U-005-202.78

5220

REMOVAL SITE EVALUATION RADIOLOGICAL CONTROL UNIT FACILITIES PROJECT SEPTEMBER 1993

03/02/94

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REMOVAL SITE EVALUATION

RADIOLOGICAL CONTROL UNIT FACILITIES PROJECT

FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

U. S. DEPARTMENT OF ENERGY

SEPTEMBER, 1993

REMOVAL SITE EVALUATION

RADIOLOGICAL CONTROL UNIT FACILITIES PROJECT

INTRODUCTION

The Radiological Control Unit Facilities Project is planned to upgrade change facilities and radiological control points at the FEMP to achieve full compliance with FERMCO's Radiological Controls Manual Implementation Plan. This work will also provide improved contamination and access controls, increased worker efficiency due to reductions in travel time for breaks, minimized waste generation through the use of reusable anti-Cs, and should result in fewer heat related stress incidents.

Control points will be set up at individual contamination compounds to be established in the former process area of the FEMP. These compounds will encompass individual buildings or in some cases groups of buildings. Each compound will be fenced to provide positive ingress and egress control. The compounds will have change facilities, some break areas, and provide controlled access to the radiologically controlled areas. Personnel without the proper level of training or protective clothing will not be able to enter the compound.

Mobile trailers will be used for these change facilities at FEMP locations where buildings or structures are being demolished and involve a substantial number of personnel (including contractors). For buildings with elongated clean-up/demolition schedules and having fewer people working in the area, the change facilities will be portable, modular structures to be placed within the buildings themselves to serve as change facilities/radiological control points.

The specific project scope is comprised of the following items:

(1) Modular trailer complexes to be initially sited in the approximate locations shown in Figures 1-4 based on the projected schedule of remedial activities. Each complex will be comprised of four modular units which will provide access control points, mens and womens change facilities, restrooms, shower facilities, and a break room. Upon the completion of D&D work in one contamination compound, the use of trailers will allow relocation of change/break facilities to another work area to adequately support cleanup operations elsewhere.

(2) One single trailer located at Building 8 (Figure 5) to support long term operation of the facility. This will provide access control points and mens and womens change facilities for personnel assigned to ongoing building operations.

(3) Three portable containment structures to be utilized inside Buildings 5, 6, and 9 for access controls and change facilities in the approximate locations shown in Figures 6-8. A similar structure may also be acquired for Building 78. No running water or break facilities are included with these facilities. The structures will be used to support Safe Shutdown activities at these buildings that are preliminary to D&D activities.

(4) Installation of approximately 7,100 feet of permanent fencing will be undertaken to provide a barrier for positive access control into the established contamination compounds. Approximately 21 vehicle gates will be required to support the movement and control of equipment supporting project work at each compound.

The following wastes, determined to be non-hazardous by process knowledge, are expected to be generated from this project:

- Soil, gravel, and possible concrete for the installation of trailers, their anchoring devices, along with underground utility tie-ins. While a minimum amount of site preparation work is to be done, the amount of these wastes will depend upon specific details in contractor proposals/bids.

- Other non-soil debris (plastic, paper, rubber, cardboard packaging material; possible anti-Cs and miscellaneous project trash).

For Scope Item (3), no construction wastes will be generated for installation of the inside change facilities other than packaging materials and possible radiologically contaminated anti-Cs, gloves, clothing, etc. because the work will not involve any demolition/modifications of existing FEMP buildings.

This Removal Site Evaluation (RSE) has been completed by the Department of Energy (DOE) under authorities delegated by Executive Order 12580 under Section 104 of CERCLA and is consistent with Section 300.410 of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). This RSE addresses the project involving all radiological control unit facilities. This RSE has been completed to support the decision as to whether the project conditions warrant a removal action. Controls implemented to support this construction activity are also presented in the RSE to demonstrate that the proposed construction will not cause deterioration of the existing site conditions.

SOURCE TERM

Consistent with 40 CFR 300.410(a), the RSE includes a removal preliminary assessment which is based upon readily available information as described in 40 CFR 300.410(c). A RCRA Determination/Radiological Characterization is underway to evaluate contaminant levels in the soil and debris from this project. Prior sampling in the production area has shown some chemical contamination (e.g metals, organics) above detectable levels in soil at the FEMP. Soil and gravel disturbed by this project represent a source of possible releases should they contain radiological or chemical contamination.

Areas in which the change facility trailers are to be placed have been characterized for general radiological contamination levels. These areas are primarily gravel covered with direct readings ranging from non-detectable to 1.5 kdpm/cm^2 beta-gamma and 0.2kdpm/cm^2 alpha and removable contamination levels less than MDA. If the gravel is removed or disturbed, the possibility exists for

exposing removable contamination to the environment and creating a pathway for the spread of contamination. Attachment 2 contains typical radiological surveys for the construction area.

EVALUATION OF THE MAGNITUDE OF THE POTENTIAL THREAT

Based on the above information, uranium and chemical contamination from displaced soil and gravel are the sources of threat in the event of a release. To manage the hazards and prevent the spread of contamination, the following controls, among others, will be implemented during construction of the new facilities.

- Excess soil from this project will be managed according to Removal Action 17 criteria. Soil will be backfilled, stockpiled or containerized in accordance with the management criteria specified in the Removal Action 17 work plan.

- Physical barriers will be positioned around the work area to prevent unauthorized access.

- Protective clothing and respiratory protection will be provided for workers, as required.

- Plastic tarpaulins and bags and appropriate containers will be readily available to contain radiologically contaminated materials, as required.

- Runoff controls will be established, as required.

All activities performed in support of this project will follow applicable site policies and procedures written to control such activities. These procedures include, but are not limited to, the following:

- SSOP-0044, "Management of Soil, Debris, and Waste from a Project"
- SP-P35-010, "Unrestricted Release of Materials from FMPC"
- Removal Action No. 17, "Improved Storage of Soil and Debris"

Excavation will not be allowed without appropriate radiological controls. During the installation of the change facilities, a Radiological Work Permit will be issued and the work area will be surveyed during and upon completion of work. Clean gravel or other suitable material (per Removal Action 17) will be used to cover any area above controlled area limits.

ASSESSMENT OF THE NEED FOR REMOVAL ACTION

Consistent with Section 40 CFR 300.410 of the NCP, the DOE shall determine the appropriateness of a removal action. Eight factors to be considered in this determination are listed in 40 CFR 300.415 (b)(2). Based on the data presented above, the following one of the eight criteria listed in the NCP applies:

- 40 CFR 300.415(b)(2)(v)
  Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released

Phase I of Removal Action 17 requires placement on and covering of contaminated soils with a heavy, nonpermeable tarpaulin. The tarpaulins will prevent the spread of contamination and resultant exposure to humans, animals or the food chain.

The potential of a release or migration of hazardous substances from these project sites is negligible. The low levels of contamination at these work sites also support the conclusion that any threat resulting from uranium contamination is negligible. Thus, while the above criteria can be applied to the Radiological Control Unit Facilities Project, it does not constitute the need for a removal action.

