



Department of Energy

**Ohio Field Office
Fernald Area Office**

P. O. Box 538705
Cincinnati, Ohio 45253-8705
(513) 648-3155



1609

JUL 28 1998

DOE-1016-98

**Mr. James A. Saric, Remedial Project Manager
U.S. Environmental Protection Agency
Region V-SRF-5J
77 West Jackson Boulevard
Chicago, Illinois 60604-3590**

**Mr. Tom Schneider, Project Manager
Ohio Environmental Protection Agency
401 East 5th Street
Dayton, Ohio 45402-2911**

Dear Mr. Saric and Mr. Schneider:

**COMPLIANCE WITH PERMIT RELATED SUBSTANTIVE REGULATORY REQUIREMENTS -
SLUDGE REMOVAL PROJECT**

Enclosed is the substantive permitting crosswalk which was prepared for the Fernald Environmental Management Project Sludge Removal System Project. The purpose of this project is to maintain compliance with the sediment levels stated in the respective Permits to Install. This project is being conducted in support of the site's overall Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) response action and therefore, is exempt from the requirement to obtain formal permit approval pursuant to Section 121(e) of CERCLA and 40 CFR Part 300.400(e).

The project involves the installation of a dredging device in the Stormwater Retention Basins and Bio-Surge Lagoon per the approved Operations and Maintenance Master Plan (OMMP). This device will remove sludge from the bottom of the basins, separate the water from the sludge, and return the water to the processing stream. The sludge is then transferred to the Advanced Waste Water Treatment System Slurry Dewatering Facility (AWWT-SDF), where it will be dried and contained for appropriate disposal.

The enclosed table documents the manner in which the project will comply with substantive permitting requirements mandated by Ohio Revised Code 3745-31-05. The relevant design plans are also enclosed.

Our current schedule indicates that the installation of the Sludge Removal System will begin in Fiscal Year (FY) 1999.

If you have any questions concerning the enclosed summary, please contact Mr. John Kappa at (513) 648-3149.

Sincerely,



Johnny W. Reising
Fernald Remedial Action
Project Manager

FEMP:Kappa

Enclosures: As Stated

cc w/encs:

R. J. Janke, DOE-FEMP
E. Skintik, DOE-FEMP
G. Jablonowski, USEPA-V, SRF-5J
R. Beaumier, TPSS/DERR, OEPA-Columbus
T. Schneider, OEPA-Dayton (total of 3 copies of enc.)
F. Bell, ATSDR
M. Schupe, HSI GeoTrans
R. Vandegrift, ODH
F. Barker, Tetra Tech
D. Carr, FDF/52-2
AR Coordinator, FDF/78

cc w/o encs:

N. Hallein, EM-42/CLOV
A. Tanner, DOE-FEMP
D. J. Brettschneider, FDF/52-5
L. Copeland, FDF/52-5
T. Hagen, FDF/65-2
J. Harmon, FDF/90
J. R. Heck, FDF/2.
W. A. Hertel, FDF/52-5
S. Hinnefeld, FDF/2
F. L. Johnston, FDF/52-2
M. M. Landrum, FDF/52-5
T. J. Walsh, FDF/65-2
EDC, FDF/52-7

