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WASTE ISOLATION FACILITY IN SALT GEOLOGY

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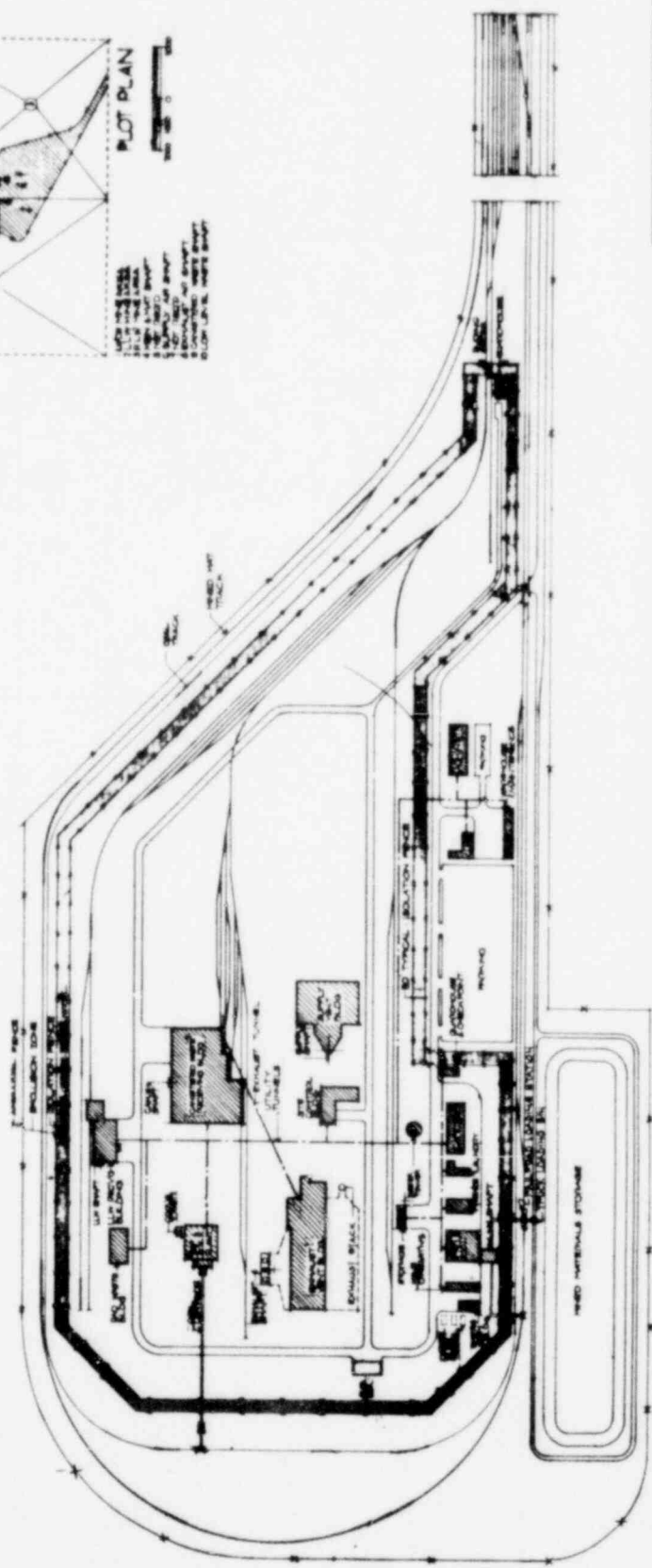
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OFFICE OF WASTE ISOLATION
UNION CARBIDE CORPORATION
NUCLEAR DIVISION
OAK RIDGE, TENNESSEE

MURDOCK, BRINCKERHOFF, CHASE & DOUGLAS, INC.
ENGINEERS
NEW YORK, NY

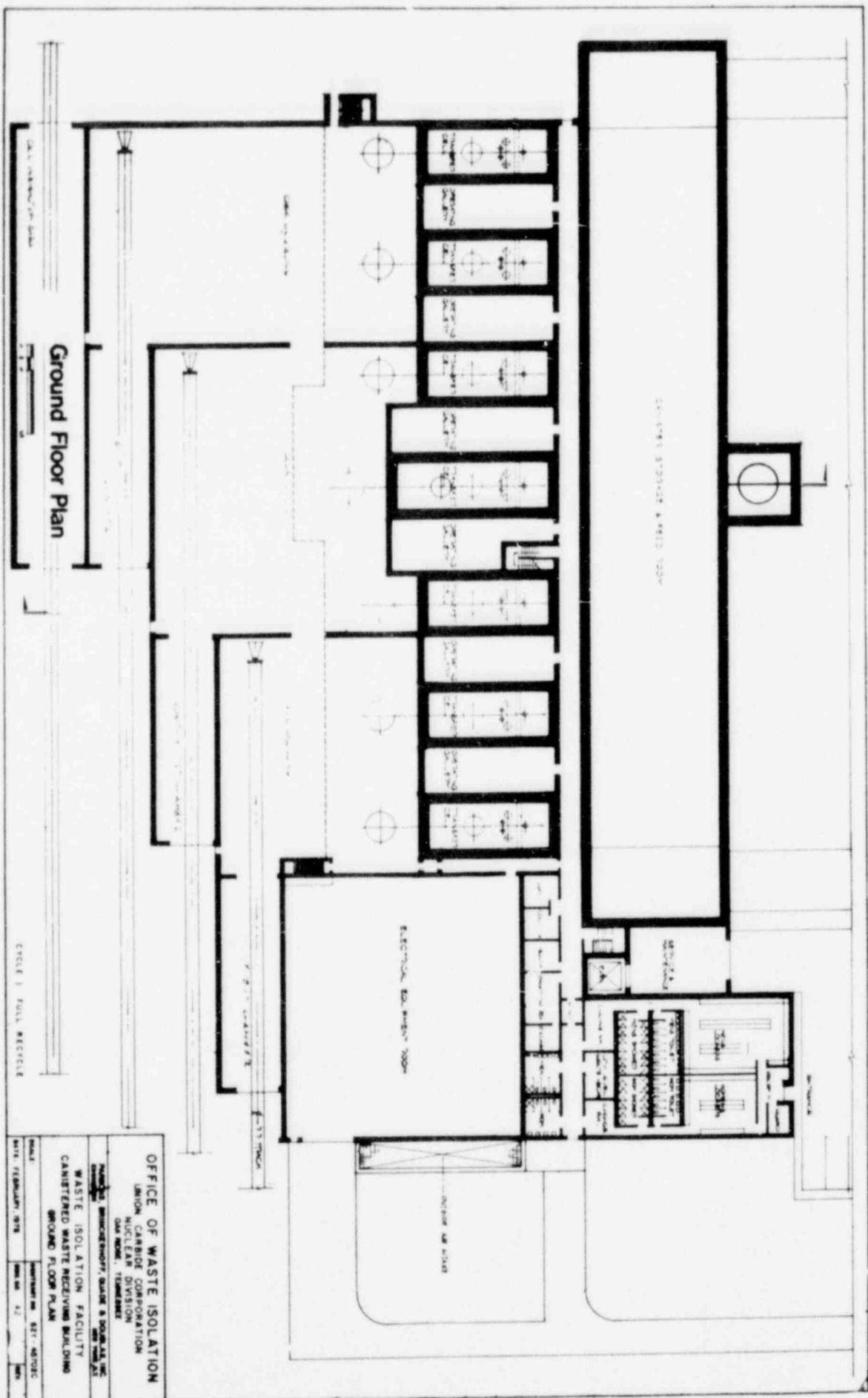
WASTE ISOLATION FACILITY
INDEX OF DRAWINGS

SCALE NONE	CONTRACT NO. 821-45702C
DATE FEBRUARY 1978	DWN NO. --- REV. ---



OFFICE OF WASTE ISOLATION	
UNION CARBIDE CORPORATION	
NUCLEAR DIVISION	
DAN RHOADE, YEMMINGER	
DRAWING: BRUNNENHOFF, BAUER & DOUGLAS, INC.	
DATE: 1/28/67	
WASTE ISOLATION FACILITY	
REPOSITORY-SITE AND PLOT PLAN	
SHEET - CYCLE I - 1/18 REVISIONS	
DATE: 1/28/67	BY: [Signature]
DATE: 1/28/67	BY: [Signature]

CYCLE I FULL RECYCLE

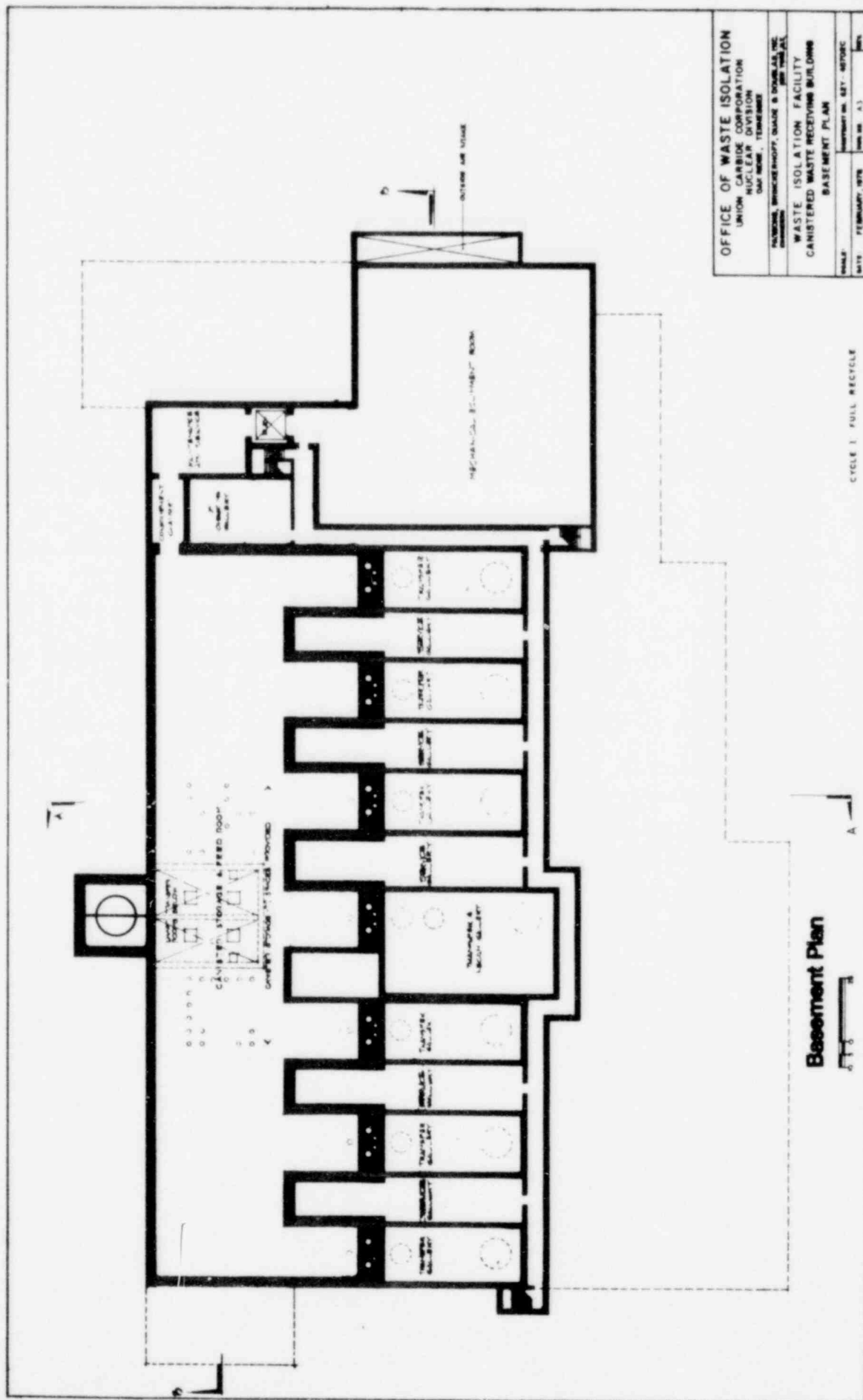


Ground Floor Plan

OFFICE OF WASTE ISOLATION
 UNION CARBIDE CORPORATION
 NUCLEAR DIVISION
 OAK RIDGE, TENNESSEE

WASTE ISOLATION FACILITY
 CANISTERED WASTE RECEIVING BUILDING
 GROUND FLOOR PLAN

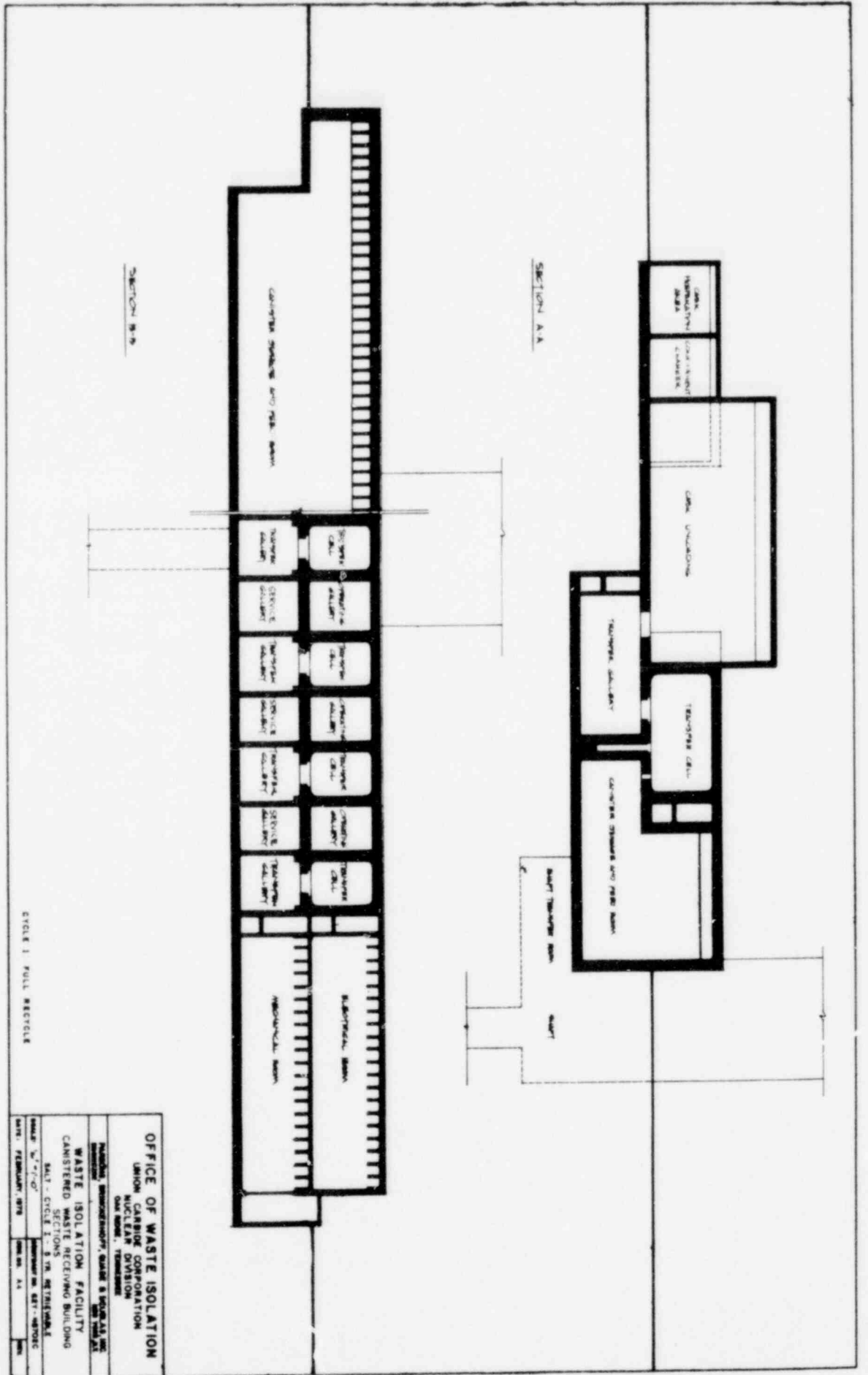
DATE: 7/25/67
 DRAWN BY: J.E.
 CHECKED BY: J.E.
 SCALE: AS SHOWN



OFFICE OF WASTE ISOLATION	
UNION CARBIDE CORPORATION	
NUCLEAR DIVISION	
DAY WARE, TENNESSEE	
PROJECT: WASTE ISOLATION FACILITY	
CANISTERED WASTE RECEIVING BUILDING	
BASEMENT PLAN	
DATE: FEBRUARY, 1978	SCALE: 1/8" = 1'-0"
BY: [Signature]	CHK: [Signature]

Basement Plan

CYCLE 1 FULL RECYCLE

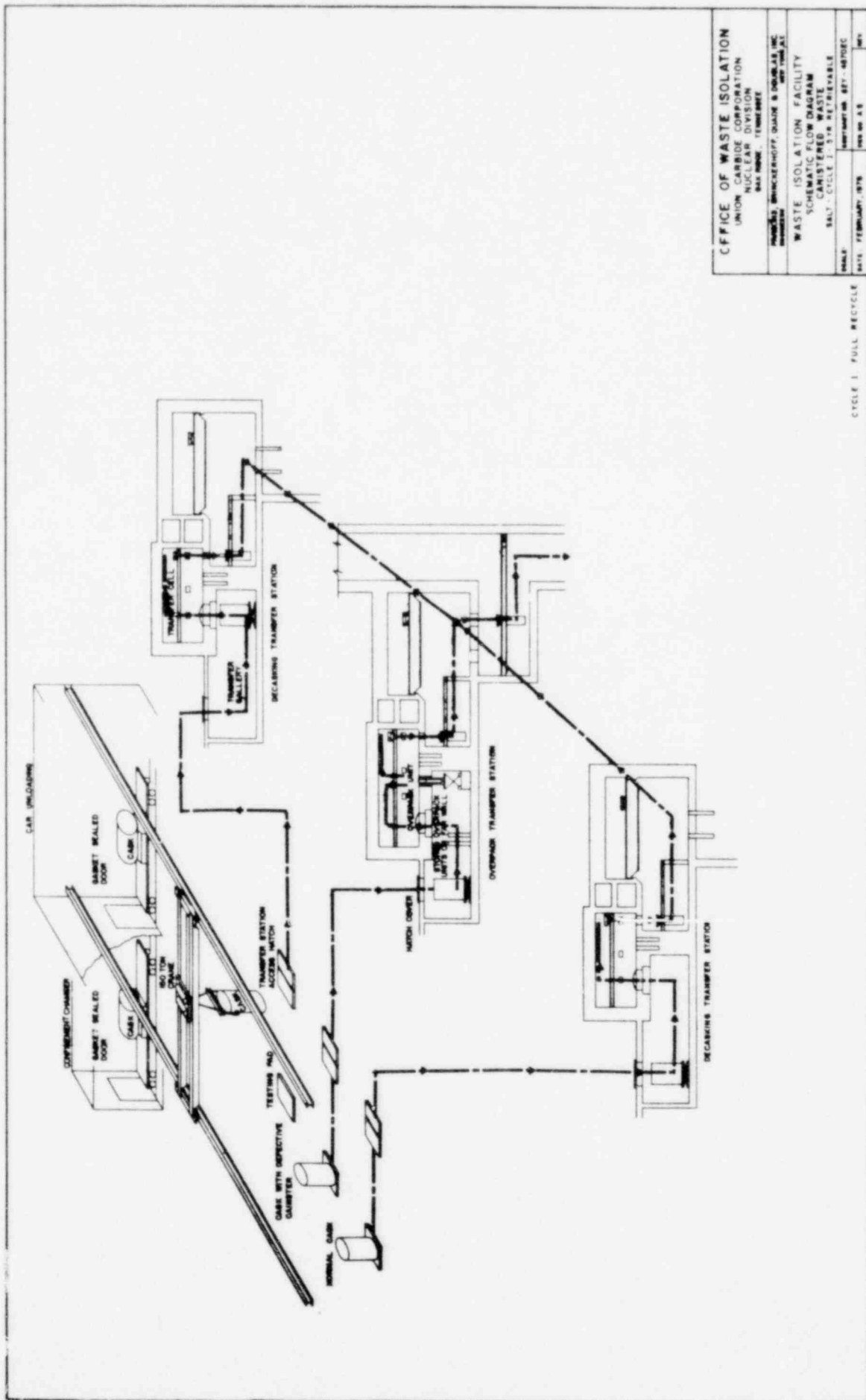


SECTION B-B

SECTION A-A

CYCLE 1 FULL RECYCLE

OFFICE OF WASTE ISOLATION	
UNION CARBIDE CORPORATION	
NUCLEAR DIVISION	
OAK RIDGE, TENNESSEE	
Project: WASTE ISOLATION FACILITY	
WASTE ISOLATION FACILITY	
CANISTERED WASTE RECEIVING BUILDING	
SECTIONS	
SALT - CYCLE 1 - 8 TH RECEIVING	
Scale: 1/4" = 1'-0"	Drawn by: EST-48702C
Date: FEBRUARY, 1978	Sheet No. 11



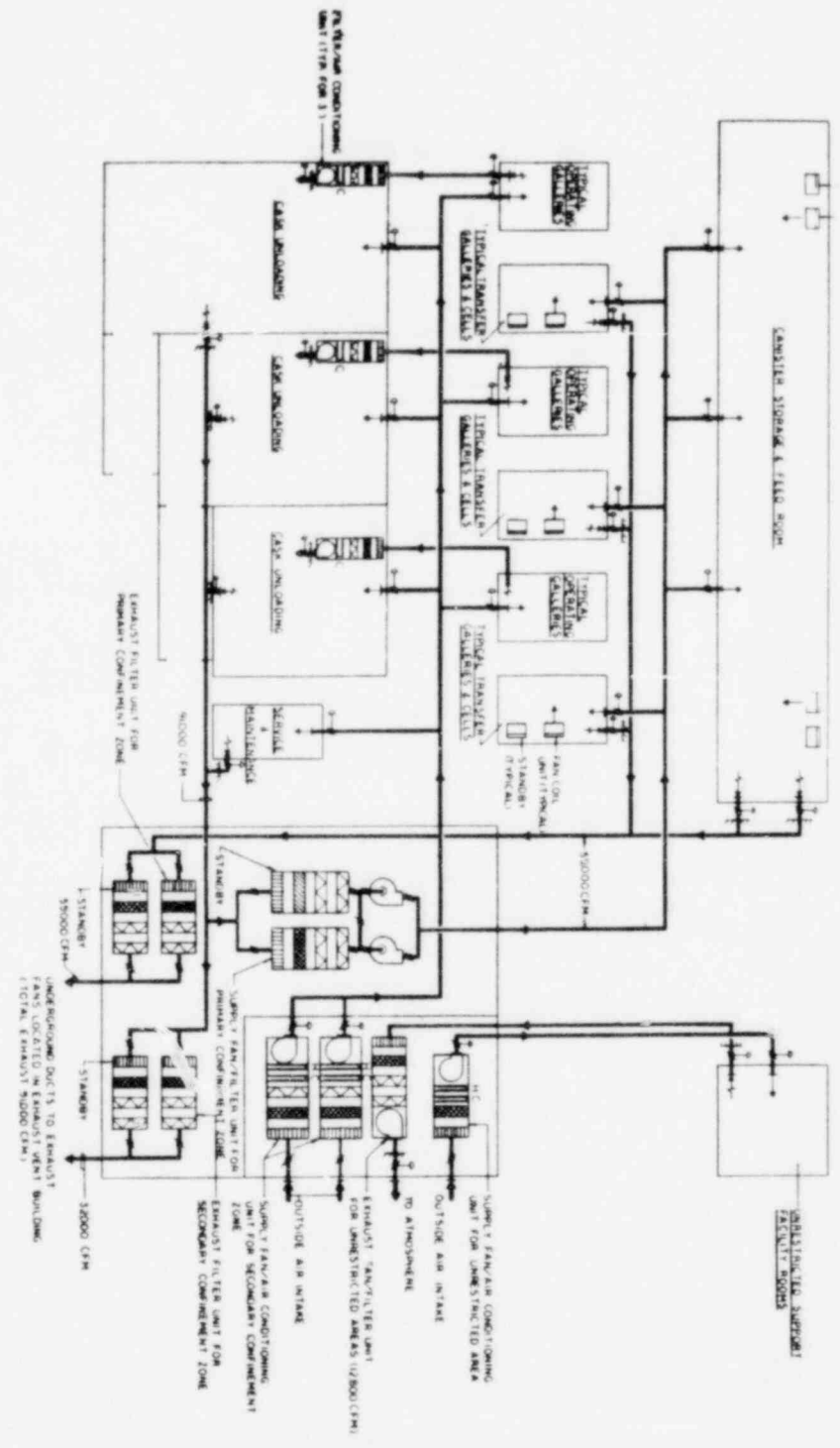
OFFICE OF WASTE ISOLATION
 UNION CARBIDE CORPORATION
 NUCLEAR DIVISION
 8000 NORTH TENNESSEE
 MEMPHIS, TENNESSEE 38117

WASTE ISOLATION FACILITY
 SCHEMATIC FLOW DIAGRAM
 CANISTERED WASTE
 SALT - CYCLE 1, 3-YR RETRIEVABLE

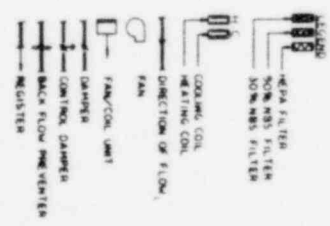
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 DRAWING NO. 877-48702C
 REV. NO. 4 8

CYCLE 1 FULL RECYCLE

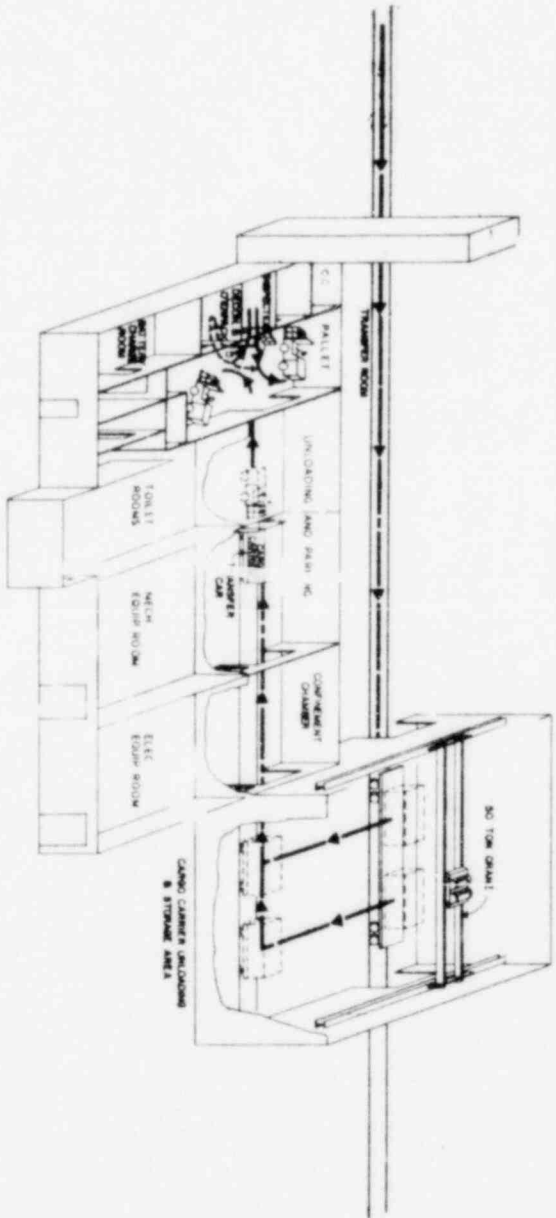
STANDARD FACILITY UNIT TYPICAL
 (SEE CON. AND TYPICAL)



CYCLE I FULL RECYCLE



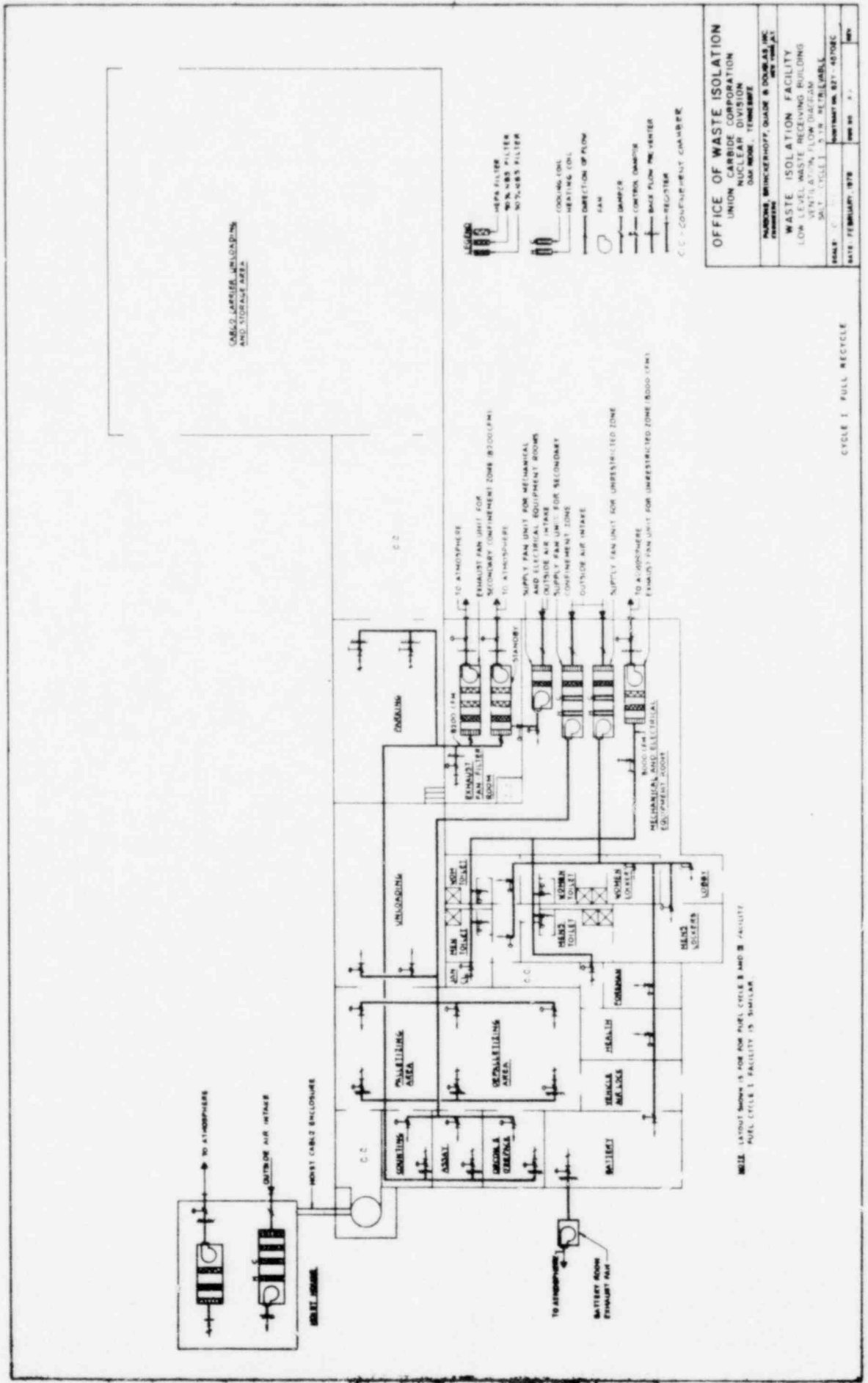
OFFICE OF WASTE ISOLATION UNION CARBIDE CORPORATION NUCLEAR DIVISION ONE MOORE TERRACE PITTSBURGH, PENNSYLVANIA 15222			
WASTE ISOLATION FACILITY CONSISTENT STORAGE & FILL SHOP UNIT TYPICAL SALT - CYCLE I - 5.75 M RETRIEVAL			
PROJECT: WASTE ISOLATION FACILITY DRAWING NO.: 4470-100-00000 SHEET NO.: 4470-100-00000	DATE: 10/1/78 BY: J.E. [unreadable] CHECKED: [unreadable]	APPROVED BY: [unreadable] TITLE: [unreadable]	SCALE: AS SHOWN



NOTE: CYCLE II AND CYCLE III LAYOUT SHOWN
CYCLE I LAYOUT IS SIMILAR

CYCLE I FULL RECTICLE

OFFICE OF WASTE ISOLATION UNION CARBIDE CORPORATION NUCLEAR DIVISION ONE ROOM, TOMBSTONE	
NATIONAL SURVEILLANCE, SALES & SERVICE INC. 400 W. 10th St. WASTE ISOLATION FACILITY SCHEMATIC FLOW DIAGRAM LOW LEVEL WASTE (LLW) BUILDING S.A.T. CYCLE I - 5.20 METRICONS	
DRAWN BY: [Name] DATE: FEBRUARY, 1978	APPROVED BY: [Name] DATE: [Date]

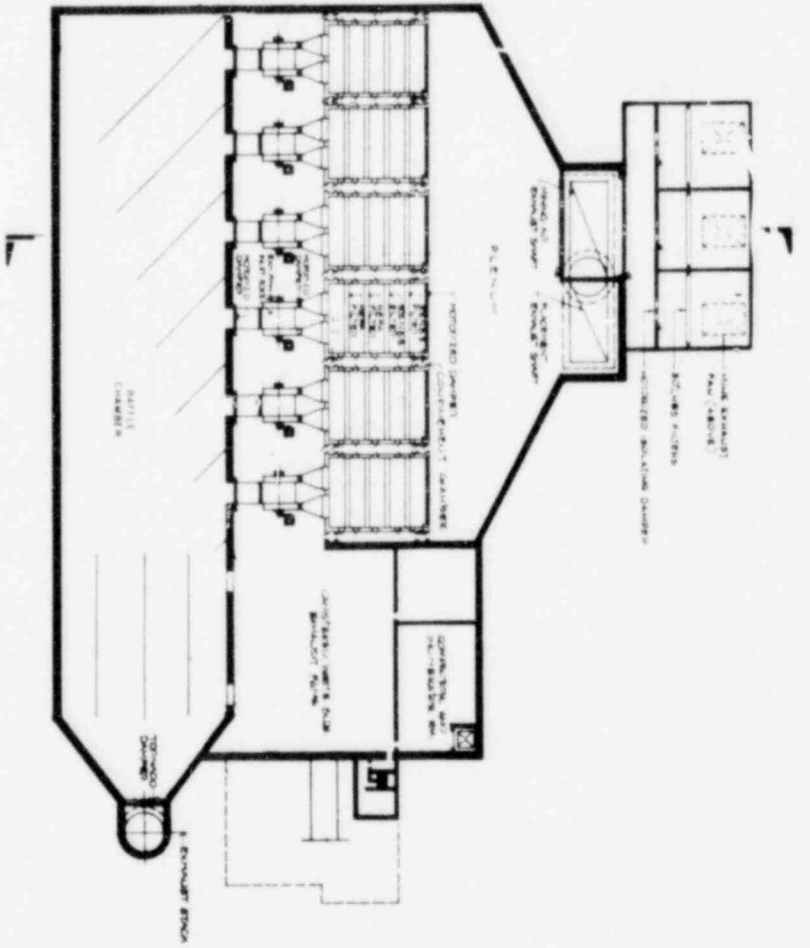


CELL LAYOUT SHOWN IS FOR FULL CYCLE B AND C FACILITY. FULL CYCLE I FACILITY IS SIMILAR.

OFFICE OF WASTE ISOLATION
 UNION CARBIDE CORPORATION
 NUCLEAR DIVISION
 ONE MOORE, TENNESSEE

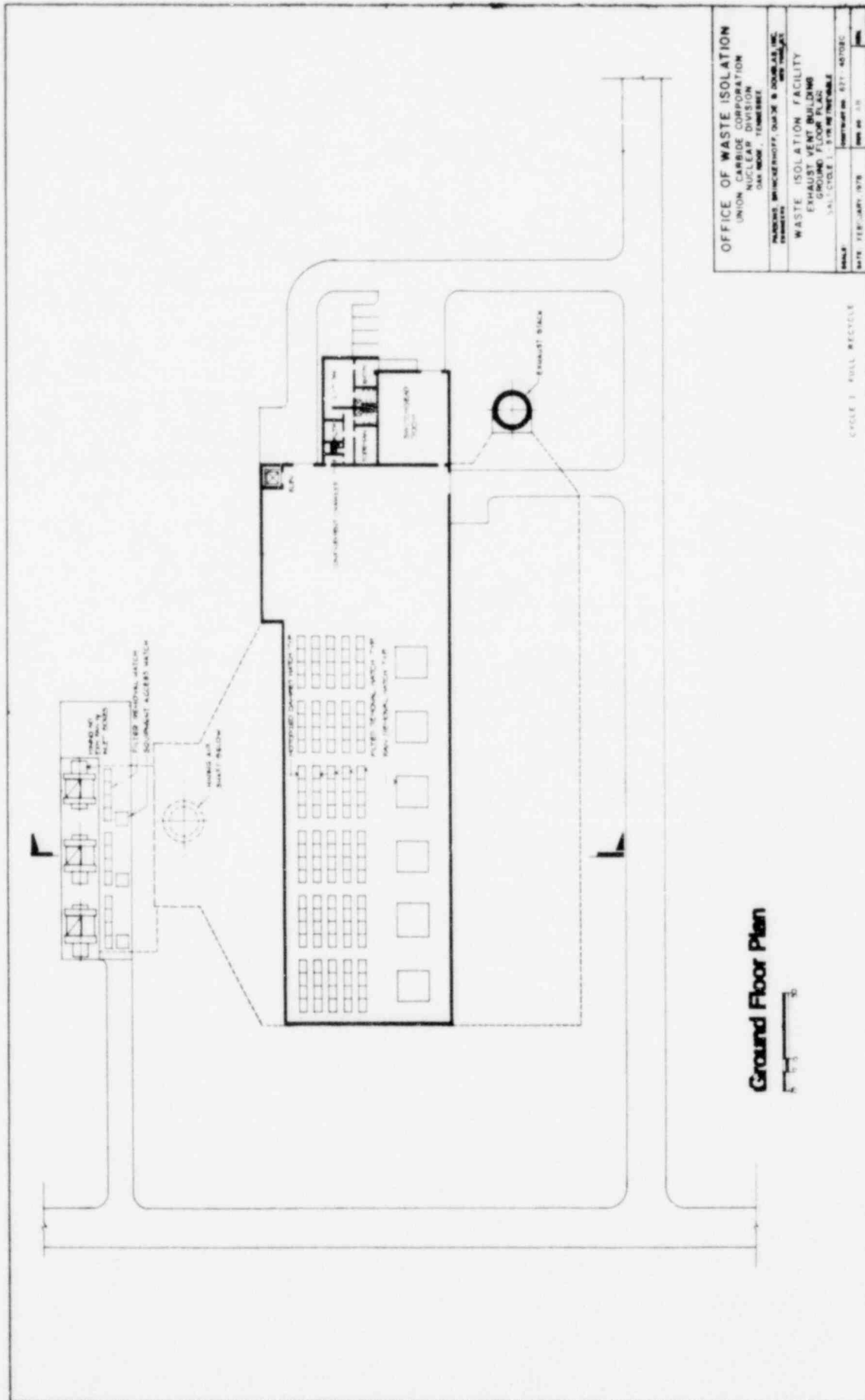
WASTE ISOLATION FACILITY
 LOW LEVEL WASTE RECEIVING BUILDING
 VENTILATION FLOW DIAGRAM
 S.C. - CYCLE I - FULL RECYCLE

DATE: FEBRUARY, 1978
 SHEET NO. 1-1

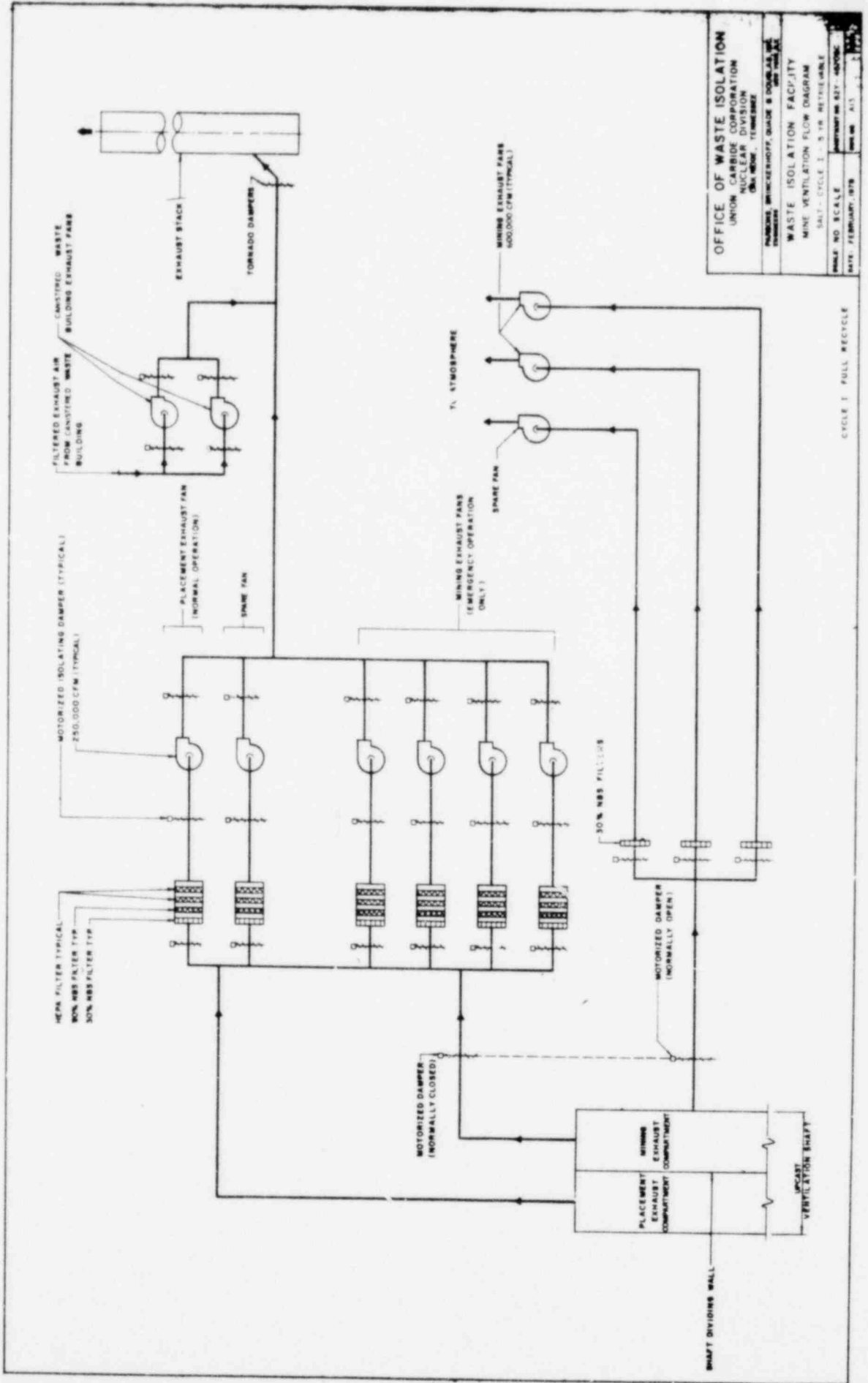


Basement Plan

OFFICE OF WASTE ISOLATION	
UNION CARBIDE CORPORATION NUCLEAR DIVISION DAN MORGAN TOWER	
NATIONAL BRIDGEMAN, SHAPIRO & BORDAS, INC. ARCHITECTS	
WASTE ISOLATION FACILITY	
EQUILIBRIUM BUILDING / BASEMENT PLAN SHEET NO. 1-10	
DATE: FEBRUARY 1979	SCALE: AS SHOWN