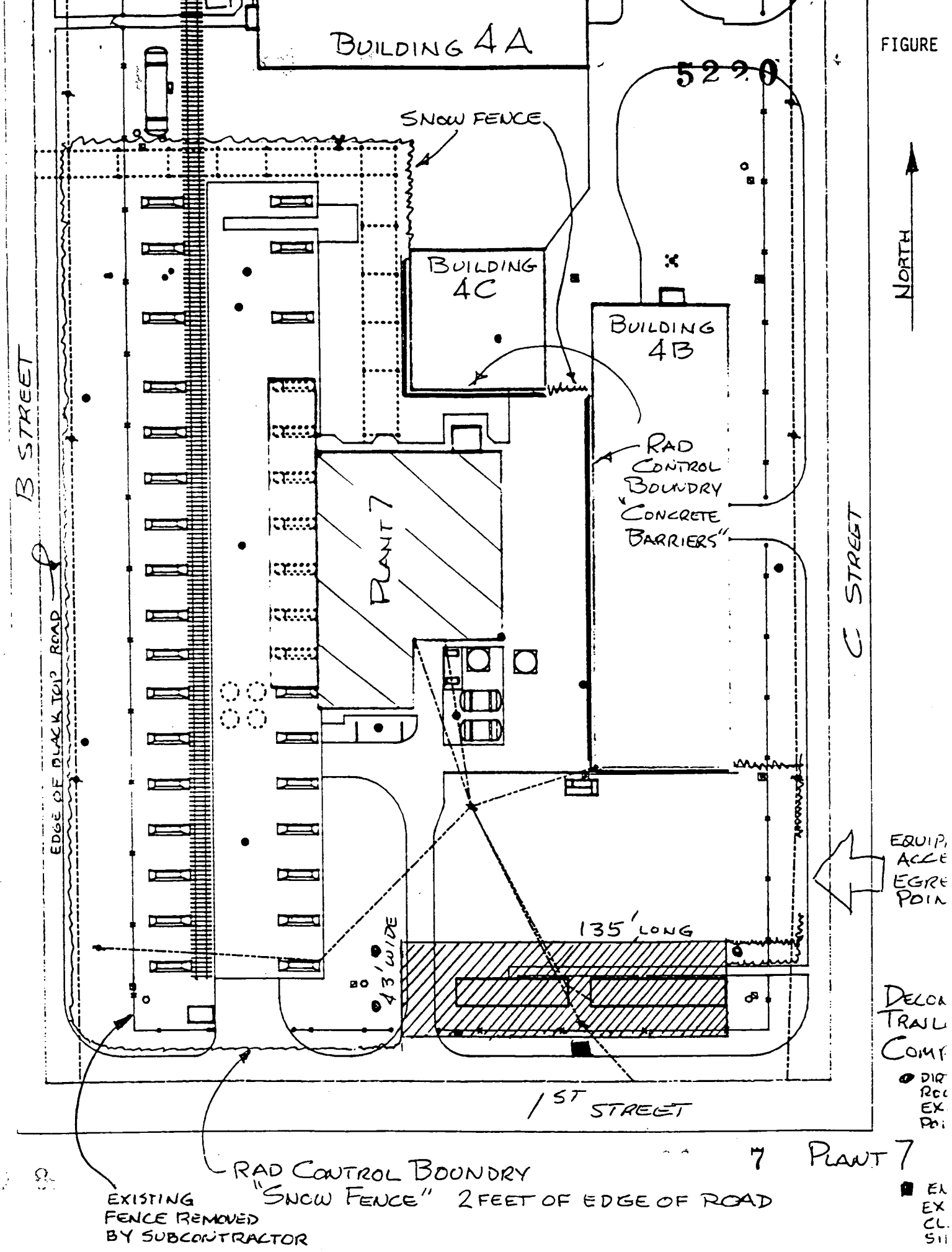
APPROPRIATENESS OF A RESPONSE

Based on the evaluation of all the above factors, it has been determined that a removal action will not be necessary and this project should be continued as a planned construction activity in support of the CERCLA remediation process at the FEMP. Furthermore, the controls planned in conjunction with this construction activity and management procedures established in accordance with Removal Action 17 are adequate to mitigate any hazards to human health, safety, and the environment and to prevent deterioration of existing site conditions.

ATTACHMENT 1

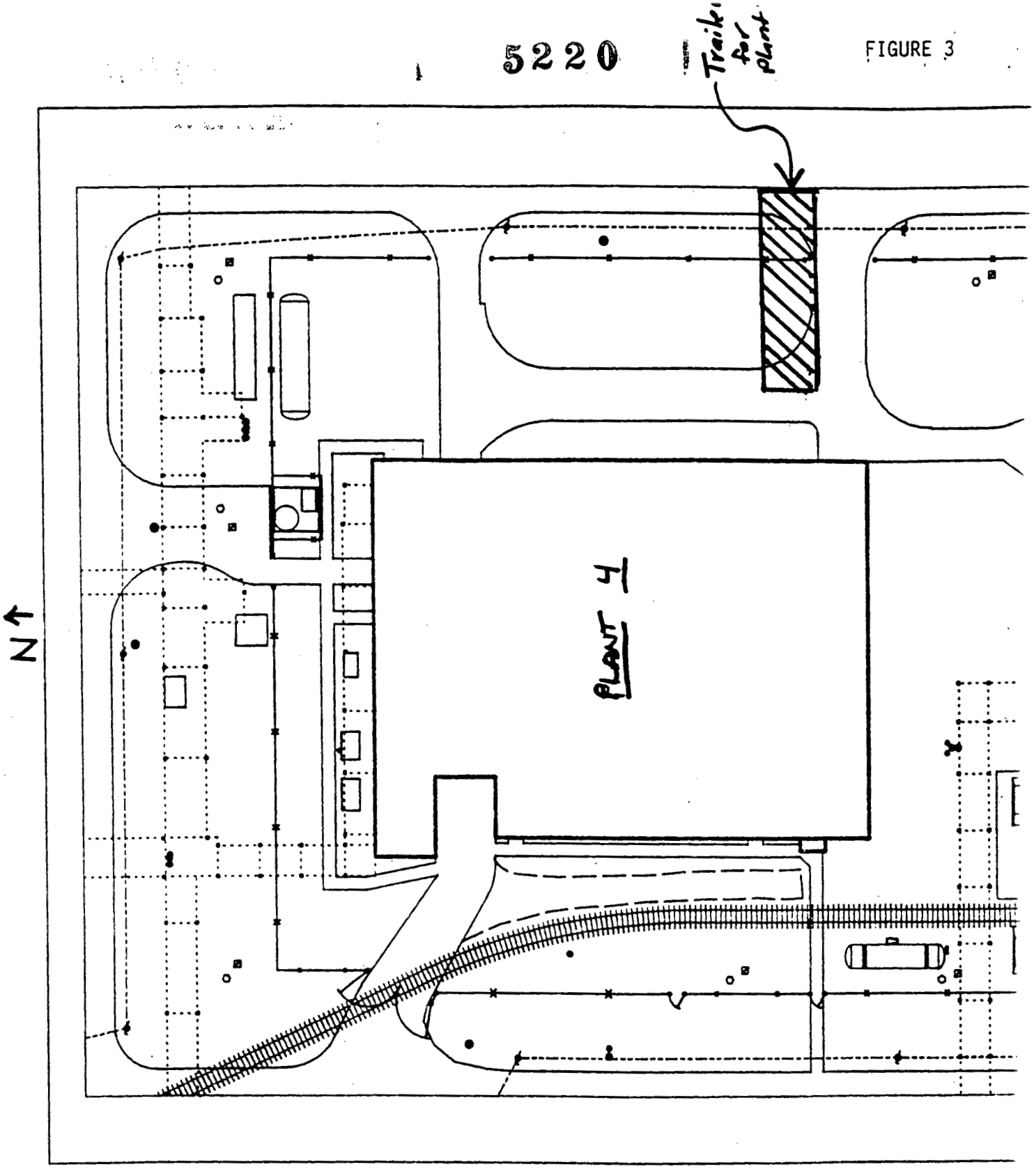
LOCATIONS OF CHANGE TRAILERS AND FENCING

FIGURE


BUILDING 4A
5220
SNOW FENCE
BUILDING 4C
BUILDING 4B
NORTH
B STREET
RAD CONTROL BOUNDRY "CONCRETE BARRIERS"
PLANT 7
C STREET
EDGE OF BLACK TOP ROAD
EQUIP
ACCE
EGRE
POIN
135' LONG
43' WIDE
DECON
TRAIL
COMP
1ST STREET
7 PLANT 7
RAD CONTROL BOUNDRY
"SNOW FENCE" 2 FEET OF EDGE OF ROAD
EXISTING FENCE REMOVED BY SUBCONTRACTOR

