURLAND\OR\DIS\DEMO.WK3

DIRECT COST

| PACKAGE | DESCRIPTION                                  | MH      | LABOR        | S/C | MATL         | TOTAL DIRECTS |
|---------|--|---------|--------------|-----|--------------|---------------|
|         | <u>DIRECT COST</u>                           |         |              |     |              |               |
| 21      | PADS   | 50,496  | \$833,689    | \$0 | \$0          | \$833,689     |
| 22      | FOUNDATIONS                                  | 533,427 | 8,806,880    | 0   | 0            | \$8,806,880   |
| 23      | UTILITIES                                    | 142,346 | 2,350,132    | 0   | 0            | \$2,350,132   |
| 24      | ROADS, R/R, LOTS, ETC.                       | 55,881  | 1,122,596    | 0   | 0            | \$1,122,596   |
| 25      | IMPOUNDMENTS                                 | 0       | 0            | 0   | 0            | \$0           |
| MISC    | BLDGS. NOT INCLUDED IN PKGS.1-13             | -       | 14,954,454   | 0   | 10,026,371   | \$24,980,825  |
|         | <u>SUB TOTAL (EXCLUDING TAKE OFF ALLOW.)</u> | 782,150 | \$28,067,751 | \$0 | \$10,026,371 | \$38,094,122  |
|         | ADD 10% TAKE OFF ALLOWANCE :                 |         |              |     |              |               |
|         | <u>DIRECT COST</u>                           |         |              |     |              |               |
| 21      | PADS   | 55,546  | \$917,058    | \$0 | \$0          | \$917,058     |
| 22      | FOUNDATIONS                                  | 586,770 | 9,687,568    | 0   | 0            | \$9,687,568   |
| 23      | UTILITIES                                    | 156,581 | 2,585,145    | 0   | 0            | \$2,585,145   |
| 24      | ROADS, R/R, LOTS, ETC.                       | 61,469  | 1,234,856    | 0   | 0            | \$1,234,856   |
| 25      | IMPOUNDMENTS                                 | 0       | 0            | 0   | 0            | \$0           |
| MISC    | BLDGS. NOT INCLUDED IN PKGS.1-13             | -       | 16,449,899   | 0   | 11,029,008   | \$27,478,908  |
|         | <u>TOTAL (INCLUDING TAKE OFF ALLOW.)</u>     | 860,365 | \$30,874,526 | \$0 | \$11,029,008 | \$41,903,534  |
|         |  |         |              |     |              | 2%            |
|         |  |         |              |     |              | 23%           |
|         |  |         |              |     |              | 6%            |
|         |  |         |              |     |              | 3%            |
|         |  |         |              |     |              | 0%            |
|         |  |         |              |     |              | 66%           |

WASTE CONTAINERS (PRORATED)

|      |                               |   |     |     |              |              |     |
|------|-------------------------------|---|-----|-----|--------------|--------------|-----|
| 21   |                               | 0 | \$0 | \$0 | \$592,332    | \$592,332    | 2%  |
| 22   |                               | 0 | 0   | 0   | 6,257,248    | \$6,257,248  | 23% |
| 23   |                               | 0 | 0   | 0   | 1,669,758    | \$1,669,758  | 6%  |
| 24   |                               | 0 | 0   | 0   | 797,599      | \$797,599    | 3%  |
| 25   |                               | 0 | 0   | 0   | 0            | \$0          | 0%  |
| MISC |                               | 0 | 0   | 0   | 17,748,762   | \$17,748,762 | 66% |
|      | <u>TOTAL WASTE CONTAINERS</u> | 0 | \$0 | \$0 | \$27,065,700 | \$27,065,700 |     |

HAULING (PRORATED)

|      |                      |        |           |     |     |           |     |
|------|----------------------|--------|-----------|-----|-----|-----------|-----|
| 21   |                      | 232    | \$4,528   | \$0 | \$0 | \$4,528   | 2%  |
| 22   |                      | 2,454  | 47,833    | 0   | 0   | \$47,833  | 23% |
| 23   |                      | 655    | 12,764    | 0   | 0   | \$12,764  | 6%  |
| 24   |                      | 313    | 6,097     | 0   | 0   | \$6,097   | 3%  |
| 25   |                      | 0      | 0         | 0   | 0   | \$0       | 0%  |
| MISC |                      | 6,960  | 135,678   | 0   | 0   | \$135,678 | 66% |
|      | <u>TOTAL HAULING</u> | 10,614 | \$206,900 | \$0 | \$0 | \$206,900 |     |

|                                    |         |              |     |              |              |
|------------------------------------|---------|--------------|-----|--------------|--------------|
| <u>TOTAL SITE DEMO DIRECT COST</u> | 870,979 | \$31,081,400 | \$0 | \$38,094,700 | \$69,176,100 |
|------------------------------------|---------|--------------|-----|--------------|--------------|

5448

G:\EST\TOMLAND\LD\RS\SITE\DEMO.WK3

INDIRECT COST

| PACKAGE                    | DESCRIPTION                      | LABOR               | S/C        | MATL                | TOTAL INDIRECTS     |
|----------------------------|----------------------------------|---------------------|------------|---------------------|---------------------|
| <u>INDIRECT FIELD COST</u> |                                  |                     |            |                     |                     |
| 21                         | PADS                             | \$1,084,000         | \$0        | \$2,179,000         | \$3,263,000         |
| 22                         | FOUNDATIONS                      | 11,448,000          | 0          | 23,019,000          | \$34,467,000        |
| 23                         | UTILITIES                        | 3,056,000           | 0          | 6,143,000           | \$9,199,000         |
| 24                         | ROADS, R/R, LOTS, ETC.           | 1,442,000           | 0          | 2,501,000           | \$3,943,000         |
| 25                         | IMPOUNDMENTS                     | 0                   | 0          | 0                   | \$0                 |
| MISC                       | BLDGS. NOT INCLUDED IN PKGS.1-13 | 19,110,000          | 0          | 8,738,000           | \$27,848,000        |
|                            | <u>TOTAL INDIRECT FIELD COST</u> | <u>\$36,140,000</u> | <u>\$0</u> | <u>\$42,580,000</u> | <u>\$78,720,000</u> |

NOTE: THE ESTIMATE SUMMARY SHEET WAS USED TO GENERATE INDIRECT FIELD COST BY PACKAGE (SHOWN ABOVE) AS WELL AS SOIL/WATER/AIR, G & A, PROJECT MANAGEMENT AND SALES TAX.