OFFICE OF WASTE ISOLATION UNION CARBIDE CORPORATION NUCLEAR DIVISION ONE WOODS FORTRESS PITTSBURGH, PENNSYLVANIA 15201	
WASTE ISOLATION FACILITY EXHAUST VENT BUILDING CYCLE 1 - FULL RECYCLE	
DATE: FEB - APR 1978	DRAWING NO: 877-45703C SHEET NO: 15

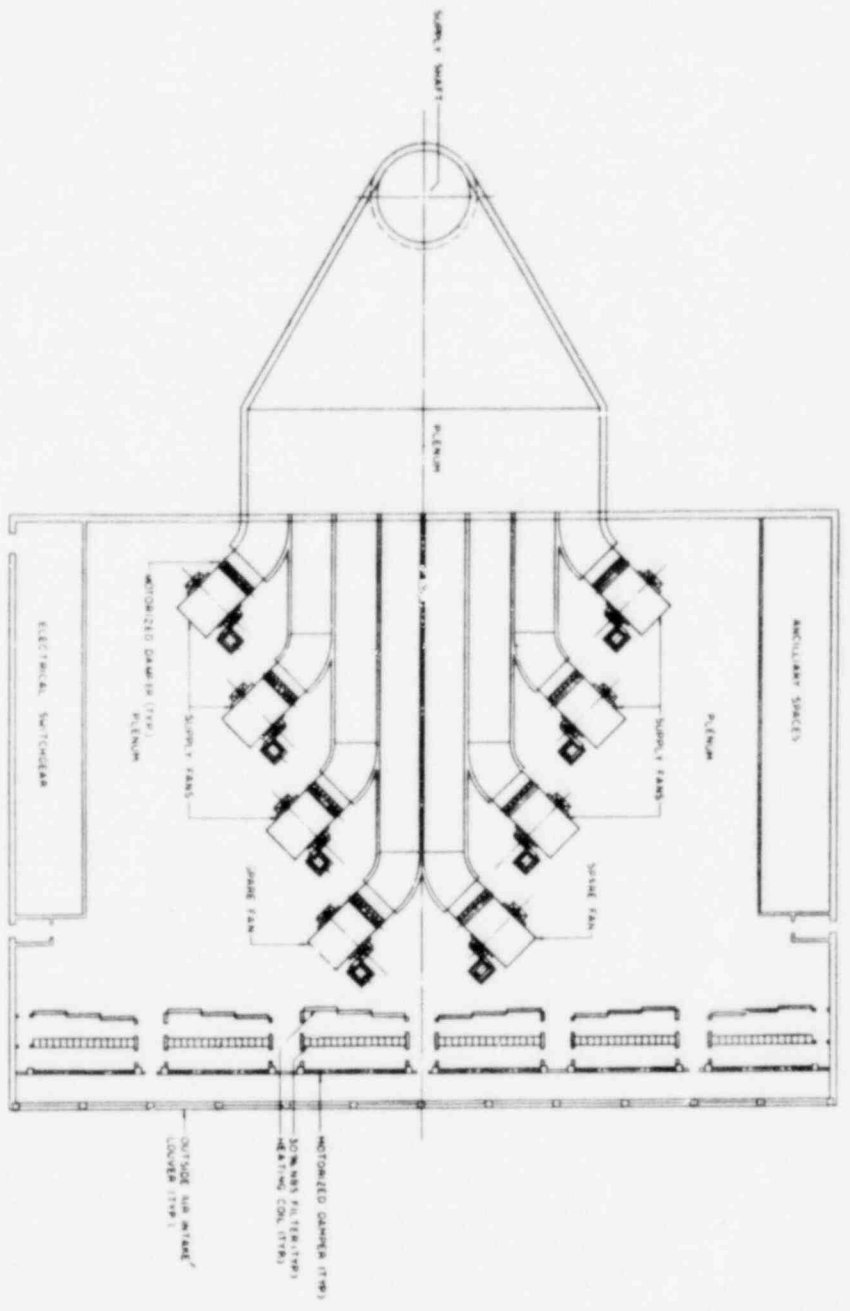


OFFICE OF WASTE ISOLATION
 UNION CARBIDE CORPORATION
 NUCLEAR DIVISION
 (DA-NEOP, TENNESSEE)

WASTE ISOLATION FACILITY
 MINE VENTILATION FLOW DIAGRAM
 SALT-CYCLE 1 - 3 - 18 RETRIEVABLE

DRAWING: BRUCKENHOFF, QUASE & CO. AS INC.
 PROJECT: WASTE ISOLATION FACILITY
 SCALE: NO SCALE
 DATE: FEBRUARY, 1978
 SHEET NO. A13

CYCLE 1 FULL RECYCLE

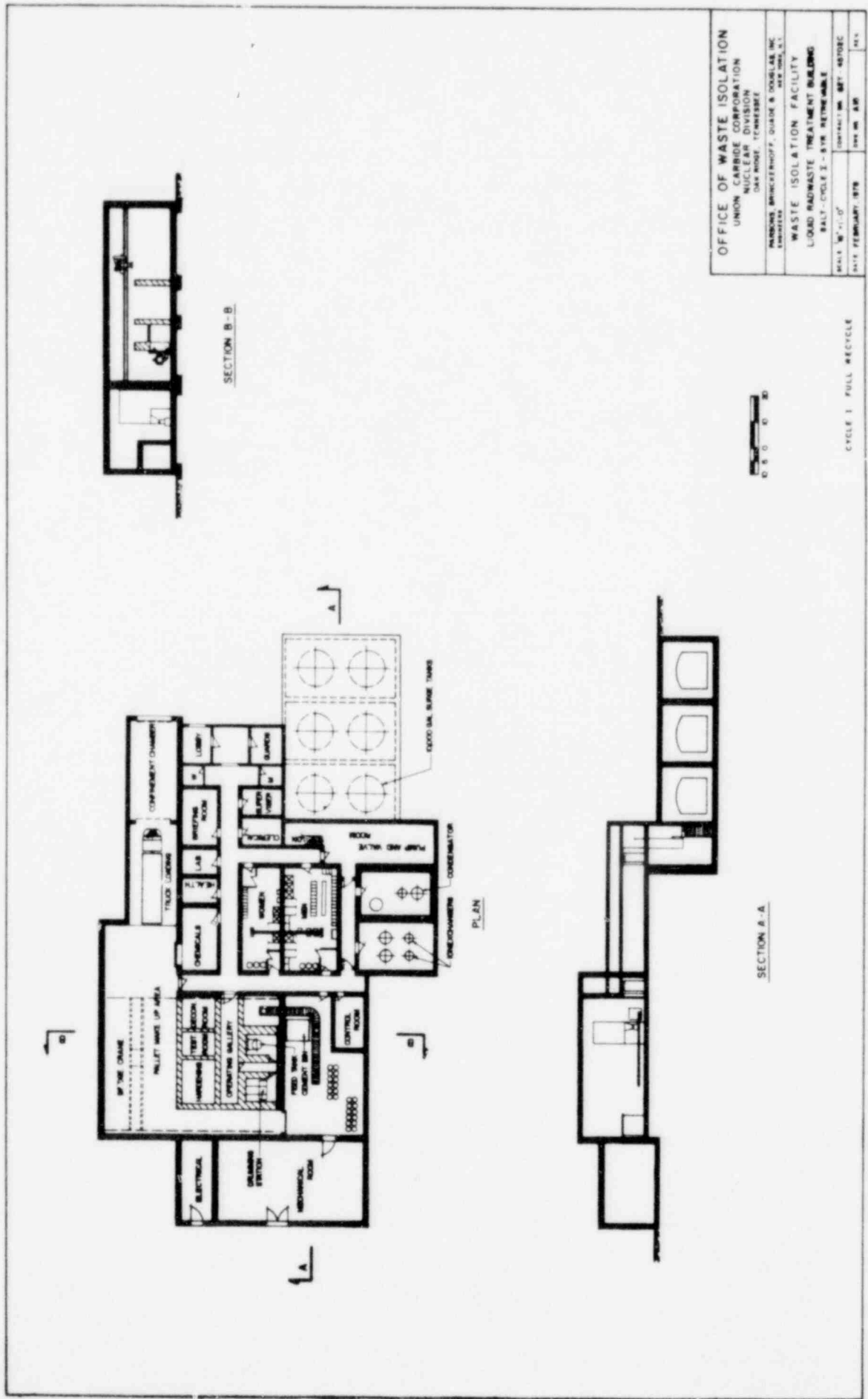


FLOOR PLAN



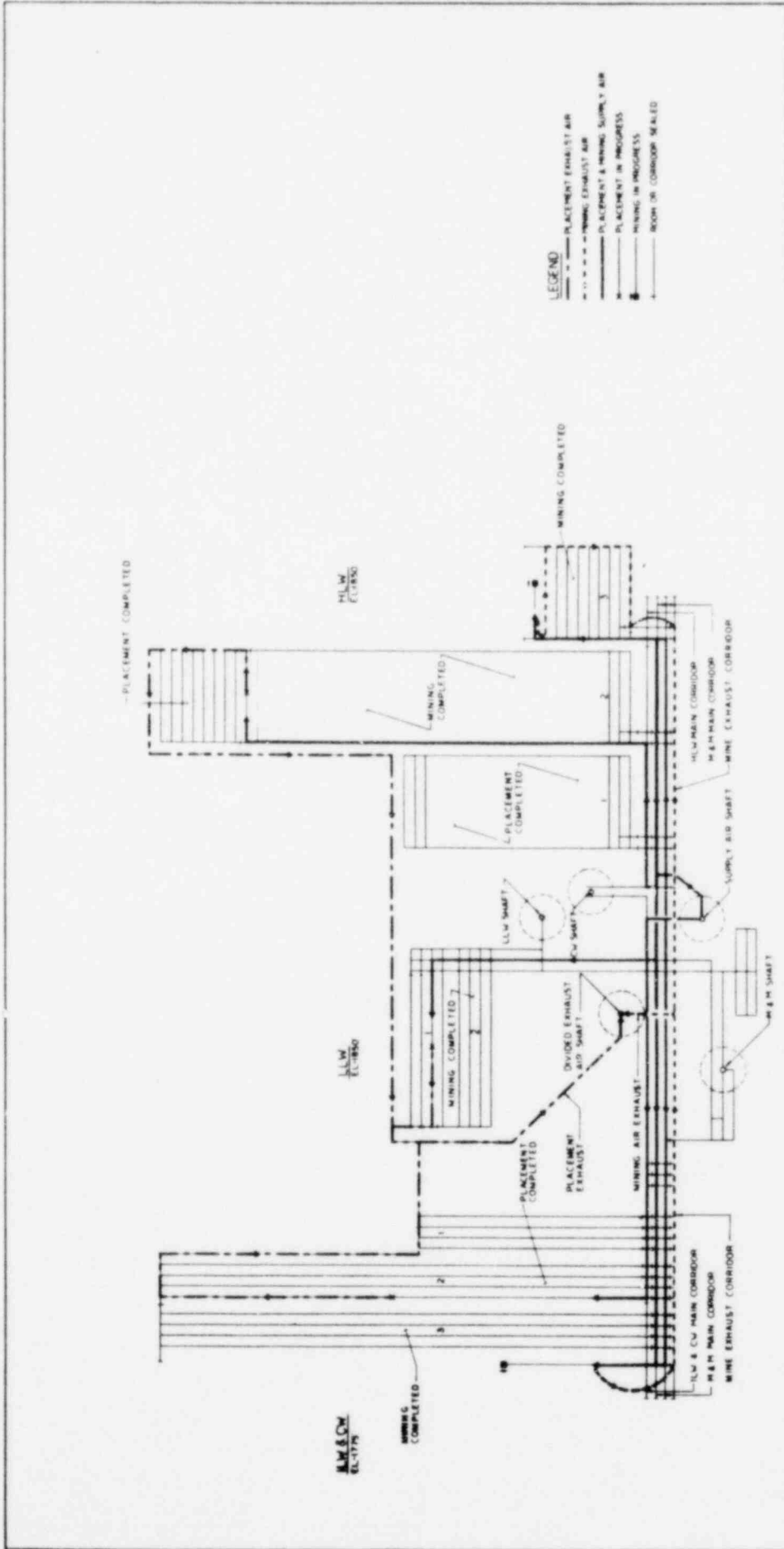
CIRCLE 1 FOLD RECYCLE

OFFICE OF WASTE ISOLATION	
NATIONAL NUCLEAR SECURITY ADMINISTRATION UNION CAMPUS COMPLETION NUCLEAR ENERGY RESEARCH ESTABLISHMENT	
WASTE ISOLATION FACILITY	
SUPPLY VENTILATION BUILDING	
SHEET CIRCLE 1 - 5TH REV. 10/19/82	
DATE	DESIGNED BY
DATE	DRAWN BY



OFFICE OF WASTE ISOLATION	
UNION CARBIDE CORPORATION	
UNION CARBIDE BUILDING	
DAK BROS. TENSERBEE	
MANAGER: BRUNCKENHOFF, DONALD S. DONALD, JR., INC.	
ENGINEER: DONALD S. DONALD, JR., INC.	
WASTE ISOLATION FACILITY	
LIQUID RADWASTE TREATMENT BUILDING	
BALT-CYCLE 2 - 8-YR. RETENABLE	
SCALE: 1/4" = 1'-0"	CONTRACT NO. 887-82702C
DATE: FEBRUARY, 1978	ISS. NO. 8-8
	REV.

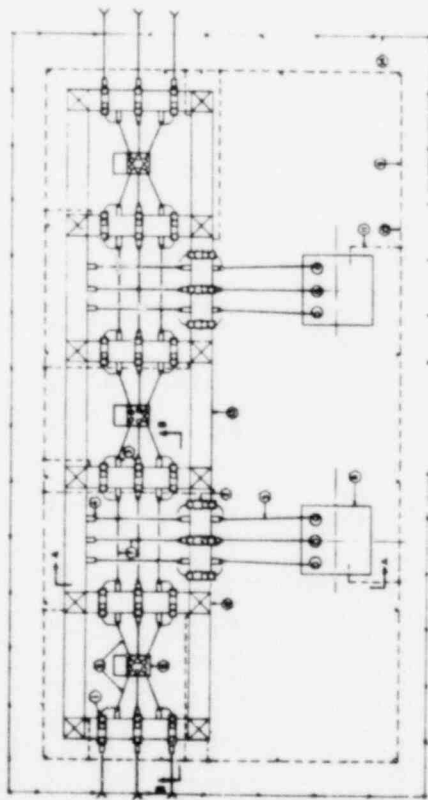
CYCLE 1 FULL RECYCLE



OFFICE OF WASTE ISOLATION	
UNION CARBIDE CORPORATION	
NUCLEAR DIVISION	
OAK RIDGE, TENNESSEE	
PREPARED BY: MINCKENHOFF, GAULD & DOUGLAS, INC.	
NEW YORK, N.Y.	
WASTE ISOLATION FACILITY	
WASTE VENTILATION PLAN	
SALT CYCLE I - 518 RETRIEVABLE	
SCALE: 1" = 100'	DATE: FEBRUARY, 1978
DATE: FEBRUARY, 1978	BY: J.S. A.S.

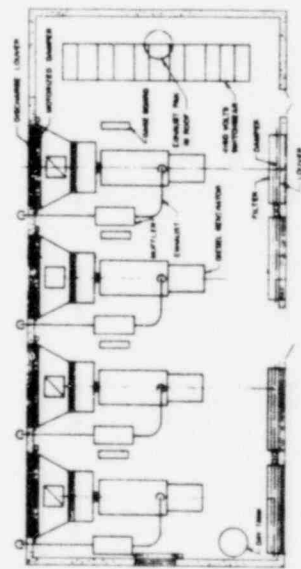
PARTIAL PLAN
MINING AND PLACEMENT VENTILATION
 LAYOUT FOR FUEL CYCLE ■ SHOWS CYCLE I IN SUPPLY AIR

CYCLE I FULL RECYCLE

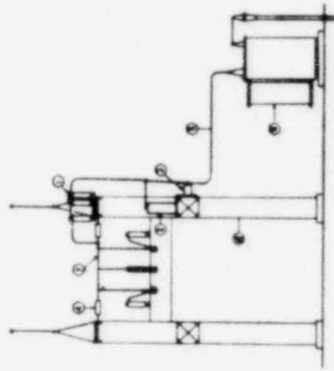


SUB-STATION PLAN

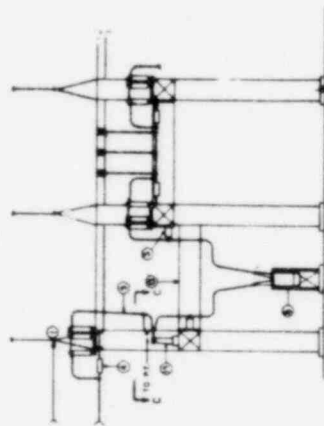
ITEM	QUANTITY	DESCRIPTION
1	2	1/2" DIA. PIPE, 10' LONG, 1" DIA.
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3	2	1/2" DIA. PIPE, 10' LONG, 1" DIA.
4	2	1/2" DIA. PIPE, 10' LONG, 1" DIA.
5	2	1/2" DIA. PIPE, 10' LONG, 1" DIA.
6	2	1/2" DIA. PIPE, 10' LONG, 1" DIA.
7	2	1/2" DIA. PIPE, 10' LONG, 1" DIA.
8	2	1/2" DIA. PIPE, 10' LONG, 1" DIA.
9	2	1/2" DIA. PIPE, 10' LONG, 1" DIA.
10	2	1/2" DIA. PIPE, 10' LONG, 1" DIA.
11	2	1/2" DIA. PIPE, 10' LONG, 1" DIA.
12	2	1/2" DIA. PIPE, 10' LONG, 1" DIA.
13	2	1/2" DIA. PIPE, 10' LONG, 1" DIA.
14	2	1/2" DIA. PIPE, 10' LONG, 1" DIA.
15	2	1/2" DIA. PIPE, 10' LONG, 1" DIA.



STANDBY GENERATOR



SECTION A-A



SECTION B-B



SECTION C-C

OFFICE OF WASTE ISOLATION
 UNION CARBIDE CORPORATION
 NUCLEAR DIVISION
 DAYTON, OHIO 45424

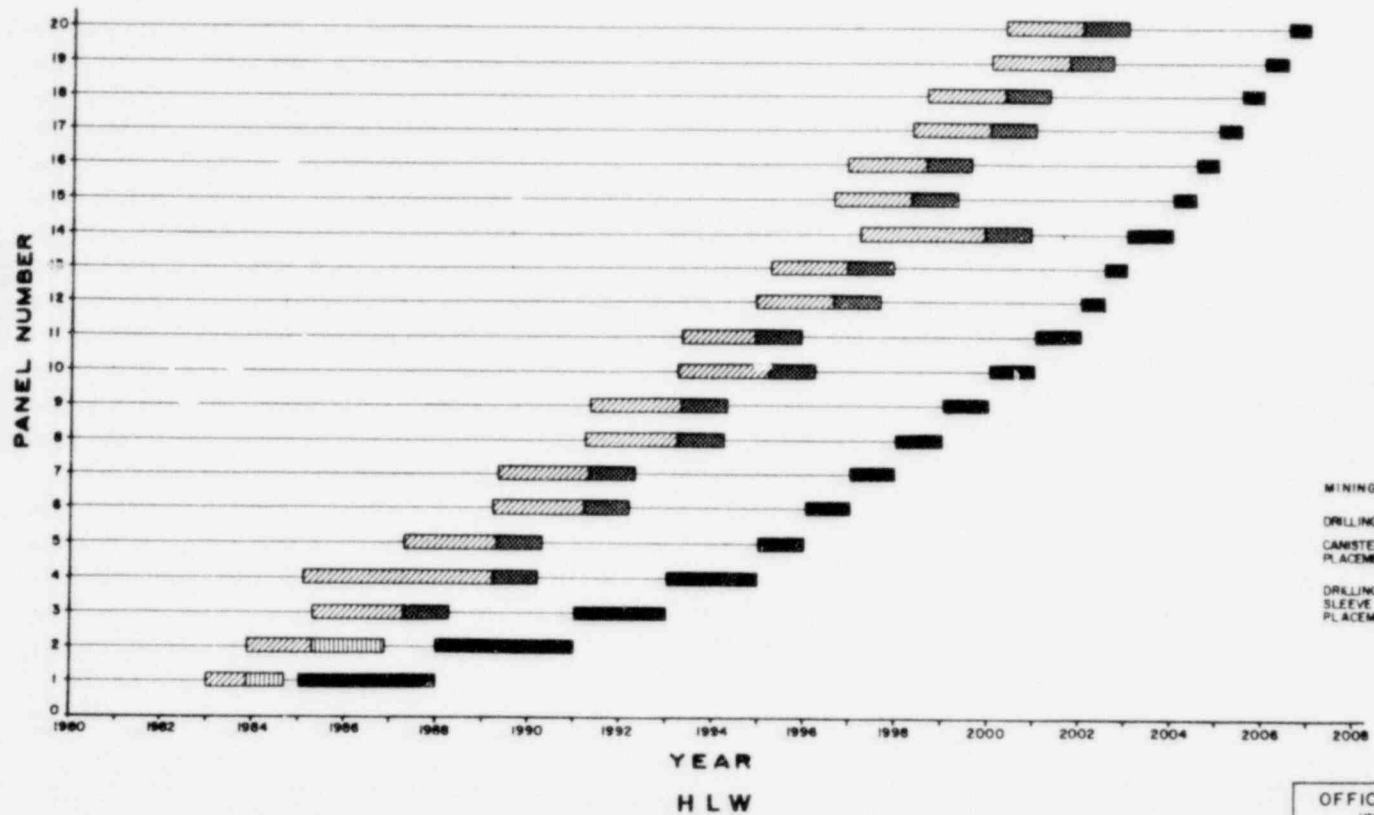
WASTE ISOLATION FACILITY
 MAINTENANCE SUBSTATION
 AND STANDBY GENERATOR
 SALT-CYCLE 1 - 3
 PL. 151215-10-10

PROJECT NO. 827-40702C
 DRAWING NO. 151215-10-10
 DATE: FEBRUARY, 1979

CYCLE 1 - FULL RECYCLE

MINING AND PLACEMENT SCHEDULE

SALT-CYCLE I-5 YEARS RETRIEVABLE



LEGEND

- MINING
- DRILLING
- CANISTER PLACEMENT
- DRILLING & SLEEVE PLACEMENT

OFFICE OF WASTE ISOLATION	
UNION CARBIDE CORPORATION NUCLEAR DIVISION DAK RIDGE, TENNESSEE	
PARKS, BRINCKERHOFF, QUADE & DOUBLAS, INC. ENGINEERS NEW YORK, N.Y.	
WASTE ISOLATION FACILITY HLW MINING AND PLACEMENT SCHEDULE SALT-CYCLE I-5 YR RETRIEVABLE	
SCALE:	CONTRACT NO. 62Y-48702C
DATE: FEBRUARY, 1979	DWG NO. A-23 REV.

CYCLE I FULL RECYCLE

MINING AND PLACEMENT SCHEDULE SALT-CYCLE I - 5 YEARS RETRIEVABLE

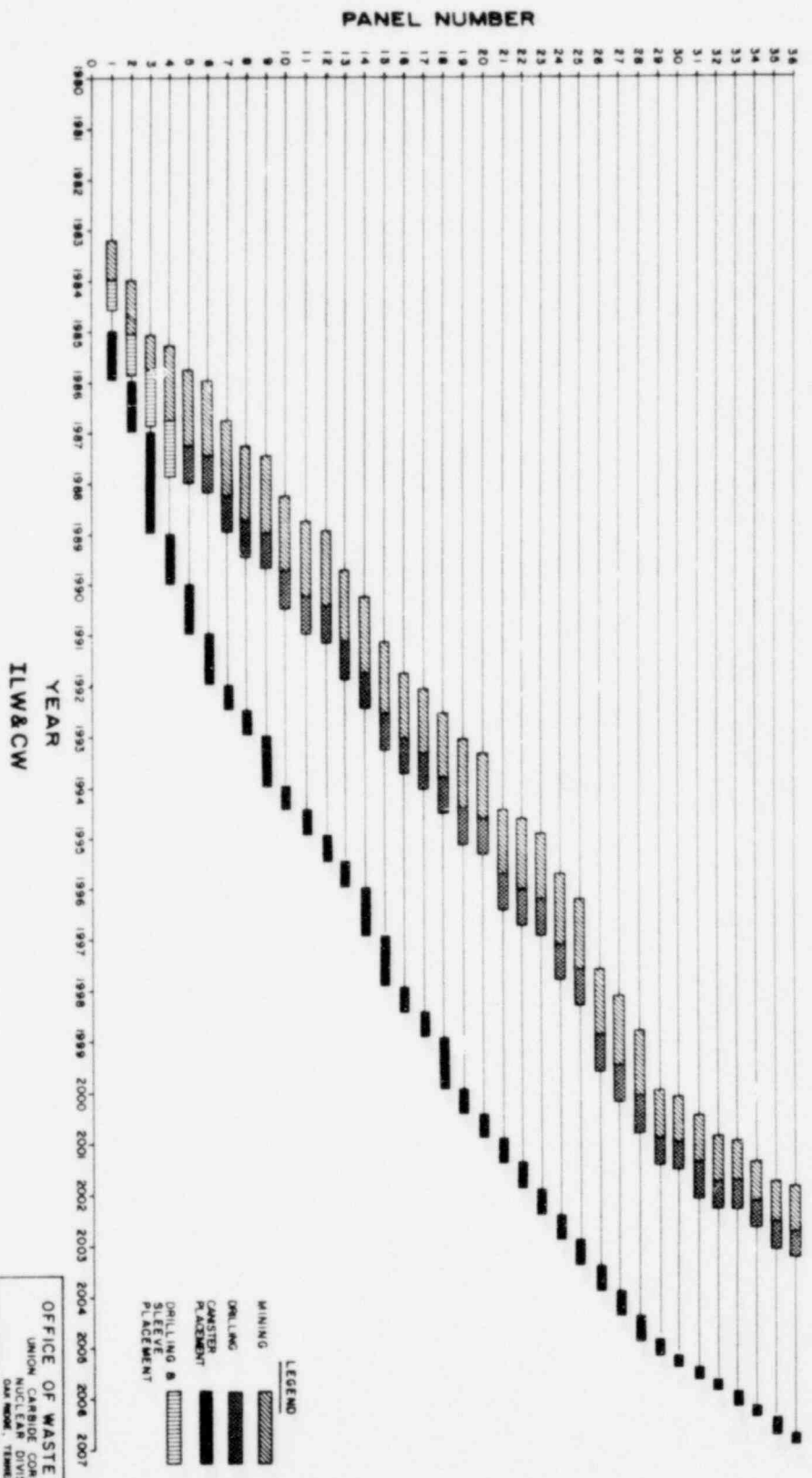
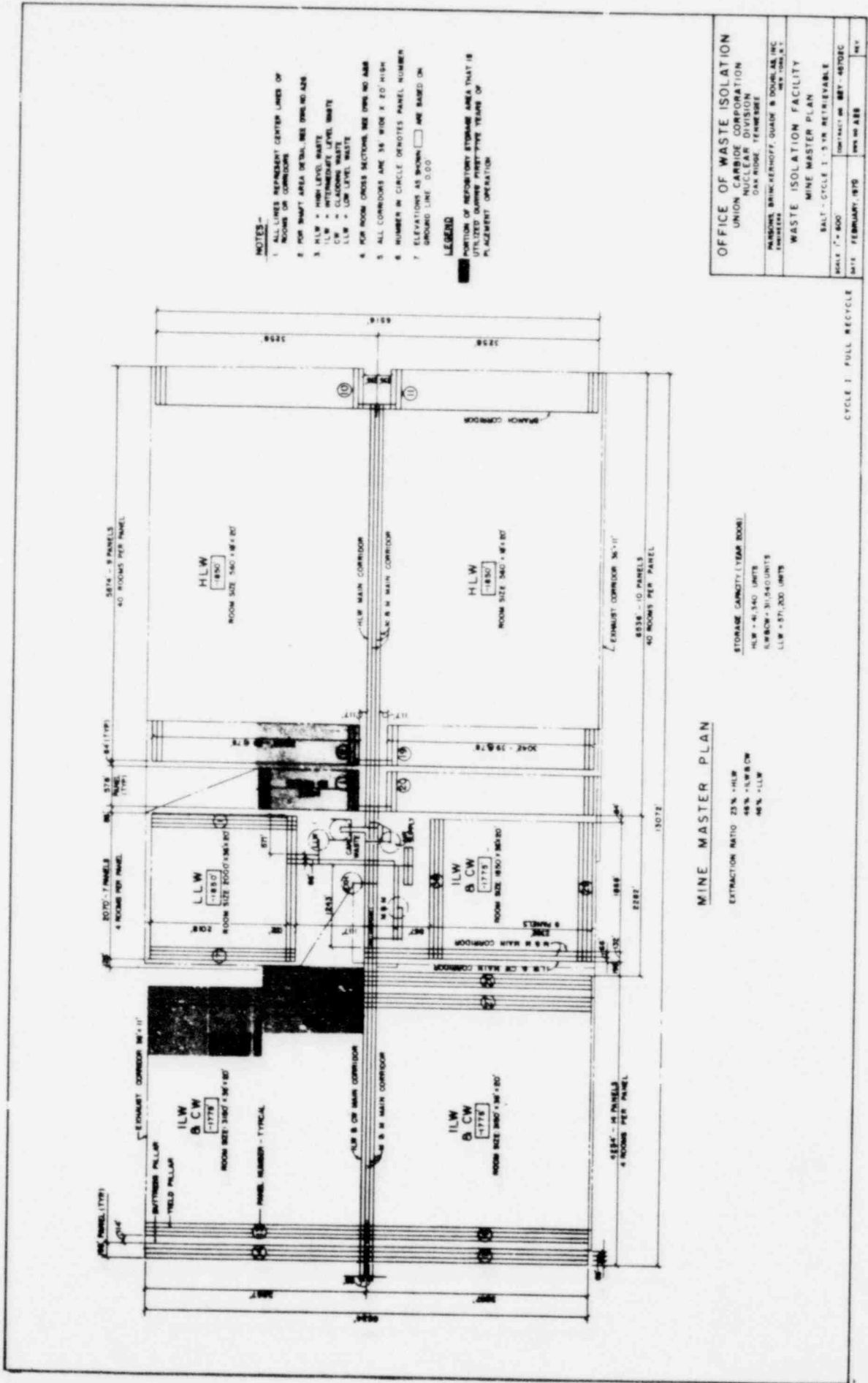


FIGURE 1. FULL RECYCLE

OFFICE OF WASTE ISOLATION		
UNION CARBIDE CORPORATION NUCLEAR DIVISION OAK RIDGE, TENNESSEE		
SANDIA BERKELEY/STANFORD & SORVALI INC. CONTRACTORS		
WASTE ISOLATION FACILITY ILW&CW MINING AND PLACEMENT SCHEDULE SALT-CYCLE I - 5 YEAR RETRIEVABLE		
SCALE:	STARTS ON 877-48703C	ENDS ON 877-48703C
DATE: FEBRUARY, 1978	REV. NO. 123	REV.



NOTES -

1. ALL LINES REPRESENT CENTER LINES OF ROOMS OR CORRIDORS
2. FOR SHARP AREA DETAIL, SEE DRAWING A23
3. HLW = HIGH LEVEL WASTE
4. ILW = INTERMEDIATE LEVEL WASTE
5. LLW = LOW LEVEL WASTE
6. FOR ROOM CROSS SECTIONS, SEE DWG NO. A23
7. ALL CORRIDORS ARE 36" WIDE X 20' HIGH
8. NUMBER IN CIRCLE DENOTES PANEL NUMBER
9. ELEVATIONS AS SHOWN \square ARE BASED ON GROUND LINE 0.00

LEGEND

\blacksquare PORTION OF REPOSITORY STORAGE AREA THAT IS UTILIZED DURING PAST FIVE YEARS OF PLACEMENT OPERATION

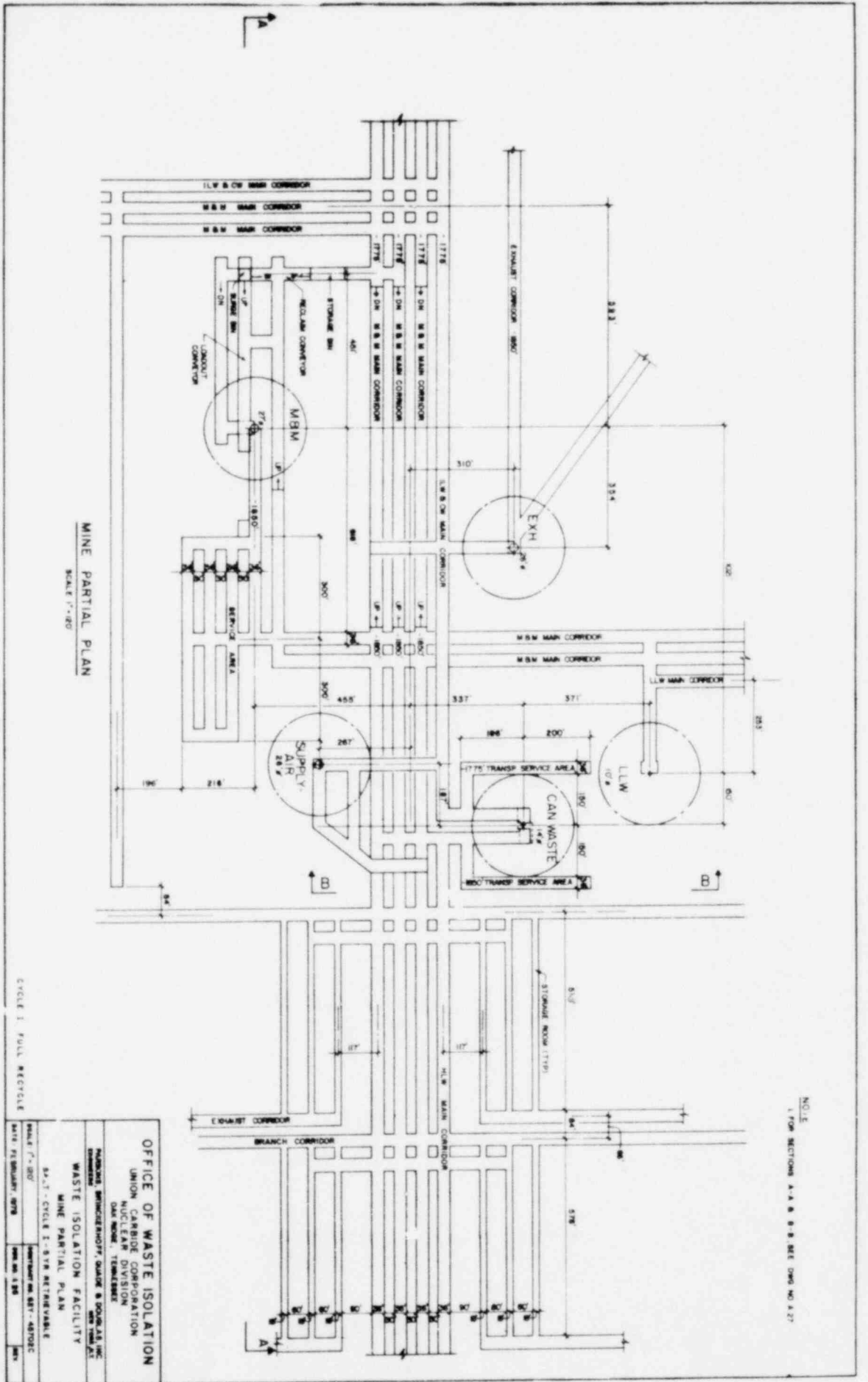
OFFICE OF WASTE ISOLATION	
UNION CARBIDE CORPORATION NUCLEAR DIVISION OAK RIDGE, TENNESSEE	
WASTE ISOLATION FACILITY	
MINE MASTER PLAN	
SCALE: 1" = 400'	DATE: FEBRUARY, 1975
PROJECT NO. 887-65702C	DRAWN BY: ABB

MINE MASTER PLAN

EXTRACTION RATIO: 25% HLW
48% ILW & CW
48% LLW

STORAGE CAPACITY: 1 YEAR ROOM
HLW - 4,340 UNITS
ILW & CW - 31,540 UNITS
LLW - 57,000 UNITS

CYCLE 1: FULL RECYCLE

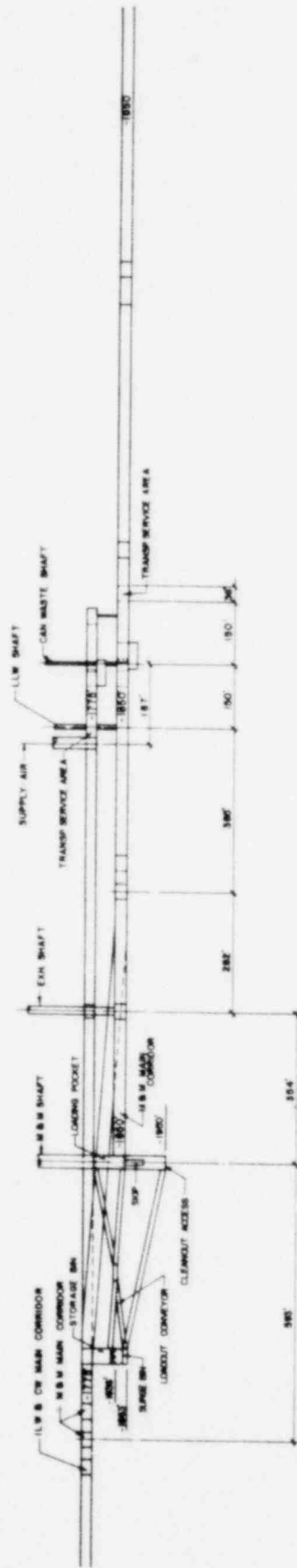


MINE PARTIAL PLAN
SCALE 1"=20'

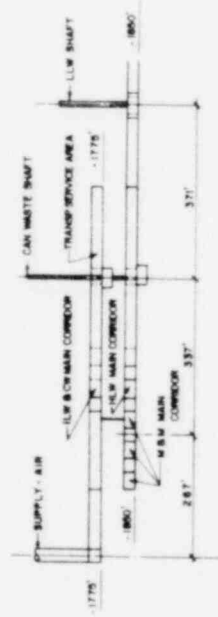
CYCLE 1 FULL RECYCLE

OFFICE OF WASTE ISOLATION UNION CARBIDE CORPORATION NUCLEAR DIVISION OAK RIDGE, TENNESSEE	
WASTE ISOLATION FACILITY MINE PARTIAL PLAN	
DRAWN BY: BRINCEBROTT, GARDNER & SPOON, A.S. INC. PROJECT NO. 87-4870C SHEET NO. 138	DATE: FEBRUARY, 1978

NOTE
1. FOR SECTIONS A-A & B-B SEE DWG. NO. 8-27



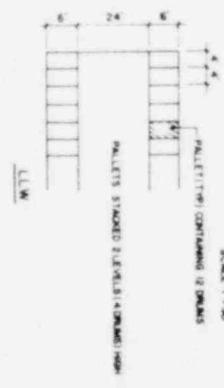
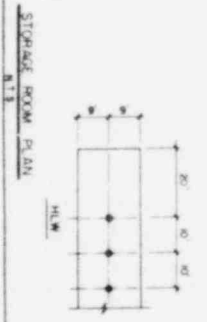
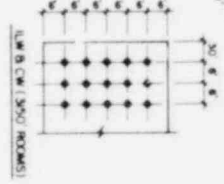
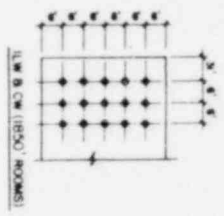
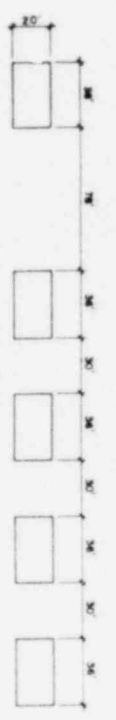
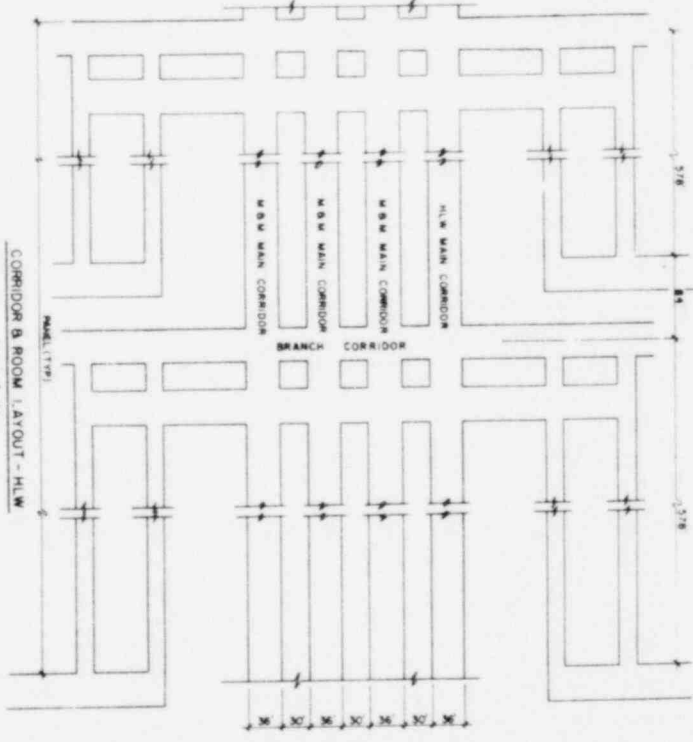
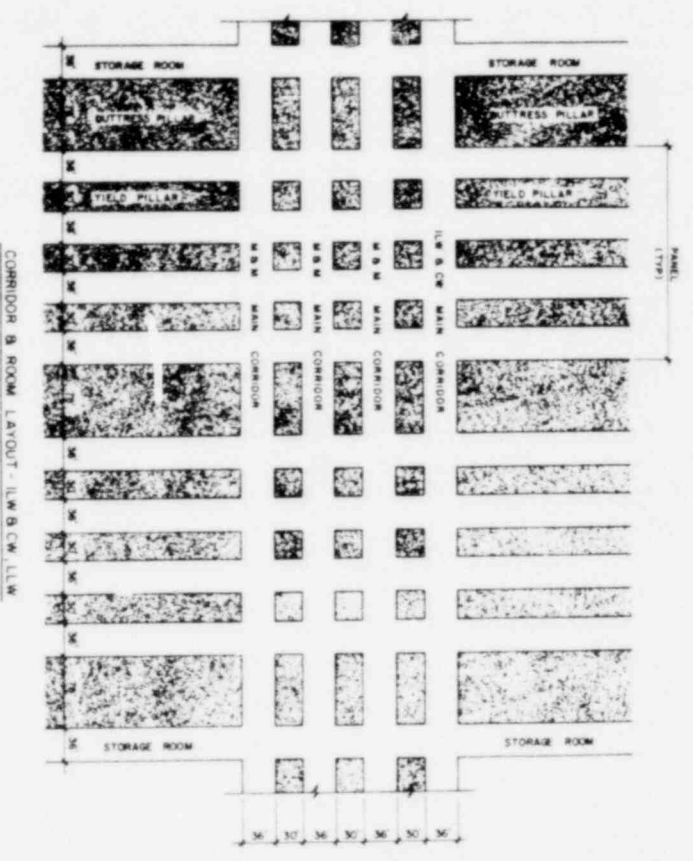
SECTION A-A
SCALE 1" = 120'



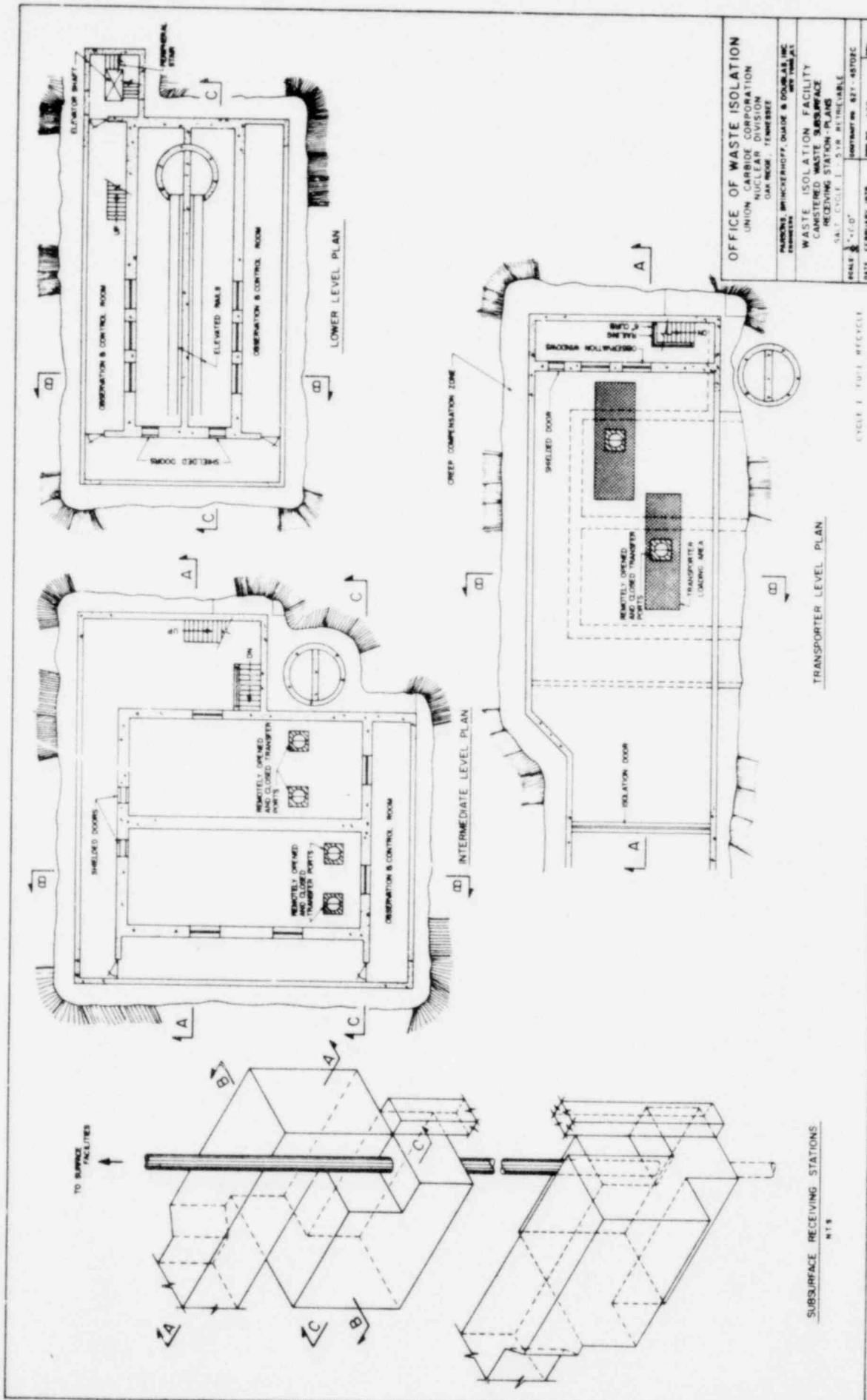
SECTION B-B
SCALE 1" = 120'

OFFICE OF WASTE ISOLATION	
UNION CARBIDE CORPORATION	
NUCLEAR DIVISION	
DAY HOUSE, TENNESSEE	
HARRISON BRINCKERHOFF, QUINCE B. DOUGLAS, INC.	
ENGINEERS	
WASTE ISOLATION FACILITY	
CROSS SECTIONS A-A & B-B	
SALT - CYCLE 1 - 5 YR RETRIEVABLE	
SCALE 1" = 120'	CONTRACT NO. 827-48702C
DATE: FEBRUARY, 1978	ISSUE NO. 4.27
	REV.