5220

FIGURE 3



j:\grid13.dgn Sep. 2, 1993 06:40:24

FIGURE 2

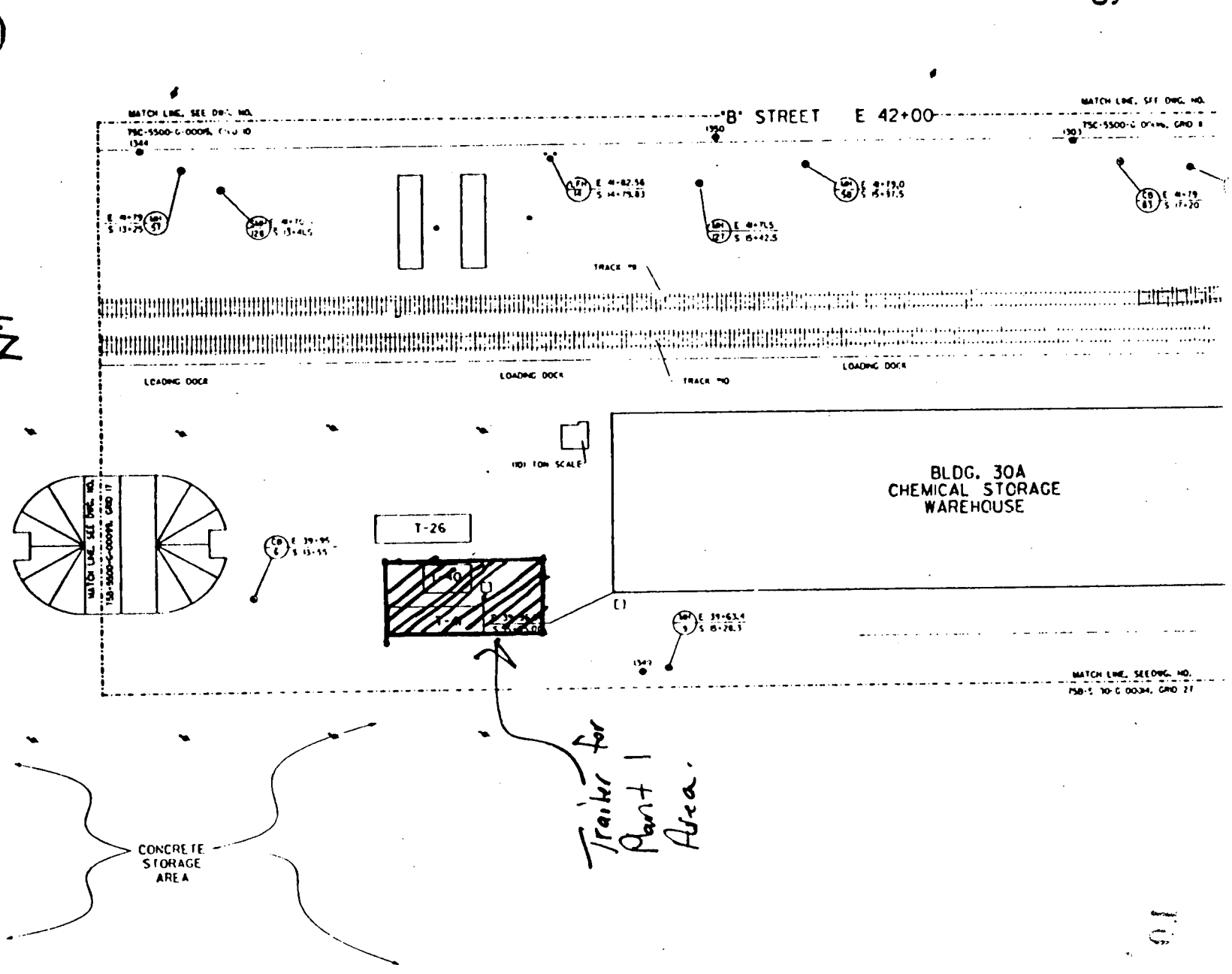

N
"B" STREET E 42+00
MATCH LINE, SEE DWG. NO.
LOADING DOCK
LOADING DOCK
LOADING DOCK
TRACK #9
TRACK #10
101 TON SCALE
T-26
BLDG. 30A
CHEMICAL STORAGE
WAREHOUSE
CONCRETE
STORAGE
AREA
Trailer for Plant 1 Area.