ENGINEERING COST (PRORATED)

|      |                                  |     |                     |
|------|----------------------------------|-----|---------------------|
| 21   | PADS                             | 2%  | 1,480,400           |
| 22   | FOUNDATIONS                      | 23% | 17,024,200          |
| 23   | UTILITIES                        | 6%  | 4,441,100           |
| 24   | ROADS, R/R, LOTS, ETC.           | 3%  | 2,220,600           |
| 25   | IMPOUNDMENTS                     | 0%  | 0                   |
| MISC | BLDGS. NOT INCLUDED IN PKGS.1-13 | 66% | 48,852,100          |
|      | <u>TOTAL ENGINEERING</u>         |     | <u>\$74,018,400</u> |

CONTINGENCY & RISK BUDGET  
 THE AUG05, 1993 PROPOSED PLAN ESTIMATE USES 20% (CONTINGENCY ONLY - NO RISK BUDGET WAS ASSUMED).  
 FOR THIS ANALYSIS, 15% CONTINGENCY AND 5% RISK BUDGET WAS USED AND, AS WITH INDIRECT FIELD COST, THE  
 ESTIMATE SUMMARY SHEET WAS USED TO GENERATE THESE NUMBERS.

CONTR. NO. - 4321  
 EST. NO.  
 BY:  
 DATE: 10/20/93

BUDGET ESTIMATE DETAILS

CLIENT - U.S. DEPT. OF ENERGY  
 PROJECT - D&D FOR FERNALD SITE  
 LOCATION - FERNALD, OHIO  
 PROJ. CTL. -

5446

| PACKAGE | DESCRIPTION  | QUAN   | UNIT | MANHOURS |         | COST/UNIT |       | LABOR       | SUB CONTRACT | MATERIAL | TOTAL       |
|---------|--|--------|------|----------|---------|-----------|-------|-------------|--------------|----------|-------------|
|         |  |        |      | UNIT     | TOTAL   | RATE      | LABOR |             |              |          |             |
|         | EXCAVATION & CIVIL   |        |      |          |         |           |       |             |              |          |             |
|         | UNDER GROUND DEMOLITION<br>(REMOVE PIPE AND LOAD INTO SEA/LANDS) |        |      |          |         |           |       |             |              |          |             |
| 23      | POTABLE WATER LINES  | 24,115 | LF   | 0.576    | 13,890  | 16.51     |       | \$229,324   |              |          | \$229,324   |
| 23      | STEAM & CONDENSATE LINES   | 2,950  | LF   | 0.576    | 1,699   | 16.51     |       | \$28,050    |              |          | \$28,050    |
| 23      | FUEL OIL LINES -   | 50     | LF   | 0.576    | 29      | 16.51     |       | \$479       |              |          | \$479       |
| 23      | VENT LINES   | 50     | LF   | 0.576    | 29      | 16.51     |       | \$479       |              |          | \$479       |
| 23      | PROCESS WATER LINES  | 9,425  | LF   | 0.576    | 5,429   | 16.51     |       | \$89,633    |              |          | \$89,633    |
| 23      | COOLING WATER SUPPLY/RETURN LINES                                | 9,300  | LF   | 0.576    | 5,357   | 16.51     |       | \$88,444    |              |          | \$88,444    |
| 23      | SUMP LIQUOR LINES  | 1,225  | LF   | 0.576    | 706     | 16.51     |       | \$11,656    |              |          | \$11,656    |
| 23      | FILTRATE/EFFLUENT LINES  | 8,975  | LF   | 0.576    | 5,170   | 16.51     |       | \$85,357    |              |          | \$85,357    |
| 23      | FUEL GAS LINES   | 7,820  | LF   | 0.576    | 4,504   | 16.51     |       | \$74,361    |              |          | \$74,361    |
| 23      | AIR LINES  | 1,215  | LF   | 0.576    | 700     | 16.51     |       | \$11,557    |              |          | \$11,557    |
| 23      | DEIONIZED FEED LINES   | 2,375  | LF   | 0.576    | 1,368   | 16.51     |       | \$22,586    |              |          | \$22,586    |
| 23      | CONTAMINATED SEWER LINES   | 2,570  | LF   | 0.576    | 1,480   | 16.51     |       | \$24,435    |              |          | \$24,435    |
| 23      | RAW WATER LINES  | 2,690  | LF   | 0.576    | 1,549   | 16.51     |       | \$25,574    |              |          | \$25,574    |
| 23      | DEIONIZED WATER LINES  | 2,045  | LF   | 0.576    | 1,178   | 16.51     |       | \$19,449    |              |          | \$19,449    |
| 23      | BRINE WATER LINES  | 270    | LF   | 0.576    | 156     | 16.51     |       | \$2,576     |              |          | \$2,576     |
| 23      | SANITARY SEWER LINES   | 16,622 | LF   | 0.576    | 9,574   | 16.51     |       | \$158,067   |              |          | \$158,067   |
| 23      | STORM SEWER LINES  | 67,050 | LF   | 0.576    | 38,621  | 16.51     |       | \$637,633   |              |          | \$637,633   |
| 23      | FIRE LINES   | 23,015 | LF   | 0.576    | 13,257  | 16.51     |       | \$218,873   |              |          | \$218,873   |
| 23      | ELECTRICAL DUCTBANKS   | 65,365 | LF   | 0.576    | 37,650  | 16.51     |       | \$621,602   |              |          | \$621,602   |
|         | SUB TOTAL (UNDER GROUND DEMOLITION)                              |        |      |          | 142,346 |           |       | \$2,350,132 |              |          | \$2,350,132 |

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CLIENT - U.S. DEPT. OF ENERGY  
 PROJECT - D&D FOR FERNALD SITE  
 LOCATION - FERNALD, OHIO  
 PROJ.CTL. -