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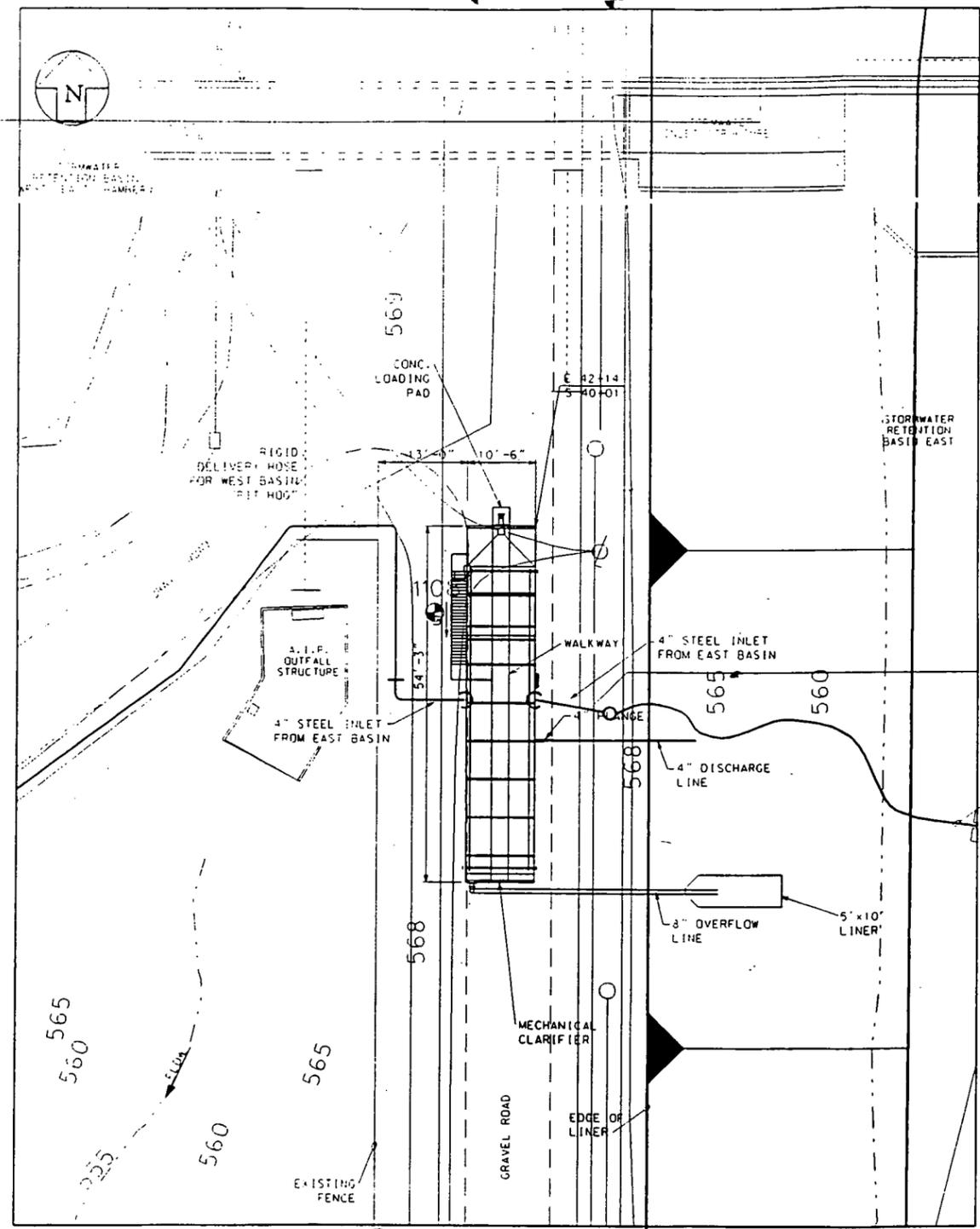
Enclosure 1
 FEMP Sludge Removal System Project
 Substantive Permitting_Cross-Walk

Condition	Substantive Requirement	Compliance Plan
OAC 3745-05(A)(1) - Air & Water Quality Standards	The installation or modification of the system shall not prevent or interfere with the attainment or maintenance of applicable ambient air and water quality standards.	Bio-Surge Lagoon (BSL) and Stormwater Retention Basin (SWRB) sludge is removed by a lagoon dredge and placed in a gravity thickener. Decant water is returned to the basin being dredged for eventual treatment through the Advanced WASTE WATER Treatment (AWWT) system. Wet sludge is removed from the gravity thickener and processed through the AWWT-Slurry Dewatering Facility (AWWT-SDF). The AWWT-SDF building ventilation system is exhausted through a HEPA filtration devise. Attainment or maintenance of air and water quality standards is not affected.
OAC 3745-05(A)(2) - Applicable Laws	The installation or modification of the system shall not result in a violation of any applicable laws.	WASTE WATER is discharged under an effective NPDES Permit. AWWT-SDF air emission have been evaluated previously per Section XIII of the Amended Consent Agreement and found acceptable. Past sludge removal projects have been completed with the sludges being characterized as RCRA non-hazardous. These sludges will be managed as low-level radioactive waste and dispositioned either on-site or off-site per existing agreements with USEPA and OEPA. Applicable laws are not violated.
OAC 3745-05(A)(3) - Best Available Technology	The installation or modification of the system shall employ the best available technology except when the only requirement of obtain a permit to install is due to a modification as described in paragraph (KK)(1)(A)(b) of rule 3745-31-01 and paragraph (A)(2) of rule 3745-31-02 of the Administrative Code.	WASTE WATER discharges are treated through the AWWT implementing ion-exchange technology satisfying BAT requirements. Sludge removed is maintained wet until processing through the AWWT-SDF. AWWT-SDF is exhausted through HEPA filtration satisfying BAT requirements.