FIGURE 4

5220

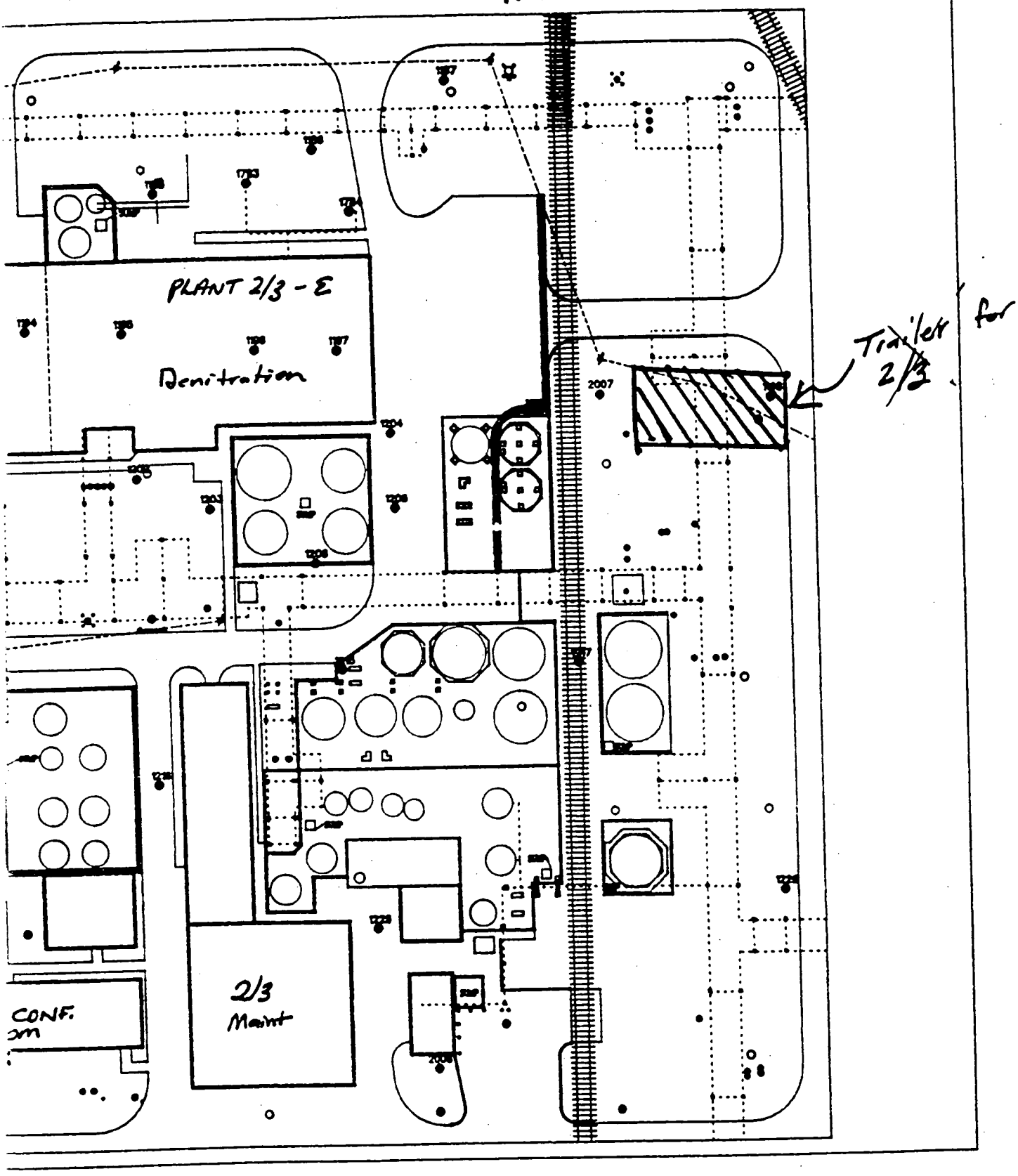


FIGURE 5

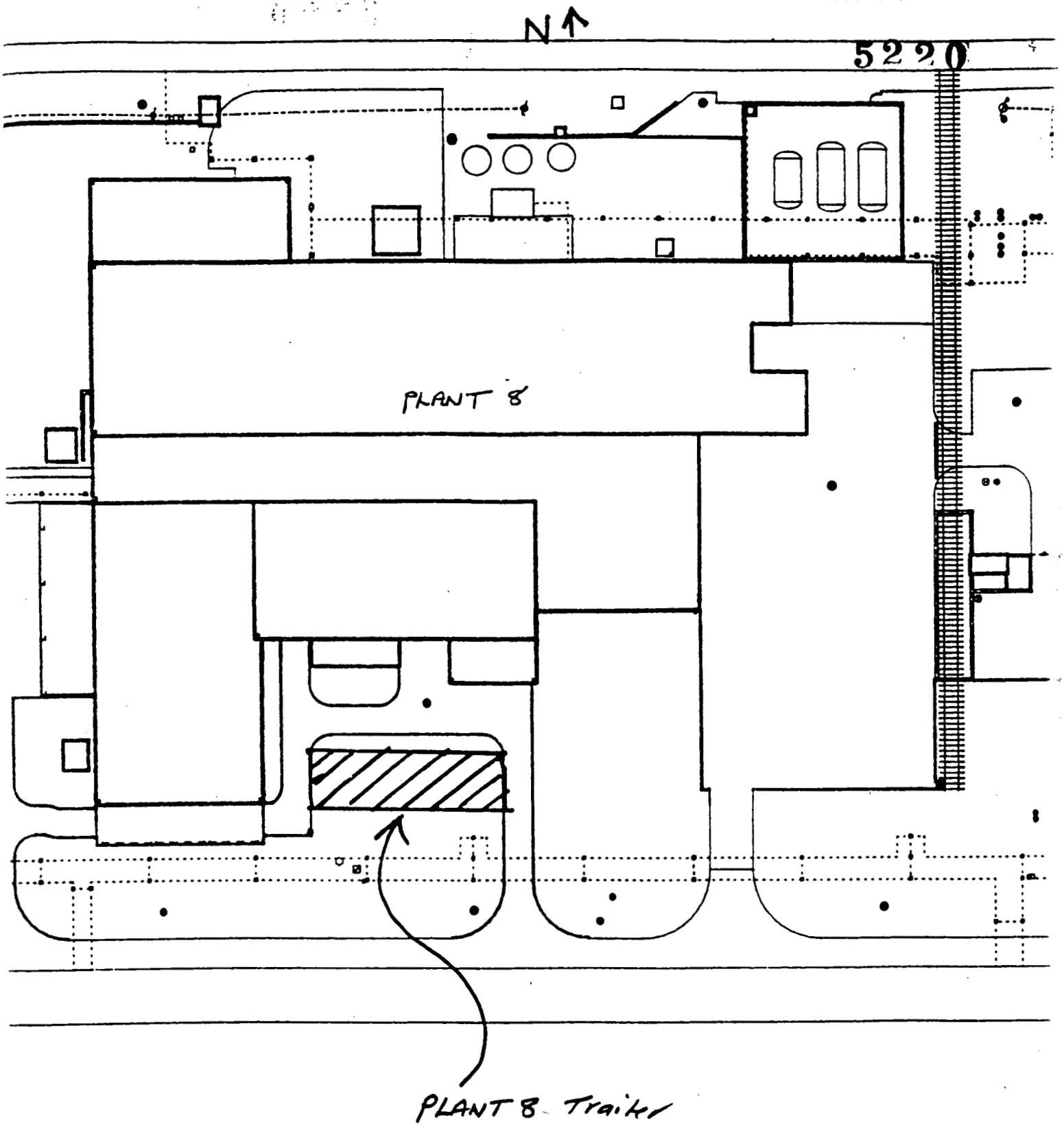
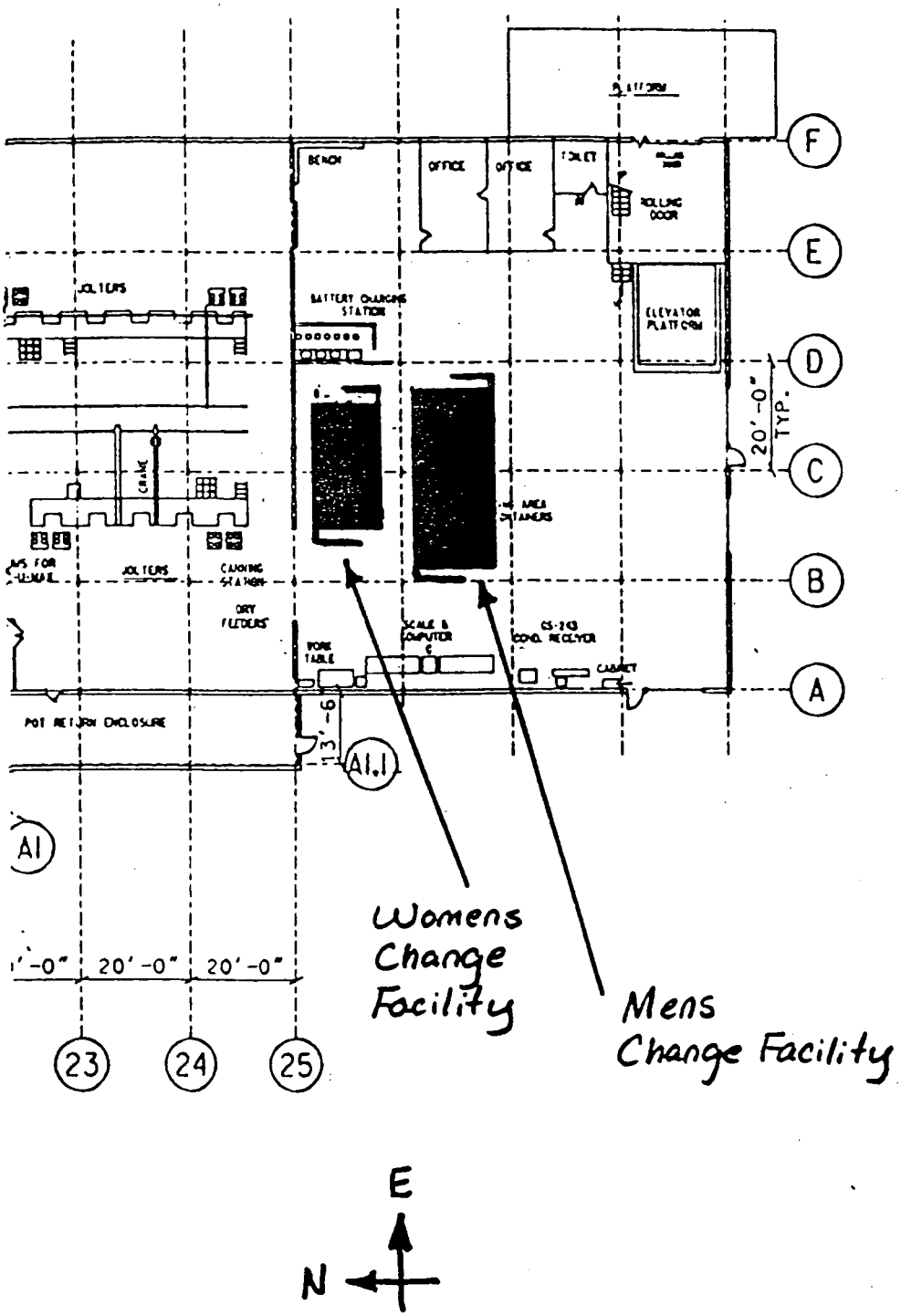


FIGURE 6

LOCATION OF INTERIOR CHANGE FACILITIES FOR PLANT 5

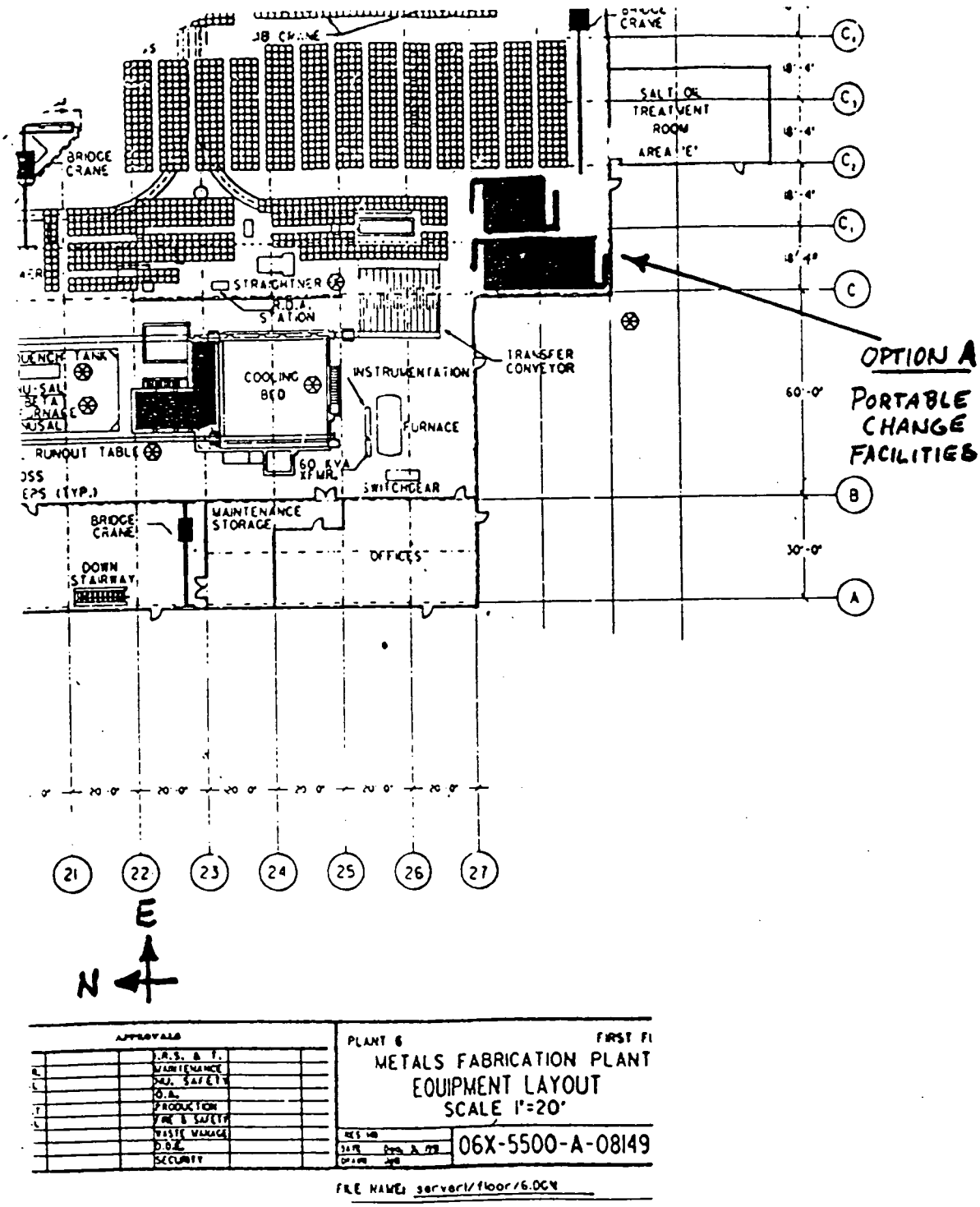


ENVIRONMENTAL
NT CO. OF OHIO
ALD, OHIO

PLANT 5 FIRST FLOOR
METALS PRODUCTION PLANT
FLOOR PLAN

FIGURE 7

LOCATION OF INTERIOR CHANGE FACILITIES FOR PLANT 6



APPROVALS		
	R.S. & T.	
	MAINTENANCE	
	H.U. SAFETY	
	O.A.	
	PRODUCTION	
	FIRE & SAFETY	
	WASTE MANAGE	
	O.D.E.	
	SECURITY	