CYCLE 1 FULL WECYCLE



OFFICE OF WASTE ISOLATION	
UNION CARBIDE CORPORATION	
NUCLEAR DIVISION	
OAK RIDGE, TENNESSEE	
WASTE ISOLATION FACILITY	
ROOM B CORRIDOR LAYOUT	
SHEET - CYCLE 1 - 578 RETRIEVABLE	
SCALE AS NOTED	CONTRACT NO. 427-4870C
DATE: FEBRUARY, 1978	DESIGN NO. 428
	REV.



OFFICE OF WASTE ISOLATION
 UNION CARBIDE CORPORATION
 NUCLEAR DIVISION
 OAK RIDGE - TENNESSEE

WASTE ISOLATION FACILITY
 CANISTERED WASTE SURFACE
 RECEIVING STATION - PLANS

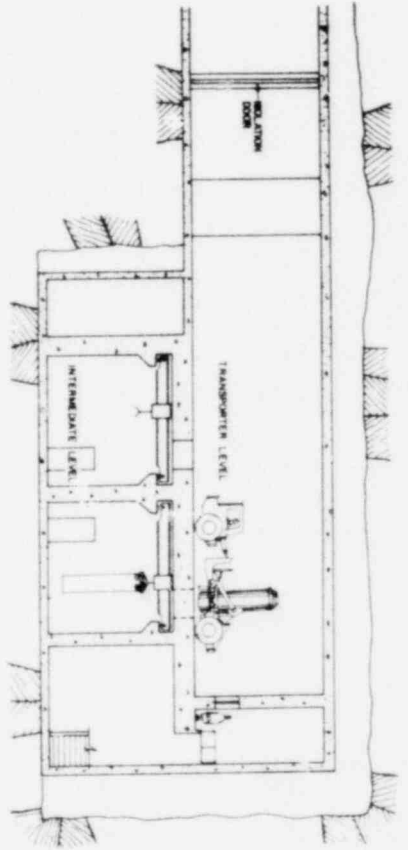
PARSONS, BRINCKERHOFF, OULDS & DOUGLAS, INC.
 ENGINEERS
 NEW YORK, N.Y.

SCALE: 1/4" = 1'-0"
 DATE: FEBRUARY, 1978

FIG. 4370
 SHEET NO. 4371-4372C
 4371

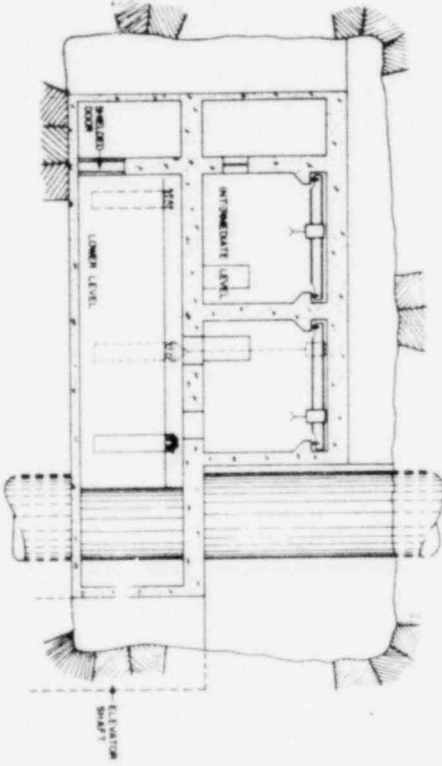
SUBSURFACE RECEIVING STATIONS
 NTS

CYCLE 1 TWT 1 RECYCLE

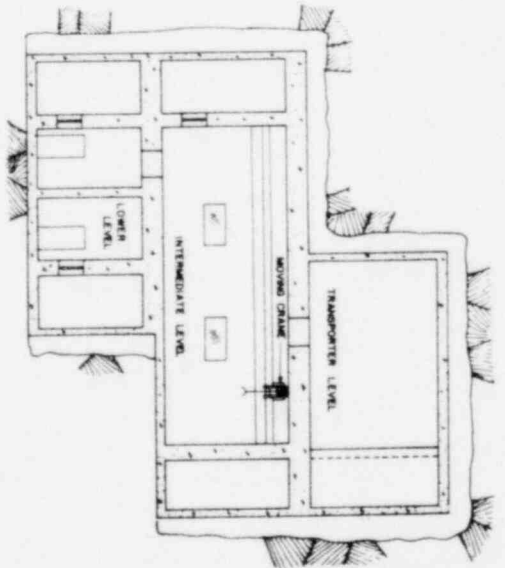


SECTION A-A

TO CONTAINED WASTE HANDLING ROOM



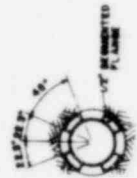
SECTION C-C



SECTION B-B

CYCLE I: FULL RECYCLE

OFFICE OF WASTE ISOLATION			
UNION CARBIDE CORPORATION			
NUCLEAR DIVISION			
OAK RIDGE, TENNESSEE			
NATIONAL BRINCKERHOFF, GARDNER & SOBEL, INC.			
DESIGNER			
WASTE ISOLATION FACILITY			
CONTAINED WASTE SERVICING			
RECEIVING STATION - SECTIONS			
SALT - CYCLE I - 518 REFERENCE			
SCALE	1" = 1'-0"	PROJECT NO.	887-4870-DC
DATE	FEBRUARY, 1978	REV. NO.	ASD



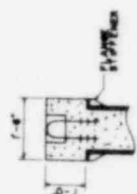
SECTION A-A
SCALE 1/2" = 1'-0"



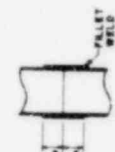
SECTION B-B
SCALE 1/2" = 1'-0"



SECTION C-C
SCALE 1/2" = 1'-0"



DETAIL 1
SCALE 1/2" = 1'-0"

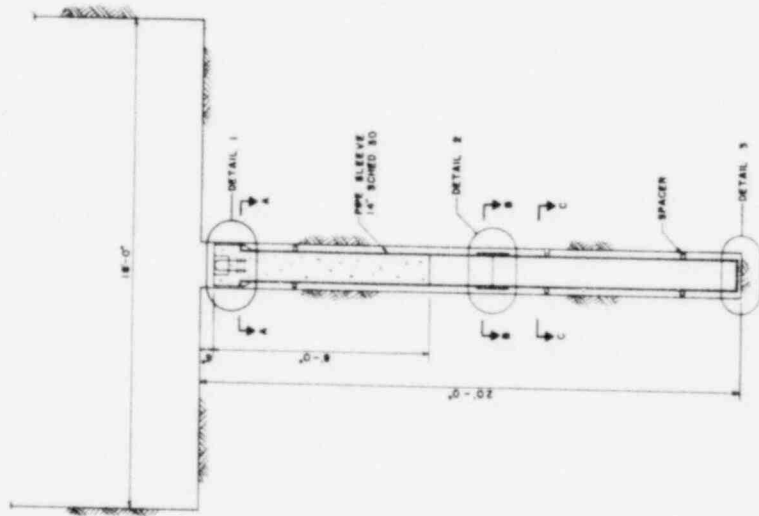


DETAIL 2
SCALE 1/2" = 1'-0"

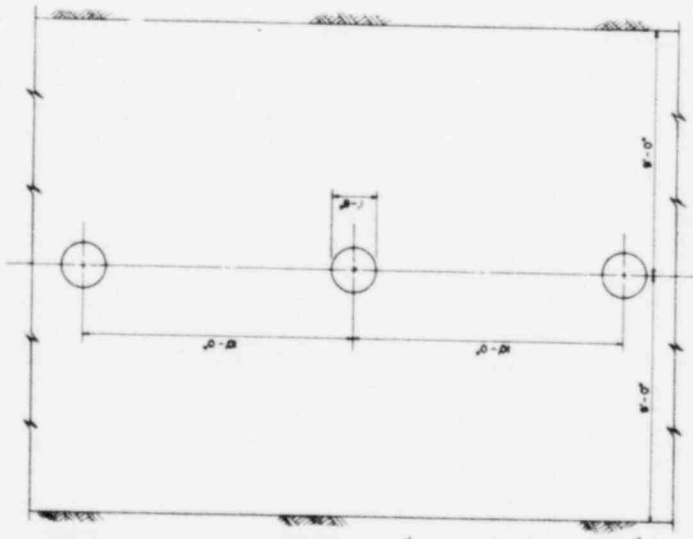


DETAIL 3
SCALE 1/2" = 1'-0"

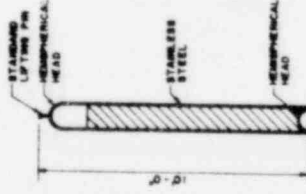
NOTE:
DETAILS SHOWN FOR 15 LB
15 LB CAN ARE SIMILAR EXCEPT FOR HOOD SIZE
AND STORAGE PATTERNS.



CANISTER PLACEMENT ELEVATION
SCALE 1/2" = 1'-0"



CANISTER PLACEMENT PLAN
SCALE 1/2" = 1'-0"



CANISTER DETAIL
SCALE 1/2" = 1'-0"

OFFICE OF WASTE ISOLATION	
UNION CARBIDE CORPORATION	
NUCLEAR DIVISION	
OAK RIDGE, TENNESSEE	
PARSONS BRINCKERHOFF, BRIDGE & DOUGLASS AVE.	
MEMPHIS, TENNESSEE	
WASTE ISOLATION FACILITY	
CANISTERED WASTE STORAGE	
BALT-CYCLE 1-B IS RETRIEVABLE	
SCALE: AS SHOWN	DATE: FEBRUARY, 1978
PROJECT NO: 487-NP-1000	REV: 43

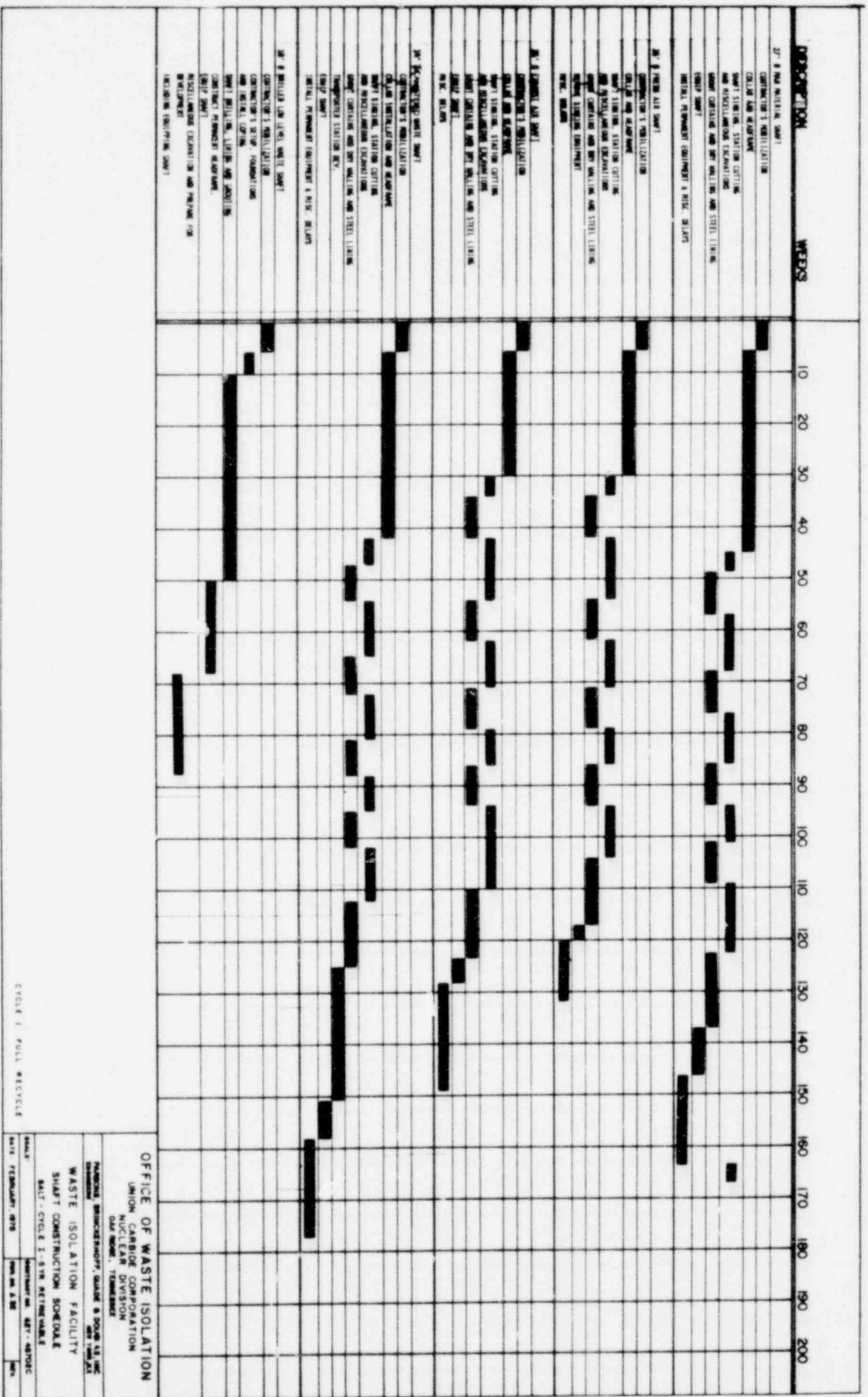
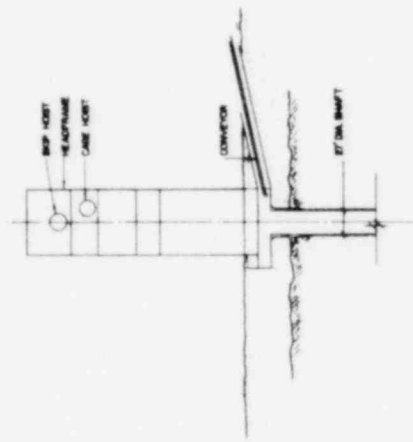


FIGURE 1. FULL CYCLE

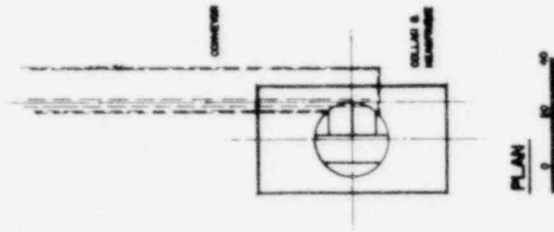
OFFICE OF WASTE ISOLATION
 UNION CARBIDE CORPORATION
 NUCLEAR DIVISION
 DAYTON, OHIO

WASTE ISOLATION FACILITY
 SHAFT CONSTRUCTION SCHEDULE
 SALT CYCLE 1 - 5 YR RETENTION

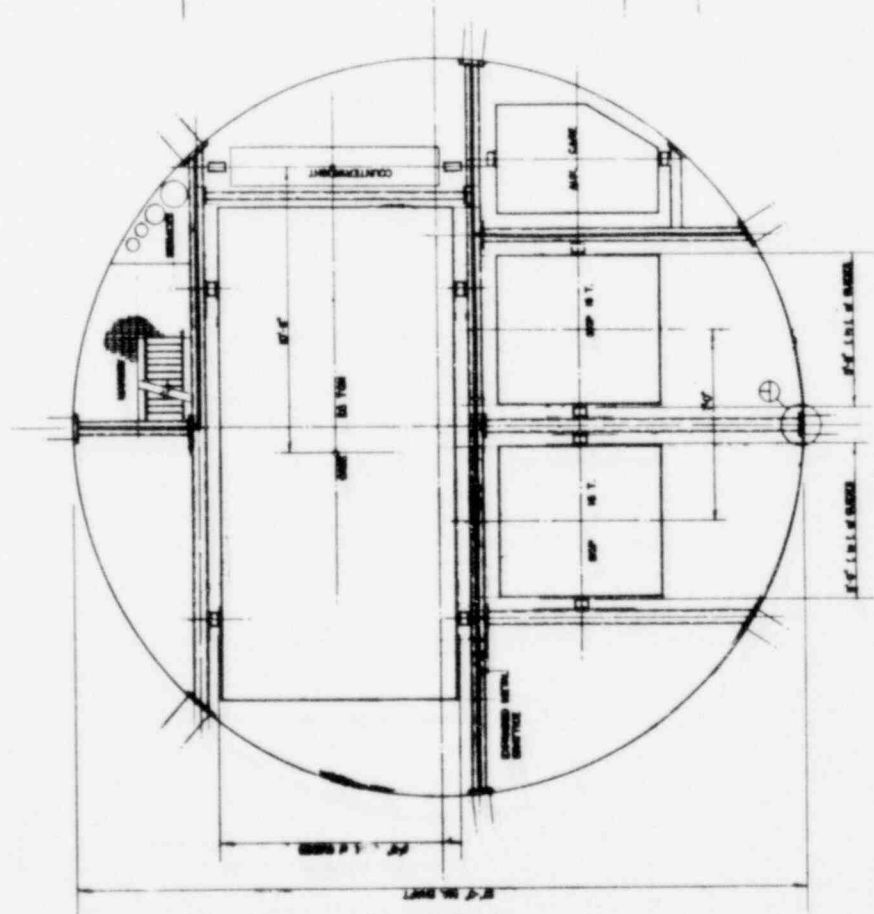
SCALE: 1 DAY = 1 WEEK
 DATE: FEBRUARY, 1978



SECTION

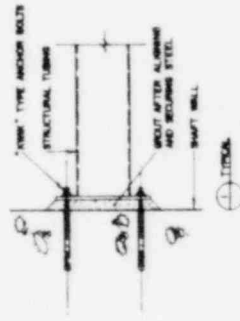


PLAN



PLAN OF SHAFT

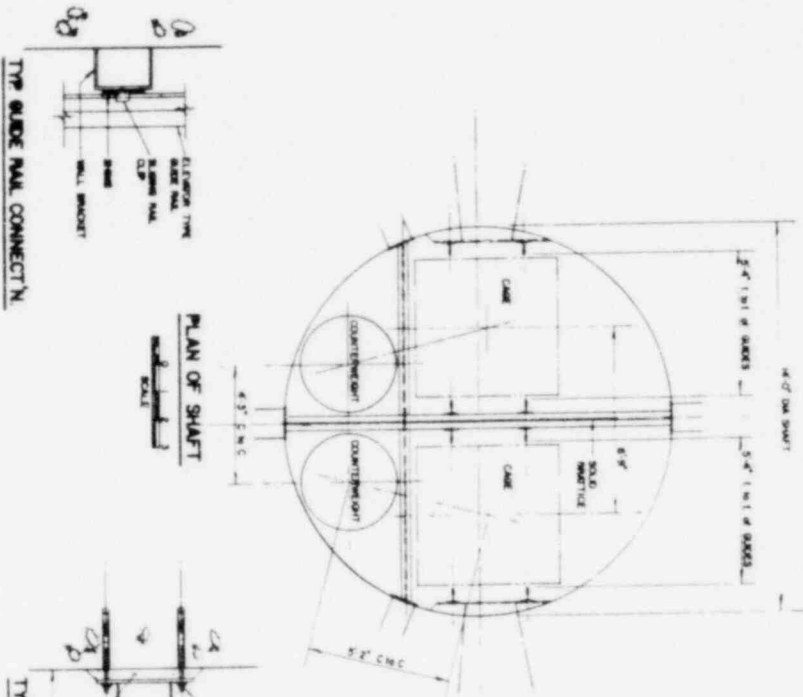
SCALE



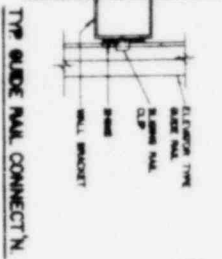
DETAIL

OFFICE OF WASTE ISOLATION	
UNION CARBIDE CORPORATION	
NUCLEAR DIVISION	
OAK RIDGE, TENNESSEE	
DRAWING: BRUNNENHOFF, QUAIN & COULAS, INC.	
DATE: FEBRUARY, 1978	
PROJECT: WASTE ISOLATION FACILITY	
SHEET: MEN AND MATERIAL SHAFT	
SCALE: 1/4\"/>	
DATE: FEBRUARY, 1978	
DRAWING NO. 477-45700C	
SHEET NO. 3/33	

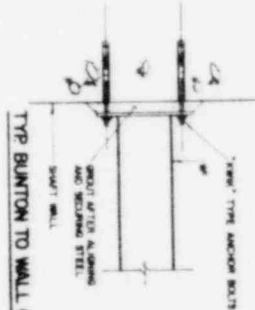
CYCLE 1 FULL RECYCLE



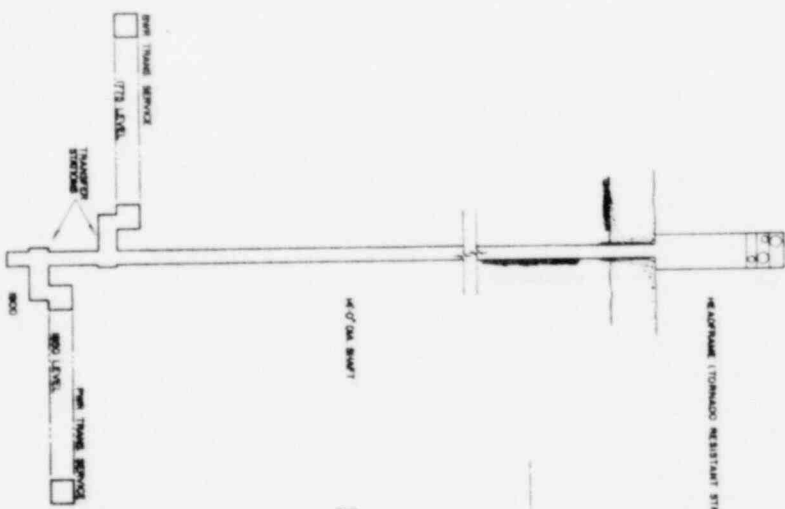
PLAN OF SHAFT
SCALE



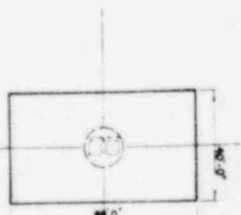
TYP GUIDE RAIL CONNECT'N



TYP BUNTION TO WALL CONNECT'N



SHAFT SECTION

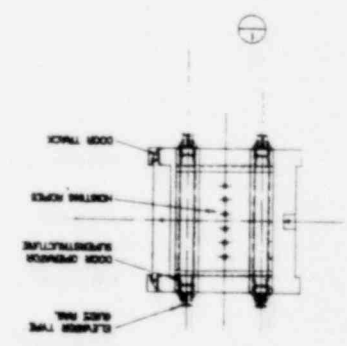
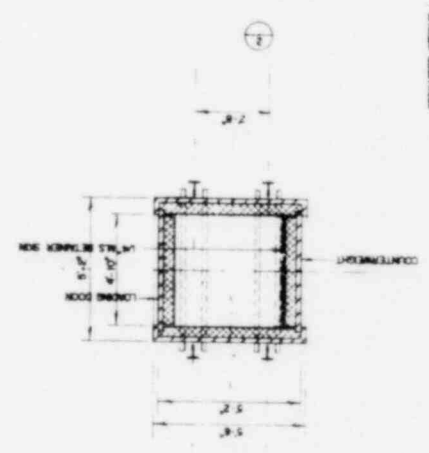
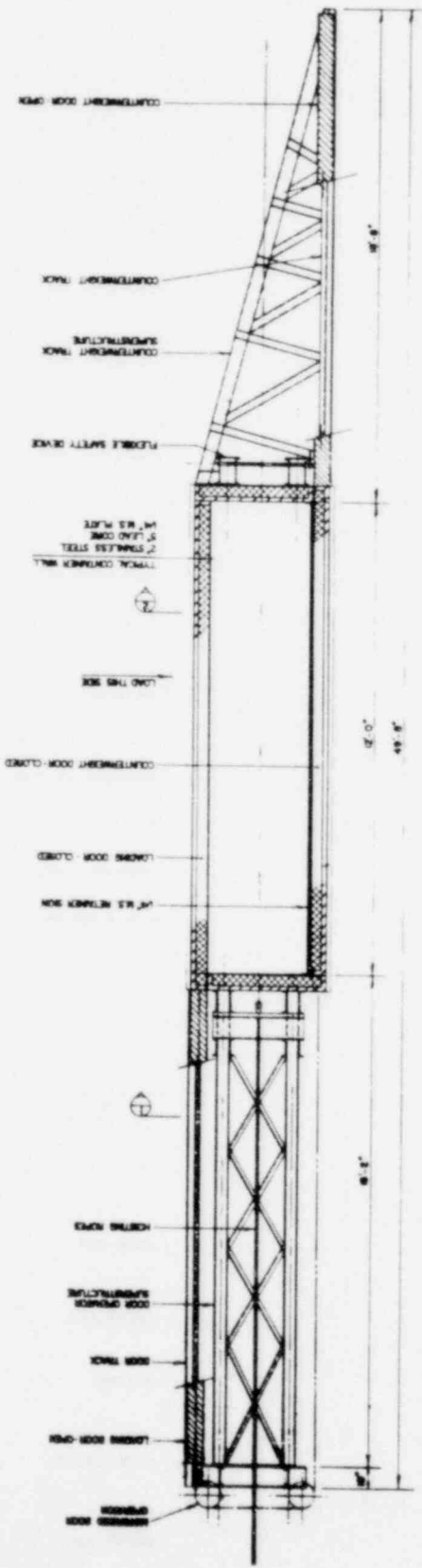


PLAN OF HEADFRAME
SCALE

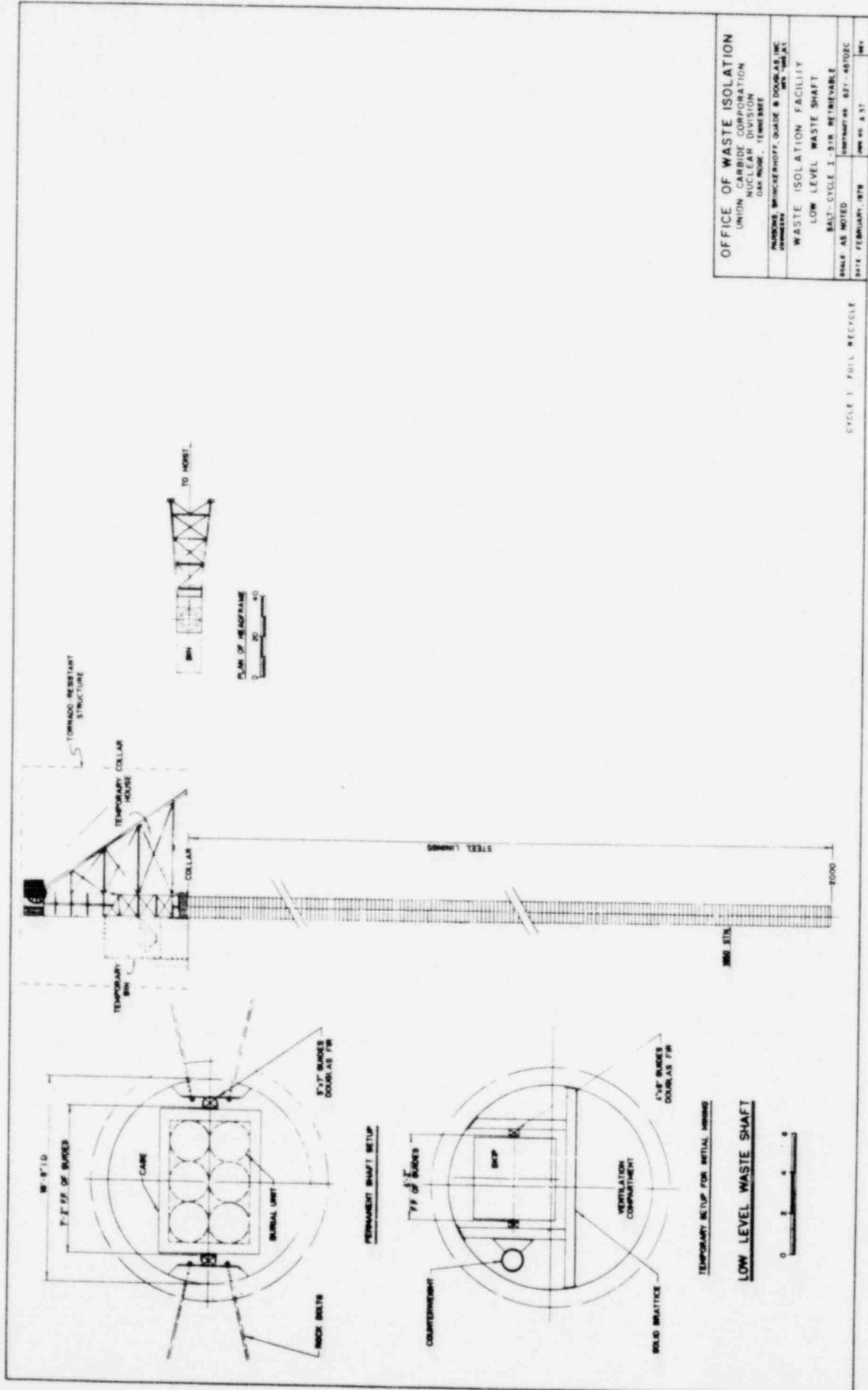
CHECK 1 FULL RECYCLE

OFFICE OF WASTE ISOLATION UNION CARBIDE CORPORATION NUCLEAR DIVISION ONE MOORE, TEBBESBURG	
NATIONAL BRIDGEBROFF, QUAKER & DUNN, AS INC. ENGINEERS	
WASTE ISOLATION FACILITY CANISTERED WASTE SHAFT BALT - CYCLE 1 - 5TH RETRIEVABLE	
SHEET: FEBRUARY, 1978	SHEET NO. 037 - 4270C REV. NO. 4.24

OFFICE OF WASTE ISOLATION
 UNION CARBIDE CORPORATION
 NUCLEAR DIVISION
 CHARLOTTE, NORTH CAROLINA
 CANISTERED WASTE CAGE
 DATE: FEBRUARY, 1978
 DRAWING NO. 837-45702C
 SHEET NO. A-30



ESTIMATED WEIGHT - 4000 LBS. FULL RECYCLE



OFFICE OF WASTE ISOLATION
 UNION CARBIDE CORPORATION
 NUCLEAR DIVISION
 OAK RIDGE, TENNESSEE

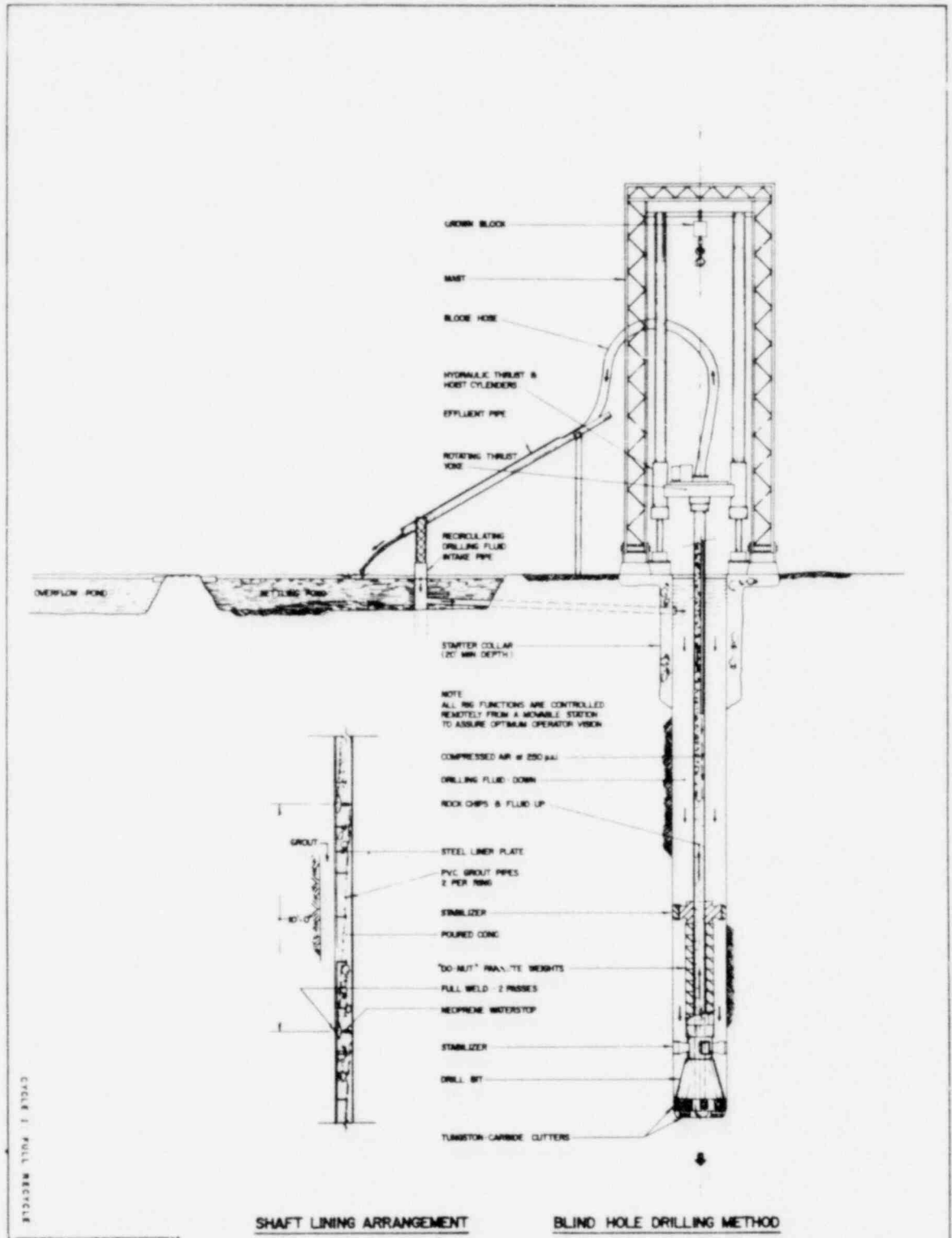
PARSONS BRINCKERHOFF, SHAPIRO & DOUGLAS, INC.
 400 WEST 104th STREET
 NEW YORK, N.Y.