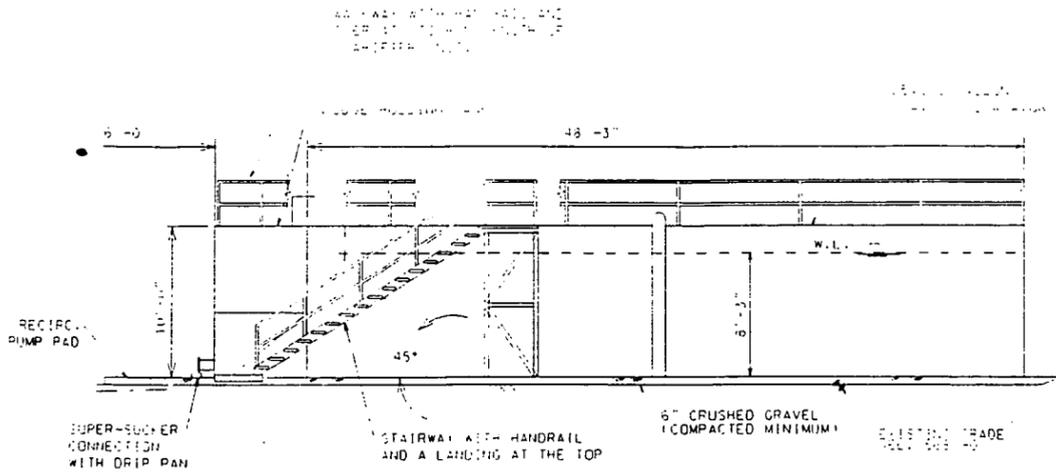
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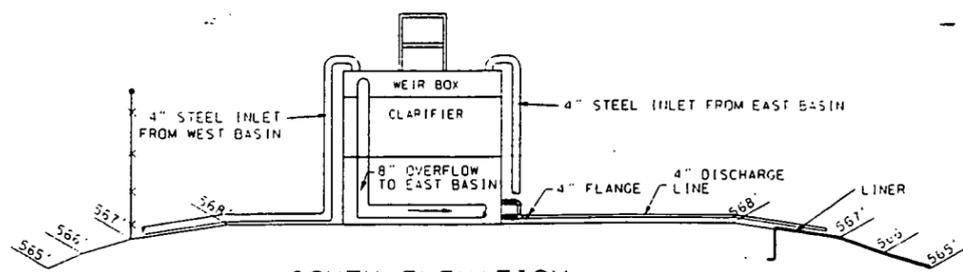
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PLAN
1" = 10'-0"



WEST ELEVATION
1" = 5'-0"



SOUTH ELEVATION
1" = 5'-0"

NOTE
FOR CLARIFIER DETAIL
SEE DRAWING 18A-5500-M-01342

PRELIMINARY

NO.	DATE	BY	CHKD.	APPD.	DESCRIPTION
B	6/23/98	LD			ISSUE 60% DESIGN REVIEW
A	6/5/98	LD			ISSUE 30% REVIEW

NOTE:
FLUOR DANIEL
FERNALD CADD
DRAWING.
DO NOT REVISE
MANUALLY.

CONFIGURATION
MANAGEMENT
DRAWING

APPROVALS	
CIVIL & STR.	SMETTY ENG.
ELECTRICAL	MAINTENANCE
ENGINEER	FIRE PROTECT.
INSTRUMENTATION	WASTE MGMT.
MECHANICAL	SECURITY
	PROJECTS

Fernald Environmental
Management Project
**FLUOR DANIEL
FERNALD**
U.S. DEPARTMENT OF ENERGY