PLANT 6 FIRST FI

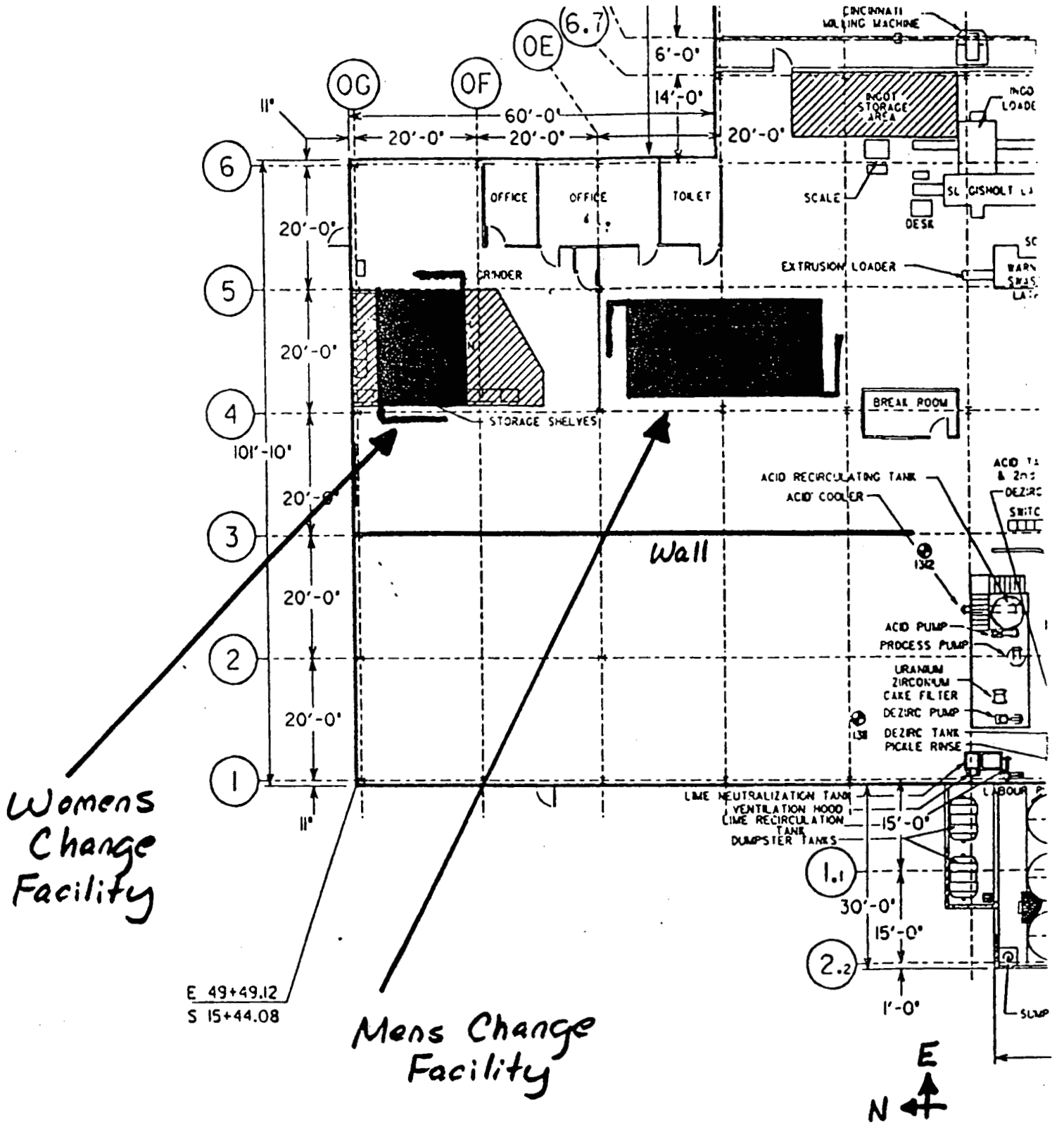
METALS FABRICATION PLANT
EQUIPMENT LAYOUT
SCALE 1"=20'

06X-5500-A-08149

FILE NAME: server1/floor/6.DGN

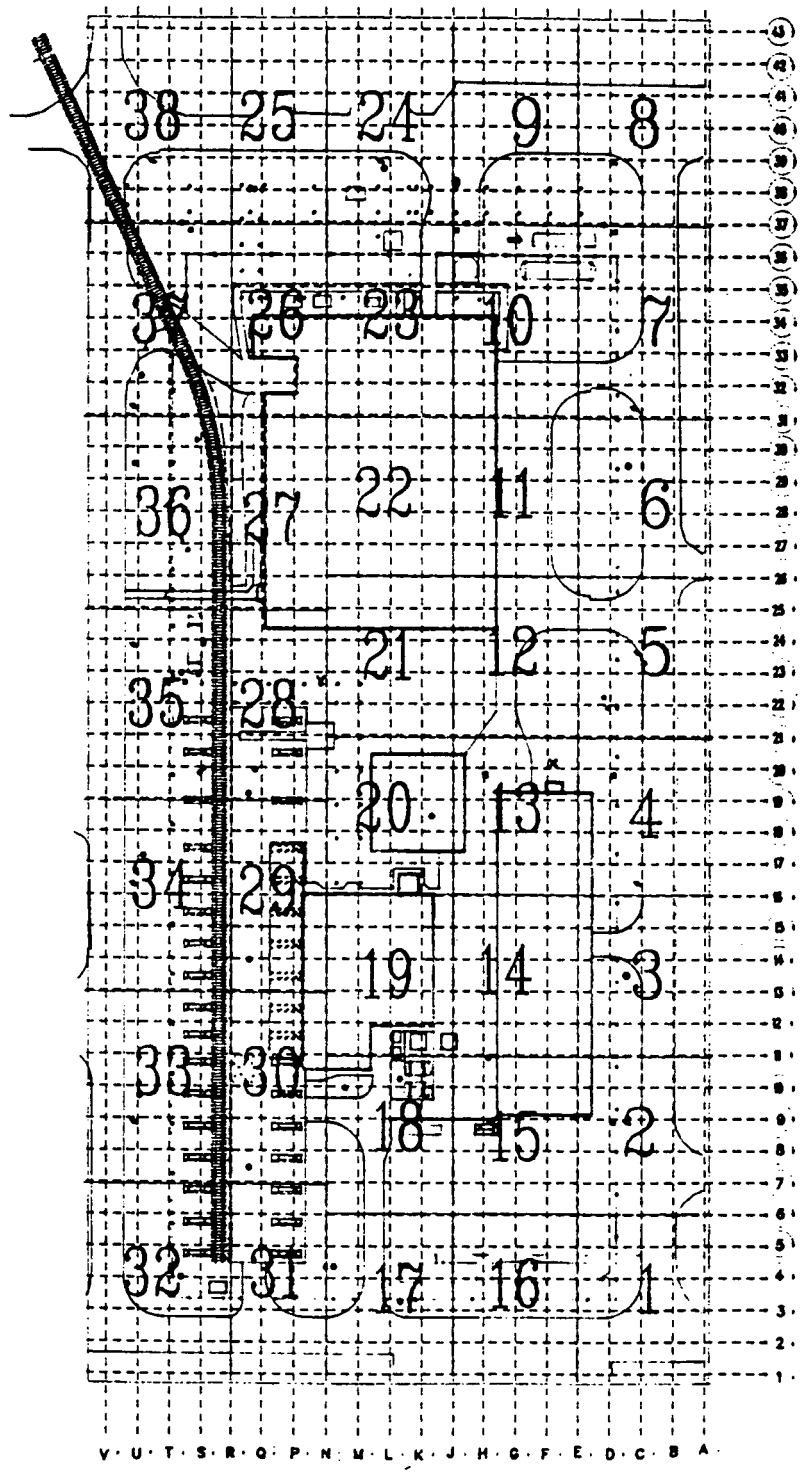
FIGURE 8

LOCATION OF INTERIOR CHANGE FACILITIES FOR PLANT 9



FLOOR PLAN EL.(S

GRID 13 OUTDOOR AREAS REFERENCE MAP



ATTACHMENT 2

RADIOLOGICAL SURVEY RESULTS

FMPC
INDUSTRIAL RADIOLOGICAL SAFETY & TRAINING - RADIOLOGICAL SAFETY

5220

RADIOLOGICAL SURVEY REPORT

Date: 4-24-91	LOCATION: GRID 13, outdoors	RST: Frida Ward, Leslie A. Powell	Page 1 of 4
Time: 8:00 AM	LEVEL: 580'		