BUDGET ESTIMATE DETAILS

CONTR. NO. - 4321  
 EST. NO.  
 BY:  
 DATE: 10/20/93

| PACKAGE | DESCRIPTION                         | QUAN   | UNIT | MANHOURS |         | COST/UNIT |       | LABOR        | SUB CONTRACT | MATERIAL | TOTAL        |
|---------|-------------------------------------|--------|------|----------|---------|-----------|-------|--------------|--------------|----------|--------------|
|         |                                     |        |      | UNIT     | TOTAL   | RATE      | LABOR |              |              |          |              |
|         | <u>GENERAL SITE DEMOLITION</u>      |        |      |          |         |           |       |              |              |          |              |
| 24      | DIRTY SIDEWALK DEMOLITION           | 3,221  | SY   | 0.537    | 1,730   | 16.51     |       | \$28,562     |              |          | \$28,562     |
| 24      | CLEAN SIDEWALK DEMOLITION           | 2,147  | SY   | 0.215    | 462     | 16.51     |       | \$7,628      |              |          | \$7,628      |
| 21      | STORAGE PAD DEMO. (ASSUMED 8" THICK | 94,033 | SY   | 0.537    | 50,496  | 16.51     |       | \$833,689    |              |          | \$833,689    |
| 24      | PARKING LOTS DEMOLITION             | 6,491  | SY   | 0.215    | 1,396   | 16.51     |       | \$23,048     |              |          | \$23,048     |
| 24      | FENCE DEMOLITION (MACHINE REMOVAL)  | 59,655 | LF   | 0.130    | 7,755   | 16.51     |       | \$128,035    |              |          | \$128,035    |
| 24      | - POLE REMOVAL                      | 1      | LOT  |          |         |           |       | \$200,000    |              |          | \$200,000    |
| MISC    | TRAILERS/MISC.                      | 151    | EA   |          |         |           |       | \$2,700,000  |              |          | \$2,700,000  |
| 24      | SITE RAIL ROAD DEMOLITION           | 18,440 | LF   | 1.215    | 22,405  | 16.51     |       | \$369,907    |              |          | \$369,907    |
| 24      | DIRTY PAVED ROAD DEMOLITION         | 32,533 | SY   | 0.537    | 17,470  | 16.51     |       | \$288,430    |              |          | \$288,430    |
| 24      | CLEAN PAVED ROAD DEMOLITION         | 21,689 | SY   | 0.215    | 4,663   | 16.51     |       | \$76,986     |              |          | \$76,986     |
| 22      | BUILDING FOUNDATION DEMOLITION      | 41,674 | CY   | 12.80    | 533,427 | 16.51     |       | \$8,806,880  |              |          | \$8,806,880  |
|         | SUB TOTAL (GENERAL SITE DEMOLITION) |        |      |          | 639,804 |           |       | \$13,463,164 |              |          | \$13,463,164 |
|         | TAKE - OFF ALLOWANCE 10%            |        |      |          | 78,215  |           |       | \$1,581,330  |              |          | \$1,581,330  |
|         | TOTAL (GENERAL SITE WORK)           |        |      |          | 860,365 |           |       | \$17,394,626 |              |          | \$17,394,626 |

CONTR. NO. - 4424321  
 EST. NO.  
 BY:  
 DATE: 10/20/93

BUDGET ESTIMATE DETAILS

CONTR. NO. - .24321  
 CLIENT - U.S. DEPT. OF ENERGY  
 PROJECT - D&D FOR FERNALD SITE  
 LOCATION - FERNALD, OHIO  
 PROJ. CTL. -

| PACKAGE | DESCRIPTION  | QUAN    | UNIT | MANHOURS |       | RATE | COST/UNIT |     | LABOR        | SUB CONTRACT | MATERIAL     | TOTAL        |
|---------|--|---------|------|----------|-------|------|-----------|-----|--------------|--------------|--------------|--------------|
|         |  |         |      | UNIT     | TOTAL |      | LABOR     | SUB |              |              |              |              |
| MISC    | <b>BUILDINGS</b>   |         |      |          |       |      |           |     |              |              |              |              |
|         | MISC. BUILDINGS (2B,2C,3A,3H,3K,3L,16A,16B,<br>16C,16D,16E,16F,16G,18A,18C,18E,18F,18G,18N,18P,<br>18Q,20D,20E,20F,20G,20J,22A,22C,22D,22E,23,24A,<br>25H,25J,26A,26B,26C,28C,28D,30C,34A,34B,34C,35A,<br>35B,39C,39D,46,51,88 | 234,535 | SF   |          |       |      |           |     | \$12,254,454 |              | \$10,026,371 | \$22,280,825 |
| 25      | IMPOUNDMENTS (INCLUDED IN MISC. ABOVE)   |         |      |          |       |      |           |     |              |              |              |              |
|         | <b>SUB TOTAL (BUILDINGS)</b>   |         |      |          |       |      |           |     | \$12,254,454 |              | \$10,026,371 | \$22,280,825 |
|         | <b>TAKE - OFF ALLOWANCE</b>  |         |      |          |       |      |           |     | \$1,225,445  |              | \$1,002,637  | \$2,228,080  |
|         | <b>TOTAL (BUILDINGS)</b>   |         |      |          |       |      |           |     | \$13,479,900 |              | \$11,029,000 | \$24,508,900 |



ST FILE #:   
 CLIENT: US DOE   
 PROJECT TITLE:

SUMMARY SHEET  
D&D SITE DEMOLITION

DATE:   
 ESTIMATOR: S.S., P.L., T.P. & A.S.   
 LOCATION: FERNALD   
 REV: 2

| CODE  | ITEM DESCRIPTION  | M/H            | RATE     | LABOR \$            | SC \$     | MAT'L \$            | TOTAL \$             |
|---|---|----------------|----------|---------------------|-----------|---------------------|----------------------|
|   | SITE DEMO (ROADS,RAILROADS,SIDEWALKS,PARKING LOTS,ETC.) | 860.365        | 16.51    | \$17,394,626        |           |                     | \$17,394,600         |
|   | CONCRETE  |                |          |                     |           |                     |                      |
|   | STRUCTURAL STEEL  |                |          |                     |           |                     |                      |
|   | BUILDINGS (TENSION SUPPORT STRUC. NOT INC.)             |                |          | \$13,479,900        |           | \$11,029,000        | \$24,508,900         |
|   | MACHINERY AND EQUIPMENT                                 |                |          |                     |           |                     |                      |
|   | PIPING  |                |          |                     |           |                     |                      |
|   | ELECTRICAL  |                |          |                     |           |                     |                      |
|   | INSTRUMENTS   |                |          |                     |           |                     |                      |
|   | PAINTING AND SCAFFOLD                                   |                |          |                     |           |                     |                      |
|   | INSULATION  |                |          |                     |           |                     |                      |
|   | SEALAND CONTAINERS (20'x8'x8')(\$5,100 EA)(5,307 EA)    |                |          |                     |           | \$27,065,700        | \$27,065,700         |
|   | HAUL SEALAND CONTAINERS (4 MILE ROUND TRIP)             | 10,614         | 19.49    | \$206,867           |           |                     | \$206,900            |
| <b>DIRECT FIELD COSTS</b>                     |   | <b>870,979</b> |          | <b>\$31,081,400</b> |           | <b>\$38,094,700</b> | <b>\$69,176,100</b>  |
|   | SUPERVISION - CONTRACTOR                                |                |          | \$5,284,000         |           |                     | \$5,284,000          |
|   | MANUAL TOOLS/CONSUMABLES                                |                |          |                     |           | \$1,864,900         | \$1,864,900          |
|   | EQUIPMENT RENTAL  |                |          |                     |           | \$3,562,900         | \$3,562,900          |
|   | EMP. FACILITIES   |                |          | \$652,700           |           | \$1,212,200         | \$1,864,900          |
|   | EMP UTIL'S HOOK-UP                                      |                |          | \$326,400           |           | \$606,100           | \$932,500            |
|   | WASTE CLEAN-UP  |                |          | \$652,700           |           | \$1,212,200         | \$1,864,900          |
|   | SAFETY  |                |          | \$326,400           |           | \$606,100           | \$932,500            |
|   | HEALTH PHYSICS  |                |          | \$1,916,200         |           | \$21,774,475        | \$23,690,700         |
|   | PERCELA \$1,500 PER PERSON                              |                |          |                     |           | \$653,200           | \$653,200            |
|   | PERSONNEL   |                |          |                     |           | \$691,800           | \$691,800            |
|   | OVERHEAD & PROFIT                                       |                |          |                     |           | \$9,946,700         | \$9,946,700          |
|   | MISSION MODELING  |                |          | \$121,100           |           | \$224,800           | \$345,900            |
|   | HAZARDOUS WASTE REPORT(SAFE RPT)                        |                |          | \$121,100           |           | \$224,800           | \$345,900            |
|   | STATELY BRD.&BENFT.                                     |                |          | \$21,050,600        |           |                     | \$21,050,600         |
|   | CONSTRUCTION MGMT                                       |                |          | \$5,688,300         |           |                     | \$5,688,300          |
| <b>INDIRECT FIELD COSTS</b>                   |   |                |          | <b>\$36,139,500</b> |           | <b>\$42,580,200</b> | <b>\$78,719,700</b>  |
| <b>DIRECT &amp; INDIRECT FIELD COSTS</b>      |   |                |          | <b>\$67,220,900</b> |           | <b>\$80,674,900</b> | <b>\$147,895,800</b> |
|   | OIL/WATER/AIR   |                |          | \$484,200           |           | \$899,300           | \$1,383,500          |
|   | INSURANCE (HO EXP)                                      |                |          |                     |           |                     | \$1,479,000          |
|   | PROJECT MGMT-FERMCO                                     |                |          |                     |           |                     | \$11,831,700         |
|   | ENGINEERING   | TITLE I        | TITLE II |                     | TITLE III |                     | \$74,018,400         |
| <b>ENGINEERING/FIELD SUPPORT/SUBCONTRACTS</b> |   |                |          |                     |           |                     | <b>\$88,712,600</b>  |
| <b>TOTAL FIELD &amp; ENGINEERING COSTS</b>    |   |                |          |                     |           |                     | <b>\$236,608,400</b> |
|   | SALES TAX 6.0%  |                |          | \$80,674,900        |           |                     | \$4,840,500          |
| <b>SUB-TOTAL</b>                              |   |                |          |                     |           |                     | <b>\$241,448,900</b> |
| <b>SCALATION</b>                              |   |                |          |                     |           |                     | <b>\$241,448,900</b> |
| <b>SUB-TOTAL</b>                              |   |                |          |                     |           |                     | <b>\$241,448,900</b> |
|   | CONTINGENCY 20.0%                                       |                |          |                     |           |                     | \$48,289,800         |
| <b>TOTAL ESTIMATED INSTALLED COST</b>         |   |                |          |                     |           |                     | <b>\$289,738,700</b> |