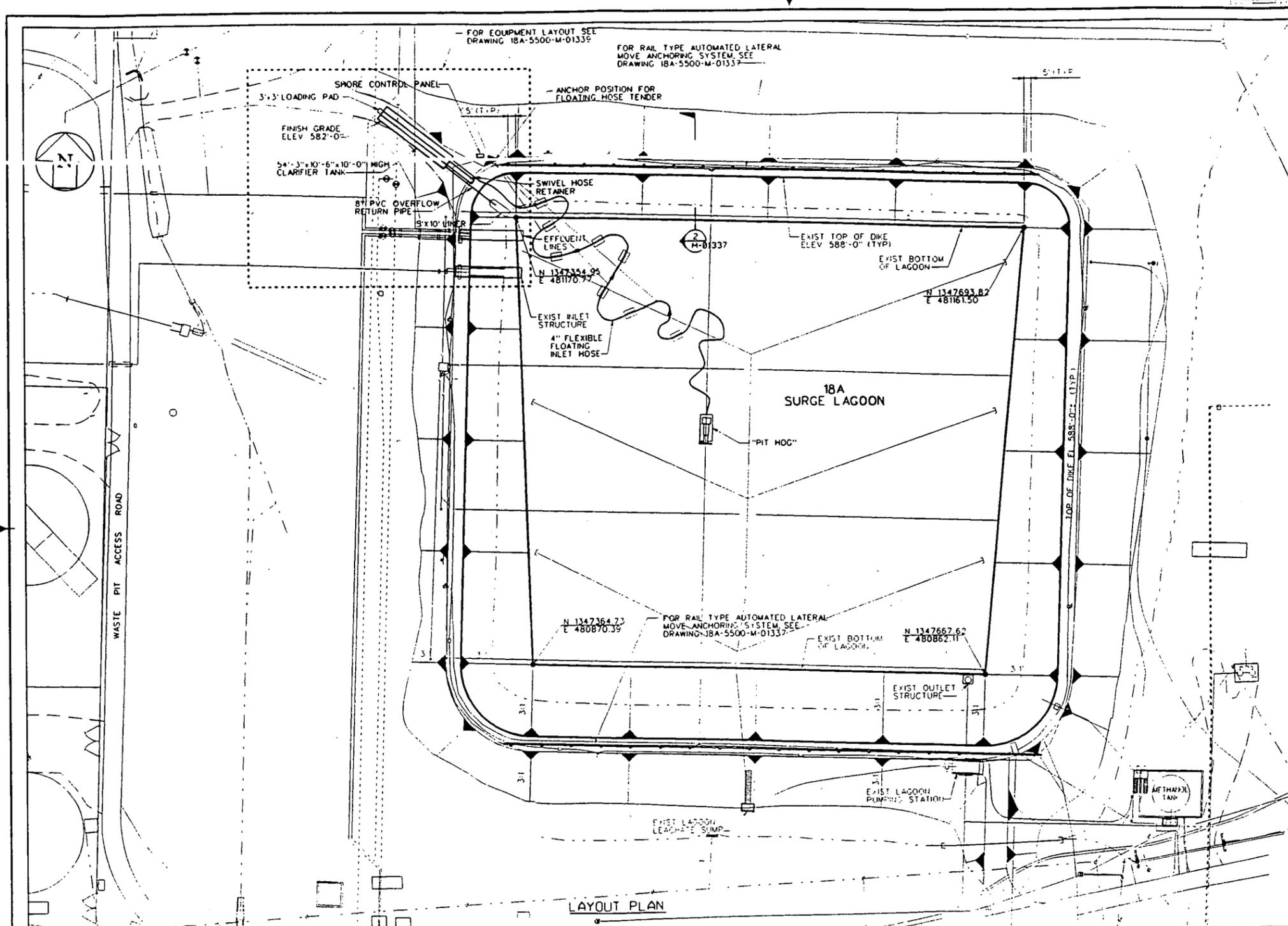
18E	STORMWATER RETENTION BASIN, EAST AND SLUDGE REMOVAL SYSTEM MECHANICAL CLARIFIER PLAN AND ELEVATIONS
RES 3722	18A-5500-M-0135
DATE	6/17/98
DRAWN	C. EISENER

FILE NAME: L:\RES_3722\18A\1351.DWG

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- NOTES:
1. CONTOURS REVISED ON 1997 FLYOVER SURVEY
 2. NORTH AND SOUTH RAILS ARE TO BE PARALLEL TO EACH OTHER.