WASTE ISOLATION FACILITY
 LOW LEVEL WASTE SHAFT

SCALE AS NOTED
 DATE: FEBRUARY, 1978

UNIT DRAWING NO. 631-48702C
 SHEET NO. 2 OF 3

CYCLE 1 FULL RECYCLE

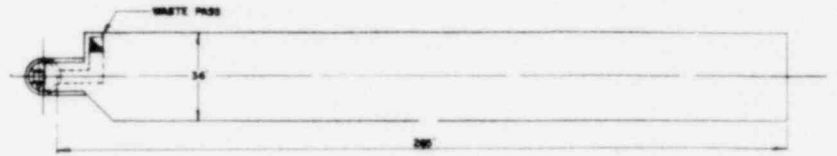


SHAFT LINING ARRANGEMENT

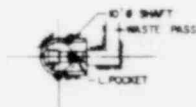
BLIND HOLE DRILLING METHOD

CYCLE 1 FULL RECICLE

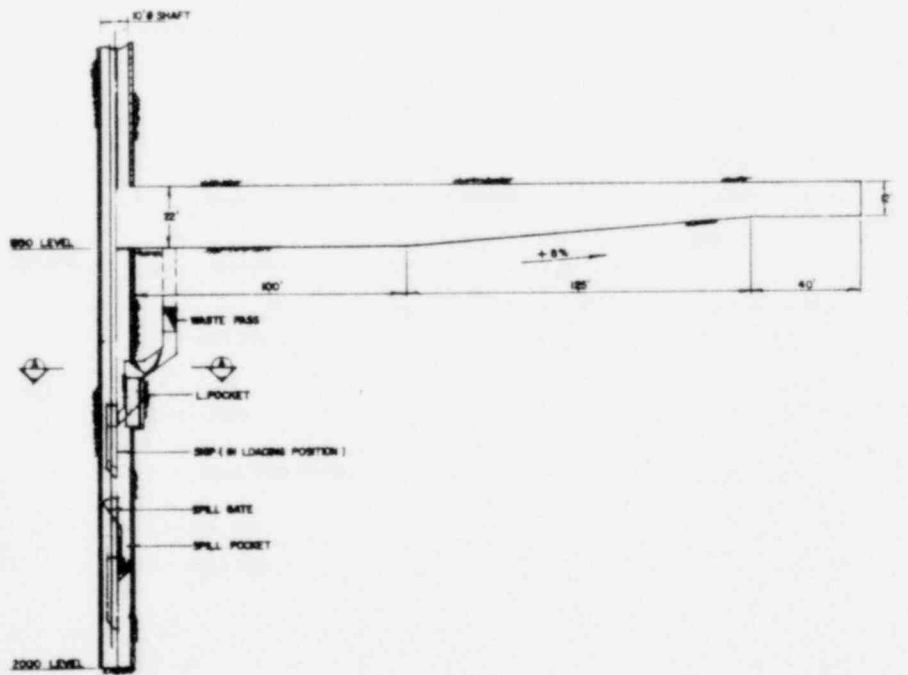
OFFICE OF WASTE ISOLATION UNION CARBIDE CORPORATION NUCLEAR DIVISION OAK RIDGE, TENNESSEE	
NATIONAL BRINCKERHOFF, GARDNER & DOUGLASS, INC. ENGINEERS WASTE ISOLATION FACILITY LOW LEVEL WASTE SHAFT BLIND HOLE DRILLING METHOD SALT - STOLE 2 - 8 1/2" RETRIEVAL	
DATE: FEBRUARY, 1978	DRAWING NO: 237-40705C
SHEET NO: 138	OF: 138



PLAN ON 1850 LEVEL STATION



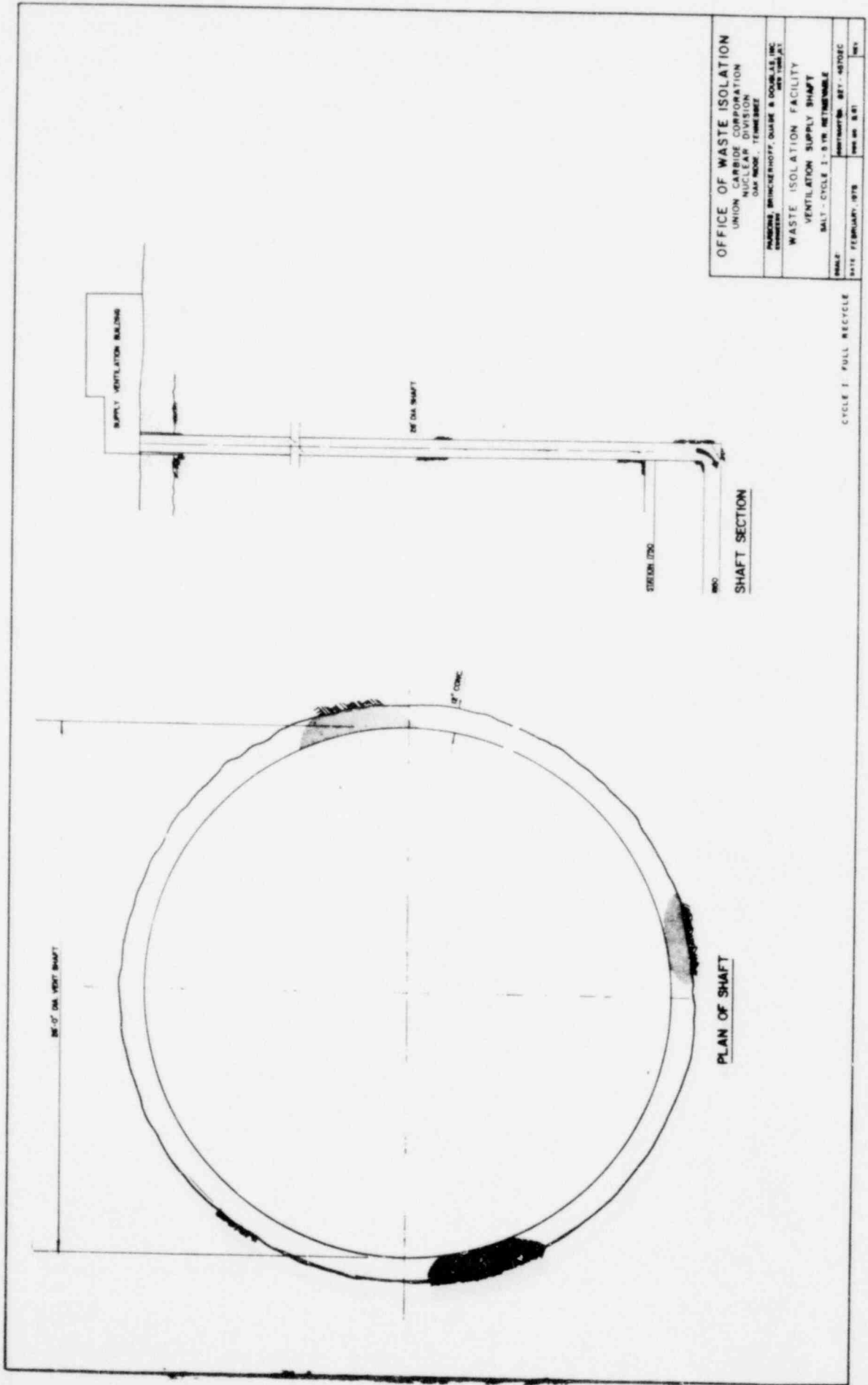
SECTION 'A-A'



SECTION THRU SHAFT BOTTOM

CIRCLE 1 FULL RECYCLE

OFFICE OF WASTE ISOLATION	
UNION CARBIDE CORPORATION	
NUCLEAR DIVISION	
DAVE BRIDGES, TOWNSEND	
NATIONAL ENGINEERING, DESIGN & CONSTRUCTION INC.	
WASTE ISOLATION FACILITY	
LOW LEVEL WASTE SHAFT	
DESIGNED FOR THE LOW LEVEL WASTE ISOLATION FACILITY	
SHEET - CIRCLE 1 OF 10 (SEE SHEETS 2-10)	
SCALE	AS SHOWN ON SHEET - 45703C
DATE / REVISION / BY	1974 / 04 / AND



OFFICE OF WASTE ISOLATION
 UNION CARBIDE CORPORATION
 NUCLEAR DIVISION
 OAK RIDGE, TENNESSEE

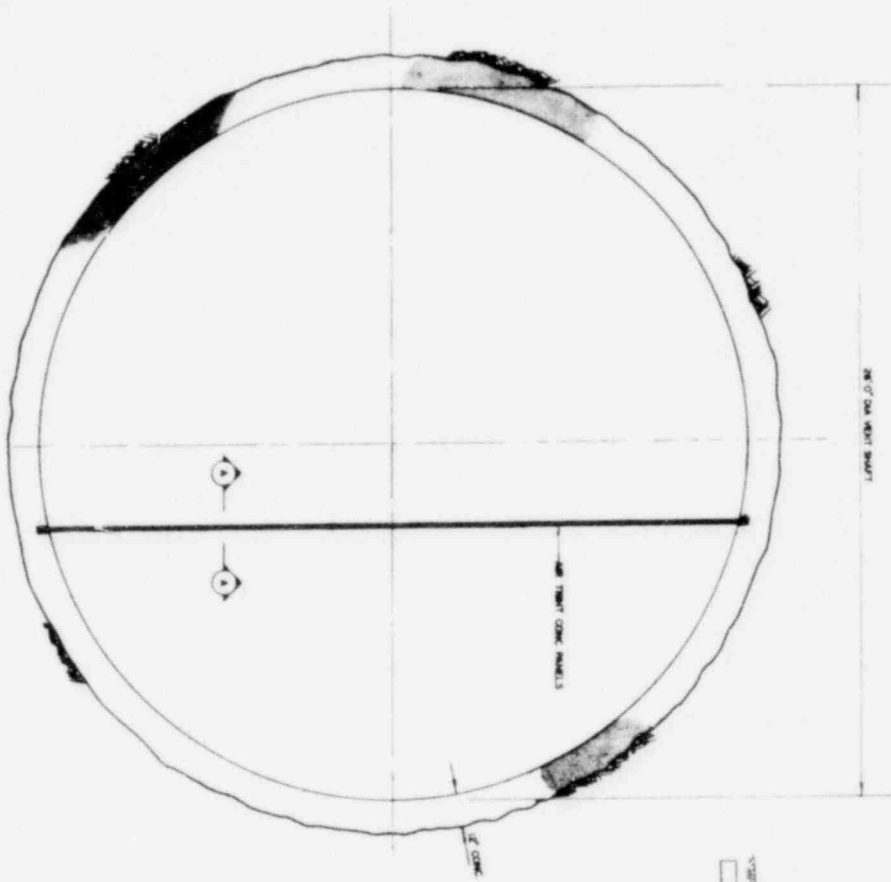
PARSONS BRINCKERHOFF, QUINN & DOUGLAS, INC.
 ENGINEERS
 400 N. 3RD ST.
 OAK RIDGE, TENN. 37831

WASTE ISOLATION FACILITY
 VENTILATION SUPPLY SHAFT
 SALT - CYCLE 1 - 8 YR. RETENABLE

SCALE: AS SHOWN
 DATE: FEBRUARY, 1978
 DRAWN BY: B.S.T.
 CHECKED BY: M.V.

CYCLE 1 FULL RECYCLE

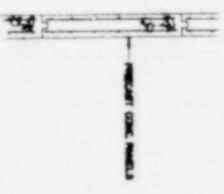
PLAN OF SHAFT



SHAFT SECTION

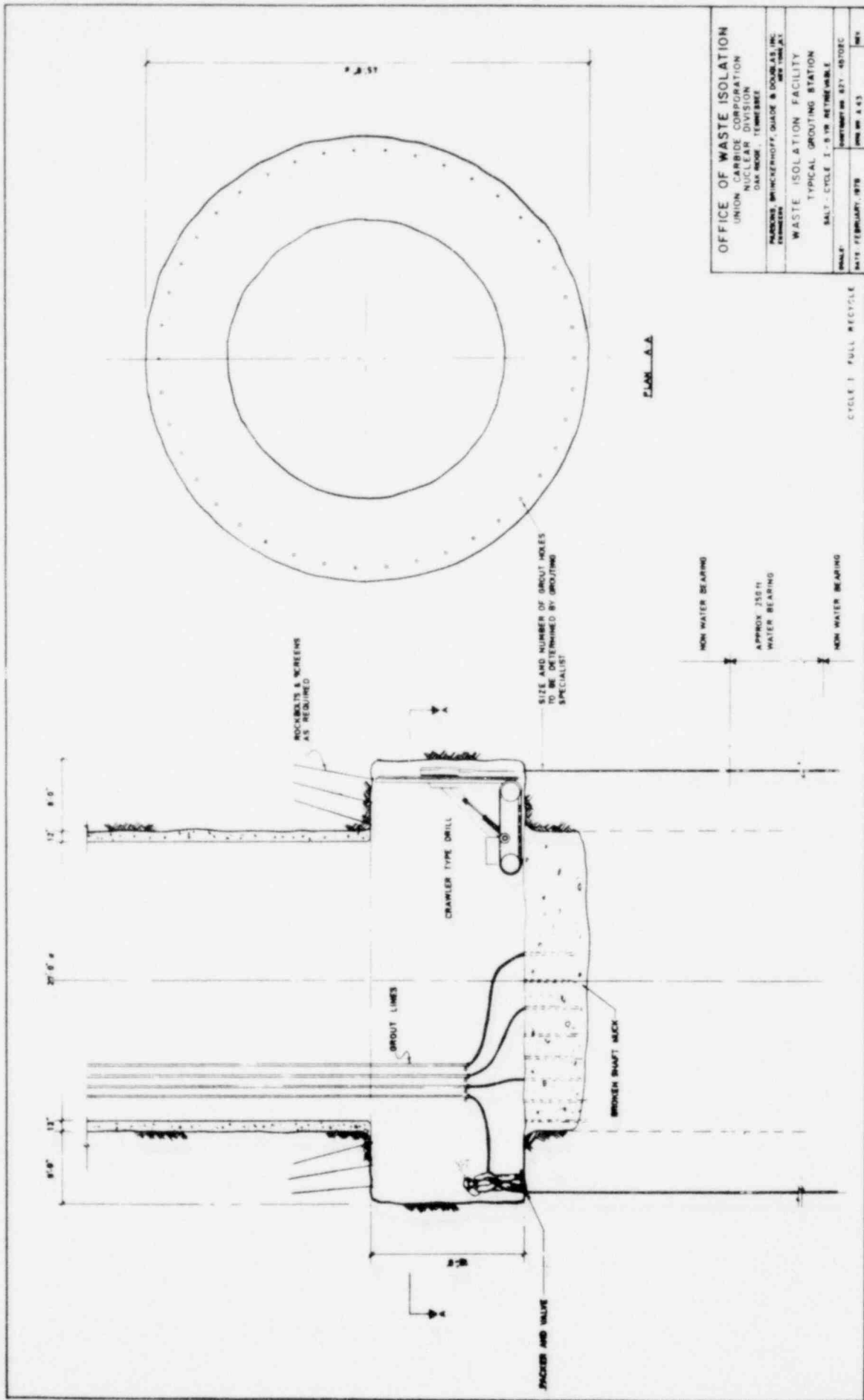


SECTION A-A



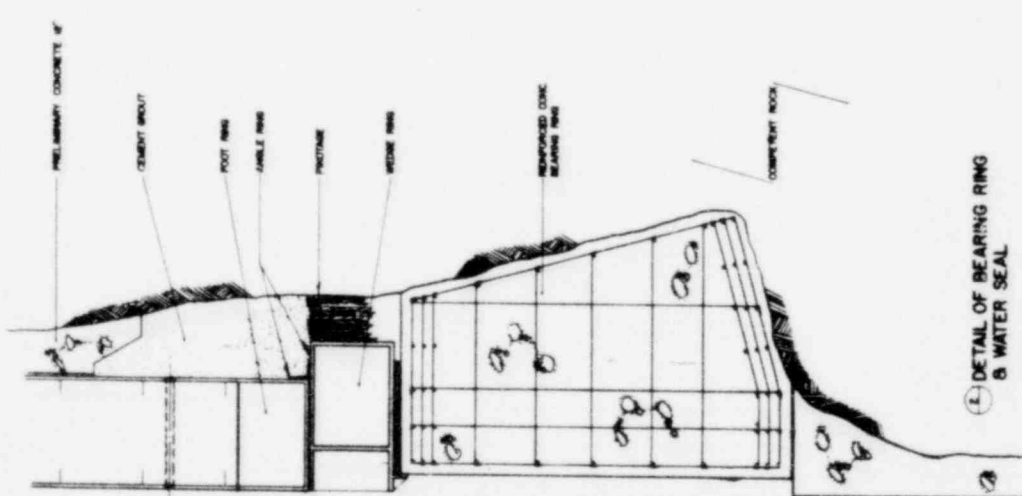
CIRCLE 1 FULL RECYCLE

OFFICE OF WASTE ISOLATION	
UNION CARBIDE CORPORATION	
NORTH AVENUE, TOMBALL, TEXAS 77480	
PROJECT: WASTE ISOLATION FACILITY	
DRAWING: WASTE ISOLATION EXHAUST SHAFT	
SCALE: AS SHOWN	
DATE: FEBRUARY 1978	DESIGNED BY: [REDACTED]
BY: [REDACTED]	CHECKED BY: [REDACTED]

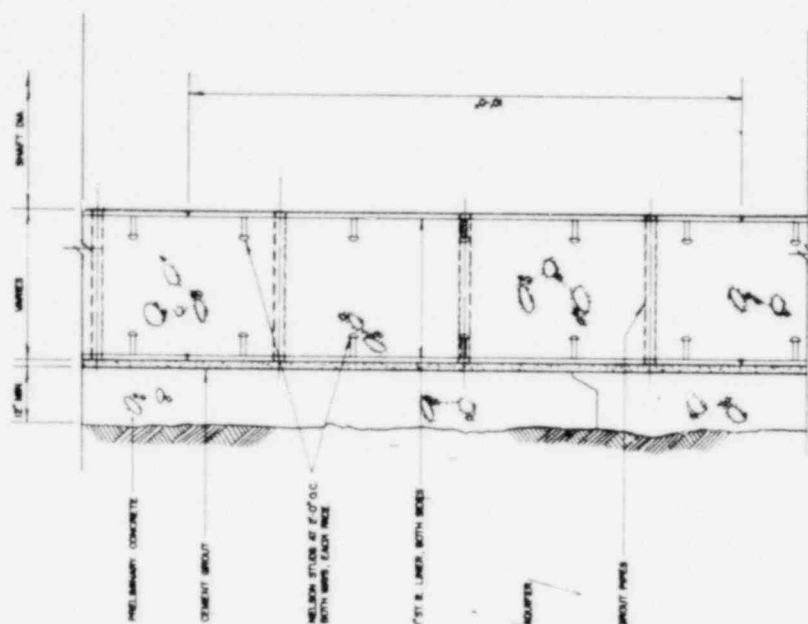


OFFICE OF WASTE ISOLATION	
UNION CARBIDE CORPORATION	
NUCLEAR DIVISION	
OAK RIDGE, TENNESSEE	
PARSONS, BRINCKERHOFF, GARDNER & DOUGLAS, INC.	
MEMPHIS, TENNESSEE	
WASTE ISOLATION FACILITY	
TYPICAL GROUTING STATION	
SCALE:	SALT - CYCLE 1 - 5 IS REPRESENTABLE
DATE:	FEBRUARY, 1978
APP. NO.:	4-3
REV.:	1

CYCLE 1 FULL RECYCLE



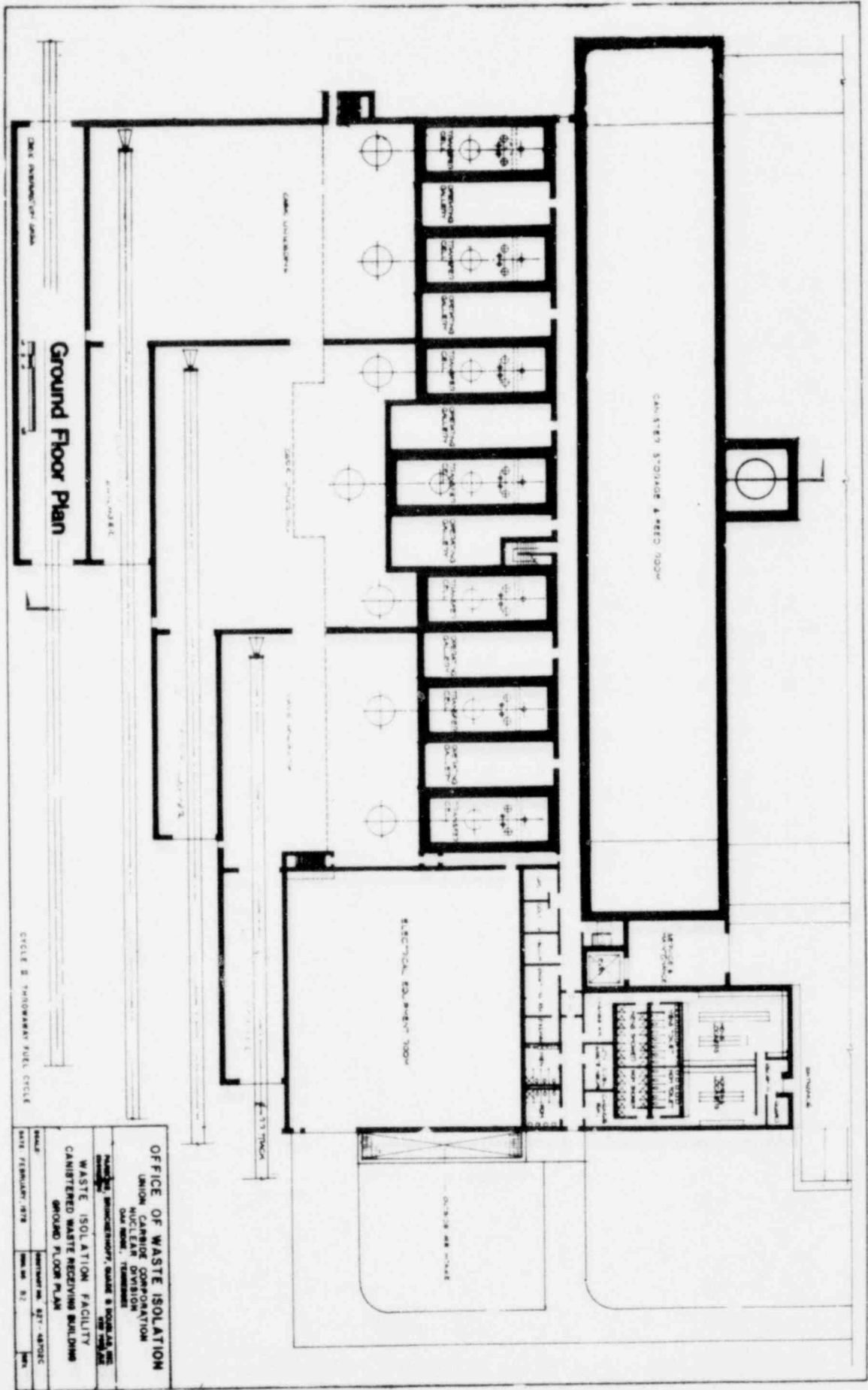
⊕ DETAIL OF BEARING RING & WATER SEAL



⊕ DETAIL OF PERMANENT HYDROSTATIC LINING

OFFICE OF WASTE ISOLATION UNION CARBIDE CORPORATION NUCLEAR DIVISION SARASOTA, BRICKERHOFF, BLADE & DOUGLAS, INC. DESIGN - FEMERIE	
WASTE ISOLATION FACILITY DETAIL OF HYDROSTATIC LININGS	
SCALE:	SALT - CYCLE 1 - 8 1/2\"/>
DATE:	FEBRUARY, 1978
NO.:	445

CYCLE 1 FULL RECYCLE



Ground Floor Plan

OFFICE OF WASTE ISOLATION
 UNION CARBIDE CORPORATION
 NUCLEAR DIVISION
 ONE ROOM, TENNESSEE

WASTE ISOLATION FACILITY
 CANISTERED WASTE RECEIVING BUILDING
 GROUND FLOOR PLAN

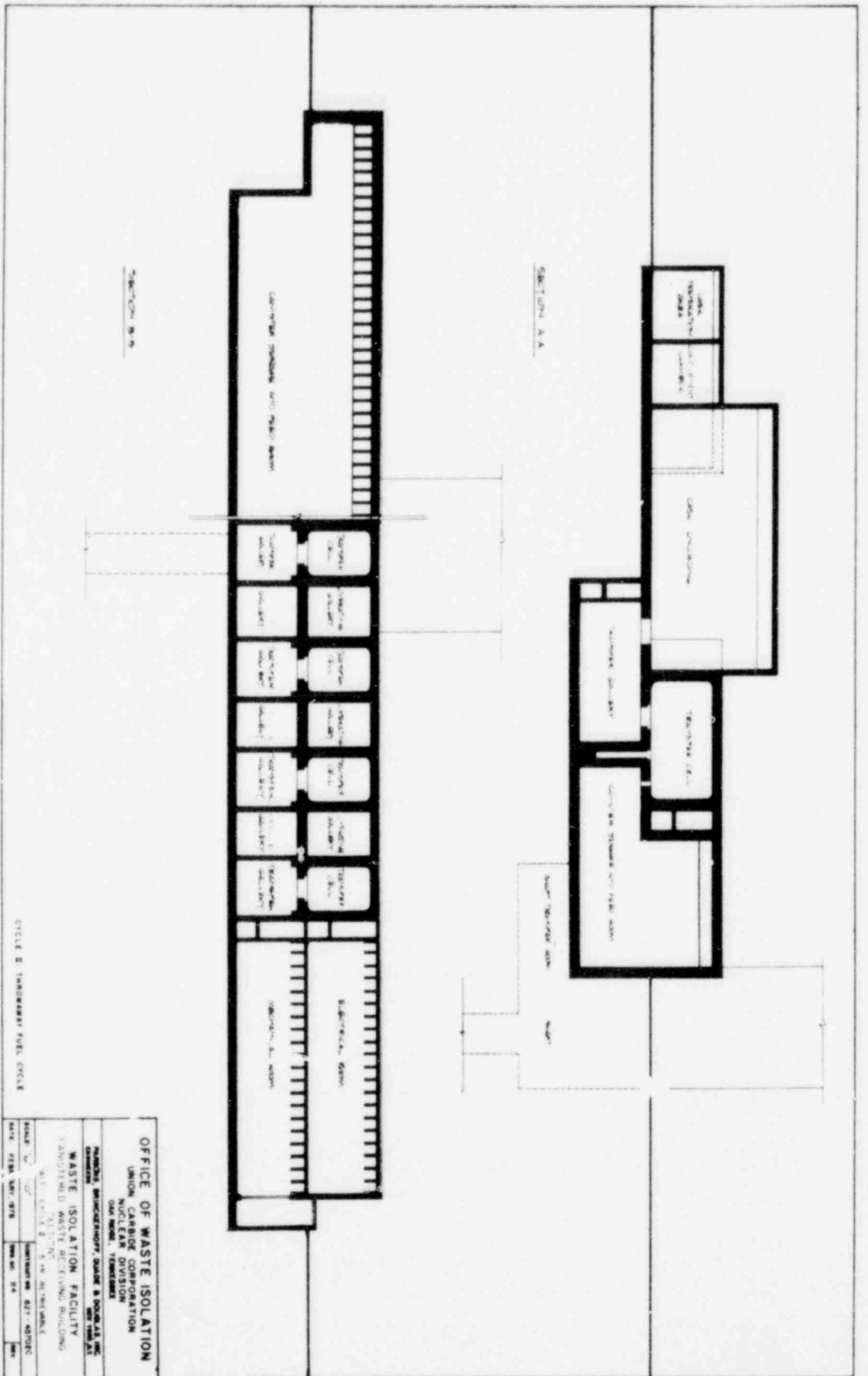
SCALE: DATE: FEBRUARY, 1978

DESIGNER: DATE: FEBRUARY, 1978

PROJECT NO. 427-48702C

REV. NO. 01

DATE



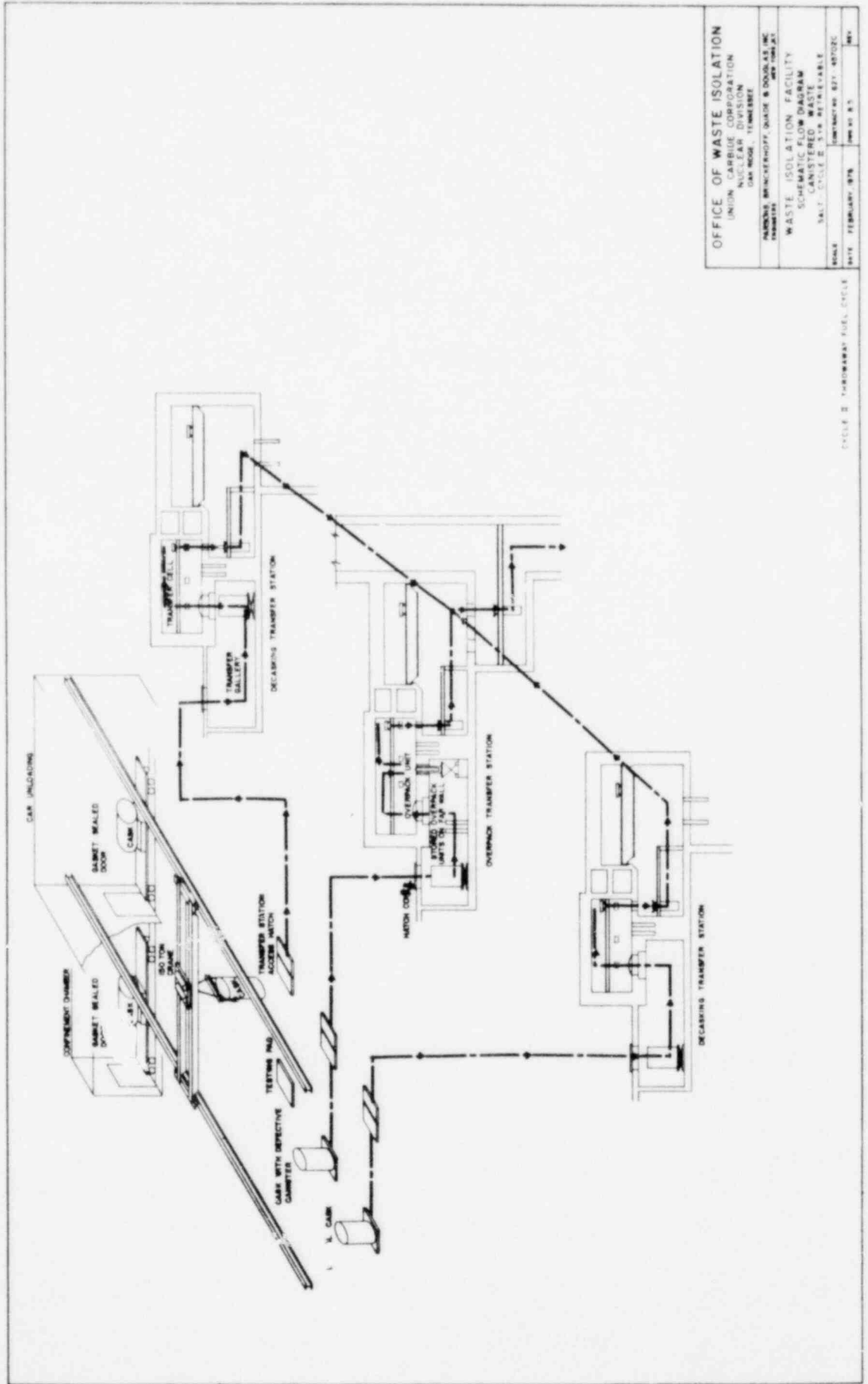
OFFICE OF WASTE ISOLATION
 UNION CARBIDE CORPORATION
 NUCLEAR DIVISION
 ONE MOORE, TENNESSEE

**NUMBERS, DIMENSIONS, QUANTITIES AND SYMBOLS ARE
 GIVEN IN THE DRAWING**

WASTE ISOLATION FACILITY
 RECEIVING BUILDING
 CIRCLE B THERMOGRAPH FILM CIRCLE

DATE: FEBRUARY 1978

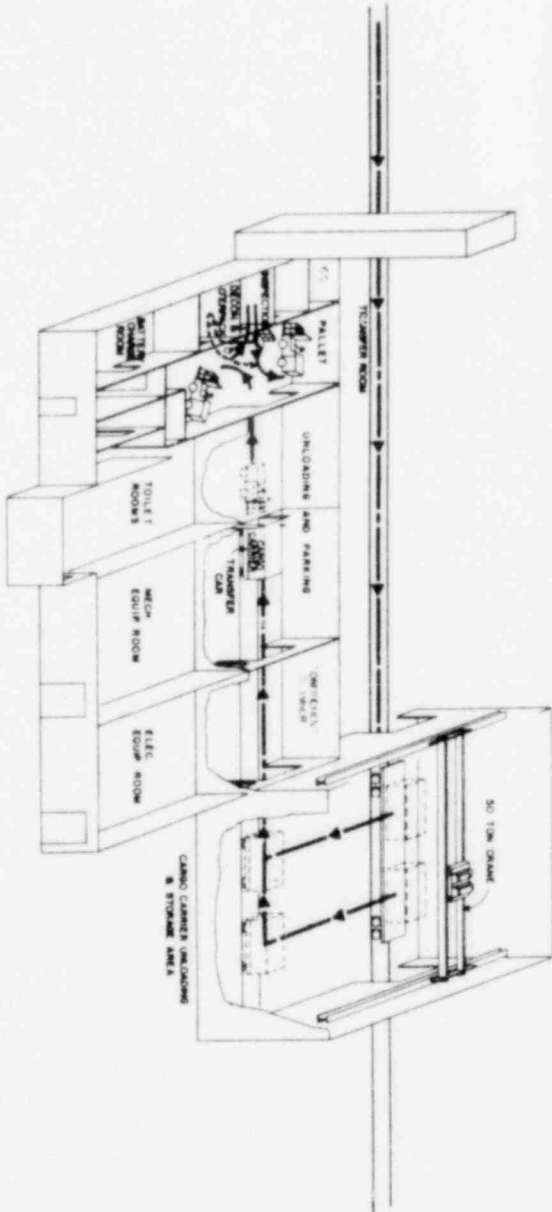
SCALE: 1/8" = 1'-0"	DESIGNED BY: [REDACTED]	CONTRACT NO. 677-4702C	REV. NO. 04
DATE: FEBRUARY 1978	DRAWN BY: [REDACTED]	NO. OF SHEETS: 24	SHEET NO. 04



OFFICE OF WASTE ISOLATION
 UNION CARBIDE CORPORATION
 NUCLEAR DIVISION
 400 WOODLAWN AVENUE
 PITTSBURGH, PENNSYLVANIA 15222

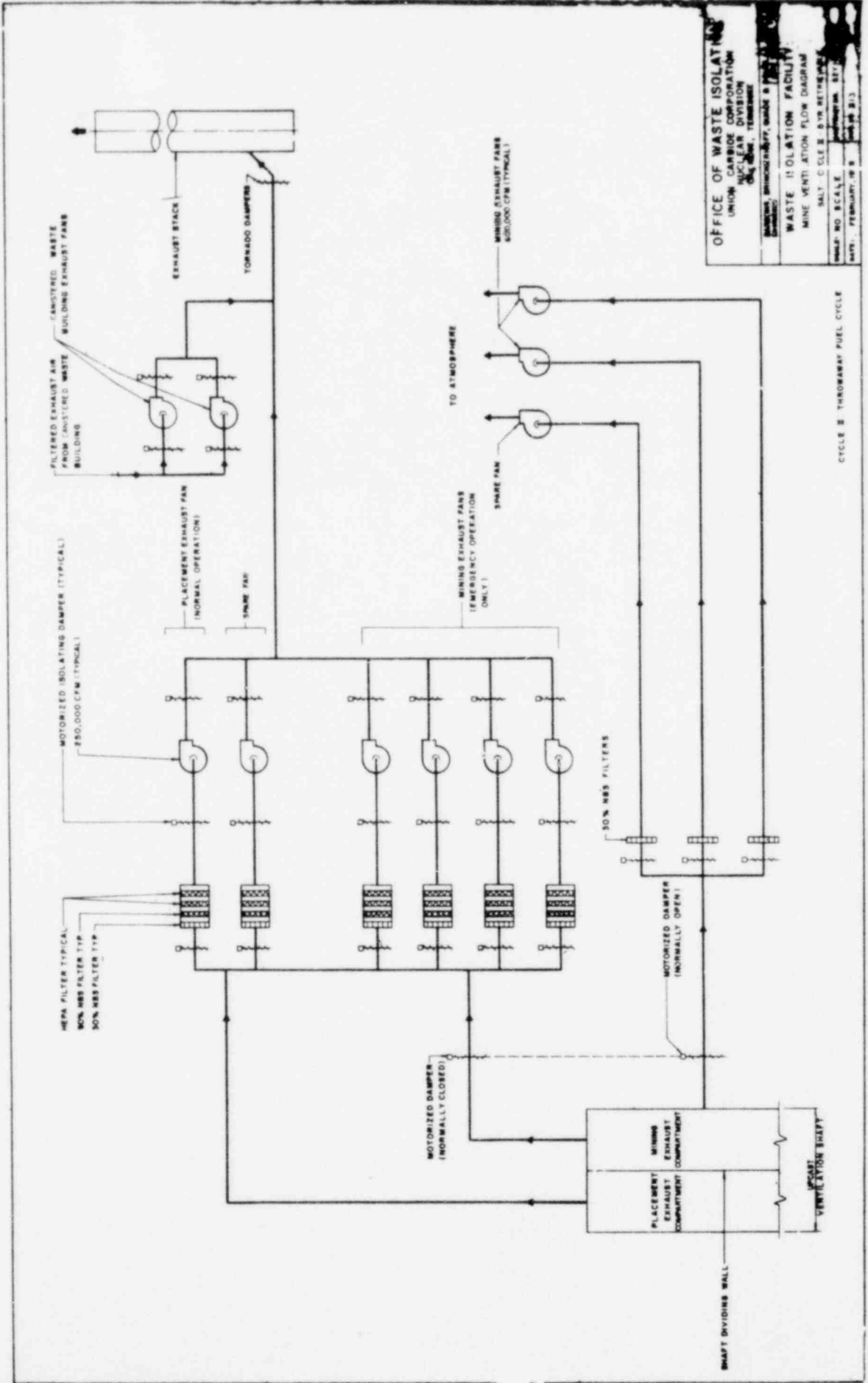
WASTE ISOLATION FACILITY
 SCHEMATIC FLOW DIAGRAM
 WASTE MANAGEMENT SYSTEM
 SCALE: 1/4" = 1'

DATE: FEBRUARY, 1978
 DRAWN BY: J. J. WOOD
 REV: 1



CYCLE 2 TEMPORARY FUEL CYCLE

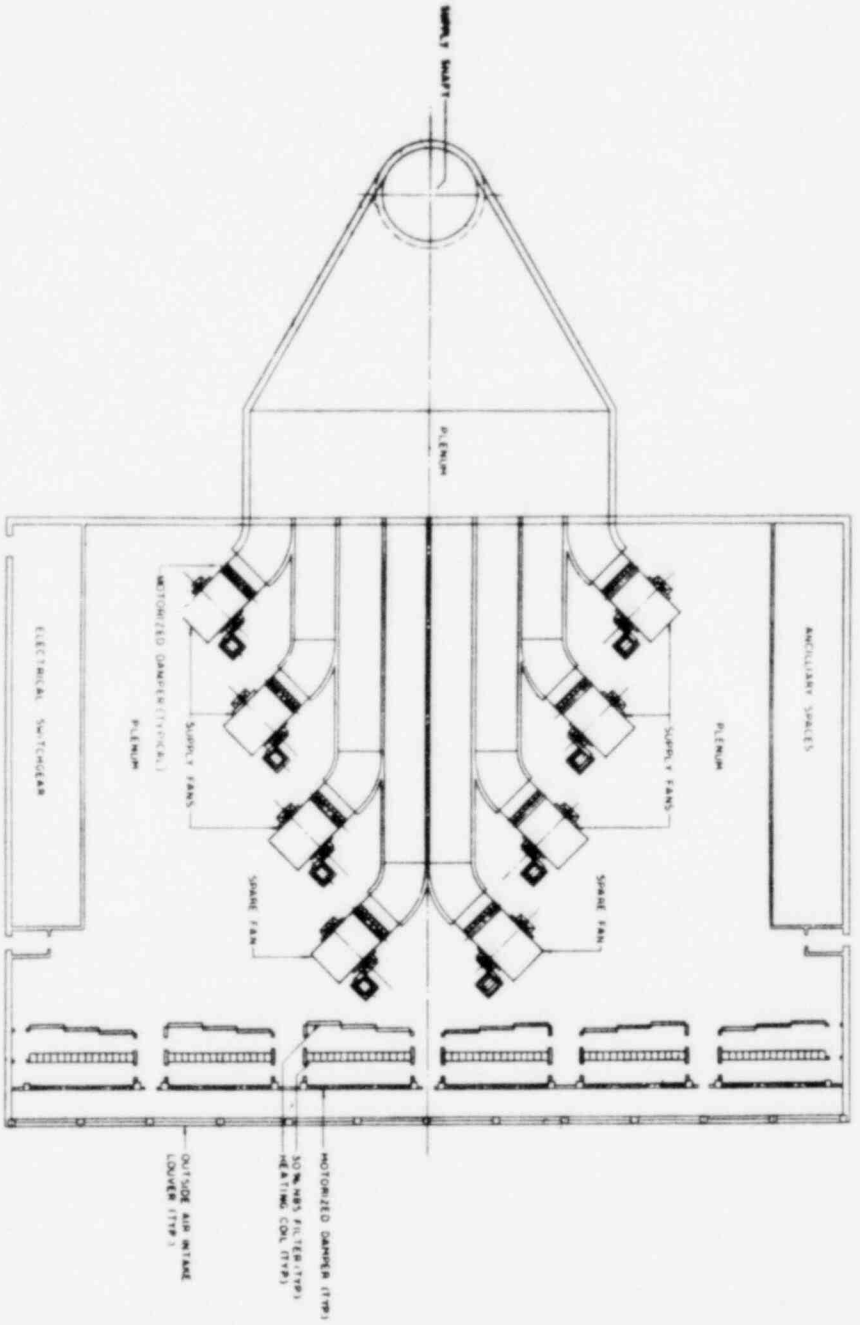
OFFICE OF WASTE ISOLATION UNION CARBIDE CORPORATION 4700 WEST 12TH AVENUE DENVER, COLORADO 80202	
WASTE ISOLATION FACILITY WASTE ISOLATION FACILITY LOW LEVEL WASTE (LLW) BUILDING CYCLE 2 TEMPORARY FUEL CYCLE	
DRAWING NO. 87-48702	SHEET NO. 8
DATE PREPARED: 8/78	DATE: 8/78



OFFICE OF WASTE ISOLATION
 UNION CARBIDE CORPORATION
 NUCLEAR DIVISION
 1000 WEST 10TH AVENUE, DENVER, COLORADO 80202

WASTE ISOLATION FACILITY
 MINE VENTILATION FLOW DIAGRAM
 SALT CIRCLE 2, 81% RETENTION
 SCALE: 1/8" = 1'-0"
 DATE: FEBRUARY, 1978
 DRAWING NO. 817-1000-100

CYCLE 2 THROUGHWAY FUEL CYCLE

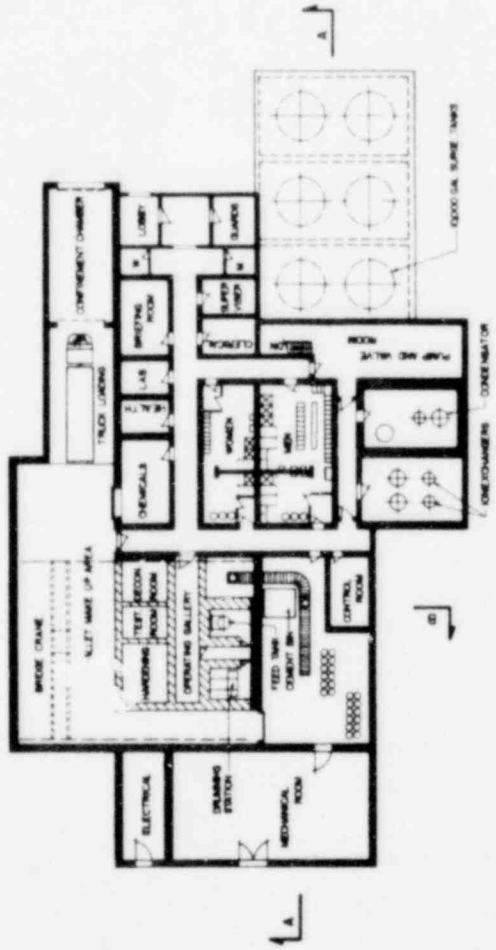


FLOOR PLAN

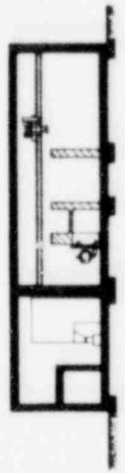
SCALE: 1/8" = 1'-0"

CYCLE 2 TEMPORARY FUEL CYCLE

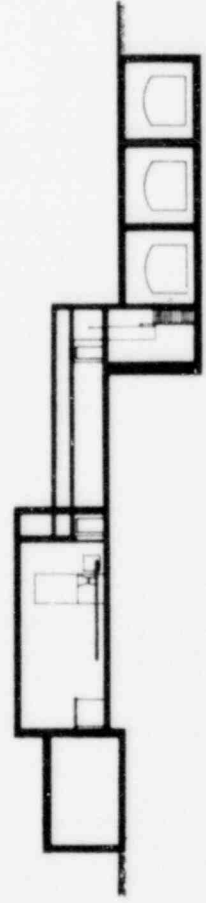
OFFICE OF WASTE ISOLATION	
UNION CARBIDE CORPORATION	
NUCLEAR DIVISION	
300 NORTH ZEEB ROAD	
PITTSBURGH, PENNSYLVANIA 15201-0001	
WASTE ISOLATION FACILITY	
SUPPLY VENTILATION BUILDING	
SHEET NO. 2-18 (REVISED)	
DATE: FEBRUARY, 1978	DESIGNED BY: 827-48702C
SCALE: 1/8" = 1'-0"	DRAWN BY: 814



PLAN



SECTION B-B

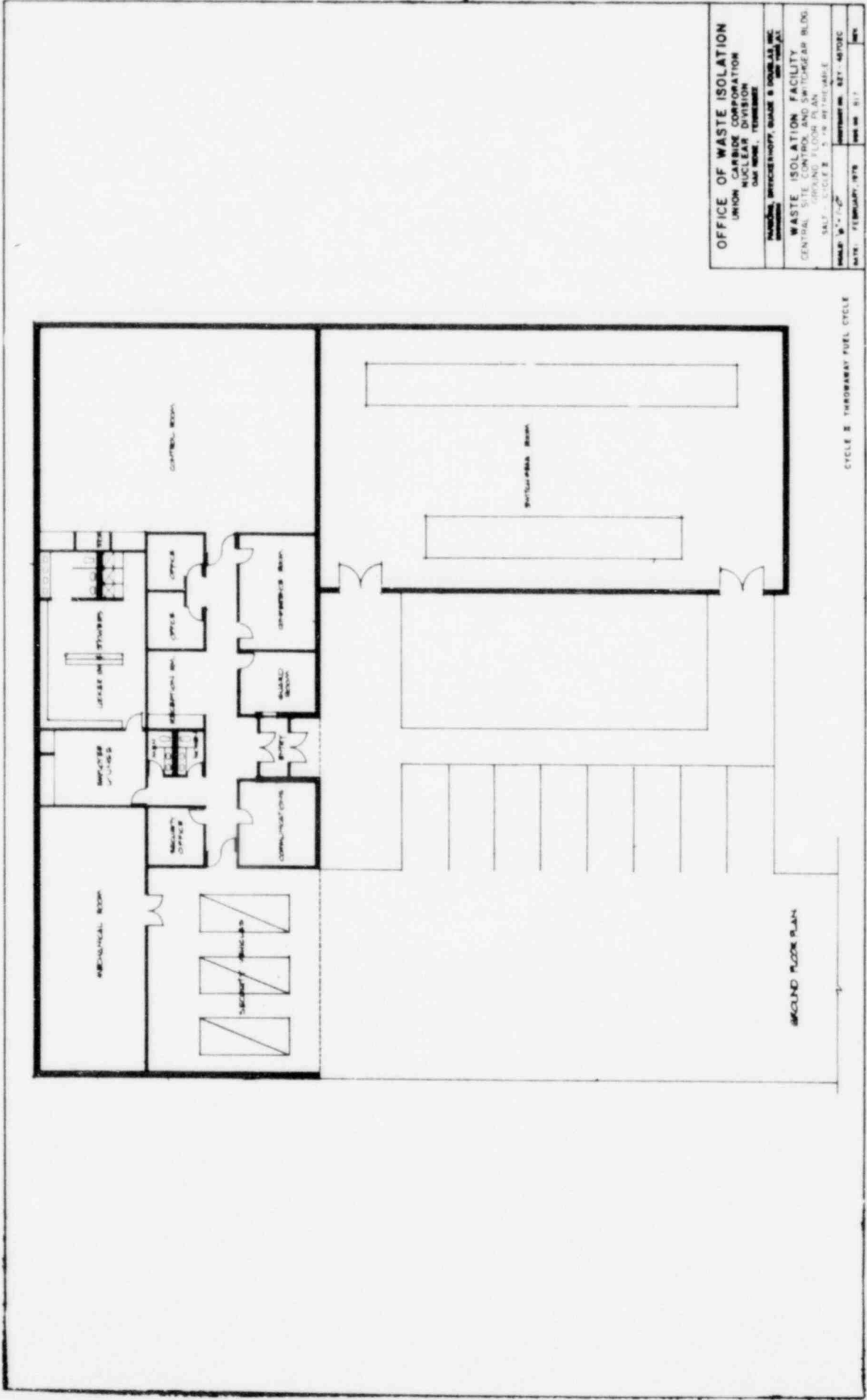


SECTION A-A



CYCLE 2 THROUGHWAY FUEL CYCLE

OFFICE OF WASTE ISOLATION	
UNION CARBIDE CORPORATION	
NUCLEAR DIVISION	
DAY ROAD - TENNESSEE	
PARSONS BRINCKERHOFF, QUAD 8, DOUGLAS MC	
TIMBERLAND, TENNESSEE, U.S.	
WASTE ISOLATION FACILITY	
LIQUID RADWASTE TREATMENT BUILDING	
SHEET - CYCLE 2 - 3-10 RETRIEVABLE	
SCALE: 1/8" = 1'-0"	CONTRACT NO. 857-870208
DATE: FEBRUARY 1978	ISSUE NO. 8.5
	101