**PRELIMINARY**



ESTIMATING SERVICES

**SUMMARY SHEET**  
**CENTRAL STORAGE FACILITY**  
**"2" SKIN REPLACEMENT**

DATE: 05-Oct-93  
 ESTIMATOR: S.S., P.L., T.P. & A.S.  
 LOCATION: FERNALD  
 REV: 2

FILE #:   
 AGENT: US DOE  
 PROJECT TITLE: DSUMS.WK3

| NO   | ITEM DESCRIPTION             | M/H     | RATE     | LABOR \$           | S/C \$    | MAT'L \$           | TOTAL \$           |
|--|------------------------------|---------|----------|--------------------|-----------|--------------------|--------------------|
|  | EXCAVATION                   |         |          |                    |           |                    |                    |
|  | CONCRETE                     |         |          |                    |           |                    |                    |
|  | STRUCTURAL STEEL             |         |          |                    |           |                    |                    |
|  | BUILDINGS                    |         |          | \$704,000          |           | \$1,056,000        | \$1,760,000        |
|  | MACHINERY AND EQUIPMENT      |         |          |                    |           |                    |                    |
|  | PIPING                       |         |          |                    |           |                    |                    |
|  | ELECTRICAL                   |         |          |                    |           |                    |                    |
|  | INSTRUMENTS                  |         |          |                    |           |                    |                    |
|  | PAINTING AND SCAFFOLD        |         |          |                    |           |                    |                    |
|  | INSULATION                   |         |          |                    |           |                    |                    |
|  | SEALAND CONTAINERS           |         |          |                    |           |                    |                    |
|  | HAUL SEALAND CONTAINERS      |         |          |                    |           |                    |                    |
| <b>PROJECT FIELD COSTS</b>                               |                              |         |          | <b>\$704,000</b>   |           | <b>\$1,056,000</b> | <b>\$1,760,000</b> |
|  | PROVISION - CONTRACTOR       |         |          | \$120,000          |           |                    | \$120,000          |
|  | TOOLS/CONSM'BLS              |         |          |                    |           | \$42,200           | \$42,200           |
|  | EQUIPMENT RENTAL             |         |          |                    |           |                    |                    |
|  | OFF. FACILITIES              |         |          | \$14,800           |           | \$27,500           | \$42,300           |
|  | OFF. UTIL'S HOOK-UP          |         |          | \$7,400            |           | \$13,700           | \$21,100           |
|  | OFF. CLEAN-UP                |         |          | \$14,800           |           | \$27,500           | \$42,300           |
|  | OFF. TRAVEL                  |         |          | \$7,400            |           | \$13,700           | \$21,100           |
|  | OFF. HEALTH PHYSICS          |         |          |                    |           |                    |                    |
|  | OFF. RCLA \$1,500 PER PERSON |         |          |                    |           | \$17,600           | \$17,600           |
|  | OFF. OVERHEAD & PROFIT       |         |          |                    |           | \$186,000          | \$186,000          |
|  | OFF. SIMULATION MODELING     |         |          |                    |           |                    |                    |
|  | OFF. R/PSAR(SAFE RPT)        |         |          |                    |           |                    |                    |
|  | OFF. YEARLY BRD.&BENFT.      |         |          | \$451,600          |           |                    | \$451,600          |
|  | OFF. INSTR. MGMT             |         |          | \$108,200          |           |                    | \$108,200          |
| <b>DIRECT FIELD COSTS</b>                                |                              |         |          | <b>\$724,200</b>   |           | <b>\$328,200</b>   | <b>\$1,052,400</b> |
| <b>PROJECT &amp; INDIRECT FIELD COSTS</b>                |                              |         |          | <b>\$1,428,200</b> |           | <b>\$1,384,200</b> | <b>\$2,812,400</b> |
|  | OFF. TEL/WATER/AIR           |         |          | \$12,300           |           | \$22,900           | \$35,200           |
|  | OFF. TRAVEL (HO EXP)         |         |          |                    |           |                    | \$28,100           |
|  | OFF. PROJ. MGMT - FERMCO     |         |          |                    |           |                    | \$225,000          |
|  | OFF. ENGINEERING             | TITLE I | TITLE II |                    | TITLE III |                    | \$352,000          |
| <b>ENGINEERING/FIELD SUPPORT/SUBCONTRACTS</b>            |                              |         |          |                    |           |                    | <b>\$640,300</b>   |
| <b>TOTAL FIELD &amp; ENGINEERING COSTS</b>               |                              |         |          |                    |           |                    | <b>\$3,452,700</b> |
|  | OFF. SALES TAX 6.0%          |         |          |                    |           | \$1,384,200        | \$83,100           |
| <b>SUB-TOTAL</b>   |                              |         |          |                    |           |                    | <b>\$3,535,800</b> |
|  | OFF. CONTINGENCY             |         |          |                    |           |                    | \$353,600          |
| <b>TOTAL ESTIMATED INSTALLED COST (FFSC bid w/cost-)</b> |                              |         |          |                    |           |                    | <b>\$3,889,400</b> |

**PRELIMINARY**

CONTR. NO. - 4424321  
 EST. NO.  
 BY:  
 DATE: 10/01/93

BUDGET ESTIMATE DETAILS

CONTR. NO. - 4321  
 CLIENT - U.S. DEPT. OF ENERGY  
 PROJECT - D&D FOR FERNALD SITE  
 LOCATION - FERNALD, OHIO  
 PROJ. CTL. -  
 G:\ESTIPAU\LOTUS31\TENSION\JOE\SKIN\BLDGS.WK3

| COST CATEG. | DESCRIPTION                       | QUAN | UNIT | MANHOURS |       | RATE | COST/UNIT |       |     | SUB CONTRACT | MATERIAL    | TOTAL       |
|-------------|-----------------------------------|------|------|----------|-------|------|-----------|-------|-----|--------------|-------------|-------------|
|             |                                   |      |      | UNIT     | TOTAL |      | LABOR     | LABOR | SUB |              |             |             |
|             | <u>BUILDINGS</u>                  |      |      |          |       |      |           |       |     |              |             |             |
|             | TENSION SUPPORT STRUCTURES (6 EA) |      |      |          |       |      |           |       |     |              |             |             |
|             | 2 SKIN REPLACEMENT COSTS          | 1    | LOT  |          |       |      |           |       |     |              | \$960,000   | \$1,600,000 |
|             | SUB TOTAL (BUILDINGS)             |      |      |          |       |      |           |       |     |              | \$960,000   | \$1,600,000 |
|             | TAKE - OFF ALLOWANCE              |      |      |          |       |      |           |       |     |              | \$96,000    | \$160,000   |
|             | TOTAL (BUILDINGS)                 |      |      |          |       |      |           |       |     |              | \$1,056,000 | \$1,760,000 |