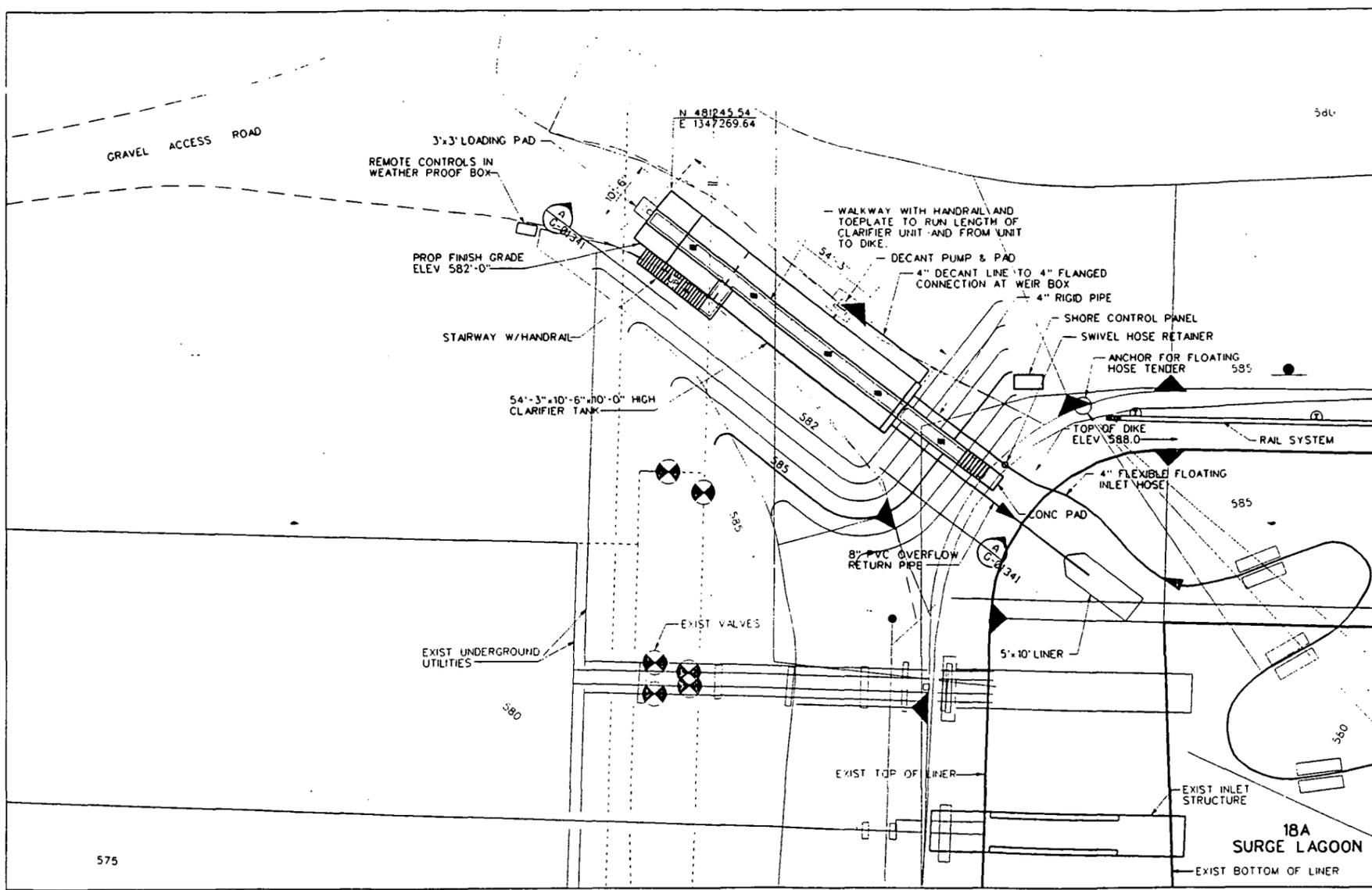
PRELIMINARY

<p>NOTE: FLUOR DANIEL FERNALD CADD DRAWING. DO NOT REVISE MANUALLY.</p>		<p>CONFIGURATION DRAWING</p>		<p>APPROVALS</p> <table border="1"> <tr> <td>DESIGNED BY</td> <td>SAFETY</td> </tr> <tr> <td>DRAWN BY</td> <td>MAINTENANCE</td> </tr> <tr> <td>CHECKED BY</td> <td>FIELD PROTECT</td> </tr> <tr> <td>PROJECT ENGINEER</td> <td>WASTE MANAGE</td> </tr> <tr> <td>PROJECT MANAGER</td> <td>OPERATIONS</td> </tr> <tr> <td>PROJECT SUPERVISOR</td> <td>TRAINING</td> </tr> </table>		DESIGNED BY	SAFETY	DRAWN BY	MAINTENANCE	CHECKED BY	FIELD PROTECT	PROJECT ENGINEER	WASTE MANAGE	PROJECT MANAGER	OPERATIONS	PROJECT SUPERVISOR	TRAINING	<p>Fernald Environmental Management Project</p> <p>FLUOR DANIEL FERNALD</p> <p>U.S. DEPARTMENT OF ENERGY</p>		<p>18A SURGE LAGOON</p> <p>SLUDGE REMOVAL SYSTEM GENERAL ARRANGEMENT PLAN</p> <p>SCALE: 1" = 30'-0"</p> <p>18A-5500-0-01338 B</p>	
DESIGNED BY	SAFETY																				
DRAWN BY	MAINTENANCE																				
CHECKED BY	FIELD PROTECT																				