OFFICE OF WASTE ISOLATION
 UNION CARBIDE CORPORATION
 NUCLEAR DIVISION
 ONE WALKER
 MEMPHIS, TENNESSEE 38103

WASTE ISOLATION FACILITY
 CENTRAL OPERATING BUILDING
 SALT PILE CYCLE 2 THRUWAY FUEL CYCLE

DATE: FEBRUARY, 1978

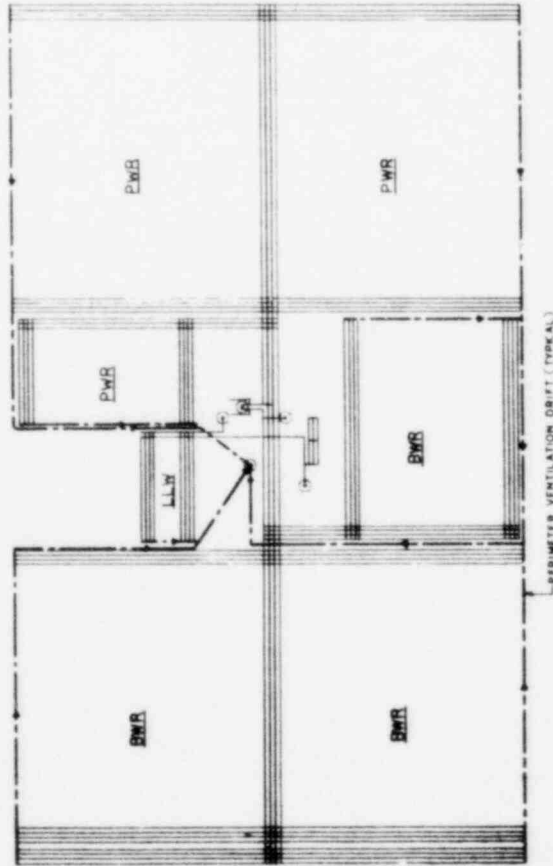
SCALE: 1/4" = 1'-0"

PROJECT NO. 871-4372C

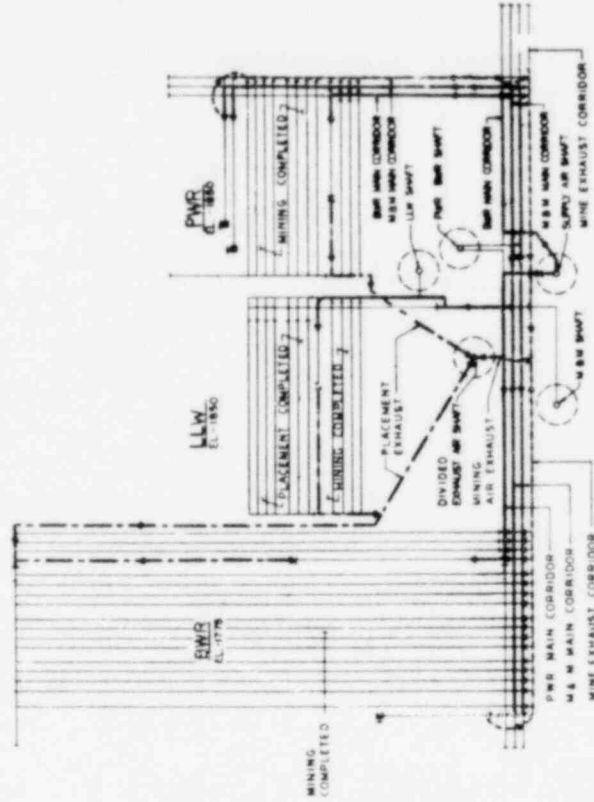
REV. NO. 117

CYCLE 2 THRUWAY FUEL CYCLE

GROUND FLOOR PLAN



PLACEMENT VENTILATION DRIFT SYSTEM
SCALE: 1" = 800'



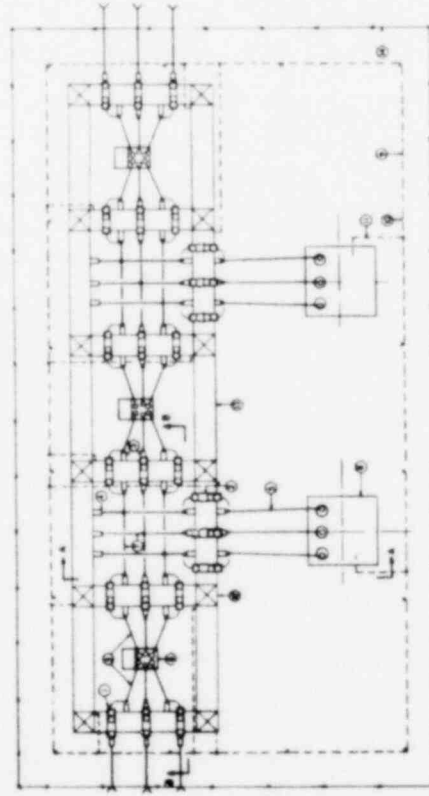
PARTIAL PLAN
MINING AND PLACEMENT VENTILATION
SCALE: 1" = 400'

LEGEND

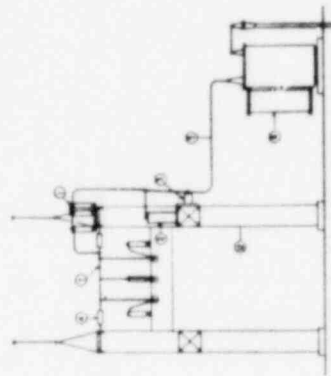
- PLACE SHUT EXHAUST AIR
- MINING EXHAUST AIR
- PLACEMENT AND MINING SUPPLY AIR
- BORING OPERATION IN PROGRESS
- PLACEMENT OPERATION IN PROGRESS
- CORRIDOR OR ROOM SEALED

OFFICE OF WASTE ISOLATION UNION CARBIDE CORPORATION NUCLEAR DIVISION DAS 80001, FERMILAB	
PARADISE BRICKER SHAFT, QUADRANT 8, 300' AS THE PERIMETER	
WASTE ISOLATION FACILITY MINE VENTILATION PLAN	
SHEET NO. 1000	CONTRACT NO. 801-1700C
DATE: FEBRUARY, 1978	REV. NO. 019

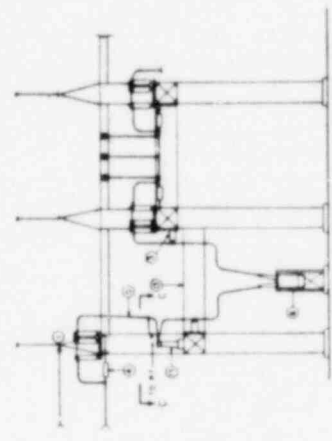
CYCLE II THROUGHWAY FUEL CYCLE



SUB-STATION PLAN



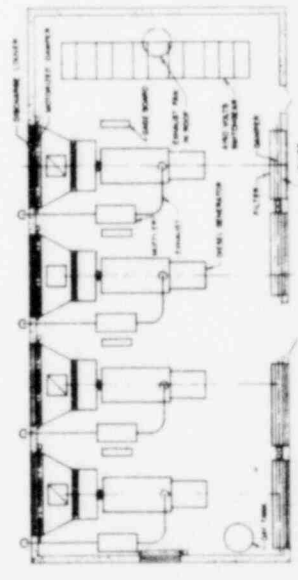
SECTION A-A



SECTION B-B



SECTION C-C



STANDBY GENERATOR

ITEM	DESCRIPTION
1	1/2" BRASS BALL VALVE
2	1/2" BRASS BALL VALVE
3	1/2" BRASS BALL VALVE
4	1/2" BRASS BALL VALVE
5	1/2" BRASS BALL VALVE
6	1/2" BRASS BALL VALVE
7	1/2" BRASS BALL VALVE
8	1/2" BRASS BALL VALVE
9	1/2" BRASS BALL VALVE
10	1/2" BRASS BALL VALVE
11	1/2" BRASS BALL VALVE
12	1/2" BRASS BALL VALVE
13	1/2" BRASS BALL VALVE
14	1/2" BRASS BALL VALVE
15	1/2" BRASS BALL VALVE
16	1/2" BRASS BALL VALVE
17	1/2" BRASS BALL VALVE
18	1/2" BRASS BALL VALVE
19	1/2" BRASS BALL VALVE
20	1/2" BRASS BALL VALVE
21	1/2" BRASS BALL VALVE
22	1/2" BRASS BALL VALVE
23	1/2" BRASS BALL VALVE
24	1/2" BRASS BALL VALVE
25	1/2" BRASS BALL VALVE
26	1/2" BRASS BALL VALVE
27	1/2" BRASS BALL VALVE
28	1/2" BRASS BALL VALVE
29	1/2" BRASS BALL VALVE
30	1/2" BRASS BALL VALVE
31	1/2" BRASS BALL VALVE
32	1/2" BRASS BALL VALVE
33	1/2" BRASS BALL VALVE
34	1/2" BRASS BALL VALVE
35	1/2" BRASS BALL VALVE
36	1/2" BRASS BALL VALVE
37	1/2" BRASS BALL VALVE
38	1/2" BRASS BALL VALVE
39	1/2" BRASS BALL VALVE
40	1/2" BRASS BALL VALVE
41	1/2" BRASS BALL VALVE
42	1/2" BRASS BALL VALVE
43	1/2" BRASS BALL VALVE
44	1/2" BRASS BALL VALVE
45	1/2" BRASS BALL VALVE
46	1/2" BRASS BALL VALVE
47	1/2" BRASS BALL VALVE
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49	1/2" BRASS BALL VALVE
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54	1/2" BRASS BALL VALVE
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62	1/2" BRASS BALL VALVE
63	1/2" BRASS BALL VALVE
64	1/2" BRASS BALL VALVE
65	1/2" BRASS BALL VALVE
66	1/2" BRASS BALL VALVE
67	1/2" BRASS BALL VALVE
68	1/2" BRASS BALL VALVE
69	1/2" BRASS BALL VALVE
70	1/2" BRASS BALL VALVE
71	1/2" BRASS BALL VALVE
72	1/2" BRASS BALL VALVE
73	1/2" BRASS BALL VALVE
74	1/2" BRASS BALL VALVE
75	1/2" BRASS BALL VALVE
76	1/2" BRASS BALL VALVE
77	1/2" BRASS BALL VALVE
78	1/2" BRASS BALL VALVE
79	1/2" BRASS BALL VALVE
80	1/2" BRASS BALL VALVE
81	1/2" BRASS BALL VALVE
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83	1/2" BRASS BALL VALVE
84	1/2" BRASS BALL VALVE
85	1/2" BRASS BALL VALVE
86	1/2" BRASS BALL VALVE
87	1/2" BRASS BALL VALVE
88	1/2" BRASS BALL VALVE
89	1/2" BRASS BALL VALVE
90	1/2" BRASS BALL VALVE
91	1/2" BRASS BALL VALVE
92	1/2" BRASS BALL VALVE
93	1/2" BRASS BALL VALVE
94	1/2" BRASS BALL VALVE
95	1/2" BRASS BALL VALVE
96	1/2" BRASS BALL VALVE
97	1/2" BRASS BALL VALVE
98	1/2" BRASS BALL VALVE
99	1/2" BRASS BALL VALVE
100	1/2" BRASS BALL VALVE

OFFICE OF WASTE ISOLATION
 UNION CARBIDE CORPORATION
 NUCLEAR DIVISION
 OAK RIDGE, TENNESSEE

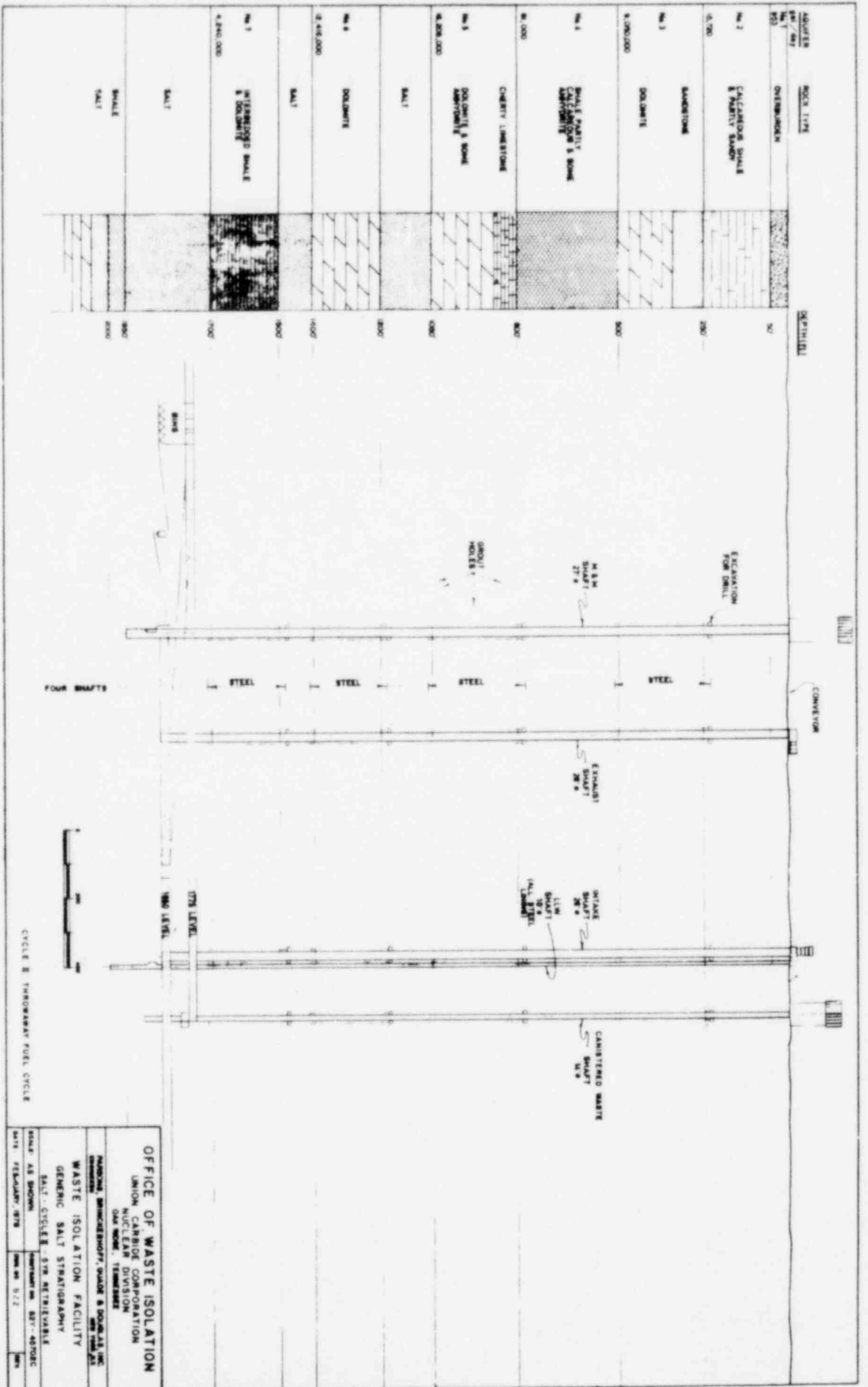
WASTE ISOLATION FACILITY
 MAIN ELECTRICAL SUBSTATION
 AND STANDBY GENERATOR
 SALT CYCLE 2, 3, 1B, DETRIMENTAL

DATE: FEBRUARY, 1978

PROJECT NO. 827-48702C

REV. NO. 02

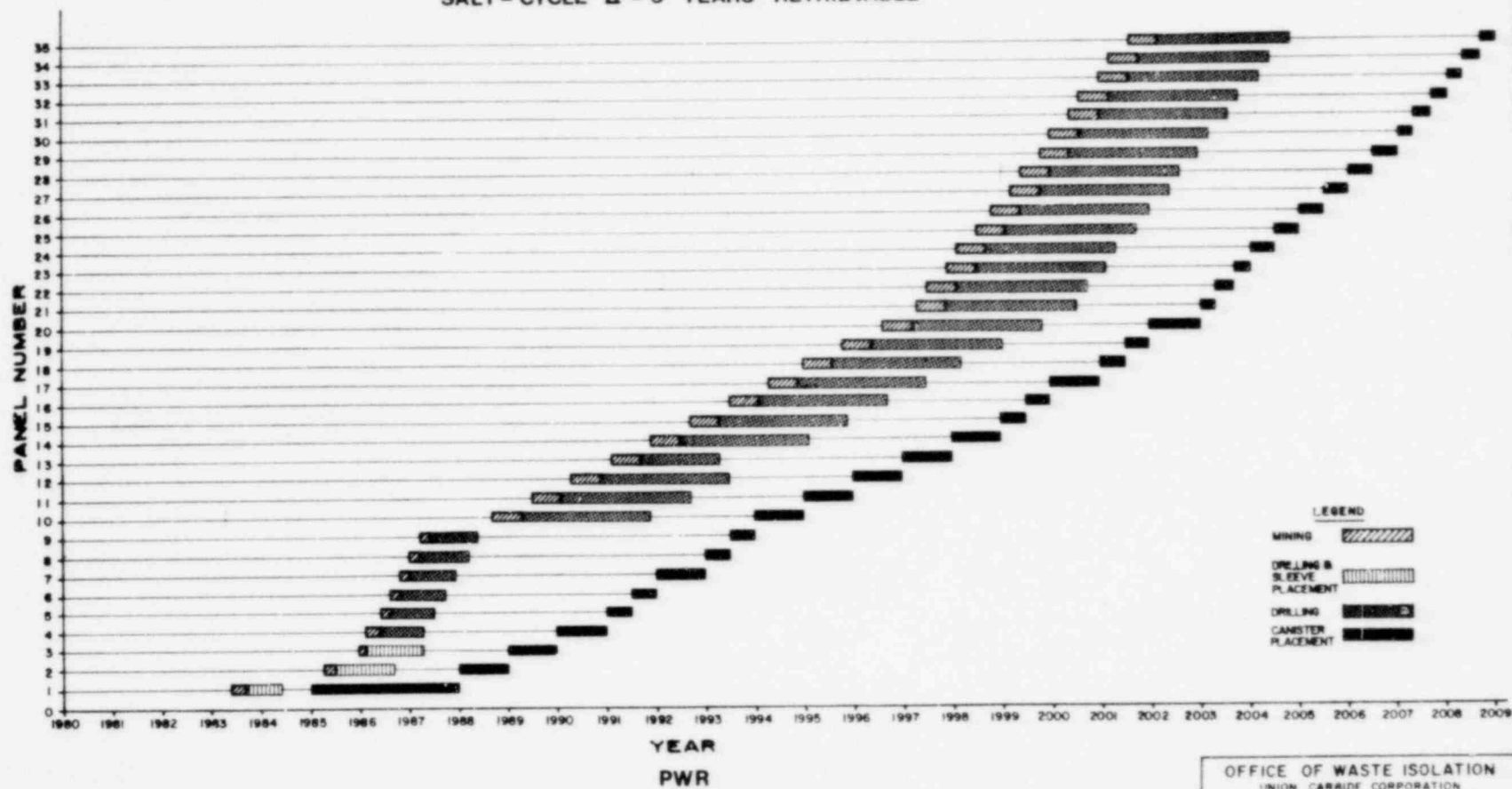
REV.



OFFICE OF WASTE ISOLATION
 UNION CARBIDE CORPORATION
 NUCLEAR DIVISION
 ONE WINDY TERRACE
 NATIONAL BRIDGEMANSHIP SQUARE & DOUGLAS, INC.
 GENERAL MANAGER
WASTE ISOLATION FACILITY
 GENERIC SALT STRATIGRAPHY
 SALT - CYCLE B - 5TH RETRIEVABLE
 SHEET NO. 577-4270C
 DATE: FEBRUARY, 1978

MINING AND PLACEMENT SCHEDULE

SALT-CYCLE II - 5 YEARS RETRIEVABLE



- LEGEND**
- MINING
 - DRILLING & SLEEVE PLACEMENT
 - DRILLING
 - CANISTER PLACEMENT

OFFICE OF WASTE ISOLATION
 UNION CARBIDE CORPORATION
 NUCLEAR DIVISION
 OAK RIDGE, TENNESSEE

PARSONS, BRINCKERHOFF, QUADE & DOUGLAS, INC.
ENGINEERS
 NEW YORK, N.Y.

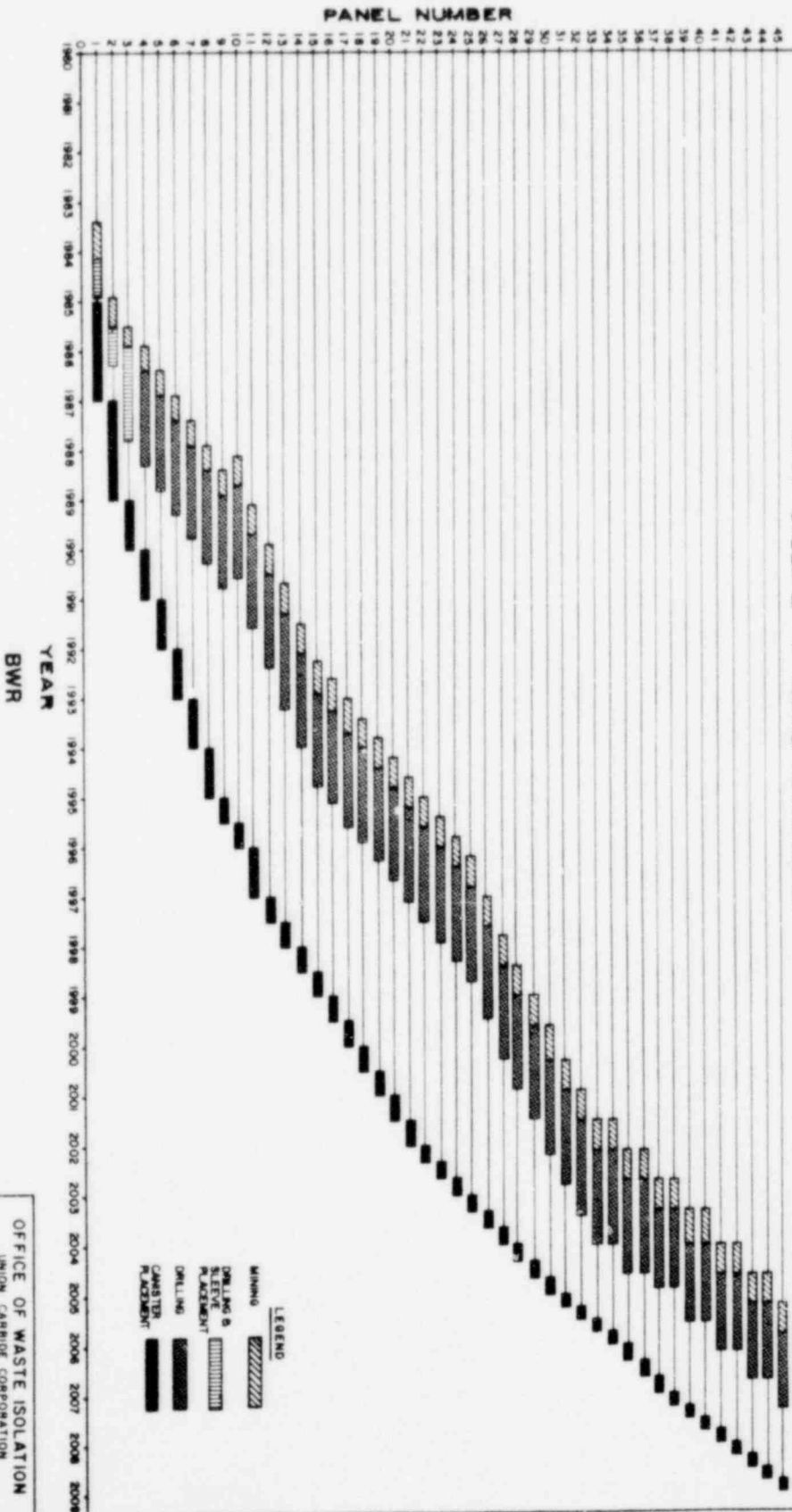
WASTE ISOLATION FACILITY
 PWR MINING AND PLACEMENT SCHEDULE
 SALT-CYCLE II - 5 YR RETRIEVABLE

SCALE: CONTRACT NO. 821-45702C
 DATE: FEBRUARY, 1978 DRAWING NO. 821-45702C-100

CYCLE II THROAWAY FUEL CYCLE

MINING AND PLACEMENT SCHEDULE

SALT-CYCLE II - 5 YEARS RETRIEVABLE



YEAR

BWR

LEGEND

- MINING
- DRILLING & SIEVE PLACEMENT
- DRILLING
- CASTLER PLACEMENT

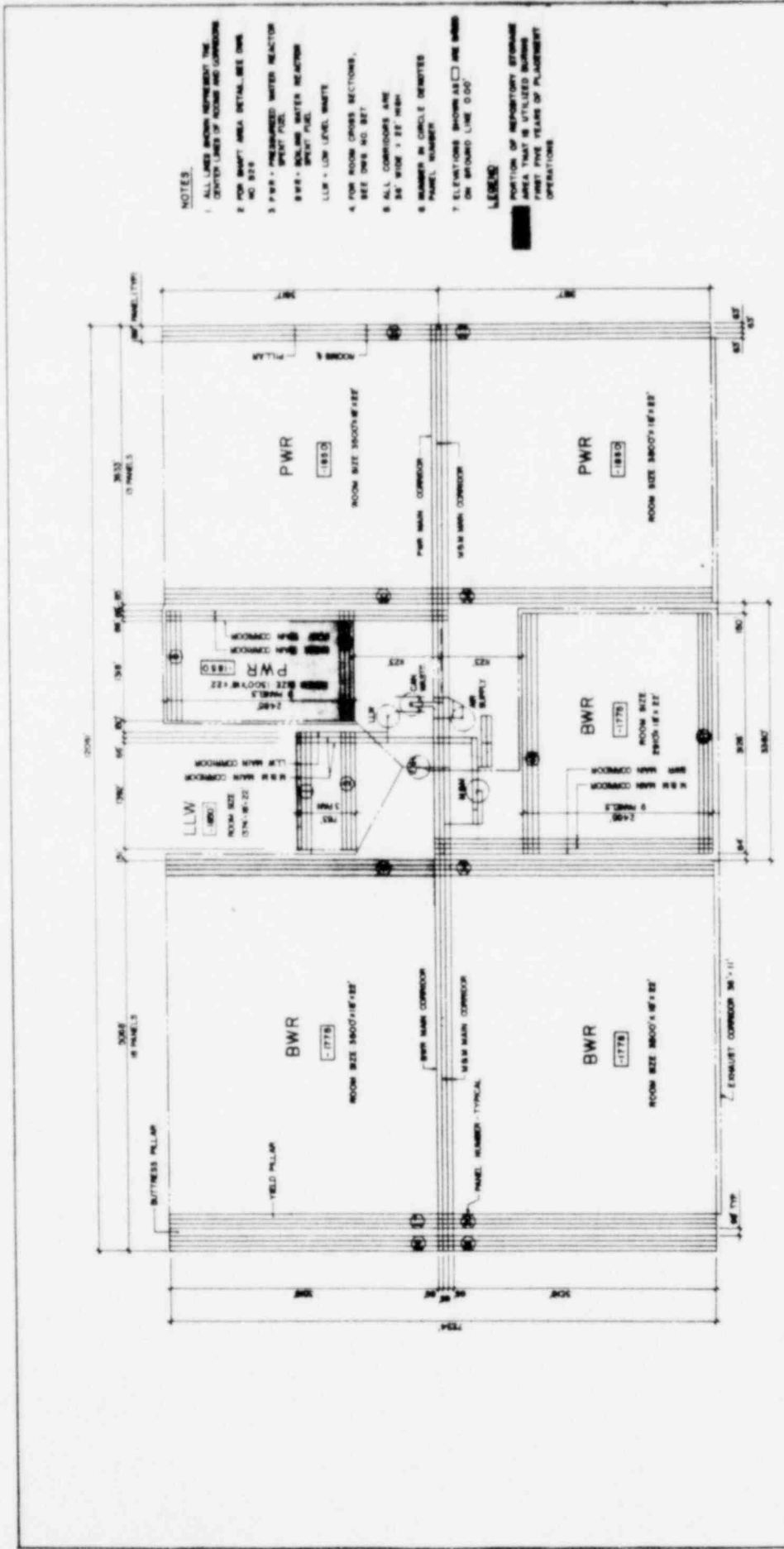
OFFICE OF WASTE ISOLATION
UNION CARBIDE CORPORATION
NUCLEAR DIVISION
OAK RIDGE, TENNESSEE

NATIONAL BRUNNENHOFF, GULDE & BODEN, INC.
MEMPHIS, TENNESSEE

WASTE ISOLATION FACILITY
BWR MINING AND PLACEMENT SCHEDULE
SALT-CYCLE II - 5 YR RETRIEVABLE

SCALE: DRAWN BY: 07-48702C
DATE: FEBRUARY, 1978 200 BY: BJA 1981

CYCLE II - TRANSURANIC FUEL CYCLE



NOTES:

1. ALL LINES SHOWN REPRESENT THE CENTER LINES OF ROOMS AND CORRIDORS.
2. FOR BARRI AREA DETAIL, SEE DWG. NO. 812.
3. PWR - PRESSURIZED WATER REACTOR SPENT FUEL.
4. BWR - BOILING WATER REACTOR SPENT FUEL.
5. LLW - LOW LEVEL WASTE.
6. FOR ROOM CROSS SECTIONS, SEE DWG. NO. 817.
7. ALL CORRIDORS ARE 8'6" WIDE x 7'8" HIGH.
8. DIMENSIONS IN CORNICE DEWITTER PANEL NUMBER.
9. ELEVATIONS SHOWN AS \square ARE SHOWN ON BOUNDARY LINE 0.00'.

LEGEND:

PORTION OF REACTORY STRUCTURE WHICH IS TO BE UTILIZED DURING FIRST FIVE YEARS OF PLACEMENT OPERATIONS.

OFFICE OF WASTE ISOLATION	
UNION CARBIDE CORPORATION	
NUCLEAR DIVISION	
DAK RIDGE, TENNESSEE	
MANAGER: BRUNNENBERGER, DAVID S. NEW YORK, NY	
ENGINEER: [REDACTED]	
WASTE ISOLATION FACILITY	
MINE MASTER PLAN	
SALT - CYCLE B - 818 RETRIEVABLE	
SCALE: 1" = 800'	CONTRACT NO. 817-40700C
DATE: FEBRUARY, 1979	FIGURE 8.18

STORAGE CAPACITY (YEAR 2008)

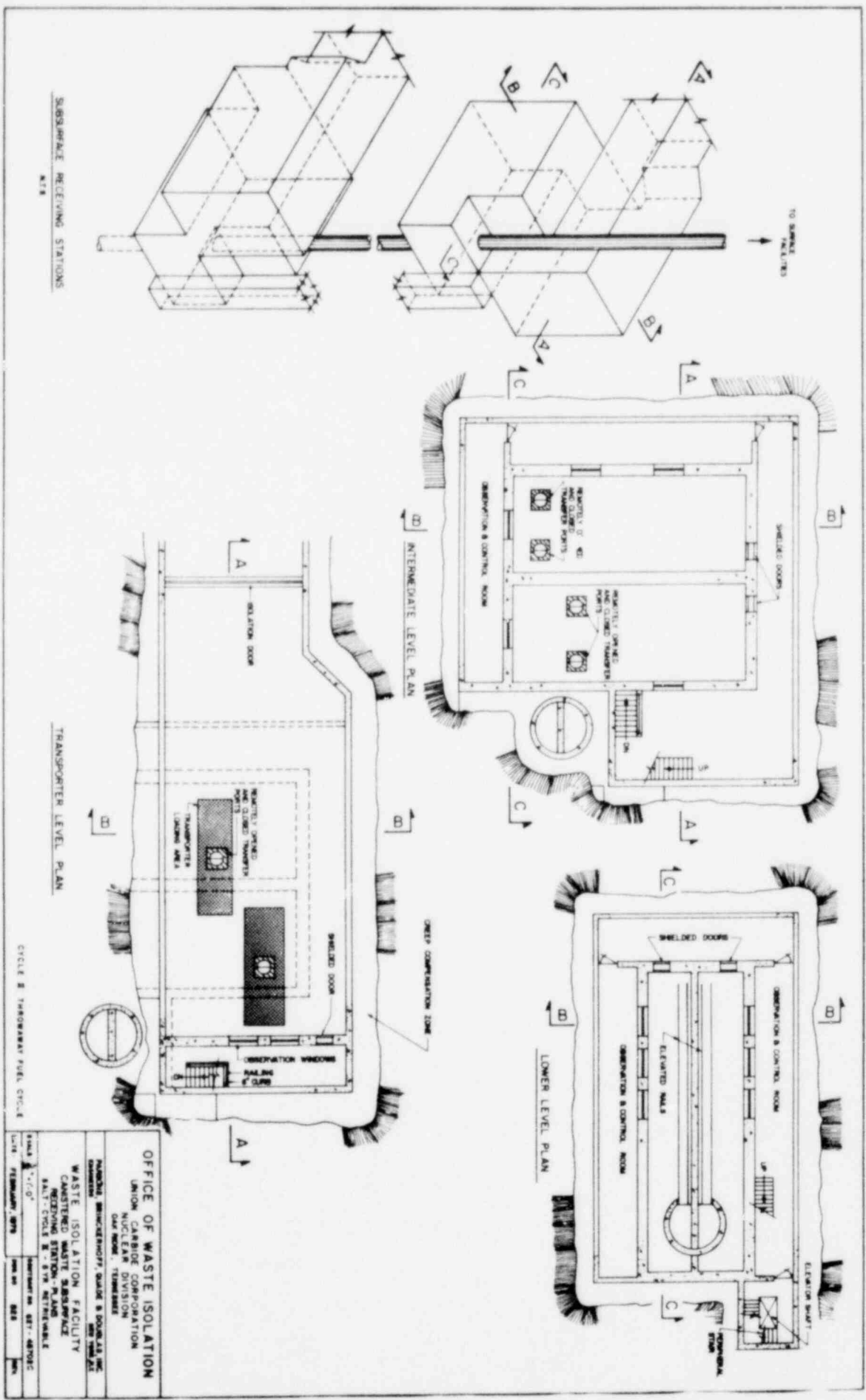
- PWR - 134,848 UNITS
- BWR - 200,018 UNITS
- LLW - 80,981 UNITS

MINE MASTER PLAN

SCALE 1" = 800'

EXTRACTION RATIO - 85%

CYCLE B THROUGHWAY FUEL CYCLE



SUBSPACE RECEIVING STATIONS
N.T.S.

TRANSPORTER LEVEL PLAN

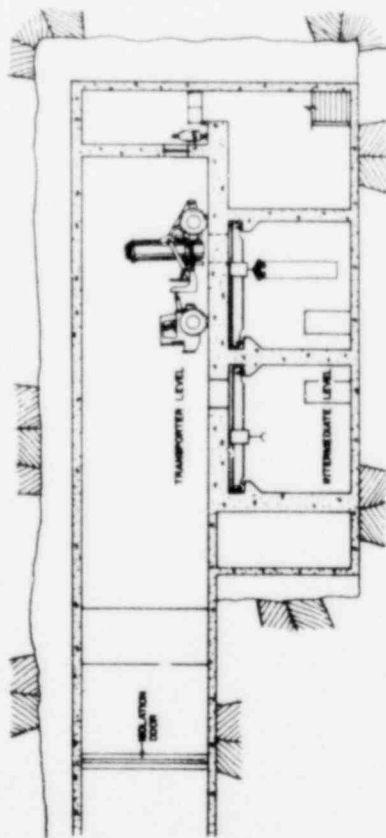
CIRCLE B THROUGHWAY PUEL CIRCLE

OFFICE OF WASTE ISOLATION
 UNION CARBIDE CORPORATION
 NUCLEAR DIVISION
 OAK RIDGE, TENNESSEE

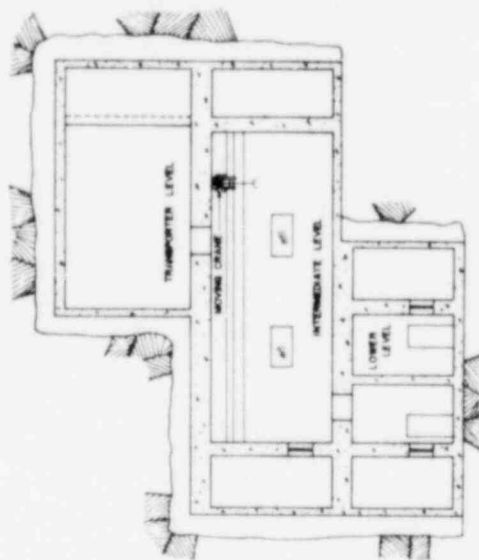
WASTE ISOLATION FACILITY
 CASTLED WASTE SUBSPACE
 RECEIVING STATION - PLAN B
 SALT-CIRCLE B - 87M NORTH-WALL

DATE: FEBRUARY 1978

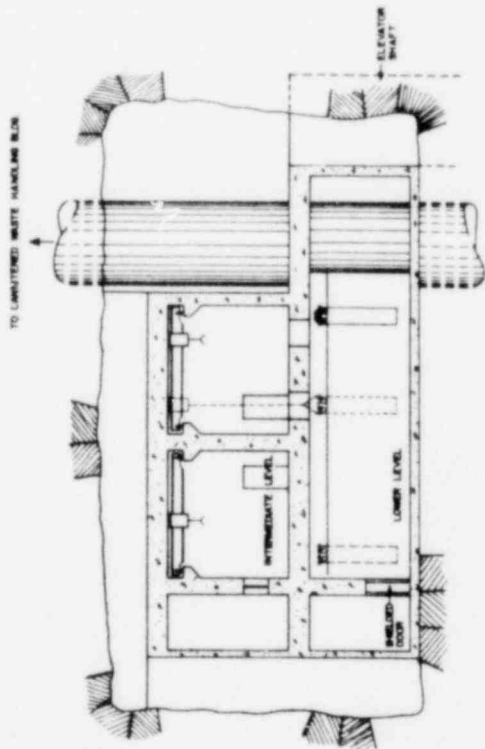
SCALE: 1/4" = 1'-0"	PROJECT NO. EST. DESIGN	NO. 100
DATE: FEBRUARY 1978	NO. 100	NO. 100



SECTION A-A



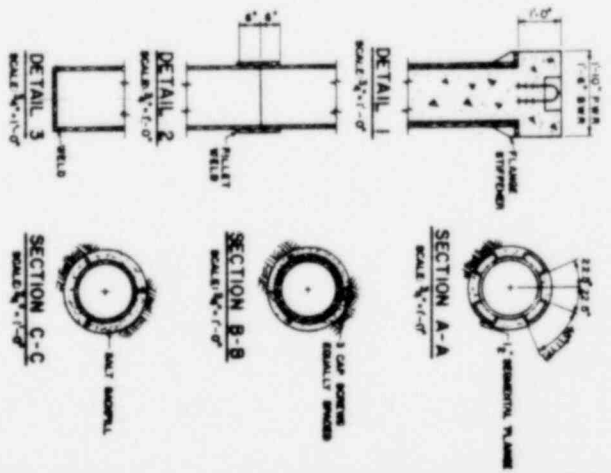
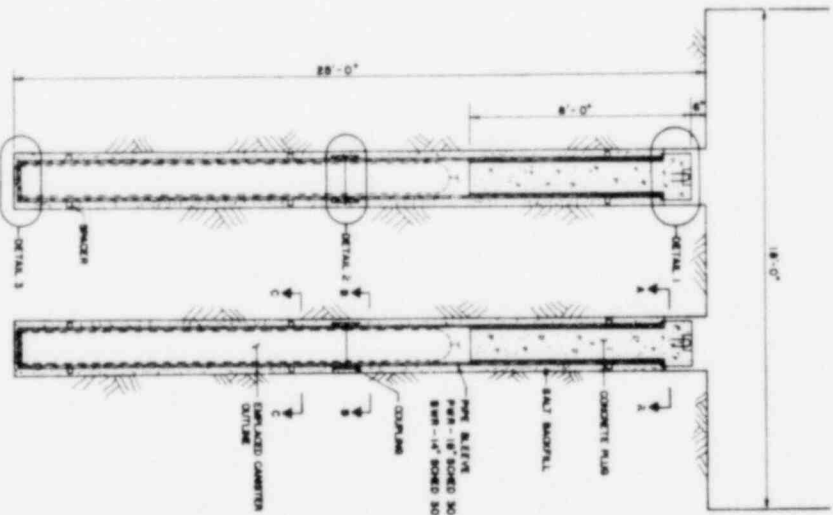
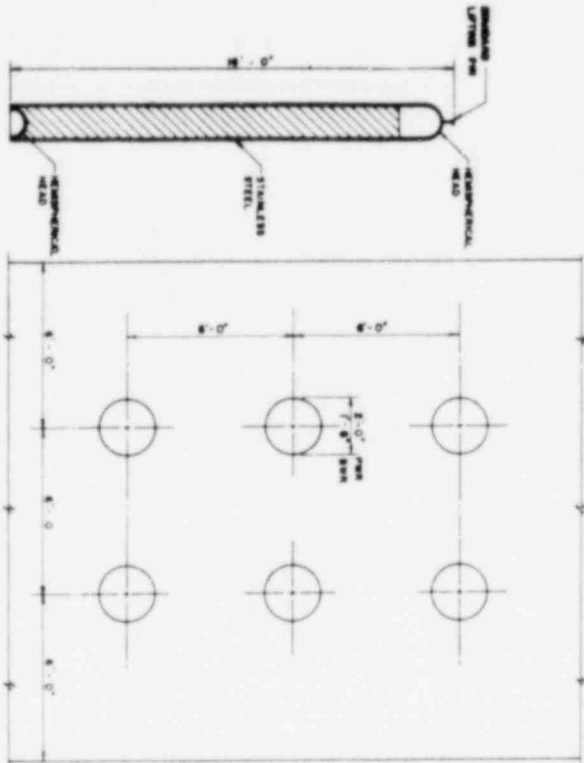
SECTION B-B



SECTION C-C

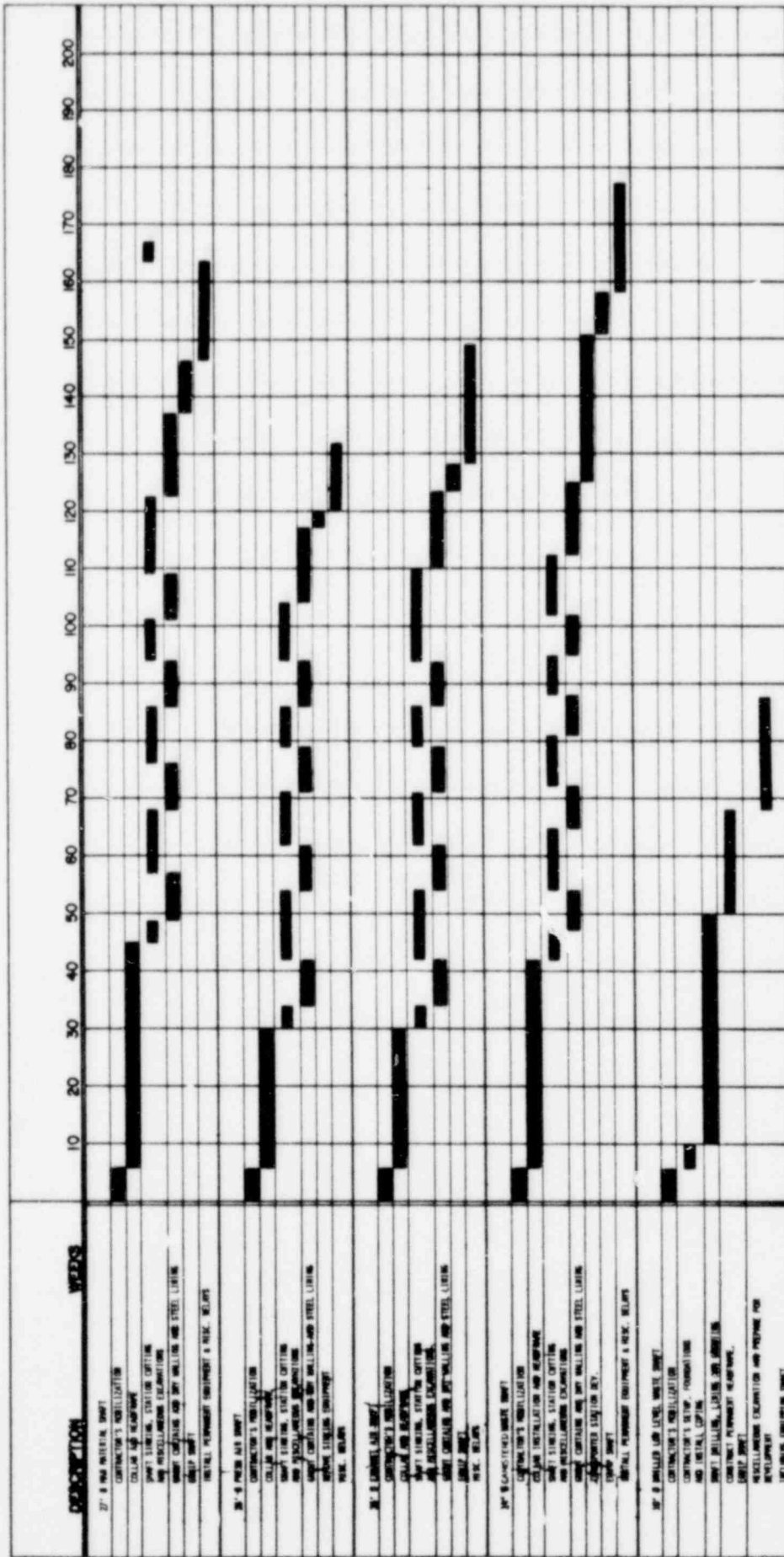
OFFICE OF WASTE ISOLATION	
UNION CARBIDE CORPORATION	
NUCLEAR DIVISION	
DAYTON, OHIO	
DESIGNED BY: BRUCKNER, SHAPIRO & DONALDSON INC.	
DRAWN BY: BRUCKNER, SHAPIRO & DONALDSON INC.	
WASTE ISOLATION FACILITY	
CONTAINED WASTE DISPOSAL	
CYCLE B - 3.1X RETRIEVABLE	
SCALE: 1/4" = 1'-0"	
DATE: FEBRUARY 1978	BY: BRUCKNER, SHAPIRO & DONALDSON INC.