REASON FOR SURVEY: ☐ ROUTINE ☒ SPECIAL REQUEST ☐ RWP ☐ INCIDENT

COMMENTS: Process Area
Characterization of gravel, exterior bldg. surfaces, roadways, etc. in Grid 13. Map #17
MDA α = 220 Bγ = 400

INSTRUMENTS

MODEL	SERIAL NUMBER	CALIBRATION DATE	BKRD.	EFF.
3Bγ	77119	2-92	250cpm	.1
3α	77143	2-92	0	.1
3Bγ/3α (Used For Field Counting Smears)	77119/77143	2-92/2-92	60/0	.25/

ANALYZE FOR: ☑ ALPHA ☑ BETA-GAMMA ☐ OTHER

TYPE OF SURVEY: ☑ CONTAMINATION ☐ RADIATION ☐ OTHER

FOLLOW-UP SURVEY ATTACHED ☐YES ☒NO
SURVEY MAP ATTACHED ☒YES ☐NO

ITEM NUMBER	GRID COORDINATES	DESCRIPTION	CORRECTED DOSE RATE (mRem/hr) γ CONTACT	β/γ CONTACT	γ 3 FT.	β/γ 3 FT.	DPM ALPHA 100 CM²	DPM ALPHA PROBE	DPM BETA-GAMMA 100 CM²	DPM BETA-GAMMA PROBE
1		GRAVEL						<200		<1k
2		"						<200		<1k
3		CONCRETE						<200		<1k
4		"						<200		<1k
5		GRAVEL						<200		<1k
6								<200		<1k
7								<200		<1
8								<200		<1k
9								<200		<1k
10								<200		<1
11								<200		<1k
12								<200		<1k
13		TAR ON CONCRETE						<200		<1k
14		CONCRETE						<200		<1k
15		GRAVEL						<200		<1
16		"						<200		<1

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2	Radiological Safety Engineer
3	Facility Supervisor

NOTIFICATION OF SURVEY RESULTS

SUPERVISOR NOTIFIED	TIME	DATE	NOTIFIED BY	REVIEWED BY	DATE

GRID 13, outdoors Map #17
9/24/91
8:00 AM

5220

2 of 4

FMPC

INDUSTRIAL, RADIOLOGICAL SAFETY & TRAINING - RADIOLOGICAL SAFETY

RADIOLOGICAL SURVEY REPORT (CONTINUATION SHEET)

ITEM NUMBER	GRID COORDINATES	DESCRIPTION	CORRECTED DOSE RATE (mRem/hr) γ CONTACT	β/γ CONTACT	γ 3 FT.	β/γ 3 FT.	DPM ALPHA 100 CM²	DPM ALPHA PROBE	DPM BETA-GAMMA 100 CM²	DPM BETA-GAMMA PROBE
17		GRAVEL						<200		<1K
18		"						<200		<1K
19		CONCRETE						<200		<1K
20		"						<200		<1K
21		GRAVEL						<200		<1K
22		↓						<200		<1K
23		↓						<200		<1K
24		WOODEN RAIL						<200		<1K
25		WOODEN WALKWAY						<200		<1K
26		TRAILER WALL 5' up						<200		<1K
27		WOODEN RAIL						<200		<1K
28		STEPS.						<200		<1K
29		TRAILER WALL 2' up						<200		<1K
30		" " 3' up						<200		<1K
31		RUBBER WALKWAY						<200		<1K
32		" "						<200		<1K
33		CONCRETE						<200		<1K
34		"						<200		<1K
35		GRAVEL.						<200		<1K
*36		ELECTRIC MANHOLE					<MDA	400	<MDA	4.5
37		SEAM IN CONCRETE						<200		<1K
*38		TELEPHONE MANHOLE					<MDA	1.5K	<MDA	4.5
39		GRAVEL						<200		<1K
40		↓						<200		<1K
41		↓						<200		<1K
42		CONCRETE						<200		<1K
43		"						<200		<1K

- GRID 13, OUTDOORS Map #17
9/24/91
8:00 AM

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FMPC 5220

INDUSTRIAL, RADIOLOGICAL SAFETY & TRAINING - RADIOLOGICAL SAFETY

RADIOLOGICAL SURVEY REPORT (CONTINUATION SHEET)

ITEM NUMBER	GRID COORDINATES	DESCRIPTION	CORRECTED DOSE RATE (mRem/hr) γ CONTACT	β/γ CONTACT	γ 3 FT.	β/γ 3 FT.	DPM ALPHA 100 CM²	DPM ALPHA PROBE	DPM BETA-GAMMA 100 CM²	DPM BETA-GAMMA PROBE
44		GRAVEL						<200		<1K
45		Trailer Wall 3'up						<200		<1K
46		GRAVEL						<200		<1K
47		"						<200		<1K
48		Trailer Hitch						<200		<1K
49		Trailer Wall 2'up						<200		<1K
50		GRAVEL						<200		<1K
*51		FENCE 2'up					<MDA	300	<MDA	<1K
52		Trailer Wall 3'up						<200		<1K
53		GRAVEL						<200		<1K
54		FENCE 3'up						<200		<1K
55		" 2'up						<200		<1K
56		GRAVEL						<200		<1K
57		Trailer Wall 2'up						<200		<1K
*58		" " "					<MDA	400	<MDA	<1K
59		GRAVEL						<200		<1K
60		FENCE 3'up						<200		<1K
61		Post going across FENCE						<200		<1K
62		GRAVEL						<200		<1K
63		ASPHALT						<200		<1K
64		CONCRETE						<200		<1K
65		GRAVEL						<200		<1K
66		FENCE 3'up						<200		<1K
67		" "						<200		<1K
68		GRAVEL						<200		<1K
69		"						<200		<1K
70		"						<200		<1K