PROJECT ENGINEER	WASTE MANAGE																				
PROJECT MANAGER	OPERATIONS																				
PROJECT SUPERVISOR	TRAINING																				

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EQUIPMENT LAYOUT PLAN

LEGEND

- - - 585 - - - EXISTING CONTOUR
- 582 — PROPOSED CONTOUR

PRELIMINARY

REVISIONS	DATED	BY	APP'D	NO.	REVISIONS	DATED	BY	APP'D	NO.

NOTE:
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CONFIGURATION
MANAGEMENT
DRAWING

APPROVALS	
CIVIL & STR.	SAFETY ENG.
ELECTRICAL	MAINTENANCE
ENGINEER	PIPE PROTECT.
INSTRUMENT.	WASTE MANAG.
MECHANICAL	QUALITY
	PROJECTS

Fernald Environmental
Management Project

U.S. DEPARTMENT OF ENERGY

18A SUR
SLUDGE REMOVAL SYS
CLARIFIER SITE PL
SCALE: 1" = 10'-0"

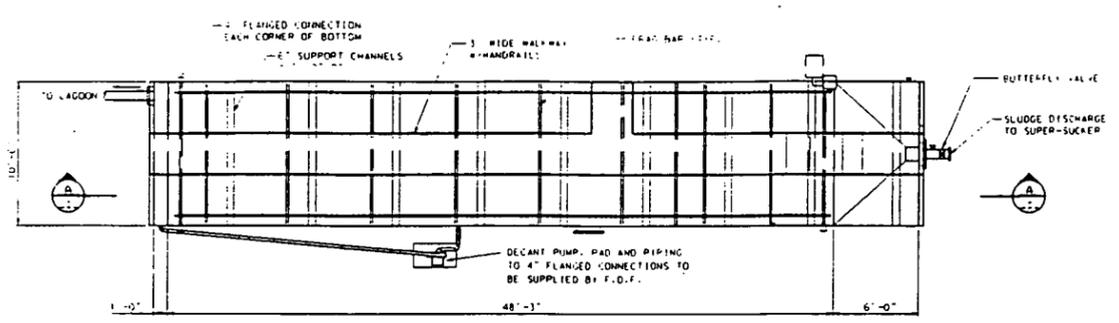
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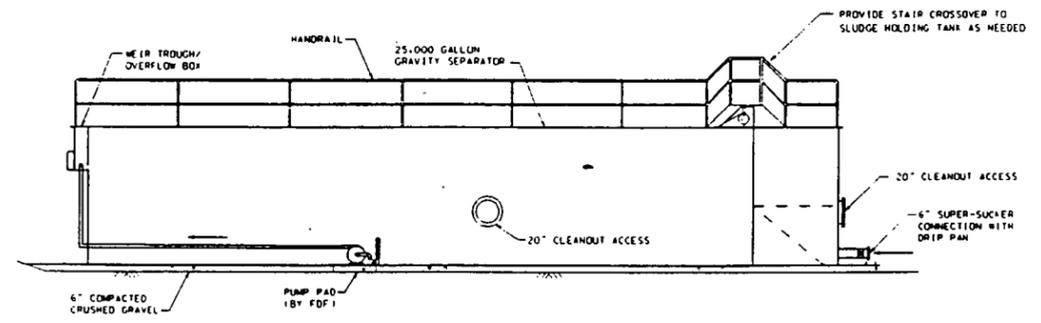
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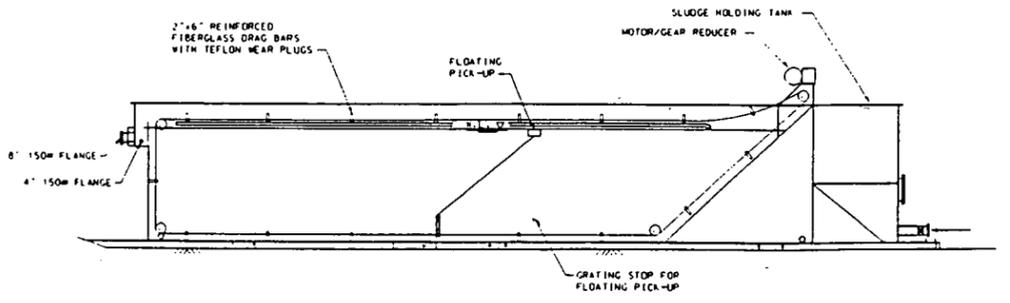
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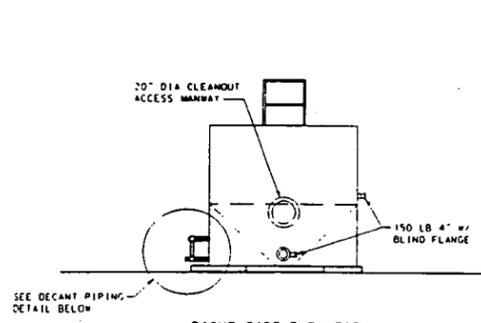
CLARIFIER PLAN VIEW