CYCLE B - THRUWAY FUEL CYCLE



OFFICE OF WASTE ISOLATION
 UNION NUCLEAR CORPORATION
 NUCLEAR DIVISION
 CAP ROCK, TENNESSEE
 NATIONAL BRINCKERHOFF, GALT & DONALDSON, INC.
 WASTE ISOLATION FACILITY
 CANISTERED WASTE STORAGE
 SALT - CYCLE E - 51M RETRIEVABLE
 SCALE 1/4" = 1'-0"
 DRAWING NO. 57 - 48752C
 DATE: FEBRUARY 1978
 SHEET NO. 3/30

CYCLE E - TRANSFER FUEL CYCLE

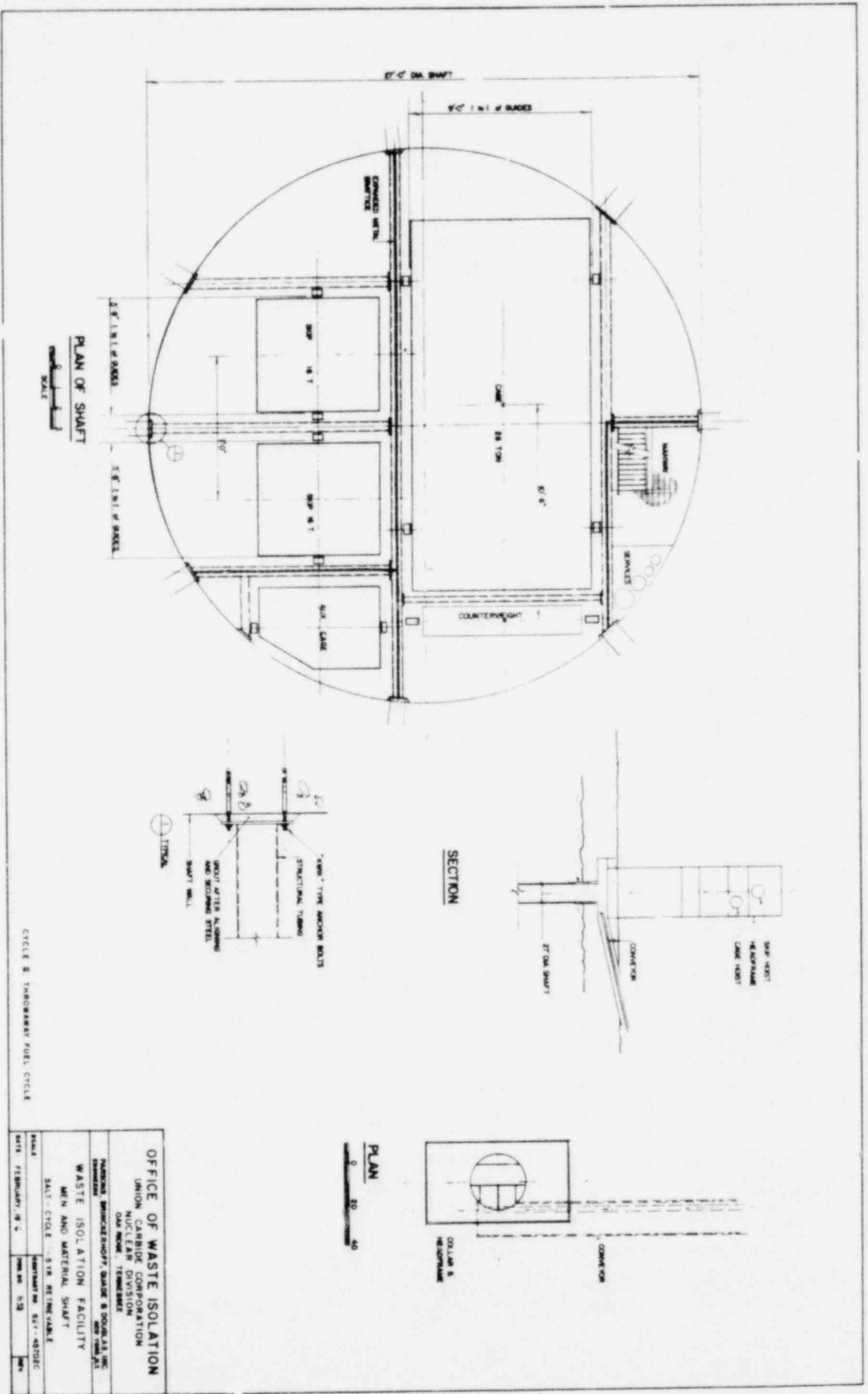


OFFICE OF WASTE ISOLATION
 UNION CARBIDE CORPORATION
 1000 WEST 10TH AVENUE
 DENVER, COLORADO 80202

WASTE ISOLATION FACILITY
 SHAFT CONSTRUCTION SCHEDULE
 SHAFT - CYCLE 2 - 8 1/2" RETRIEVABLE

DATE: FEBRUARY, 1978
 SHEET NO. 13
 OF 14

CYCLE 2 THROUGHWAY FUEL CYCLE



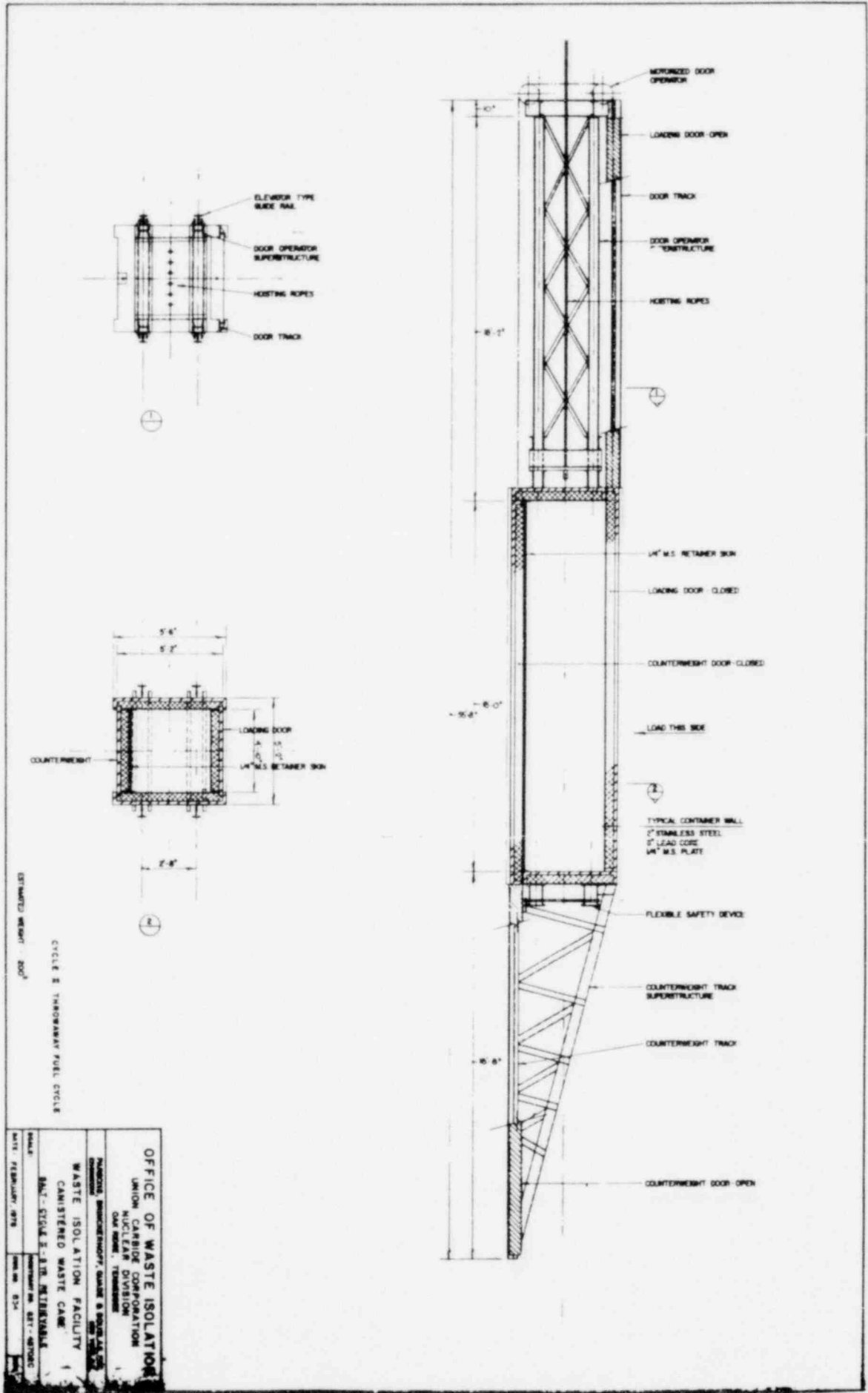
PLAN OF SHAFT
SCALE

SECTION

PLAN

OFFICE OF WASTE ISOLATION
 UNION CARBIDE CORPORATION
 NUCLEAR DIVISION
 OAK RIDGE, TENNESSEE
 NATIONAL BRUCKENHOFF, GADE & DOUGLAS, INC.
 ENGINEERS
 WASTE ISOLATION FACILITY
 MEN AND MATERIAL SHAFT
 SALT CYCLE - 5 1/2 IN. RETRIEVABLE
 SCALE: DRAWING NO. 517-45102C
 DATE: FEBRUARY 18, 1965

CIRCLE 3, TRANSFERRING FUEL CYCLE



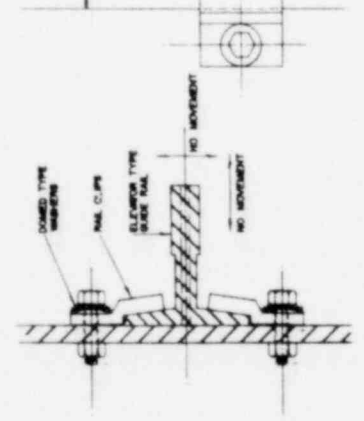
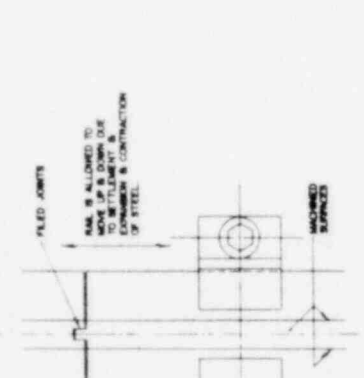
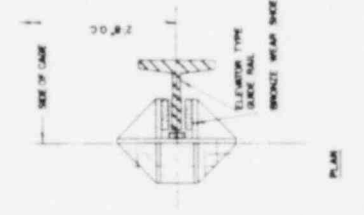
ESTIMATED WEIGHT - 200³

CYCLE 8 THROUGHWAY FUEL CYCLE

OFFICE OF WASTE ISOLATION UNION CARBIDE CORPORATION NUCLEAR DIVISION OAK RIDGE, TENNESSEE	
WASTE ISOLATION FACILITY CANISTERED WASTE CASE BMT - CYCLE 8 - 13TH INTERMEDIATE	
DRAWN BY: [Name] CHECKED BY: [Name]	DATE: [Date] SCALE: [Scale]

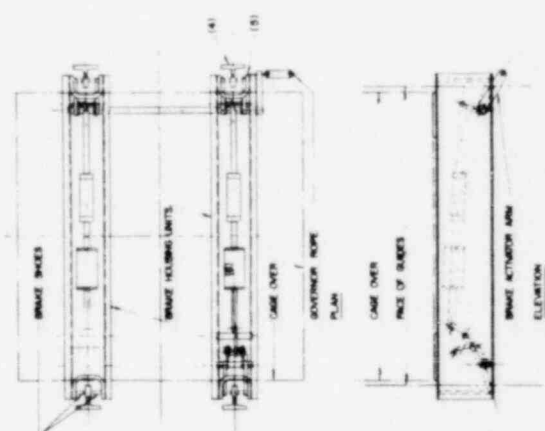
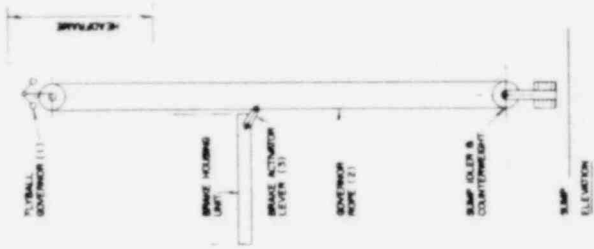
NOTES

- BRACKING SUBASSEMBLY**
- (1) BRACKING SUBASSEMBLY: THE WEIGHTS ARE HELD BY BALL BEARINGS (1) BRACKING THE DRIVE SHEEL AND STOPPING THE DRIVE SHEEL.
 - (2) IS A STOPPING MECHANISM AS THE GOVERNOR ROPE (2) IS HELD UP BY THE ACTIVATOR LEVER (3) IS HELD UP INTO THE JAW POSITION. THE JAW AND FORCES UP ON (2) JAW.
 - (3) AS THE COMPRESSIVE FORCE IS EXERTED, THE BEARING-MOUNTED JAW SIDE OF AN INCLINED SURFACE WOULD PULL THE GUIDE RAILS. THE "WORMGEAR" SLICE (3) WOULD TO SPREAD DUE TO THIS ROTATION ACTING, PROVIDING A CONSTANT PRESSURE ON THE GUIDE RAILS. INTERFERING COMPRESSIVE TO REST WITH A MINIMAL SLIP-SPACE OVER-A-SLIP DISTANCE. SHOULD THE GOVERNOR ROPE BREAK, (3) WOULD AUTOMATICALLY BRACKING THE BRACKING MECHANISM.



TYPICAL GUIDE SHOE

TYPICAL GUIDE RAIL ASSEMBLY



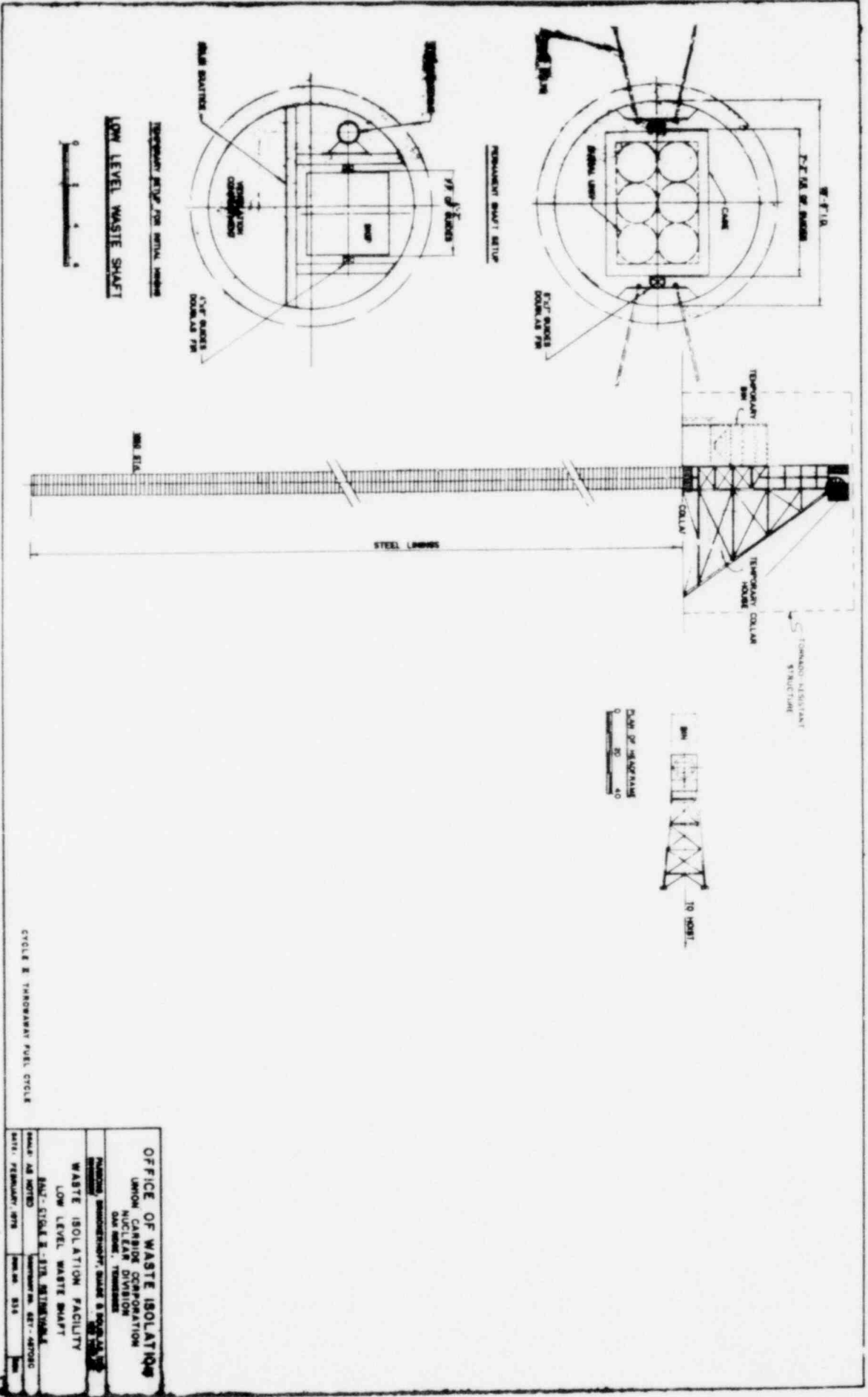
FLEXIBLE SAFETY DEVICE

GUIDE GENERAL ASSEMBLY

OFFICE OF WASTE ISOLATION
 UNION CARBIDE CORPORATION
 NUCLEAR DIVISION
 DART MOUNTAIN, PENNSYLVANIA

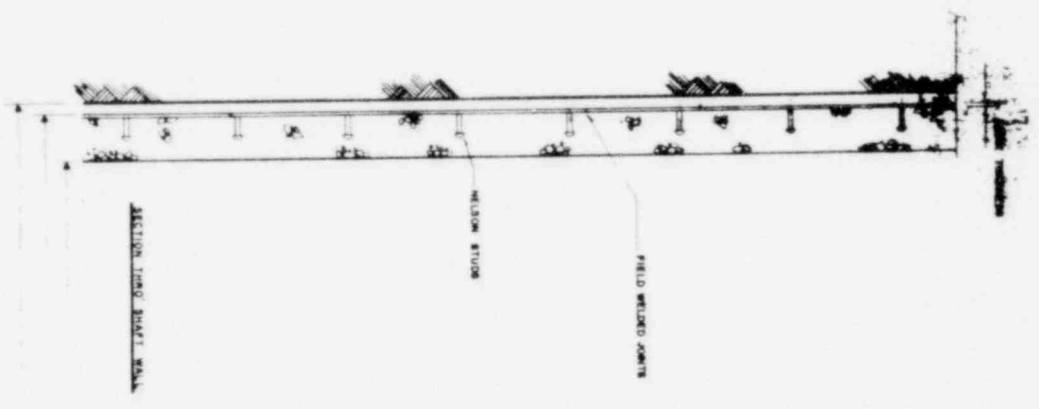
WASTE ISOLATION FACILITY
 CANISTERED WASTE CONVEYANCE
 SAFETY MECHANISM
 SALT CYCLE II, S.I.P. IN THE TABLE

PROJECT NO. 417-4570FC
 DRAWING NO. 417-4570FC
 DATE: FEBRUARY, 1978



CYCLE 2 TEMPORARY FUEL CYCLE

OFFICE OF WASTE ISOLATION	
NATIONAL CARBON SEQUESTRATION UNION NUCLEAR DIVISION ONE BRICK, TENNESSEE	
WASTE ISOLATION FACILITY	
LOW LEVEL WASTE SHAFT	
SCALE: AS NOTED	DATE: FEBRUARY, 1978
SCALE: AS NOTED	DATE: 02/01/78



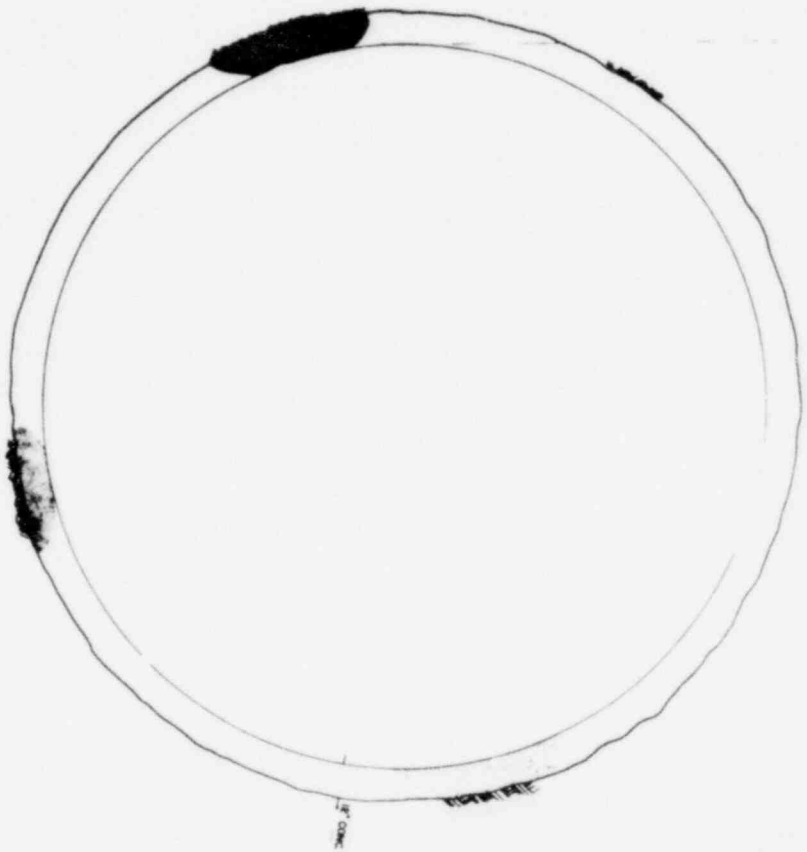
STEEL LAMB THICKNESS	3/8"	3/8"	3/8"	3/8"	1/2"	1/2"
ELEVATION FROM SURFACE	500'	800'	1080'	1400'	1600'	1800'
ELEVATION TO	500'	800'	1080'	1400'	1600'	1800'
DISTANCE	500'	300'	280'	320'	200'	200'
CONCRETE STRENGTH (PSI)	2500	2500	2500	4000	4000	5000

44'-0" DIA. CONCRETE LINED SHAFT
 44'-0" DIA. SHIELDED (NORMAL)

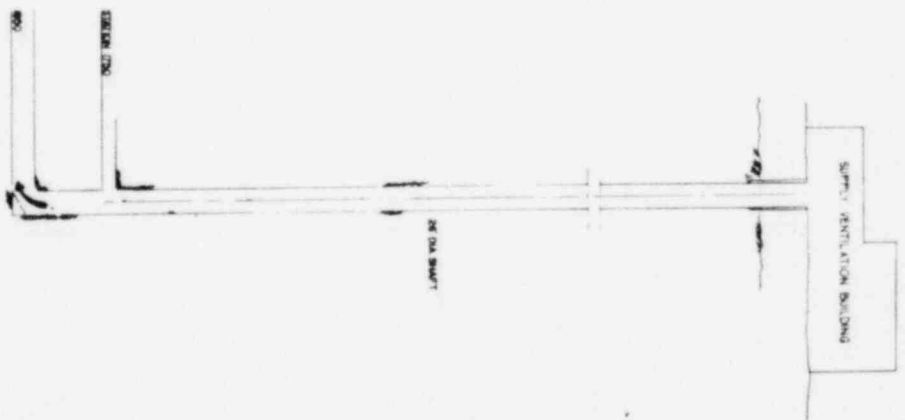
CYCLE D TEMPORARY FUEL CYCLE

OFFICE OF WASTE ISOLATION	
UNION CARBIDE CORPORATION NUCLEAR DIVISION OAK RIDGE, TENNESSEE	
NATIONAL BRINCERHOFF, GARDNER & DOUGLAS, INC. ENGINEERS 2000 W. 10TH AVENUE DENVER, COLORADO 80202	
WASTE ISOLATION FACILITY LOW LEVEL WASTE SHAFT LINDING DETAILS	
SHEET NO. 101 REV. FEBRUARY, 1978	
DATE	REV.

PLAN OF SHAFT

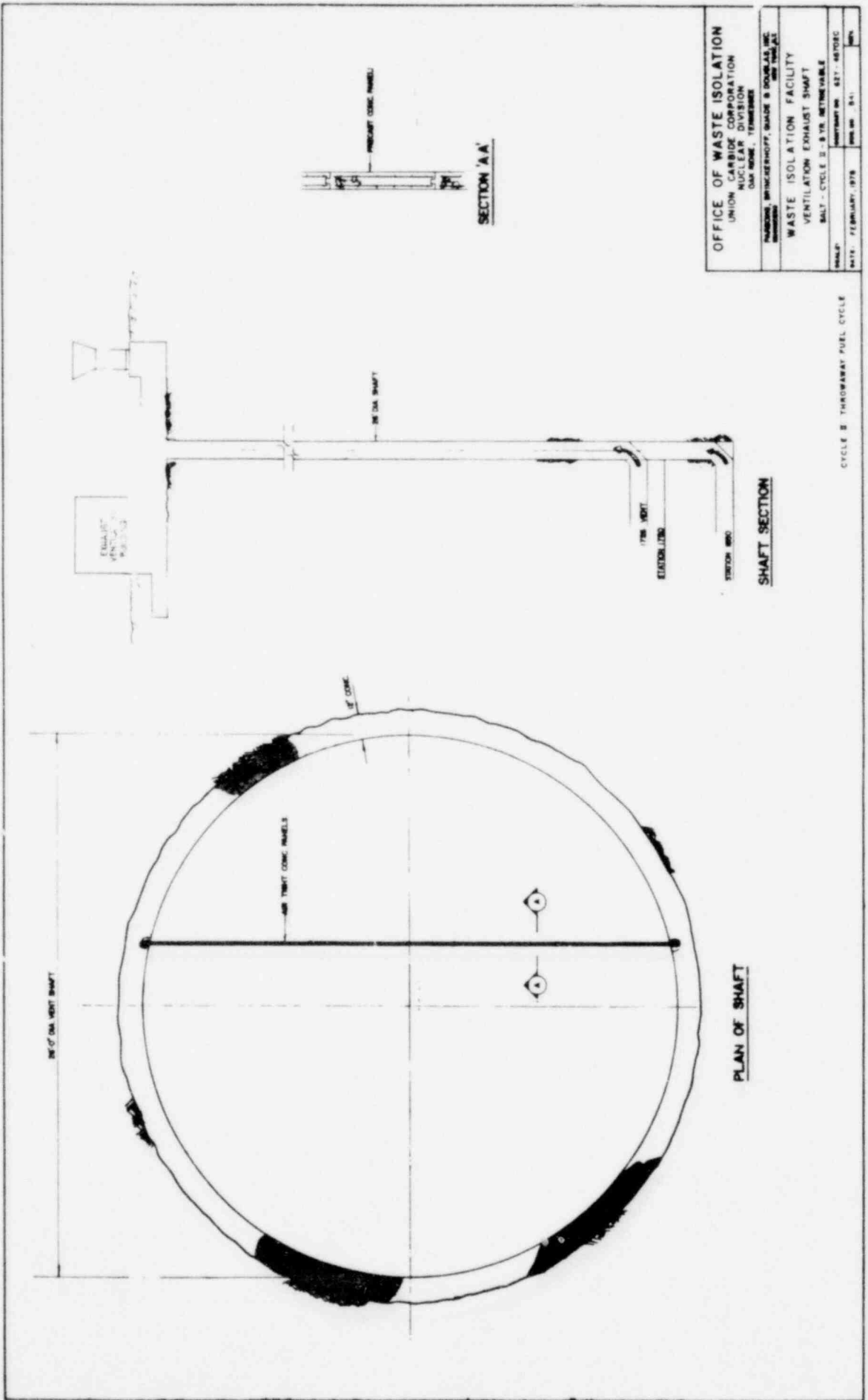


SHAFT SECTION



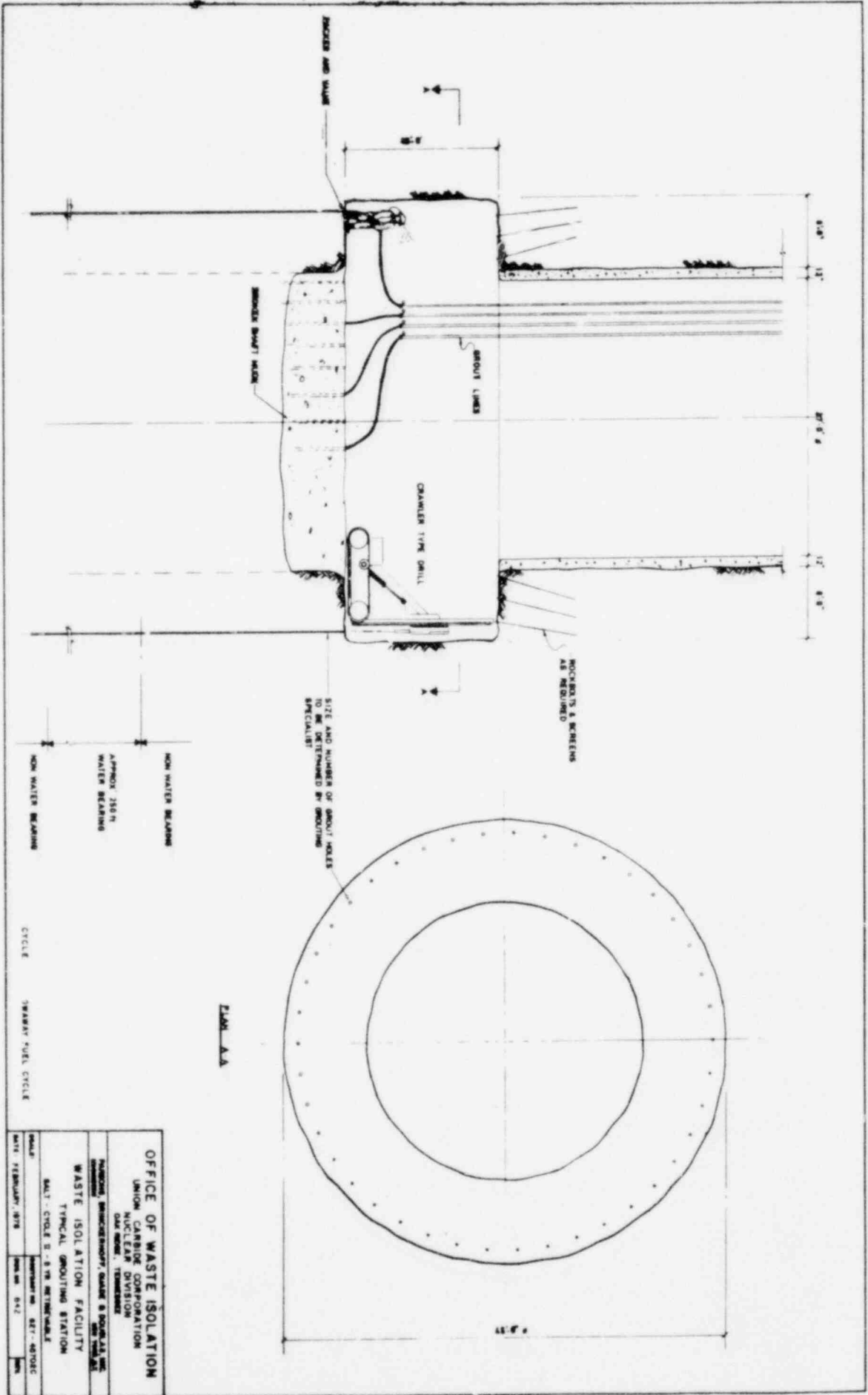
CYCLE B THROUGHPUT FUEL CYCLE

OFFICE OF WASTE ISOLATION			
UNION CARBIDE CORPORATION			
NUCLEAR DIVISION			
OLD SHAFT, TRENCH			
NUMBERS, BRINCKERHOFF, GARDNER & DOUGLAS, INC.			
WASTE ISOLATION FACILITY			
VENTILATION SUPPLY SHAFT			
SALT - CYCLE B - 6 YR RETENTION			
SCALE	DATE	DESIGNED BY	CHKD BY
1/4" = 1'-0"	7/27/78	W. J. C.	J.C.



OFFICE OF WASTE ISOLATION	
UNION CARBIDE CORPORATION	
NUCLEAR DIVISION	
OAK RIDGE, TENNESSEE	
PROJECT: BRUNNENHOFF, SHAFT B DOWNS, INC.	
DRAWING NO. 827-8103C	
WASTE ISOLATION FACILITY	
VENTILATION EXHAUST SHAFT	
SHEET - CYCLE B - 8 YR. RETENABLE	
DATE: FEBRUARY, 1978	DESIGNER: S-1

CYCLE B THROUWAY FUEL CYCLE

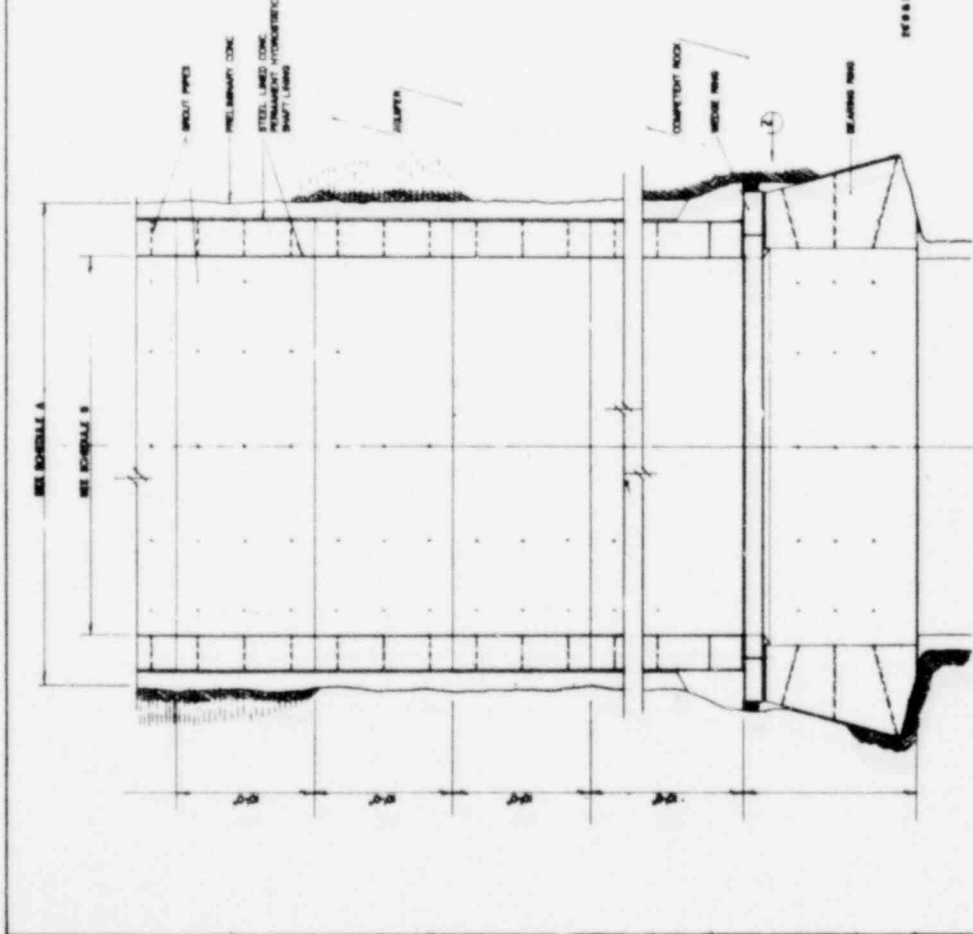


OFFICE OF WASTE ISOLATION
 UNION CARBIDE CORPORATION
 NUCLEAR DIVISION
 DAYTON, OHIO 45424
 PROJECT: BRIDGEPORT, GAULF & DOUGLAS
 WASTE ISOLATION FACILITY
 TYPICAL GROUTING STATION
 DATE: CYCLE 5 - 8 YR. INTERVAL
 DRAWING NO. 57-4070C
 DATE: FEBRUARY, 1978
 SHEET NO. 5-2

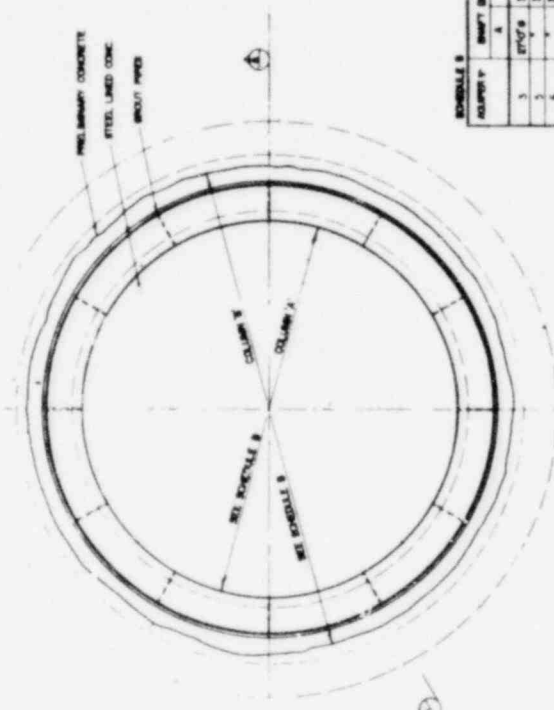
NON WATER BEARING
 APPROX. 150'
 WATER BEARING
 NON WATER BEARING

CYCLE 5
 SWAMPY FUEL CYCLE

PLAN - A-A



SHAFT SECTION A-A



PLAN OF SHAFT

SCHEDULE 8

ADAPTER	SHAFT DIA.	A	B
1	14" x 14"	14" x 14"	14" x 14"
2	14" x 14"	14" x 14"	14" x 14"
3	14" x 14"	14" x 14"	14" x 14"
4	14" x 14"	14" x 14"	14" x 14"
5	14" x 14"	14" x 14"	14" x 14"
6	14" x 14"	14" x 14"	14" x 14"
7	14" x 14"	14" x 14"	14" x 14"
8	14" x 14"	14" x 14"	14" x 14"
9	14" x 14"	14" x 14"	14" x 14"

SCHEDULE 4

ADAPTER STRENGTH OF CONC.	THICKNESS OF CONC.	STEEL LINER MIN. STRENGTH TENSILE STRENGTH	LINER THICKNESS
1	3,000 PSI	80,000 PSI	1"
2	5,000 PSI	80,000 PSI	1"
3	6,000 PSI	80,000 PSI	1 1/2"
4	8,000 PSI	80,000 PSI	1 1/2"
5	3,000 PSI	80,000 PSI	1 1/2"
6	5,000 PSI	80,000 PSI	1 1/2"
7	6,000 PSI	80,000 PSI	3/4"
8	8,000 PSI	80,000 PSI	3/4"