GRID 13, Outdoors Map #17
9/24/91
8:00 AM

FMPC 5220

INDUSTRIAL, RADIOLOGICAL SAFETY & TRAINING - RADIOLOGICAL SAFETY

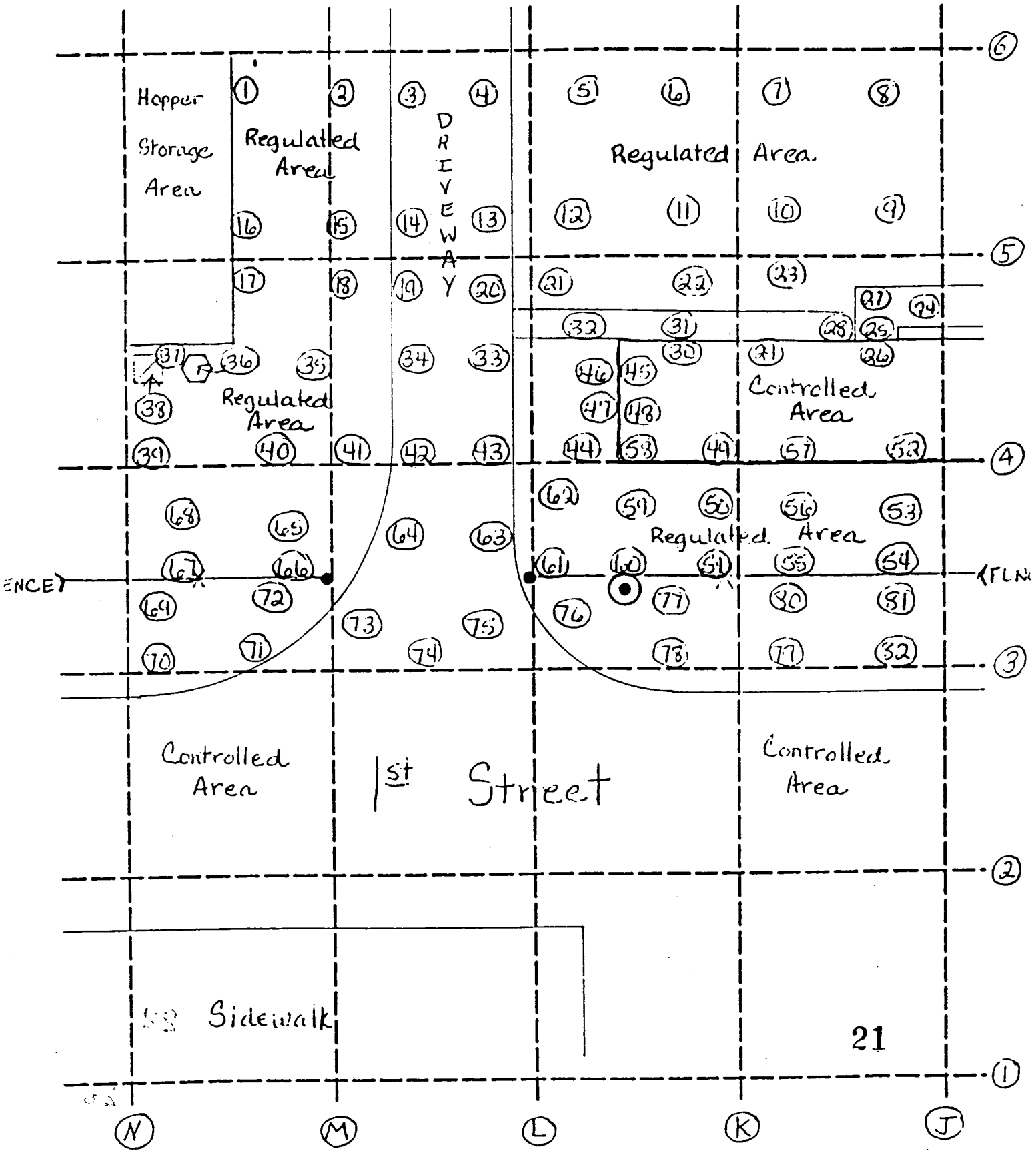
RADIOLOGICAL SURVEY REPORT (CONTINUATION SHEET)

ITEM NUMBER	GRID COORDINATES	DESCRIPTION	CORRECTED DOSE RATE (mRem/hr) γ CONTACT	β/γ CONTACT	γ 3 FT.	β/γ 3 FT.	DPM ALPHA 100 CM²	DPM ALPHA PROBE	DPM BETA-GAMMA 100 CM²	DPM BETA-GAMMA PROBE
71		GRAVEL						<200		<1K
72		"						<200		<1K
73		CRACK IN ASPHALT						<200		<1K
74		" "						<200		<1K
75		ASPHALT						<200		<1K
76		GRAVEL						<200		<1K
77								<200		<1K
78								<200		<1K
79								<200		<1K
80								<200		<1K
81		GRAVEL						<200		<1K
82		"						<200		<1K

GRID 13, MAP # 17 9/24/91

OUTDOOR AREAS 5220

All areas characterized on this map are regulated areas unless otherwise noted.



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INDUSTRIAL, RADIOLOGICAL SAFETY & TRAINING - RADIOLOGICAL SAFETY

RADIOLOGICAL SURVEY REPORT

Date: 9.24.91	LOCATION: Grid #13, Outdoors	RST: G Stevens #6148	Page 1 of 7
Time: 09:00	LEVEL: 580'	Chris Havens #6263	

REASON FOR SURVEY: ☐ ROUTINE ☑ SPECIAL REQUEST ☐ RWP ☐ INCIDENT

COMMENTS:

Process Area Characterization of Map #16. NAD = Not Able to Determine. ND = None Determined.

See pg. 7 for smear counting info.

FOLLOW-UP SURVEY ATTACHED ☐ YES ☑ NO

SURVEY MAP ATTACHED ☑ YES ☐ NO

INSTRUMENTS

MODEL	SERIAL NUMBER	CALIBRATION DATE	BKRD.	EFF.
Ludlum #3	44209	9.91	0	0.1
B2 Ludlum #3	77178	10.91	80 → 300	0.1

ANALYZE FOR: ☑ ALPHA ☑ BETA-GAMMA ☐ OTHER

TYPE OF SURVEY: ☑ CONTAMINATION ☐ RADIATION ☐ OTHER

ITEM NUMBER	GRID COORDINATES	DESCRIPTION	CORRECTED DOSE RATE (mRem/hr) γ CONTACT	β/γ CONTACT	γ 3 FT.	β/γ 3 FT.	DPM ALPHA 100 CM²	DPM ALPHA PROBE	DPM BETA-GAMMA 100 CM²	DPM BETA-GAMMA PROBE
1		Gravel Area						ND		ND
2								ND		ND
3								ND		ND
4								ND		ND
5								ND		ND
6								ND		ND
7								ND		ND
8								ND		ND
9								ND		ND
10								ND		ND
11								ND		ND
12								ND		ND
13								ND		ND
14								ND		ND
15							22	ND		ND
16								ND		ND

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2	Radiological Safety Engineer
3	Facility Supervisor

NOTIFICATION OF SURVEY RESULTS

SUPERVISOR NOTIFIED	TIME	DATE	NOTIFIED BY	REVIEWED BY	DATE

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Grid #13 Cutdowns
Process Area, Map #1
9.24.91
pg. 2 of 7

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INDUSTRIAL, RADIOLOGICAL SAFETY & TRAINING - RADIOLOGICAL SAFETY

RADIOLOGICAL SURVEY REPORT (CONTINUATION SHEET)

ITEM NUMBER	GRID COORDINATES	DESCRIPTION	CORRECTED DOSE RATE (mRem/hr) γ CONTACT	β/γ CONTACT	γ 3 FT.	β/γ 3 FT.	DPM ALPHA 100 CM²	DPM ALPHA PROBE	DPM BETA-GAMMA 100 CM²	DPM BETA-GAMMA PROBE
17		Gravel Area						ND		ND
18								ND		ND
19								ND		ND
20								ND		ND
21								ND		ND
22								ND		ND
23								ND		ND
24								ND		ND
25								ND		ND
26								ND		ND
27								ND		ND
28								ND		ND
29								ND		ND
30								ND		ND
31								ND		ND
32								ND		ND
33								ND		ND
34								ND		ND
35								ND		ND
36								ND		ND
37								ND		ND
38								ND		ND
39								ND		ND
40								ND		ND
41								ND		ND
42								ND		ND
43								ND		ND

Grid #13 outdoors
Process Area Map #16
9.24.91
3 of 7

FMPC 5220

INDUSTRIAL, RADIOLOGICAL SAFETY & TRAINING - RADIOLOGICAL SAFETY

RADIOLOGICAL SURVEY REPORT (CONTINUATION SHEET)

ITEM NUMBER	GRID COORDINATES	DESCRIPTION	CORRECTED DOSE RATE (mRem/hr) γ CONTACT	β/γ CONTACT	γ 3 FT.	β/γ 3 FT.	DPM ALPHA 100 CM²	DPM ALPHA PROBE	DPM BETA-GAMMA 100 CM²	DPM BETA-GAMMA PROBE
44		Gravel Area						ND		ND
45								ND		ND
46								ND		ND
47								ND		ND
48								ND		ND
49								ND		ND
50								ND		ND
51								ND		ND
52								ND		ND
53								ND		ND
54								ND		ND
55								ND		ND
56								ND		ND
57								ND		ND
58								ND		ND
59								ND		ND
60								ND		ND
61								ND		ND
62								ND		ND
63								ND		ND
64								ND		ND
65								ND		ND
66								ND		ND
67								ND		ND
68								ND		ND
69								ND		ND
70								ND		ND

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Grid #15, out doors
Process Area map# 16
9.25.91
pg 4 of 7

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INDUSTRIAL, RADIOLOGICAL SAFETY & TRAINING - RADIOLOGICAL SAFETY

RADIOLOGICAL SURVEY REPORT (CONTINUATION SHEET)

ITEM NUMBER	GRID COORDINATES	DESCRIPTION	CORRECTED DOSE RATE (mRem/hr) γ CONTACT	β/γ CONTACT	γ 3 FT.	β/γ 3 FT.	DPM ALPHA 100 CM²	DPM ALPHA PROBE	DPM BETA-GAMMA 100 CM²	DPM BETA-GAMMA PROBE
71		Gravel						ND		NAD
72								ND		NAD
73								ND		ND
74								ND		ND
75								ND		ND
76								ND		ND
77								ND		ND
78								ND		1.2
79								ND		<1
80								ND		ND
81								ND		ND
82								ND		<1
83								ND		ND
84								ND		ND
85								ND		~
86								ND		<1
87								<.2k		1.5
88								ND		ND
89								ND		<1
90								ND		ND
91								ND		ND
92								ND		<
93		Train wall 12 mins						ND		~
94								ND		~
95								ND		~
96							25	ND		~
97								ND		~