- 5448



ESTIMATING SERVICES

**SUMMARY SHEET**  
**CENTRAL STORAGE FACILITY**  
**CONSTRUCTION**

DATE: 05-Oct-93  
 ESTIMATOR: S.S., P.L., T.P. & A.S.  
 LOCATION: FERNALD  
 REV: 2

PROJECT FILE #:   
 CLIENT: US DOE  
 PROJECT TITLE: DSUMC.WK3

| LINE  | ITEM DESCRIPTION          | M/H           | RATE     | LABOR \$           | S/C \$    | MATL \$            | TOTAL \$           |
|---|---------------------------|---------------|----------|--------------------|-----------|--------------------|--------------------|
|   | EXCAVATION                |               |          |                    |           |                    |                    |
|   | CONCRETE                  |               |          |                    |           |                    |                    |
|   | STRUCTURAL STEEL          |               |          |                    |           |                    |                    |
|   | BUILDINGS                 | 25,403        | 17.64    | \$448,100          |           | \$4,130,400        | \$4,578,500        |
|   | MACHINERY AND EQUIPMENT   |               |          |                    |           |                    |                    |
|   | PIPING                    |               |          |                    |           |                    |                    |
|   | ELECTRICAL                |               |          |                    |           |                    |                    |
|   | INSTRUMENTS               |               |          |                    |           |                    |                    |
|   | PAINTING AND SCAFFOLD     |               |          |                    |           |                    |                    |
|   | INSULATION                |               |          |                    |           |                    |                    |
|   | SEALAND CONTAINERS        |               |          |                    |           |                    |                    |
|   | HAUL SEALAND CONTAINERS   |               |          |                    |           |                    |                    |
| <b>DIRECT FIELD COSTS</b>                                 |                           | <b>25,403</b> |          | <b>\$448,100</b>   |           | <b>\$4,130,400</b> | <b>\$4,578,500</b> |
|   | SUPERVISION - CONTRACTOR  |               |          | \$76,000           |           |                    | \$76,000           |
|   | TOOLS/CONSUMABLES         |               |          |                    |           | \$26,900           | \$26,900           |
|   | EQUIPMENT RENTAL          |               |          |                    |           | \$260,400          | \$260,400          |
|   | TEMP. FACILITIES          |               |          | \$9,400            |           | \$17,500           | \$26,900           |
|   | TEMP UTIL'S HOOK-UP       |               |          | \$4,700            |           | \$8,700            | \$13,400           |
|   | DEBRIS CLEAN-UP           |               |          | \$9,400            |           | \$17,500           | \$26,900           |
|   | SAFETY                    |               |          | \$4,700            |           | \$8,700            | \$13,400           |
|   | RADIATION PHYSICS         |               |          |                    |           |                    |                    |
|   | PERCLA \$1,500 PER PERSON |               |          |                    |           | \$19,100           | \$19,100           |
|   | PERIOD                    |               |          |                    |           | \$45,800           | \$45,800           |
|   | OVERHEAD & PROFIT         |               |          |                    |           | \$457,900          | \$457,900          |
|   | MISSION MODELING          |               |          |                    |           |                    |                    |
|   | BAR/FSAR(SAFE RPT)        |               |          |                    |           |                    |                    |
|   | LYRL BRD.&BENFT.          |               |          | \$287,200          |           |                    | \$287,200          |
|   | CONSTR. MGMT              |               |          | \$233,300          |           |                    | \$233,300          |
| <b>DIRECT FIELD COSTS</b>                                 |                           |               |          | <b>\$624,700</b>   |           | <b>\$862,500</b>   | <b>\$1,487,200</b> |
| <b>DIRECT &amp; INDIRECT FIELD COSTS</b>                  |                           |               |          | <b>\$1,072,800</b> |           | <b>\$4,992,900</b> | <b>\$6,065,700</b> |
|   | TEL/WATER/AIR             |               |          | \$32,000           |           | \$59,500           | \$91,500           |
|   | SEA (HO EXP)              |               |          |                    |           |                    | \$60,700           |
|   | CONJ. MGMT - FERMCO       |               |          |                    |           |                    | \$485,300          |
|   | ENGINEERING               | TITLE I       | TITLE II |                    | TITLE III |                    | \$915,700          |
| <b>ENGINEERING/FIELD SUPPORT/SUBCONTRACTS</b>             |                           |               |          |                    |           |                    | <b>\$1,553,200</b> |
| <b>TOTAL FIELD &amp; ENGINEERING COSTS</b>                |                           |               |          |                    |           |                    | <b>\$7,618,900</b> |
|   | SALES TAX 6.0%            |               |          | \$4,992,900        |           |                    | \$299,600          |
| <b>SUB-TOTAL</b>  |                           |               |          |                    |           |                    | <b>\$7,918,500</b> |
| <b>ADJUSTMENT</b>   |                           |               |          |                    |           |                    |                    |
| <b>SUB-TOTAL</b>  |                           |               |          |                    |           |                    | <b>\$7,918,500</b> |
|   | CONTINGENCY 10.0%         |               |          |                    |           |                    | \$791,900          |
| <b>TOTAL ESTIMATED INSTALLED COST (FPSC bid w/cont.-)</b> |                           |               |          |                    |           |                    | <b>\$8,710,400</b> |

**PRELIMINARY**

141

CONTR. NO. - 4321

CLIENT - U.S. DEPT. OF ENERGY  
 PROJECT - D&D FOR FERNALD SITE  
 LOCATION - FERNALD, OHIO  
 PROJ. CTL. -

CONTR. NO. - 4424321  
 EST. NO.  
 BY:  
 DATE: 10/01/93

BUDGET ESTIMATE DETAILS

G:\EST\PAUL\LOTUS31\TENSION\JOE\CONSTR\BLDGS.WK3

| COST CATEG. | DESCRIPTION                       | QUAN    | UNIT | MANHOURS |        | COST/UNIT |       | LABOR     | MATERIAL    | SUB CONTRACT | LABOR     | MATERIAL    | TOTAL       |
|-------------|-----------------------------------|---------|------|----------|--------|-----------|-------|-----------|-------------|--------------|-----------|-------------|-------------|
|             |                                   |         |      | UNIT     | TOTAL  | RATE      | LABOR |           |             |              |           |             |             |
|             | <b>BUILDINGS</b>                  |         |      |          |        |           |       |           |             |              |           |             |             |
|             | TENSION SUPPORT STRUCTURES (2 EA) | 154,333 | CY   | 0.05     | 7,717  | 17.64     |       | \$136,100 | \$1,852,000 |              | \$136,100 | \$1,852,000 | \$136,100   |
|             | EXCAVATION                        | 154,333 | CY   | 0.03     | 3,858  | 17.64     |       | \$68,100  | \$1,200,000 |              | \$68,100  | \$1,200,000 | \$1,920,100 |
|             | BACKFILL                          | 1       | LOT  |          |        |           |       |           |             |              |           |             | \$1,200,000 |
|             | INITIAL PURCHASE/ERECT            | 1,986   | CY   | 6        | 11,519 | 17.64     |       | \$203,200 | \$178,700   |              | \$203,200 | \$178,700   | \$381,900   |
|             | 2 SLABS ON GRADE                  | 1       | LOT  |          |        |           |       |           | \$524,200   |              |           | \$524,200   | \$524,200   |
|             | EQUIPMENT                         |         |      | *****    |        |           |       |           |             |              |           |             |             |
|             | <b>SUB TOTAL (BUILDINGS)</b>      |         |      |          | 23,094 |           |       | \$407,400 | \$3,754,900 |              | \$407,400 | \$3,754,900 | \$4,162,300 |
|             | <b>TAKE - OFF ALLOWANCE</b>       |         |      |          | 2,309  |           |       | \$40,740  | \$375,490   |              | \$40,740  | \$375,490   | \$416,230   |
|             | <b>TOTAL (BUILDINGS)</b>          |         |      |          | 25,403 |           |       | \$448,100 | \$4,130,400 |              | \$448,100 | \$4,130,400 | \$4,578,500 |