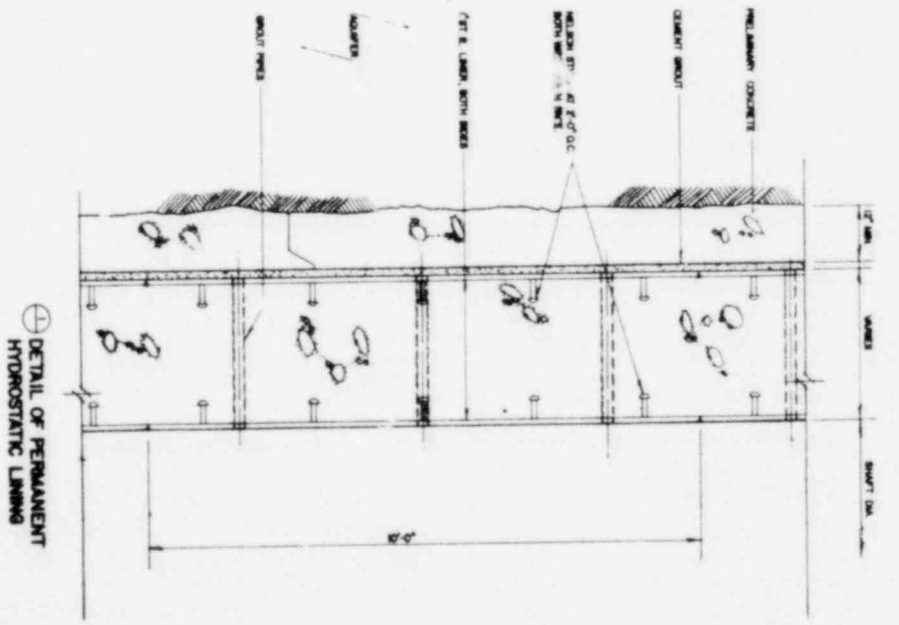
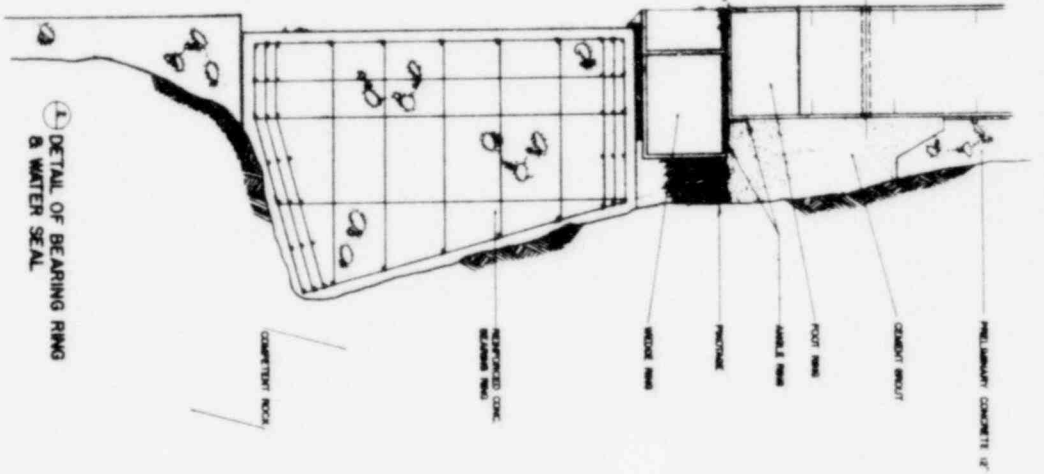
OFFICE OF WASTE ISOLATION
 UNION CARBIDE CORPORATION
 NUCLEAR DIVISION
 OAK RIDGE, TENNESSEE

WASTE ISOLATION FACILITY
 AQUIFER SHAFT DESIGN DETAILS
 SALT - CYCLE 2 - 8TH RETRIEVABLE

SCALE: 1/4" = 1'-0"
 DATE: FEBRUARY, 1978
 DRAWING NO. 827-40702C
 SHEET NO. 2-13

CYCLE 2 THROUGHWAY FUEL CYCLE

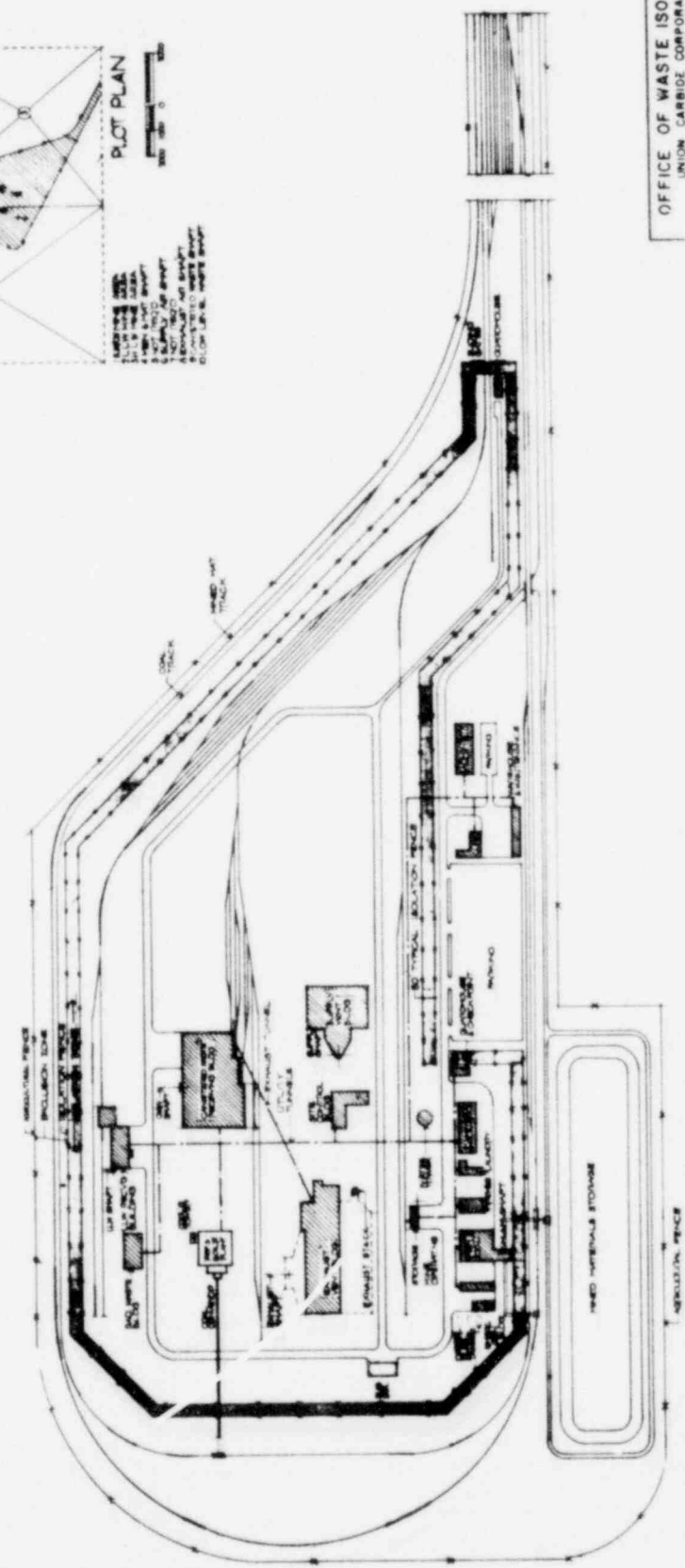
* SEE DWG. NO. 822



⊕ DETAIL OF BEARING RING & WATER SEAL

⊕ DETAIL OF PERMANENT HYDROSTATIC LINING

OFFICE OF WASTE ISOLATION	
UNION CARBIDE CORPORATION	
NUCLEAR DIVISION	
SHELDON, TENNESSEE	
NATIONAL ENGINEERING, QUANT & CONSULTANTS INC.	
WASTE ISOLATION FACILITY	
DETAIL OF HYDROSTATIC LINING	
SHEET - CYCLE B - 319 - RETRIEVABLE	
DATE: FEBRUARY, 1978	SCALE: 1/4" = 1'-0"



OFFICE OF WASTE ISOLATION
 UNION CARBIDE CORPORATION
 NUCLEAR DIVISION
 OAK RIDGE, TENNESSEE

FRANKLIN BRINCKERHOFF, CHAIRMAN & DONALD ASHCROFT, VICE CHAIRMAN

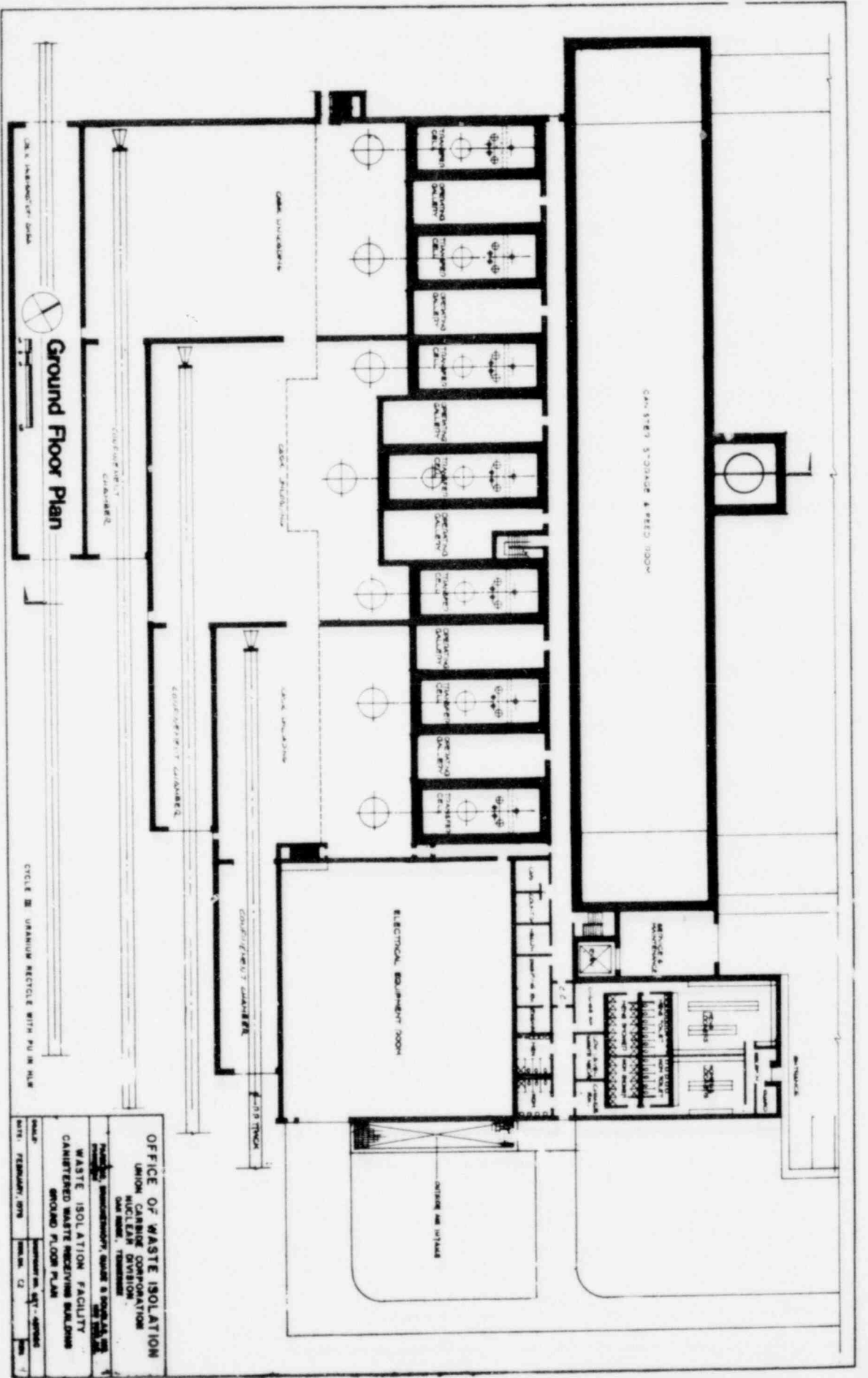
WASTE ISOLATION FACILITY
 REPOSITORY SITE AND PLOT PLAN

SALT - CYCLE III - SITE RETRIEVABLE

SCALE: AS NOTED INSTRUMENT NO. 837-45700C

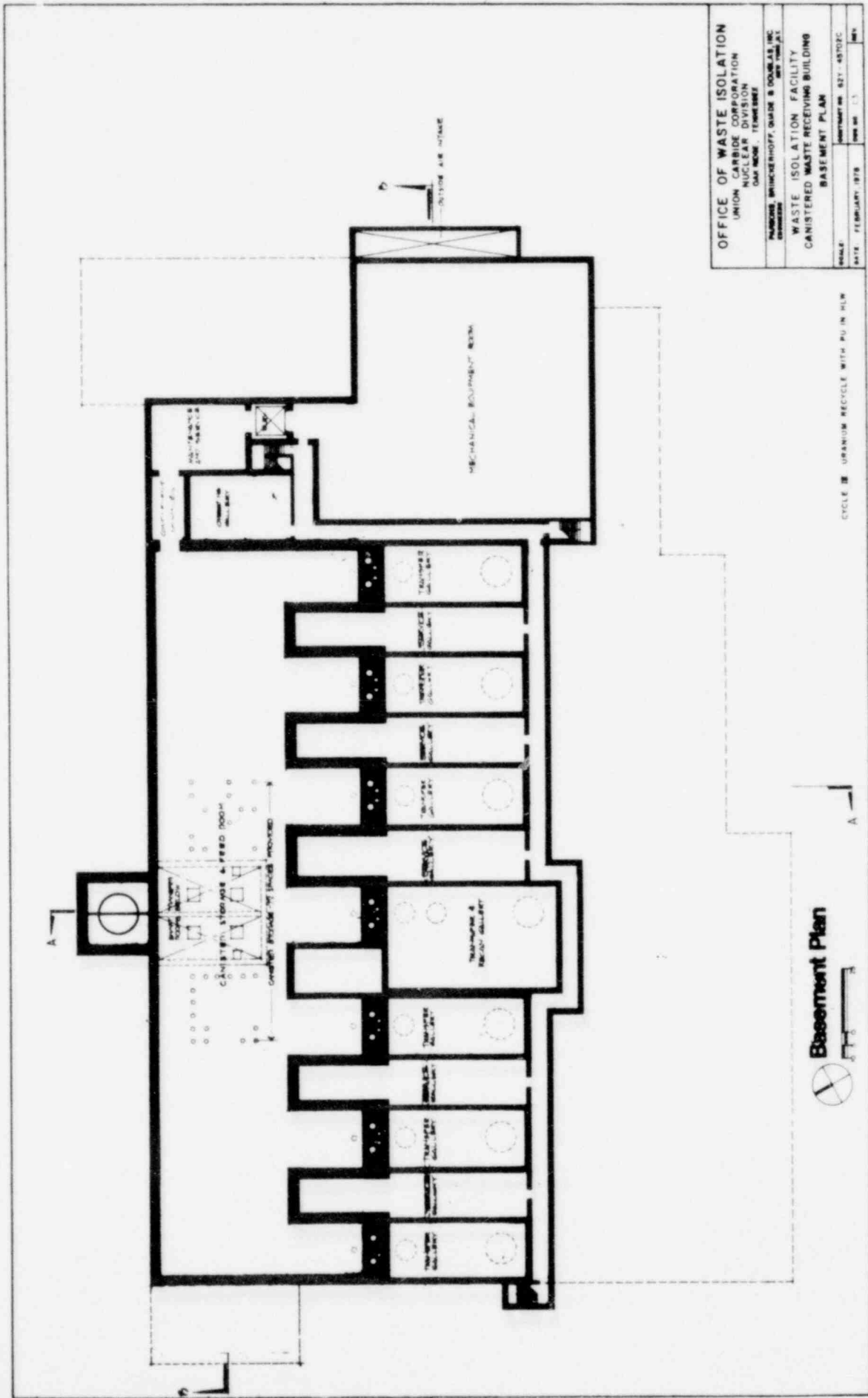
DATE: FEBRUARY, 1979 SHEET NO. C1 10%

CYCLE III - URANIUM RECYCLE WITH PU IN HLW



Ground Floor Plan

OFFICE OF WASTE ISOLATION
 UNION CARBIDE CORPORATION
 NUCLEAR DIVISION
 CHEMISTS, ENGINEERS, SURVEY & DESIGN
WASTE ISOLATION FACILITY
CANISTERED WASTE RECEIVING BUILDING
GROUND FLOOR PLAN
 DATE: FEBRUARY, 1974



OFFICE OF WASTE ISOLATION
 UNION CARBIDE CORPORATION
 NUCLEAR DIVISION
 DAYTON, OHIO 45424

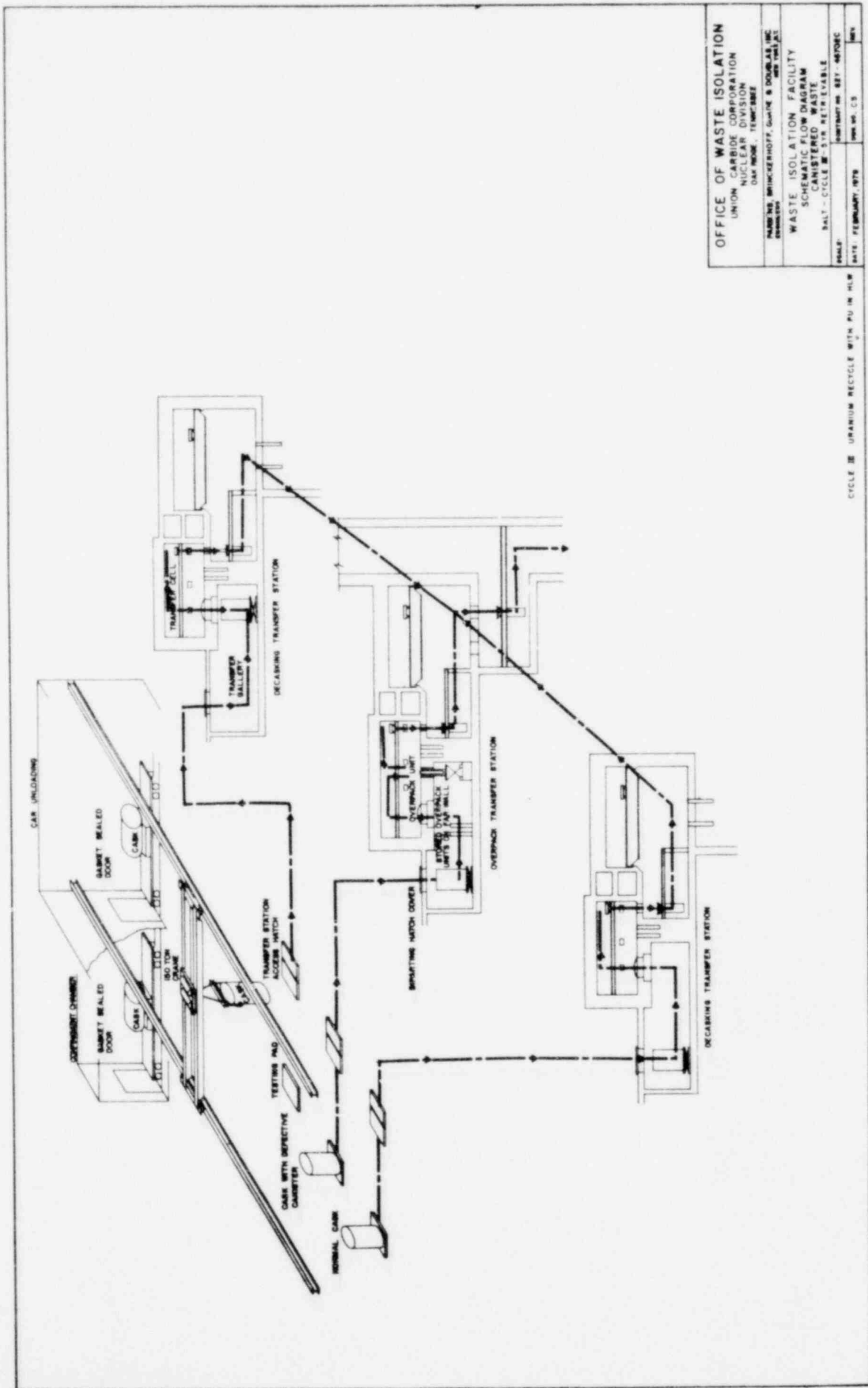
PARSONS BRINCKERHOFF, QUAIN & DOUGLAS, INC.
 ENGINEERS

WASTE ISOLATION FACILITY
 CANISTERED WASTE RECEIVING BUILDING
 BASEMENT PLAN

SCALE: 1/8" = 1'-0"
 DATE: FEBRUARY, 1979

Basement Plan

CYCLE III URANIUM RECYCLE WITH PU IN HLW



OFFICE OF WASTE ISOLATION
 UNION CARBIDE CORPORATION
 NUCLEAR DIVISION
 OAK RIDGE, TENNESSEE

FRANKS BRUCKERHOFF, GEORGE S. DOUGLAS, INC.
 MEMPHIS, TENNESSEE

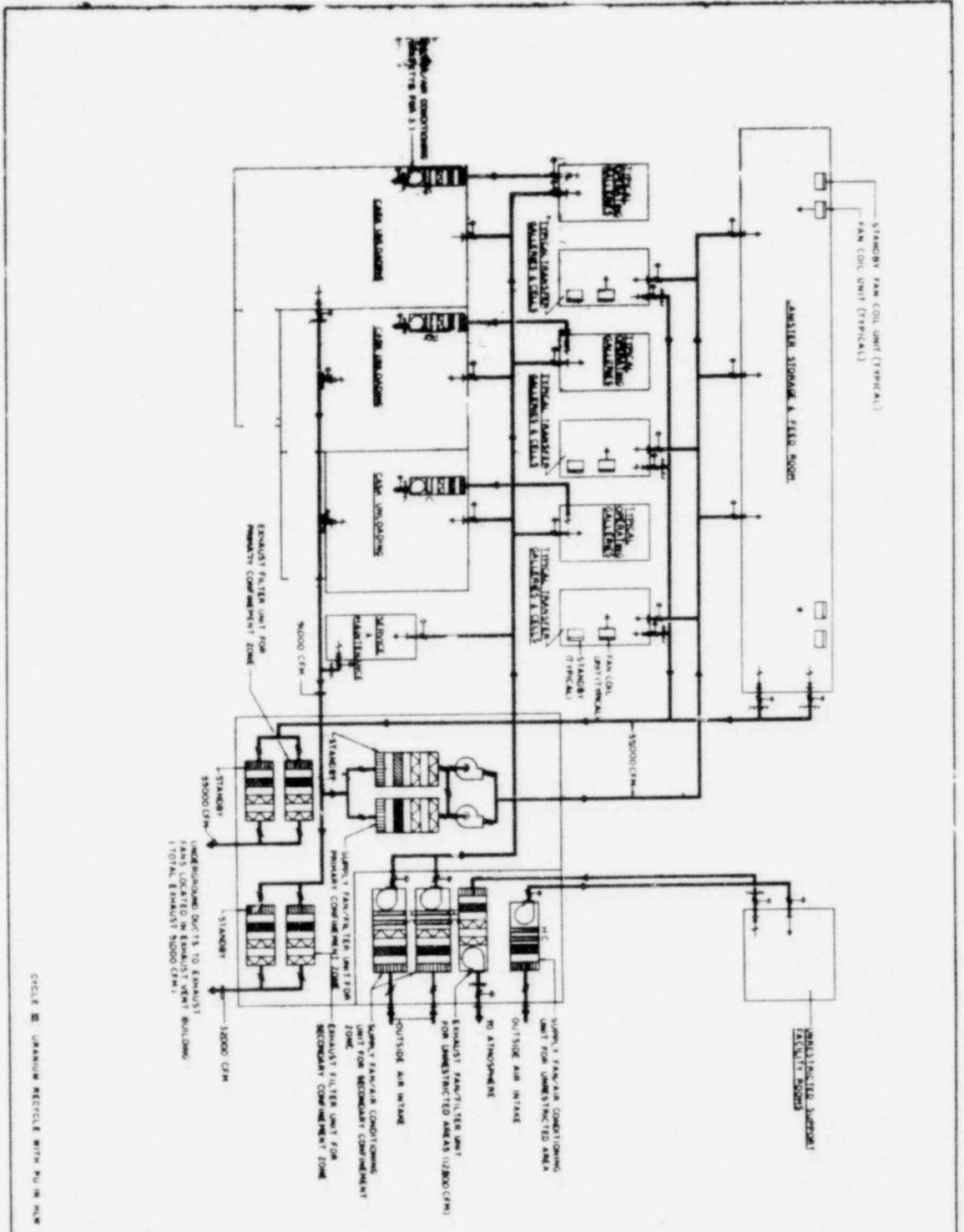
WASTE ISOLATION FACILITY
 SCHEMATIC FLOW DIAGRAM
 CANISTERED WASTE
 BULK - CYCLE W - 518 RETR EVABLE

SCALE: CONTRACT NO. BEY-46708C

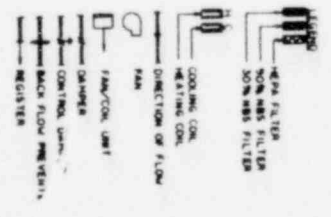
DATE: FEBRUARY, 1978

FIG. NO. 13

CYCLE III URANIUM RECYCLE WITH PU IN HLW



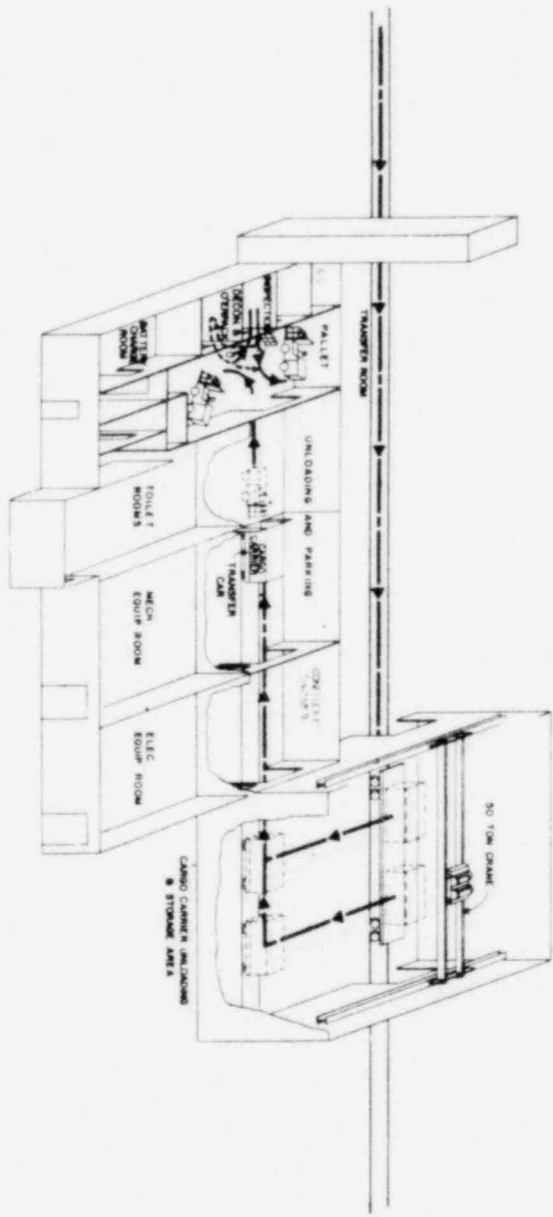
CIRCLE 22 URANIUM RECYCLE WITH PU IN HLW



OFFICE OF WASTE ISOLATION
 UNION CARBIDE CORPORATION
 NUCLEAR DIVISION
 OAK RIDGE, TENNESSEE

WASTE ISOLATION FACILITY

PROJECT: URANIUM RECYCLE WITH PU IN HLW
 DRAWING NO: WIS-4570-1
 DATE: 10/15/78

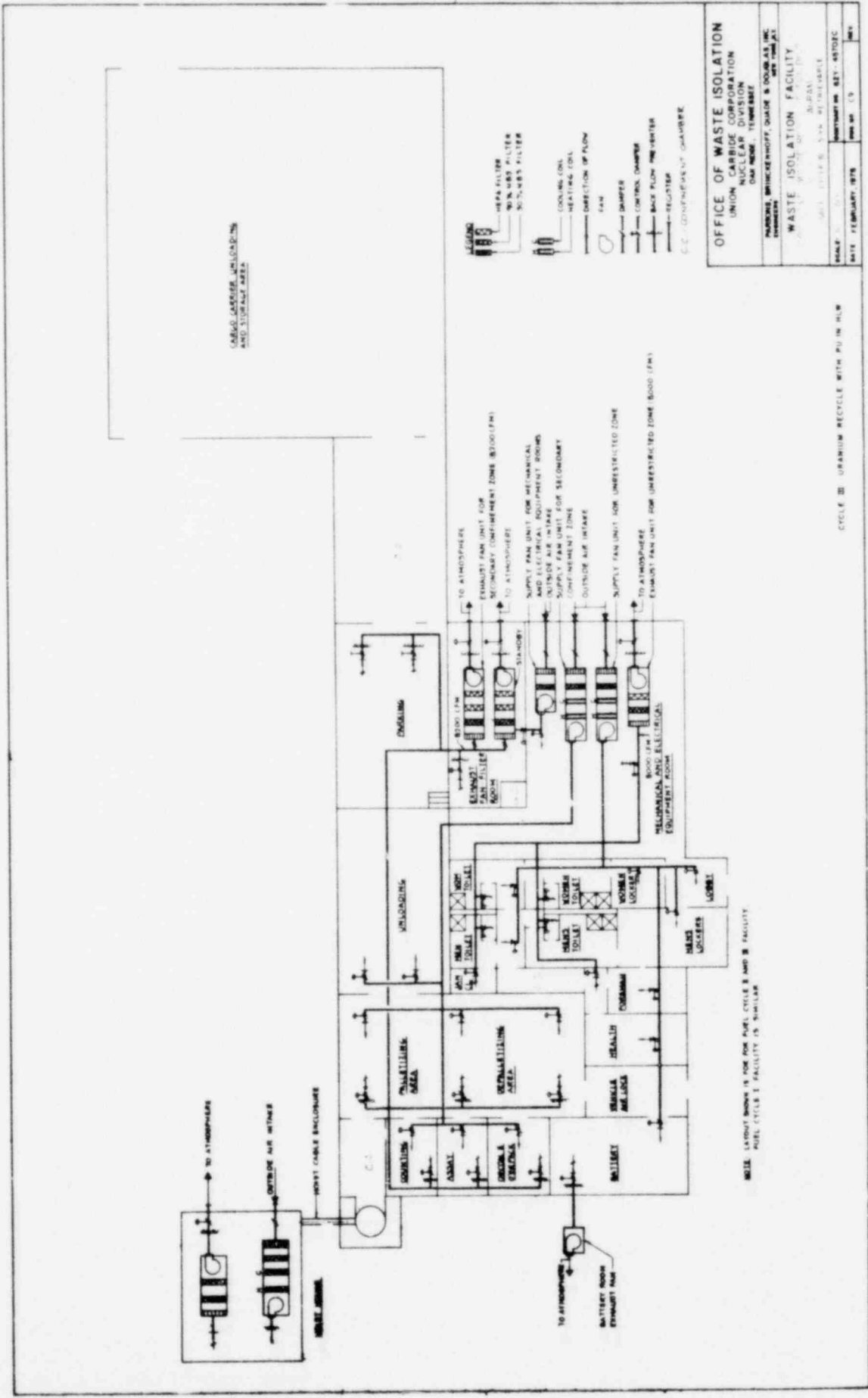


CIRCLE 33 URANIUM RECYCLE WITH PU IN CLR

OFFICE OF WASTE ISOLATION
 UNION CARBIDE CORPORATION
 NUCLEAR DIVISION
 DAYTON, TENNESSEE

PROJECT: BRIDGEVIEW, GRADE 3 SOUTH
 WASTE ISOLATION FACILITY
 SCHEMATIC FLOOR DRAWING
 LOW LEVEL WASTE (LLW) BUILDING
 CALL CIRCLE 33 FOR DETAILS

DATE: FEBRUARY 1978



ORANGE LABORER, UNLOADING AND STORAGE AREA

- LEGEND**
- HEPA FILTER
 - W.N.W.S. FILTER
 - S.N.W.S. FILTER
 - COOLING COIL
 - HEATING COIL
 - DIRECTION OF FLOW
 - FAN
 - CONTROL CHAMBER
 - BACK FLOW PREVENTER
 - REGULATOR
 - C.C. COMPENSATED DAMPER

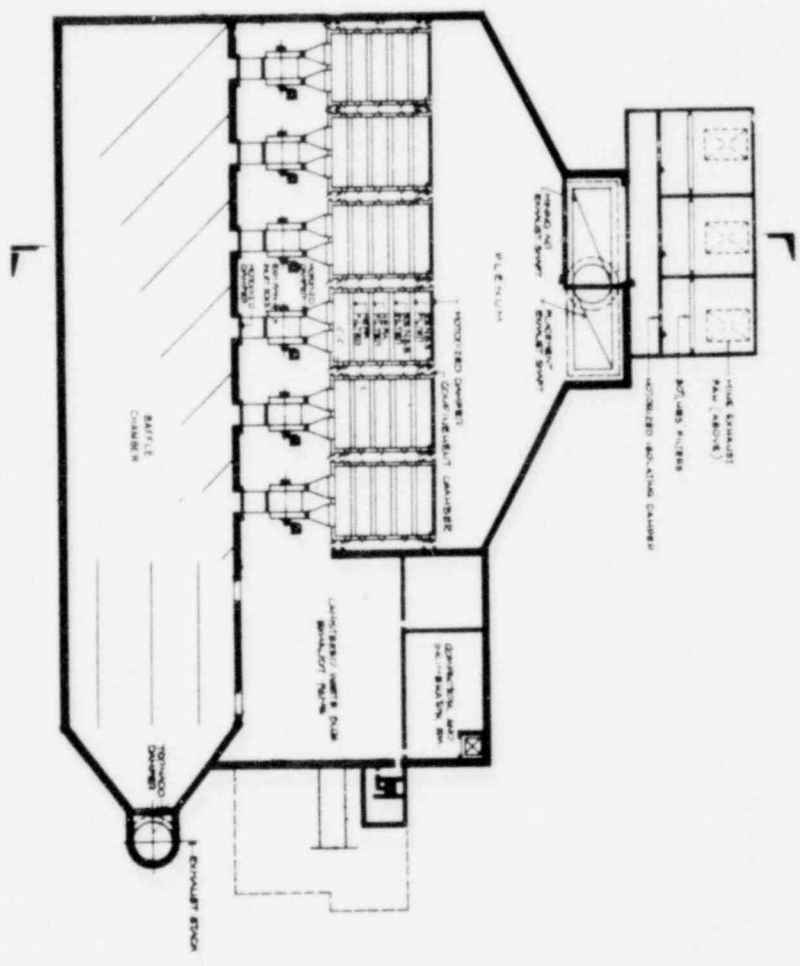
OFFICE OF WASTE ISOLATION
 UNION CARBIDE CORPORATION
 NUCLEAR DIVISION
 DAYTON, TENNESSEE

WASTE ISOLATION FACILITY
 3000 W. 10TH ST.
 DAYTON, OHIO 45424

DATE: FEBRUARY 1978

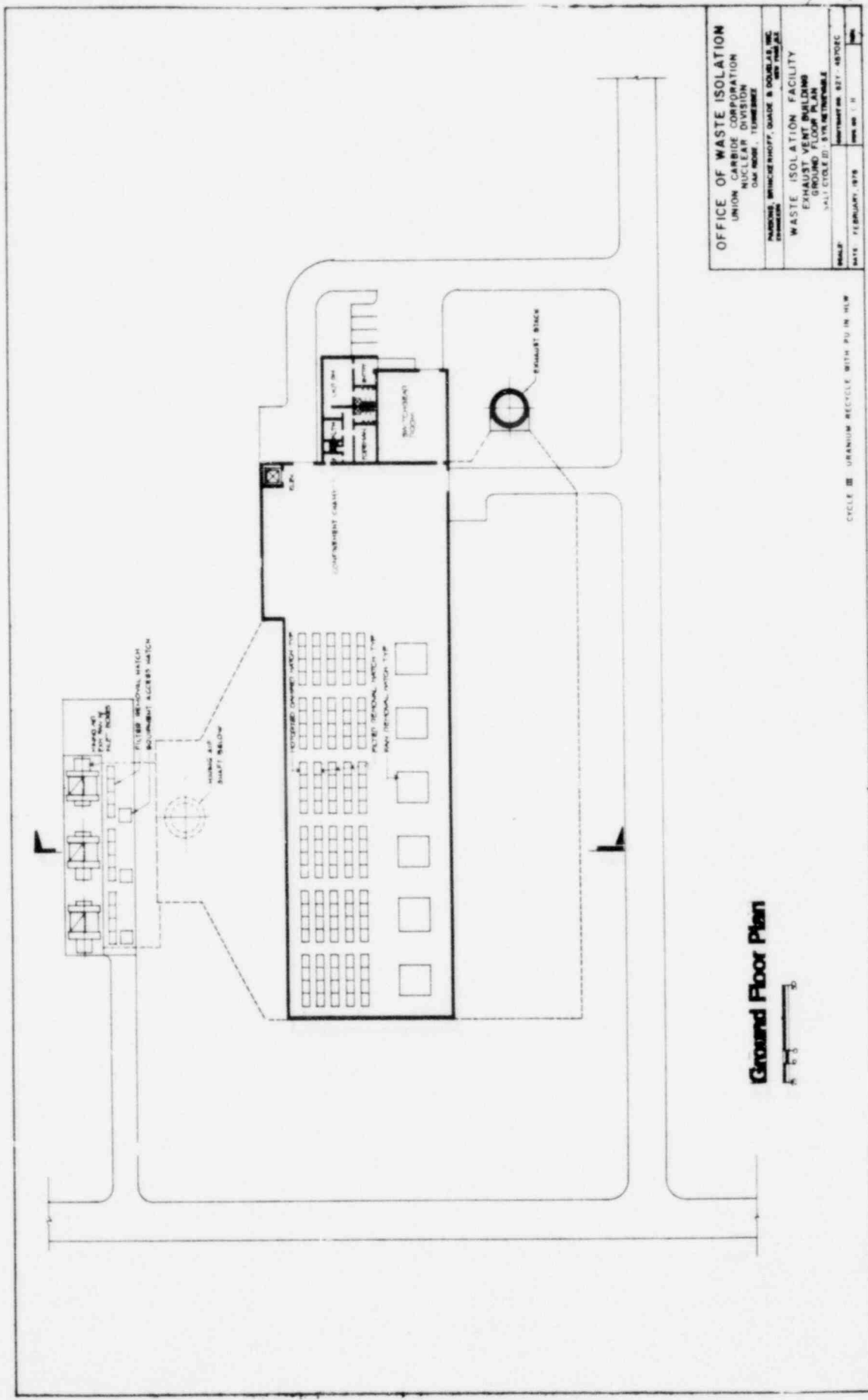
CYCLE III URANIUM RECYCLE WITH PU IN HLW

WEEK LAYOUT SHOWN IS FOR ONE FULL CYCLE I AND II FACILITY.
 FULL CYCLE I FACILITY IS SHOWN



CYCLE 28 URANIUM RECYCLE WITH PU IN HLW

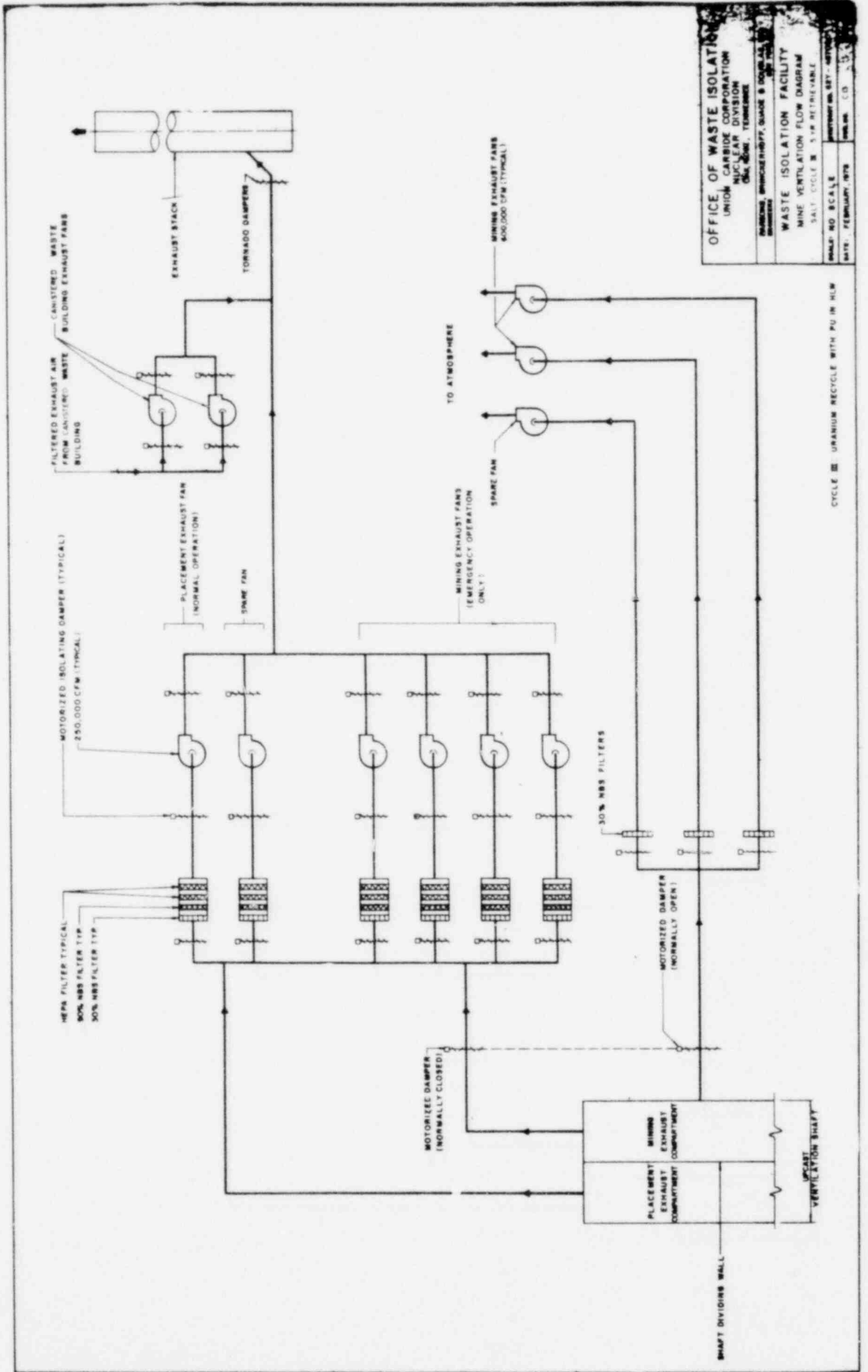
OFFICE OF WASTE ISOLATION UNION CARBIDE CORPORATION NUCLEAR DIVISION ONE MOORE TOWER MEMPHIS, TENNESSEE	
WASTE ISOLATION FACILITY EXHAUST VENT BUILDING / BASEMENT PLAN SCALE: 1/4" = 1'-0"	
DRAWN BY: [Name] CHECKED BY: [Name]	DATE: FEBRUARY, 1978