Grids 15, Outdoors
Process Area, Mapette
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INDUSTRIAL, RADIOLOGICAL SAFETY & TRAINING - RADIOLOGICAL SAFETY

RADIOLOGICAL SURVEY REPORT (CONTINUATION SHEET)

ITEM NUMBER	GRID COORDINATES	DESCRIPTION	CORRECTED DOSE RATE (mRem/hr) γ CONTACT	β/γ CONTACT	γ 3 FT.	β/γ 3 FT.	DPM ALPHA 100 CM²	DPM ALPHA PROBE	DPM BETA-GAMMA 100 CM²	DPM BETA-GAMMA PROBE
98		Gray [illegible] bed 1.5m						ND		ND
99		Gray [illegible] bed						<.2K		ND
100		Wall, 12 m up						ND		ND
101		Wall, 1 m up						ND		ND
102		"						ND		ND
103		Wall, 12 m up						ND		ND
104		[illegible]						ND		ND
105		[illegible] (mm)						ND		[illegible]
106		[illegible]						ND		[illegible]
107		[illegible]						ND		ND
108		Hand rail						ND		ND
109		[illegible]						ND		ND
110		Hand Rail						ND		ND
111		Wall 1 m					<MDA	.2K	<MDA	ND
112		↓					<MDA	.2K	<MDA	ND
113							<MDA	<.2K	<MDA	ND
114								<.2K		ND
115								ND		ND
116								ND		ND
117		Trolley 4 ft h						ND		ND
118		Wall [illegible]					<MDA	ND	<MDA	ND
119								.2K		[illegible]
120								<.2K		ND
121								ND		ND
122								ND		ND
123								<.2K		ND
124							<MDA	.3K	<MDA	<1

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Process Area Map #10
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INDUSTRIAL, RADIOLOGICAL SAFETY & TRAINING - RADIOLOGICAL SAFETY

RADIOLOGICAL SURVEY REPORT (CONTINUATION SHEET)

ITEM NUMBER	GRID COORDINATES	DESCRIPTION	CORRECTED DOSE RATE (mRem/hr) γ CONTACT	β/γ CONTACT	γ 3 FT.	β/γ 3 FT.	DPM ALPHA 100 CM²	DPM ALPHA PROBE	DPM BETA-GAMMA 100 CM²	DPM BETA-GAMMA PROBE
125		[illegible]						ND		ND
126		"						ND		<1K
127		"						ND		ND
128		Hand rail						ND		ND
129		[illegible]						ND		ND
130		Tank post					<MDA	.6K	<MDA	2K
131		Tank wall					<MDA	<.2K	<MDA	1K
132		Tank post					<MDA	.2K	<MDA	3.5
133		Tank wall						<.2K		1.5
134		Tank post					<MDA	1.2K	<MDA	3.5
135		Tank wall						<.2K		<1
136		Tank post					<MDA	1K	<MDA	3.5
137		Tank wall						ND		<1
138		Tank post					<MDA	2K	<MDA	2.5
139		Concrete transport base					<MDA	.5K	<MDA	21
140		Tank wall						ND		ND
141		Tank post					<MDA	1K	<MDA	2.5
142		Concrete base					<.2K	ND	<MDA	19
143		Tank wall						ND		ND
144		Tank post					<MDA ~~<.2K~~	.8K	<MDA	2
145		Concrete base					<MDA	.5K	<MDA	6
146		Grout						ND		ND
147								ND		ND
148								ND		ND
149								ND		ND
150								ND		ND
151								ND		ND

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INDUSTRIAL, RADIOLOGICAL SAFETY & TRAINING - RADIOLOGICAL SAFETY

RADIOLOGICAL SURVEY REPORT (CONTINUATION SHEET)

Process Area Map #1
9-25-91
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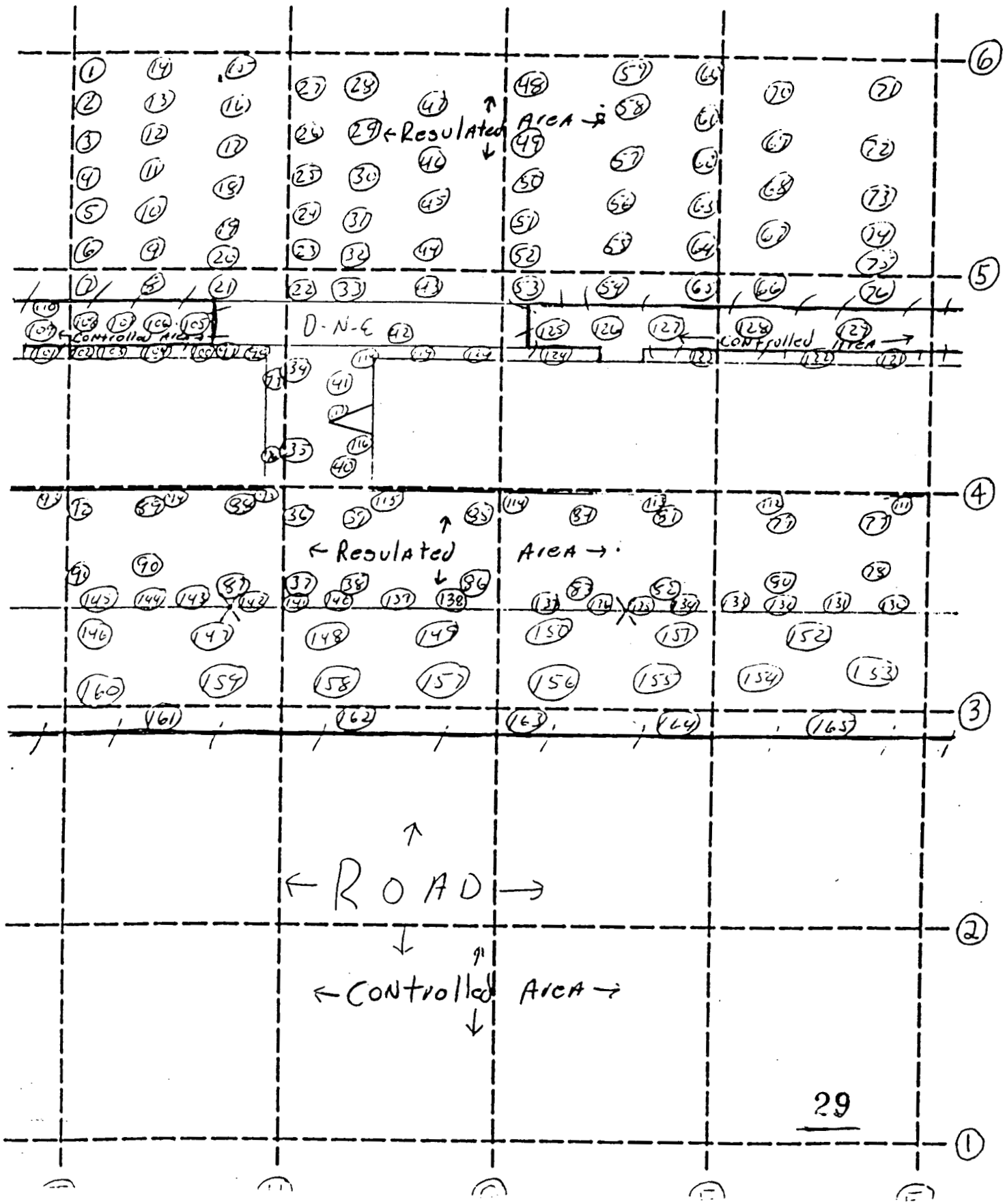
ITEM NUMBER	GRID COORDINATES	DESCRIPTION	CORRECTED DOSE RATE (mRem/hr) γ CONTACT	β/γ CONTACT	γ 3 FT.	β/γ 3 FT.	DPM ALPHA 100 CM²	DPM ALPHA PROBE	DPM BETA-GAMMA 100 CM²	DPM BETA-GAMMA PROBE
152		Gravel						ND		ND
153								ND		ND
154								ND		ND
155								ND		<1K
156								ND		1K
157								ND		ND
158								ND		ND
159								ND		ND
[illegible]								ND		<1K
161								ND		<1K
162								ND		ND
163								ND		ND
164								ND		<1K
165								ND		<1K
166								ND		
	α Instrument	β γ Instrument								
	Model #3	Model #3								
	S/N: 77143	S/N: 77114								
	[illegible] = 72	[illegible] = 2 02								
	BKG = 0	BKG = 60								
	CT = .09	CT = .25								
	MDA = 222	MDA = 400								

GRID 13, MAP # 16

OUTDOOR AREAS 9-25-91

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