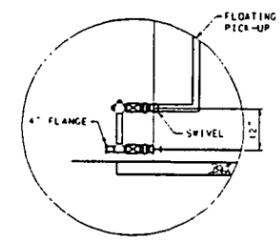
FRONT ELEVATION



SECTION A



RIGHT SIDE ELEVATION



DECANT PIPING DETAIL

NOTES:

1. ALL TANKS PROPER TO BE CONSTRUCTED OF 1/2\"/>
2. NUTS AND BOLTS EXPOSED TO TANK CONTENTS OF THE TANK SHALL BE STAINLESS STEEL.
3. TANK TO BE EQUIPPED WITH TWO 4\"/>
4. DRAG BARS SHALL BE 2\"/>
5. SLUDGE TANK SHALL BE PROVIDED WITH ONE 6\"/>
6. INTERIOR SURFACES SHALL BE PREPARED TO A SSPC-SP10 NEAR WHITE METAL FROST AND COATED WITH A SELF PRIMING COAL TAR EPOXY (12DFT).
7. EXTERIOR SURFACES SHALL BE PREPARED TO AN SSPC-SP6 COMMERCIAL FROST. EXTERIOR SHALL BE PRIMED FOLLOWED BY AN INDUSTRIAL ENAMEL COAT, DARK GREEN (6DFT).
8. A WALKWAY SHALL EXTEND THE ENTIRE LENGTH OF SEPARATOR AND BE EQUIPPED WITH OSHA APPROVED HANDRAIL AND TOE BOARDS
9. THE WALKWAY SHALL BE PREPARED AND PAINTED AS THE EXTERIOR SURFACES OF THE SEPARATOR.
10. A DRIP PAN IS TO BE PROVIDED TO CATCH SPILLAGE AT THE SUPER-SUCKER CONNECTION.

PRELIMINARY

NO.	REVISIONS	DATE	BY	CHKD.	DATE	BY	CHKD.
1	ISSUE FOR DESIGN REVIEW	1/28/88	RM				
2	ISSUE FOR REVIEW	1/28/88	RM				

NOTE
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CONFIDENTIAL
DRAWING

APPROVALS	
CIVIL & STR.	SAFETY ENG.
ELECTRICAL	MAINTENANCE
ENGINEER	HAZ. PROTECT.
INSTRUMENT.	WASTE MGMT.
MECHANICAL	SECURITY
	PROJECTS

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FERNALD
U.S. DEPARTMENT OF ENERGY

18A SURGE LAGOON
SLUDGE REMOVAL SYSTEM
CLARIFIER EQUIPMENT DETAILS
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