5446

142

## DESIGN PACKAGE #1

|                              |     |
|------------------------------|-----|
| Green Salt Plant             | 4 A |
| Plant 4 Warehouse            | 4 B |
| Plant 4 Maintenance Building | 4 C |

## DESIGN PACKAGE #2

|                                   |      |
|-----------------------------------|------|
| Ozone Building                    | 3 B  |
| NAR Control House                 | 3 C  |
| NAR Towers                        | 3 D  |
| Hot Raffinate Building            | 3 E  |
| Harshaw Digestion Fume Recovery   | 3 F  |
| Refrigeration Building            | 3 G  |
| Combined Raffinate Tanks          | 3 J  |
| Incinerator Building              | 39 A |
| Waste Oil Decant Shelter          | 39 B |
| Incinerator Sprinkler Riser House | 39 C |

## DESIGN PACKAGE #3

|                                |     |
|--------------------------------|-----|
| Ore Refinery Plant             | 2 A |
| Metal Dissolver Building       | 2 D |
| NFS Storage & Pump House       | 2 E |
| Cold Side Ore Conveyor         | 2 F |
| Hot Side Ore Conveyor          | 2 G |
| Conveyor Tunnel (From Plant 1) | 2 H |

## DESIGN PACKAGE #4

|                                   |      |
|-----------------------------------|------|
| Pilot Plant Wet Side              | 13 A |
| Pilot Plant Maintenance Bldg.     | 13 B |
| Sump Pump House                   | 13 C |
| Pilot Plant Thorium Tank Farm     | 13 D |
| Pilot Plant Ammonia Tank Farm     | 19 B |
| Pilot Plant Annex                 | 37   |
| Six to Four Reduction Facility #1 | 54 A |
| Pilot Plant Shelter               | 54 B |
| Pilot Plant Dissociator Shelter   | 54 C |
| Pilot Plant Warehouse             | 68   |

## DESIGN PACKAGE #5

|                                   |      |
|-----------------------------------|------|
| Metals Production Plant           | 5 A  |
| Plant 5 Ingot Pickling            | 5 B  |
| Plant 5 Electrical Substation     | 5 C  |
| West Derby Breakout/ Slag Milling | 5 D  |
| Plant 5 Filter Building           | 5 E  |
| Plant 5 Covered Storage Pad       | 5 F  |
| Plant 5 Ingot Storage Shelter     | 5 G  |
| Slag Recycling Building           | 55 A |
| Slag Recycling Pit/Elevator       | 55 B |

## DESIGN PACKAGE #6

|  |     |
|--|-----|
| Metals Fabrication Plant                     | 6 A |
| Plant 6 Covered Storage Area                 | 6 B |
| Plant 6 Electrostatic Precipitator (South)   | 6 C |
| Plant 6 Electrostatic Precipitator (Central) | 6 D |
| Plant 6 Electrostatic Precipitator (North)   | 6 E |
| Plant 6 Salt Oil Heat Treat Building         | 6 F |
| Plant 6 Sump Building                        | 6 G |

## DESIGN PACKAGE #7

|                                  |      |
|----------------------------------|------|
| Special Products Plant           | 9 A  |
| Plant 9 Sump Treatment Facility  | 9 B  |
| Plant 9 Dust Collector           | 9 C  |
| Plant 9 Substation               | 9 D  |
| Plant 9 Cylinder Shed            | 9 E  |
| Electrostatic Precipitator       | 9 F  |
| Magnesium Storage Building       | 32 A |
| Building 32 Covered Loading Dock | 32 B |

## DESIGN PACKAGE #8

|                                       |      |
|---------------------------------------|------|
| Boiler Plant                          | 10 A |
| Boiler Plant Maintenance Bldg.        | 10 B |
| Wet Salt Storage Bin                  | 10 C |
| Utilities Heavy Equip Bldg (Proposed) | 10 E |
| Main Tank Farm                        | 19 A |
| Tank Farm Control House               | 19 C |
| Old North Tank Farm                   | 19 D |
| Tank Farm Lime Splitter Bldg          | 19 E |
| Pump Station & Power Center           | 20 A |
| Water Plant                           | 20 B |
| Cooling Towers                        | 20 C |
| Process Water Storage Tank            | 20 H |

## DESIGN PACKAGE #9

|                             |      |
|-----------------------------|------|
| Main Maintenance Building   | 12 A |
| Cylinder Storage Building   | 12 B |
| Lumber Storage Building     | 12 C |
| Maintenance Bldg (Proposed) | 12 D |
| Railroad Engine House       | 24 B |
| Propane Storage             | 38 A |
| Cylinder Filling Station    | 38 B |

## DESIGN PACKAGE #10

|                                       |       |
|---------------------------------------|-------|
| Service Building                      | 11    |
| Administration Building               | 14 A  |
| Building 14 EOC Generator Set         | 14 B  |
| Laboratory                            | 15 A  |
| Laboratory Chemical Storage Bldg      | 15 B  |
| Trailer Substation #1                 | 16 F  |
| Trailer Substation #2                 | 16 G  |
| 10 Plex N-Substation                  | 16 H  |
| 10 Plex S-Substation                  | 16 J  |
| Railroad Scale House                  | 24 A  |
| 10 Plex Sewage Lift Station           | 25 J  |
| Security Building                     | 28 A  |
| Human Resources Building              | 28 B  |
| Guard Post on South End of 'D' Street | 28 C  |
| Guard Post on West End of 2nd Street  | 28 D  |
| Trailer Complex (6-Plex)              | 44 A  |
| Trailer Complex (7-Plex)              | 44 C  |
| Trailer Complex (7-Plex-North)        | 44 D  |
| Trailer Complex (10-Plex)             | 44 E  |
| Rust Engineering Building             | 45 A  |
| Utility Shed East of Rust Trailers    | 45 B  |
| Health & Safety Building              | 53 A  |
| In-Vivo Building                      | 53 B  |
| Skeet Range Building                  | 90    |
| Interim Office Space                  | T-76  |
| Interim Office Space                  | T-77  |
| Interim Office Space                  | T-80  |
| Interim Office Space                  | T-81  |
| Process Trailers                      | G-006 |
| Non-Process Trailers                  | G-007 |

## DESIGN PACKAGE #11

|  |      |
|--|------|
| General/Refinery Sump Control Building | 2 B  |
| Bulk Lime Handling Building            | 2 C  |
| Maintenance Building                   | 3 A  |
| Refinery Sump                          | 3 H  |
| Electrical Power Center Building       | 3 L  |
| Recovery Plant                         | 8 A  |
| Plant 8 Maintenance Building           | 8 B  |
| Rotary Kiln/Drum Reconditioning        | 8 C  |
| Plant 8 Railroad Filter Building       | 8 D  |
| Drum Conveyor Shelter                  | 8 E  |
| Plant 8 Old Drum Washer                | 8 F  |
| General Sump                           | 18 B |
| Biodenitrification Towers              | 18 D |
| BDN Effluent Treatment Facility        | 18 H |
| Methanol Tank                          | 18 J |
| Low Nitrate Tank                       | 18 K |
| High Nitrate Tank                      | 18 L |
| High Nitrate Storage Tank              | 18 M |
| Chlorination Building                  | 25 A |
| M.H.#175/Eff. Line/Sampling Building   | 25 B |
| Sewage Lift Station Building           | 25 C |
| U.V. Disinfection Building             | 25 D |
| Digester & Control Building            | 25 E |
| Sludge Drying Beds                     | 25 F |
| Primary Settling Basins                | 25 G |
| Tricking Filters                       | 25 H |
| Sewage Treatment Plant Incinerator     | 39 D |

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

5448

|   |   |  |                          |
|---|---|--|--------------------------|
| 1. PROJECT TITLE/PARTICIPANT<br><b>FEMP (MSA)</b>                 |   | 2. DATE<br><b>August 3, 1993</b>                     | 3. IDENTIFICATION NUMBER |
| 4. WBS ELEMENT CODE<br><b>1.1.1.1.3.3</b>                         |   | 5. WBS ELEMENT TITLE<br><b>REMEDIAL ACTIONS</b>      |                          |
| 5. INDEX LINE NO.   | 7. REVISION NO. AND AUTHORIZATION<br><b>N/A</b> |  | 6. DATE                  |
| 9. APPROVED CHANGES<br><b>N/A</b>                                 |   |  |                          |
| 10. SYSTEM DESIGN DESCRIPTION<br><b>AMENDED CONSENT AGREEMENT</b> |   | 11. BUDGET AND REPORTING NUMBER<br><b>EW-2010102</b> |                          |

12. ELEMENT TASK DESCRIPTION

**c. WORK STATEMENT:**

The scope is further defined in these subordinate elements:

- 1.1.1.1.3.3.1 D & D Package # 1 - Plant 4 (4A,C)
- 1.1.1.1.3.3.2 D & D Package # 2 - Plant 3 External Facilities (3B,C,D,E,F,G,J, 39A,B)
- 1.1.1.1.3.3.3 D & D Package # 3 - Plant 2/3 (2A,D,E,F,G,H)
- 1.1.1.1.3.3.4 D & D Package # 4 - Pilot Plant (13A,B,C,D, 19B, 37, 54A,B,C, 68)
- 1.1.1.1.3.3.5 D & D Package # 5 - Plant 5 (5A,B,C,D,E,F,G, 55A,B)
- 1.1.1.1.3.3.6 D & D Package # 6 - Plant 6 (6A,B,C,D,E,F)
- 1.1.1.1.3.3.7 D & D Package # 7 - Plant 9 (9A,B,C,D,E,F, 32A,B)
- 1.1.1.1.3.3.8 D & D Package # 8 - Boiler Plant (10A,B,C,D,E, 20A,B,C,H, 19A,C,D,E)
- 1.1.1.1.3.3.9 D & D Package # 9 - Maintenance Areas (12A,B,C,D, 24B, 38A,B)
- 1.1.1.1.3.3.10 D & D Package # 10 - Administration Buildings (11, 14A,B, 15A,B, 28A,B 53A,B, 44A,B,C,D,E, 45A,B, T-1 through T-99)
- 1.1.1.1.3.3.11 D & D Package # 11 - Plant 8 (8A,B,C,D,E,F, 18B,D,H,J,K,L,M, 25A,B,C,N,E,F,G)
- 1.1.1.1.3.3.12 D & D Package # 12 - Storage Buildings (4B, 31, 60, 61, 62, 63, 64, 65, 69A,B, 77, 78, 79, 80, 81, 82)
- 1.1.1.1.3.3.13 D & D Package # 13 - Plant 1 (1A,B, 30A,B, 56A, B,C, 66, 67, 71, 72, TSS-1 through TSS-6)
- 1.1.1.1.3.3.21 D & D Package # 21 - Pads
- 1.1.1.1.3.3.22 D & D Package # 22 - Foundations
- 1.1.1.1.3.3.23 D & D Package # 23 - Utilities
- 1.1.1.1.3.3.24 D & D Package # 24 - Roads, railroads, parking lots
- 1.1.1.1.3.3.25 D & D Package # 25 - Impoundments

**d. SPECIFICALLY EXCLUDES:**

Dictionary excludes all D & D Packages after FY'99.  
 Integrated TSD Facilities (1.1.1.6.1)

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