Ground Floor Plan

OFFICE OF WASTE ISOLATION	
UNION CARBIDE CORPORATION	ORIGINATION
WASTECORP	PROJECT DESIGN
DAVID W. BRINCKHOFF, QUINCY & ASSOCIATES INC.	DATE: 02-11-78
WASTE ISOLATION FACILITY	EXPANSION
GROUND FLOOR PLAN	SCALE: 1/8" = 1'-0"
DATE: FEBRUARY, 1978	PROJECT NO. 837-48708C

CYCLE III URANIUM RECYCLE WITH PU IN NEW

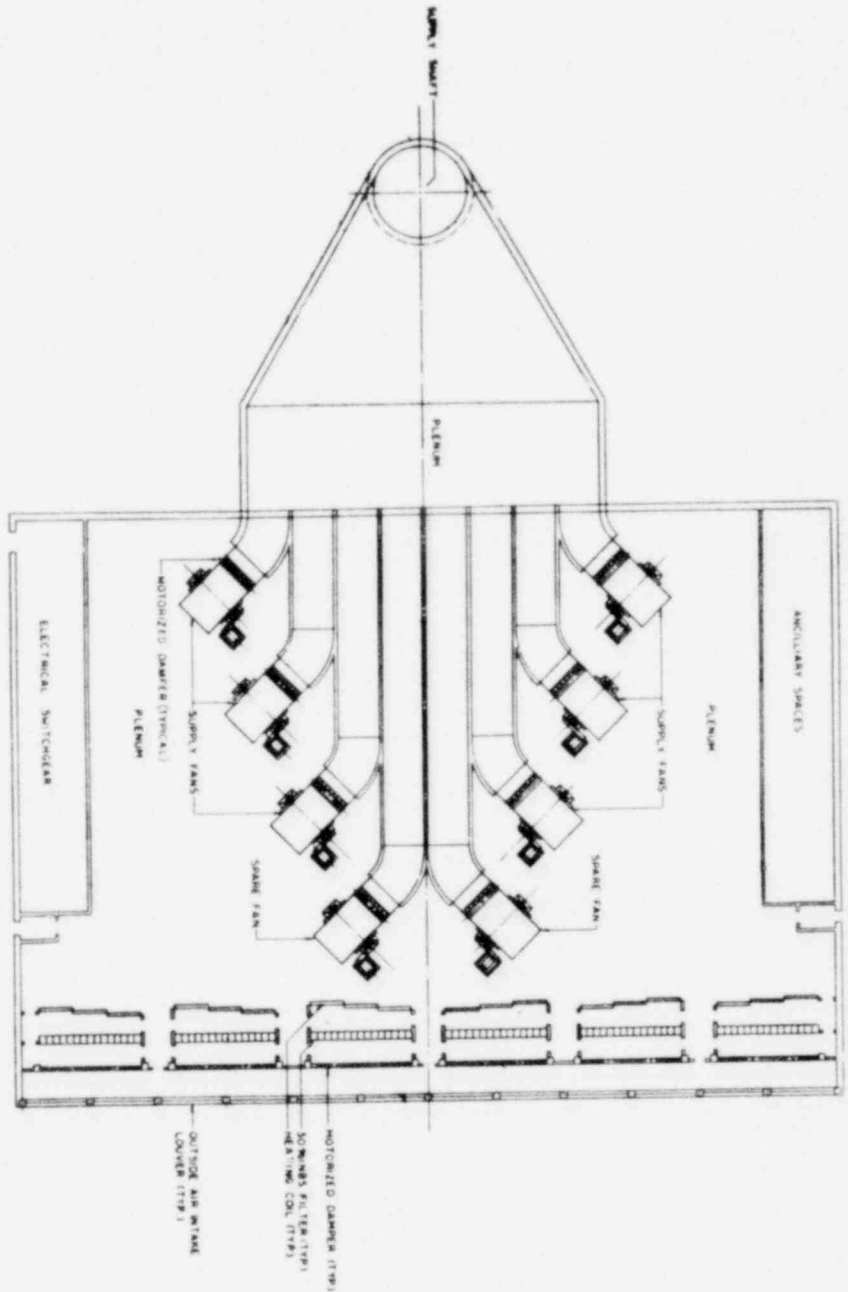


OFFICE OF WASTE ISOLATION
 UNION CARBIDE CORPORATION
 NUCLEAR DIVISION
 OIL, CHEM. & THERMOPLASTICS
 4700 N. BRIDGE STREET, SUITE 800, DENVER, CO 80216

WASTE ISOLATION FACILITY
 MINE VENTILATION FLOW DIAGRAM
 SALT CYCLE III 5.1M RETRIEVABLE

SCALE: 1/4" = 1'-0"
DATE: FEBRUARY, 1978
REV. NO.: 03

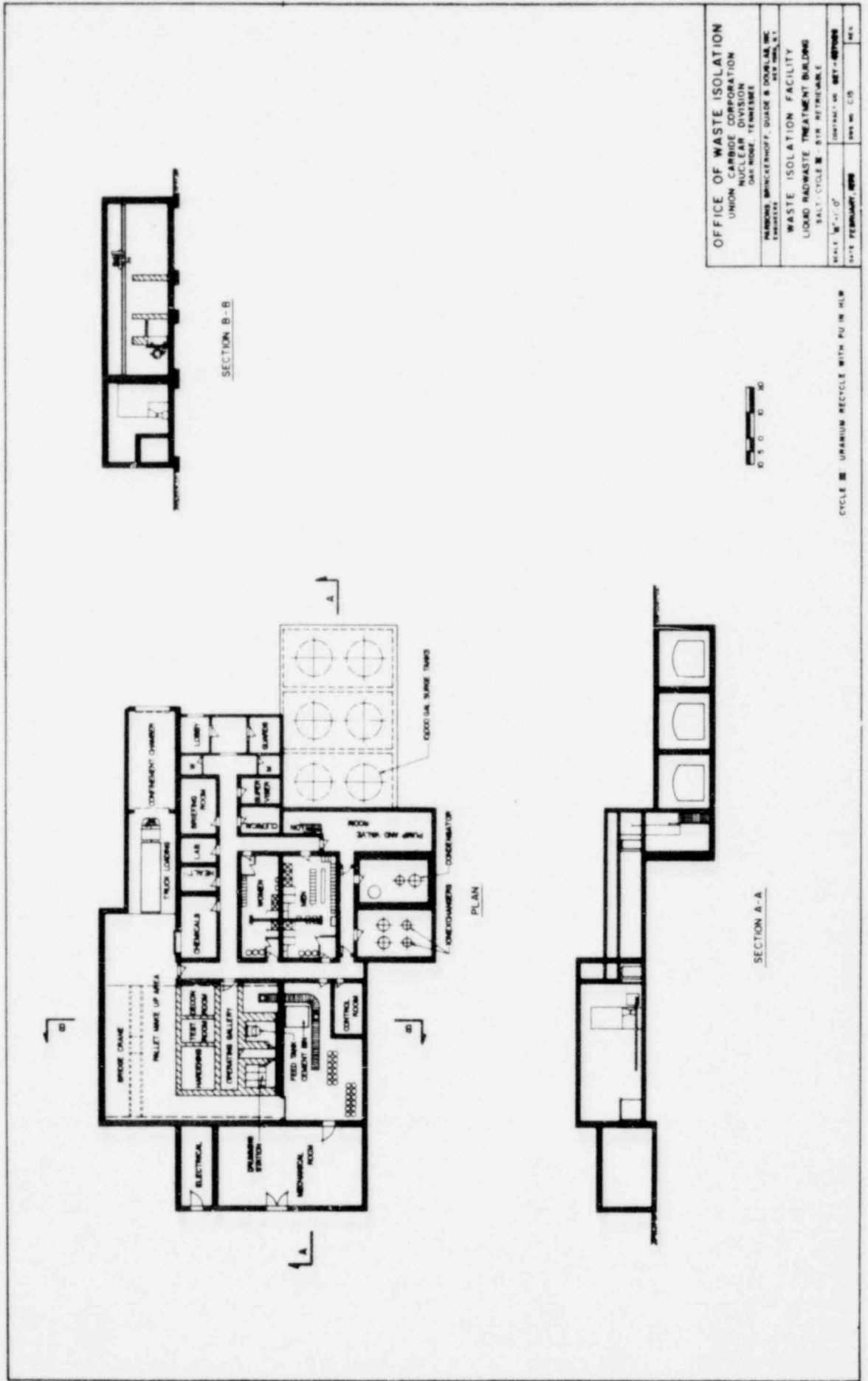
CYCLE III URANIUM RECYCLE WITH PU IN HLW



FLOOR PLAN
0 25

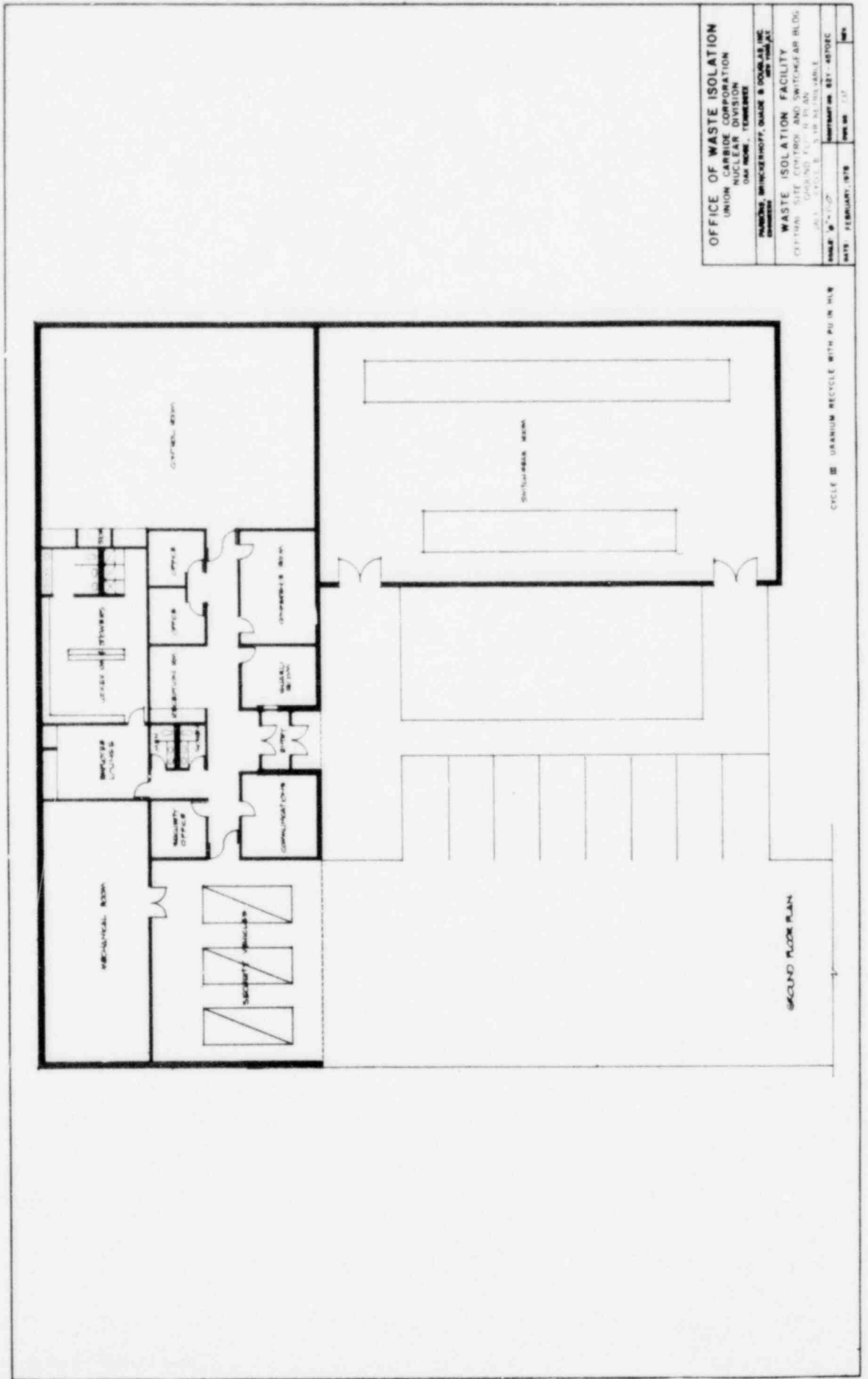
CIRCLE 22 UNRAIL MEDICAL WITH PU IN NEW

OFFICE OF WASTE ISOLATION	
NUCLEAR ENERGY RESEARCH & DEVELOPMENT	
UNION NUCLEAR DIVISION	
OAK RIDGE, TENNESSEE	
WASTE ISOLATION FACILITY	
SCHEMATIC DEVELOPMENT	
SHEET: CYCLE 22, SIDE OF FACILITY	
DATE: 7/7/64	BY: [Signature]



OFFICE OF WASTE ISOLATION		UNION CARBIDE CORPORATION	
NUCLEAR DIVISION		DAK BROS. TENNESSEE	
WASTE ISOLATION FACILITY		LIQUID WASTE TREATMENT BUILDING	
SCALE 1/4" = 1'-0"		DATE FEBRUARY, 1959	
DESIGNED BY: HARRISON BRINCKERHOFF, GUIDO B. DONALDI, INC.		CONTRACT NO. WET-670000	
ENGINEER		REV. NO. C13	
		SHEET NO. 14	

CYCLE III URANIUM RECYCLE WITH PU IN HLW

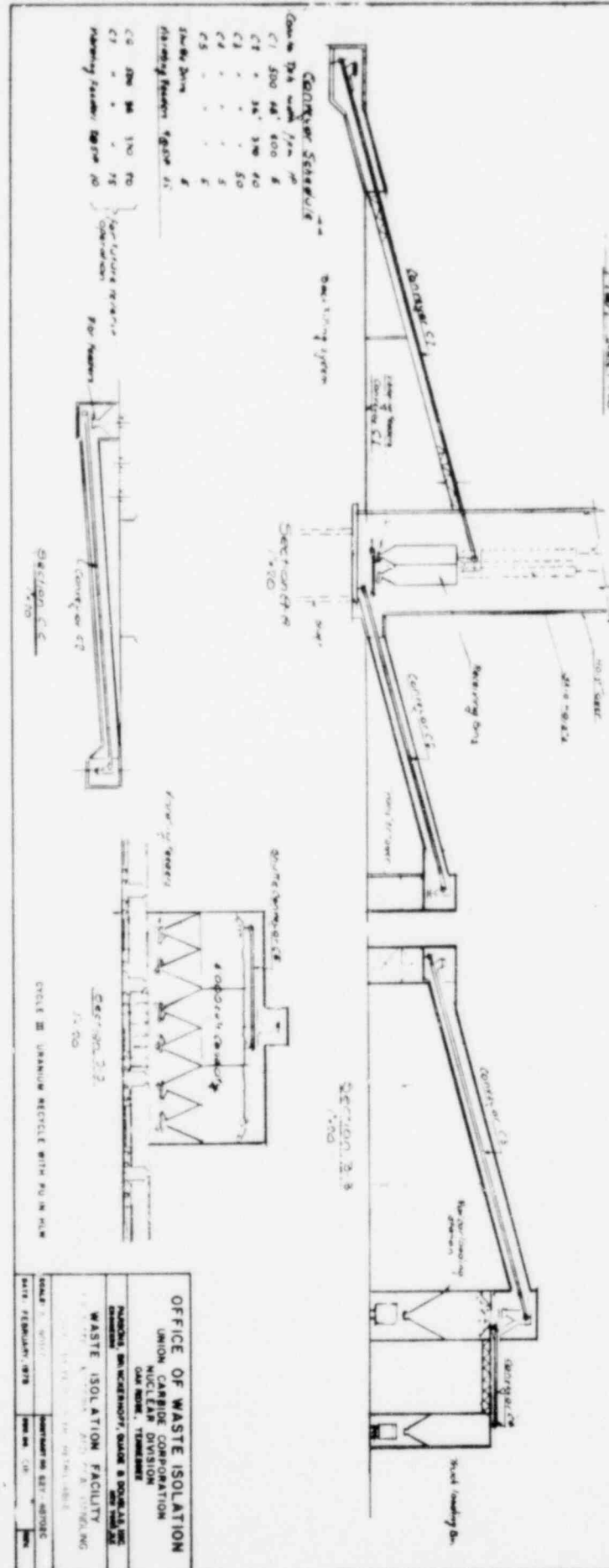
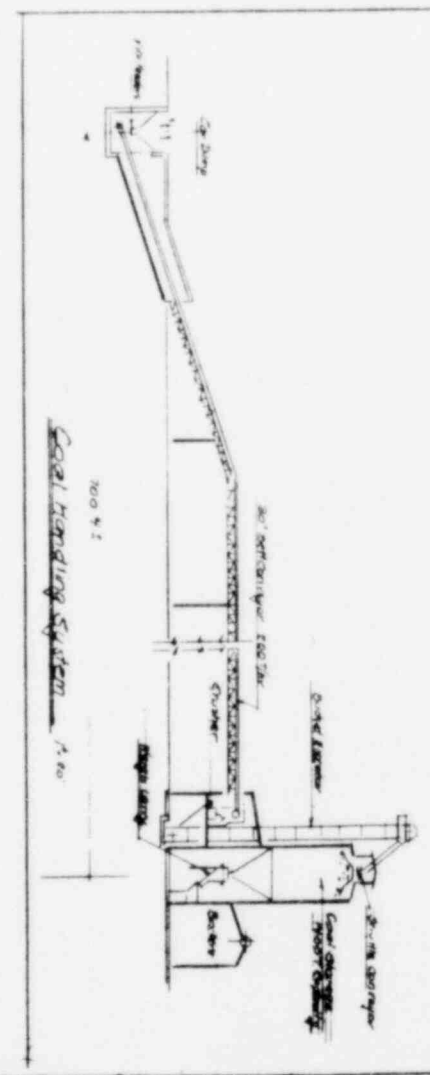
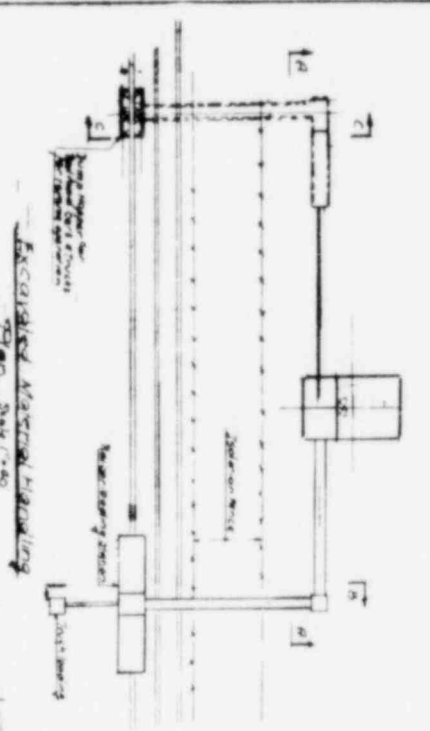


OFFICE OF WASTE ISOLATION
 UNION CARBIDE CORPORATION
 NUCLEAR DIVISION
 ONE NORTON, FERRISBURGH

WASTE ISOLATION FACILITY
 OFFICE: SITE CONTROL AND SWITCHGEAR BLDG
 OFFICE: SITE CONTROL AND SWITCHGEAR BLDG
 OFFICE: SITE CONTROL AND SWITCHGEAR BLDG

DATE: FEBRUARY, 1978

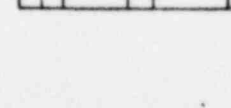
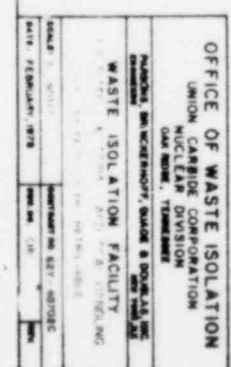
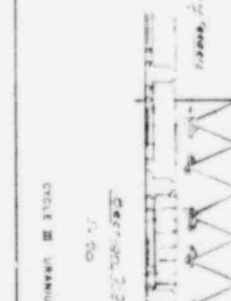
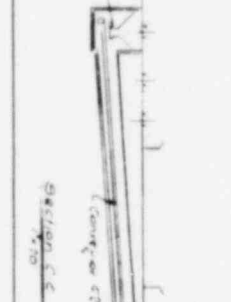
CYCLE 15 URANIUM RECYCLE WITH PU IN HLW

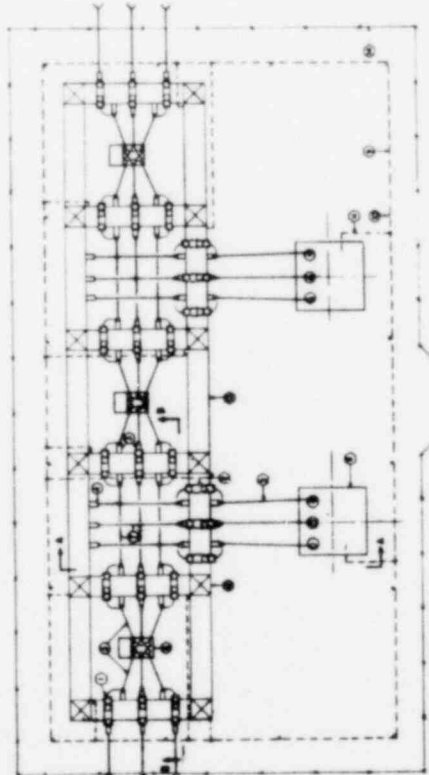


OFFICE OF WASTE ISOLATION
 NUCLEAR REGULATORY COMMISSION
 WASTE ISOLATION FACILITY
 SCALE: 1/8" = 1'-0"
 DATE: FEBRUARY, 1978

Conveyor Section Data

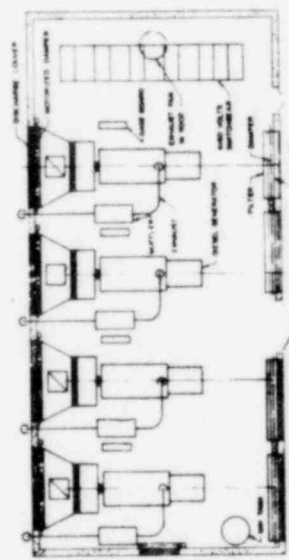
Section	Length (ft)	Height (ft)	Width (ft)
C1	200	40	40
C2	300	30	50
C3	300	30	50
C4	300	30	50
C5	300	30	50
C6	300	30	50
C7	300	30	50
C8	300	30	50
C9	300	30	50
C10	300	30	50
C11	300	30	50
C12	300	30	50
C13	300	30	50
C14	300	30	50
C15	300	30	50
C16	300	30	50
C17	300	30	50
C18	300	30	50
C19	300	30	50
C20	300	30	50
C21	300	30	50
C22	300	30	50
C23	300	30	50
C24	300	30	50
C25	300	30	50
C26	300	30	50
C27	300	30	50
C28	300	30	50
C29	300	30	50
C30	300	30	50
C31	300	30	50
C32	300	30	50
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C36	300	30	50
C37	300	30	50
C38	300	30	50
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C40	300	30	50
C41	300	30	50
C42	300	30	50
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C44	300	30	50
C45	300	30	50
C46	300	30	50
C47	300	30	50
C48	300	30	50
C49	300	30	50
C50	300	30	50



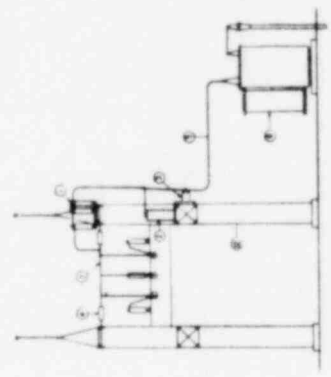


SUB-STATION PLAN

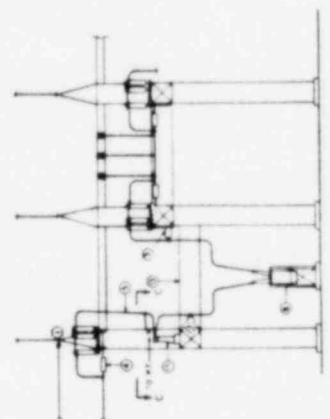
ITEM	DESCRIPTION
1	1/2" DIA. 10' LONG
2	1/2" DIA. 10' LONG
3	1/2" DIA. 10' LONG
4	1/2" DIA. 10' LONG
5	1/2" DIA. 10' LONG
6	1/2" DIA. 10' LONG
7	1/2" DIA. 10' LONG
8	1/2" DIA. 10' LONG
9	1/2" DIA. 10' LONG
10	1/2" DIA. 10' LONG
11	1/2" DIA. 10' LONG
12	1/2" DIA. 10' LONG
13	1/2" DIA. 10' LONG
14	1/2" DIA. 10' LONG
15	1/2" DIA. 10' LONG
16	1/2" DIA. 10' LONG



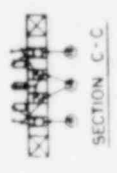
STANDBY GENERATOR



SECTION A-A



SECTION B-B



SECTION C-C

OFFICE OF WASTE ISOLATION
 UNION CARBIDE CORPORATION
 NUCLEAR DIVISION
 DAYTON, OHIO 45424

WASTE ISOLATION FACILITY
 MAIN ELECTRICAL SUBSTATION
 AND STANDBY GENERATOR

DATE: FEBRUARY, 1978

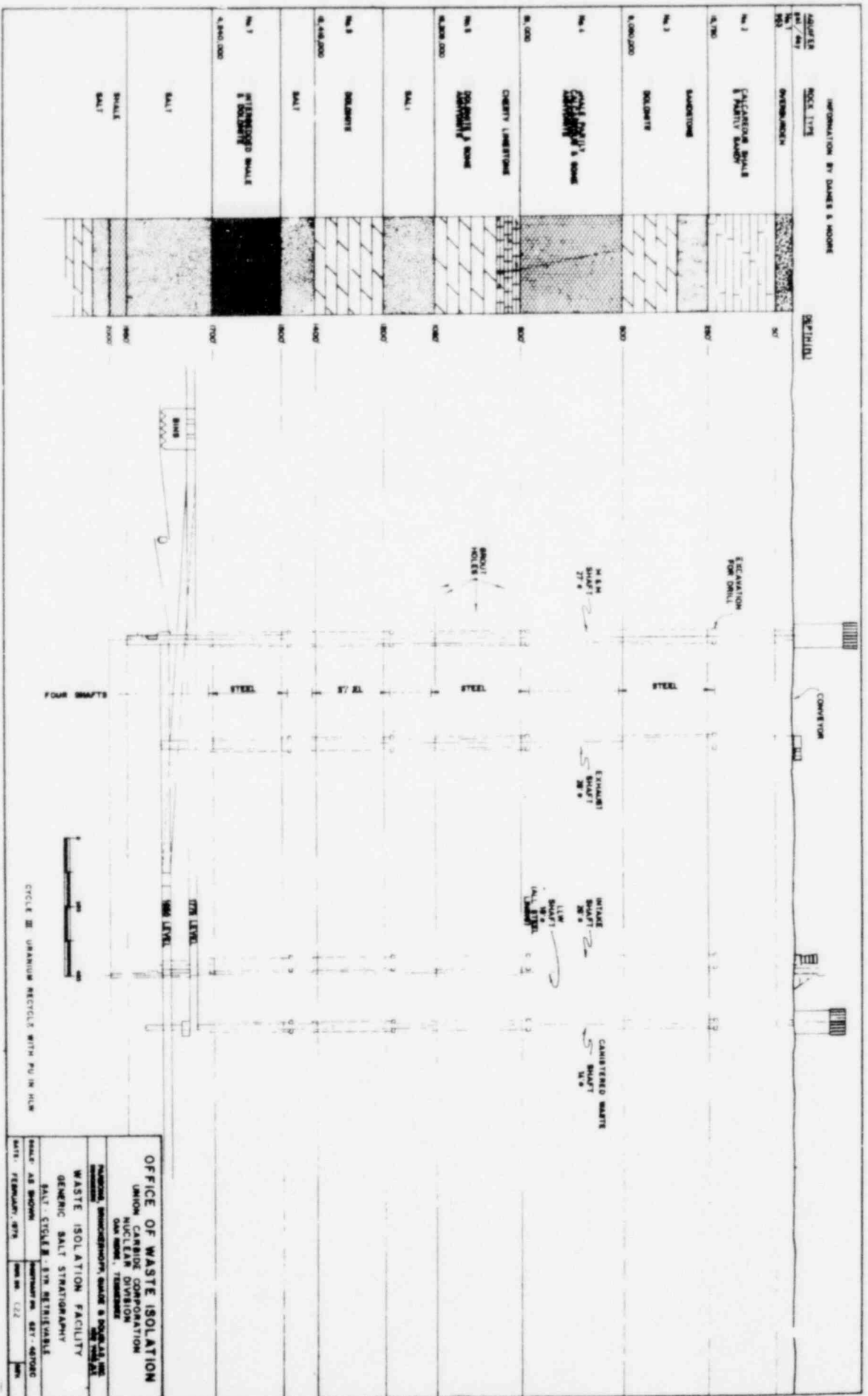
SCALE: 1/4" = 1'-0"

PROJECT NO: 837-4570FC

REV: 1.01

CYCLE: URANIUM RECYCLE WITH PU IN NLP

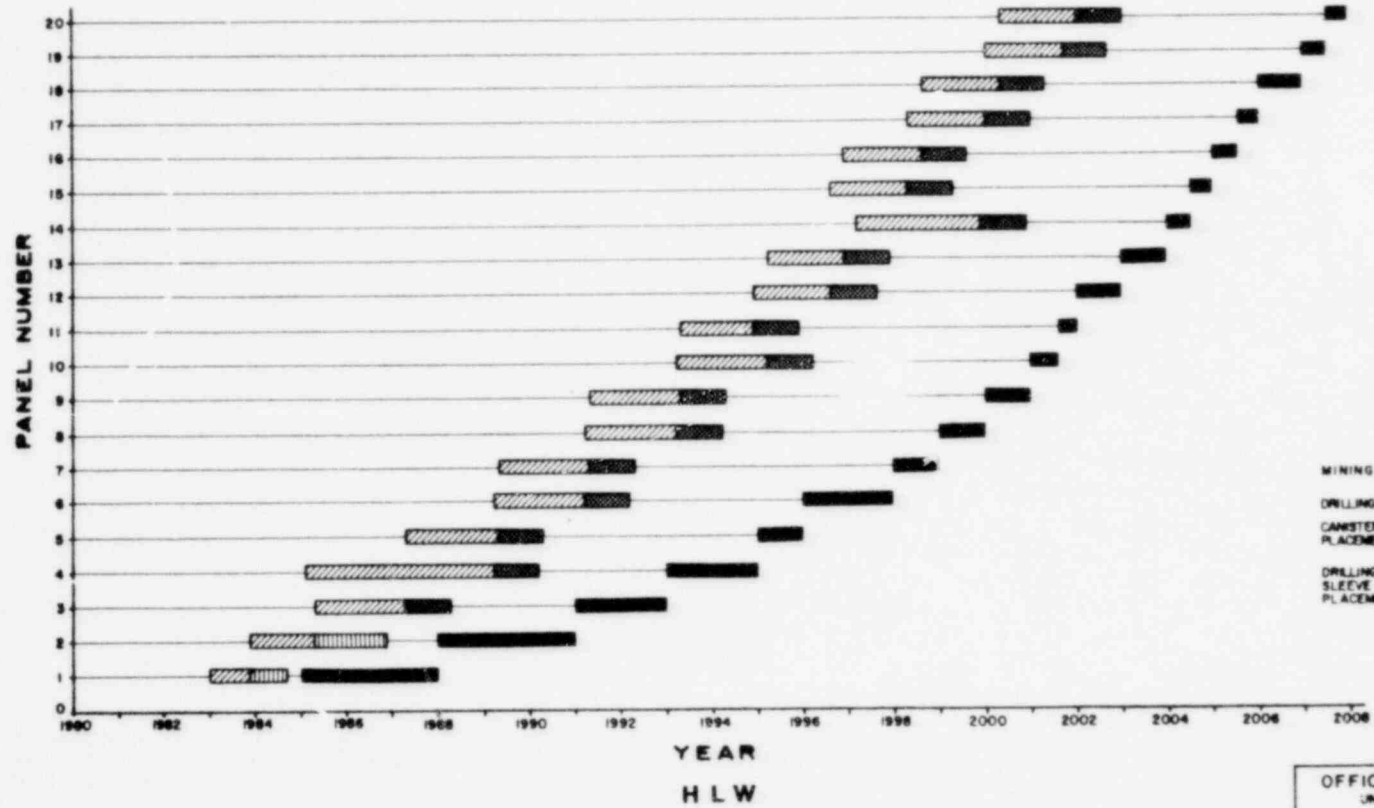
INFORMATION BY LAMER & MOORE



OFFICE OF WASTE ISOLATION
 NATIONAL SURVEILLANCE, QUANTIFICATION & CONTROL UNIT
 UNION CARBIDE CORPORATION
 NUCLEAR DIVISION
 ONE WAY, TENNESSEE
WASTE ISOLATION FACILITY
 GENERAL SALT STRATIGRAPHY
 SALT - STICKLE - STR. STRATIGRAPHY
 SHEET AS SHOWN
 SHEET NO. 22

MINING AND PLACEMENT SCHEDULE

SALT-CYCLE III - 5 YEARS RETRIEVABLE



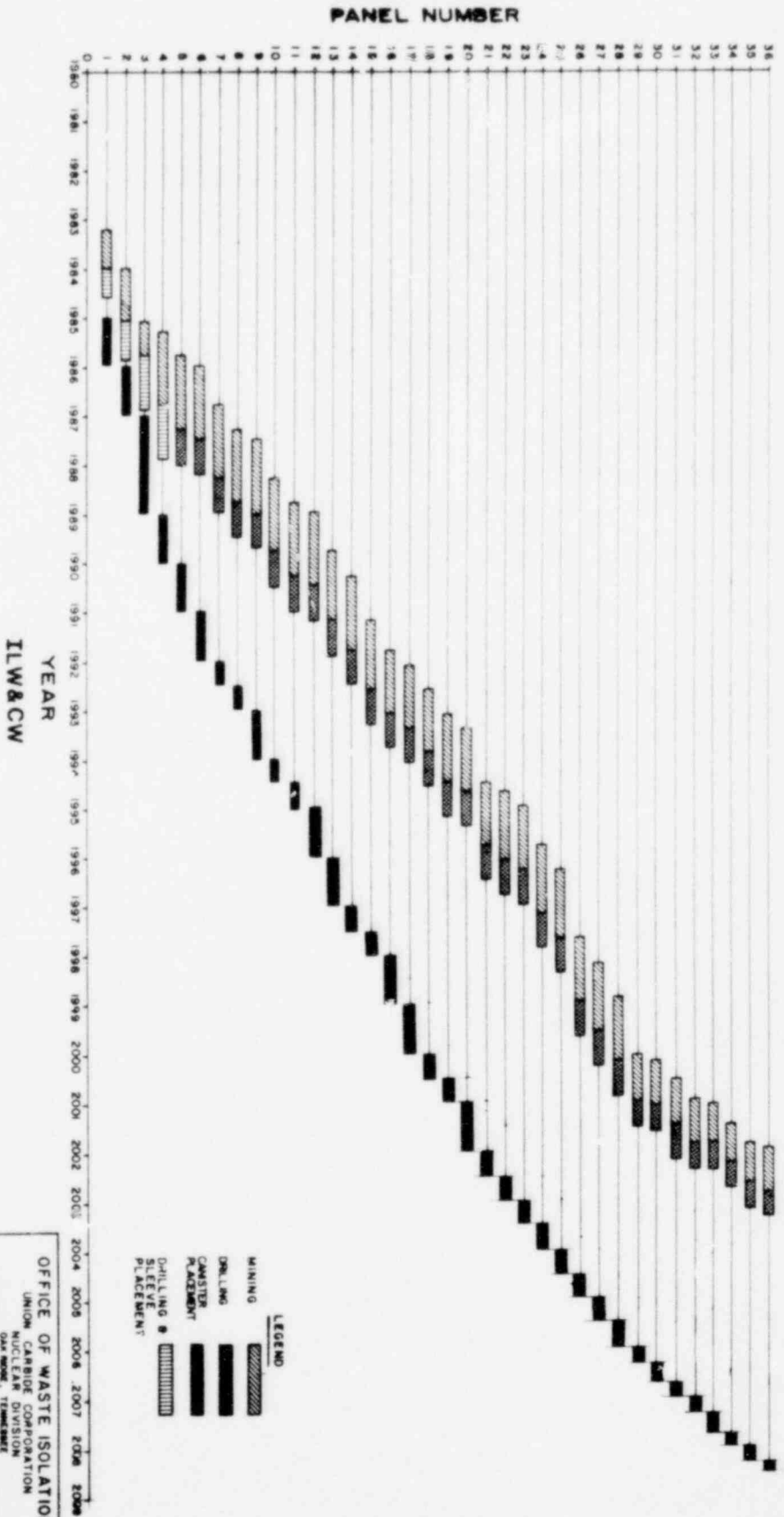
OFFICE OF WASTE ISOLATION
 UNION CARBIDE CORPORATION
 NUCLEAR DIVISION
 OAK RIDGE, TENNESSEE

PARSONS, BRINCKERHOFF, QUADE & DOUGLAS, INC.
 ENGINEERS

WASTE ISOLATION FACILITY
 HLW MINING AND PLACEMENT SCHEDULE
 SALT-CYCLE III - 5 YR RETRIEVABLE

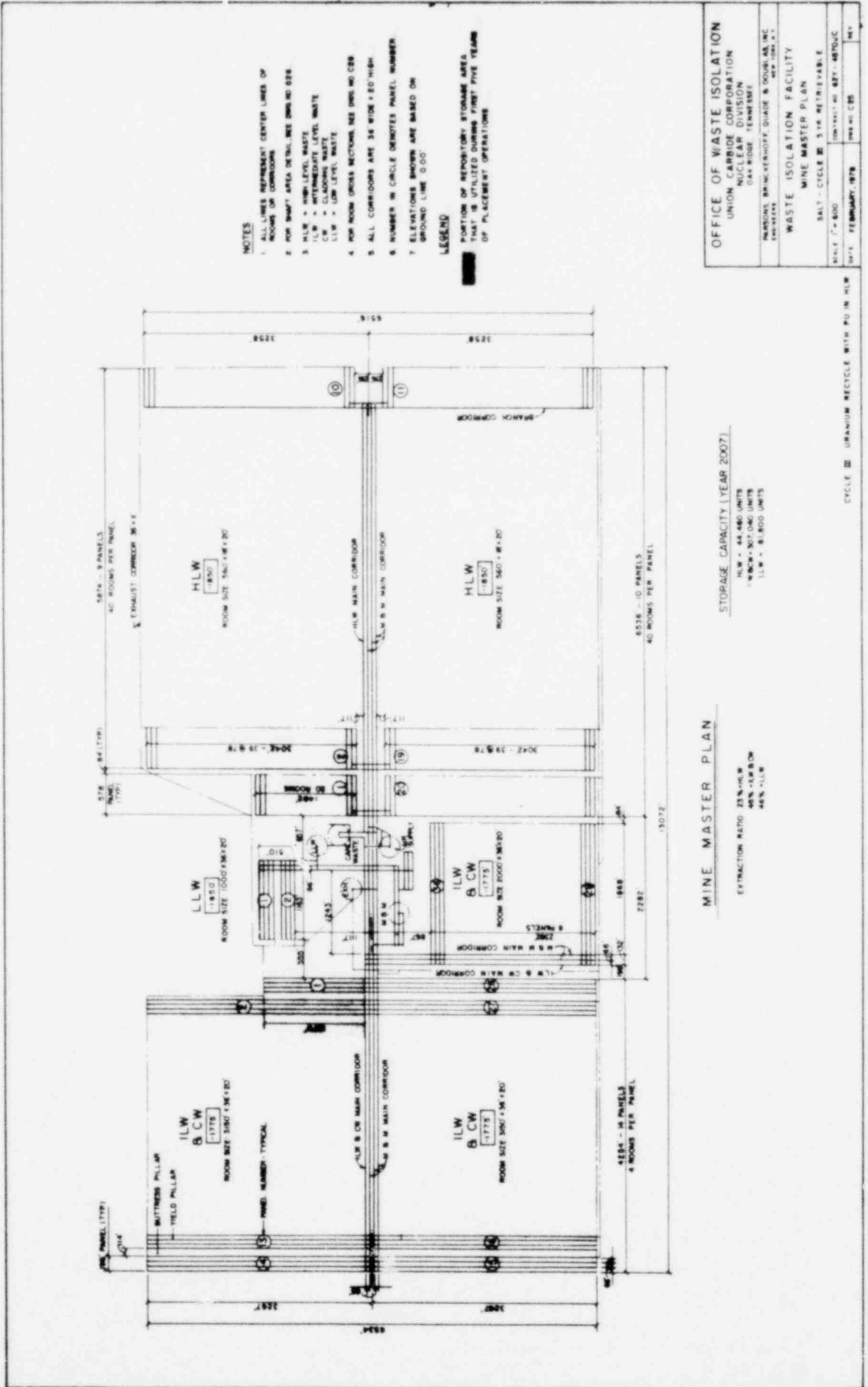
SCALE:	PROJECT NO. 621-4870EC
DATE: FEBRUARY, 1978	REV. NO. C23

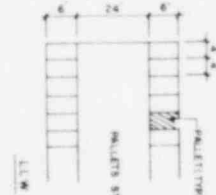
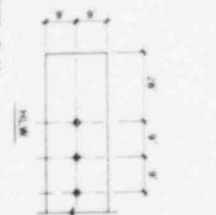
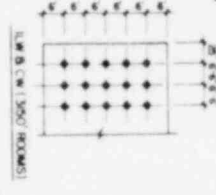
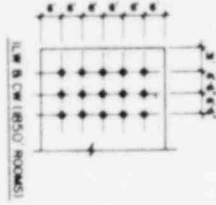
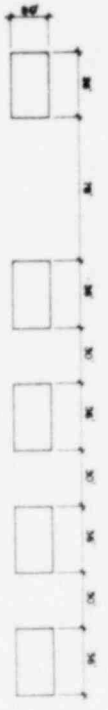
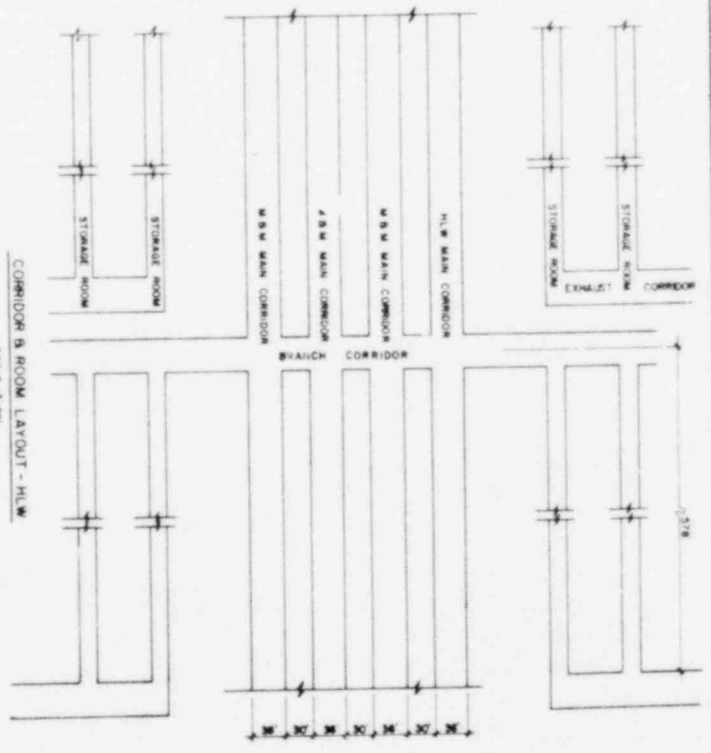
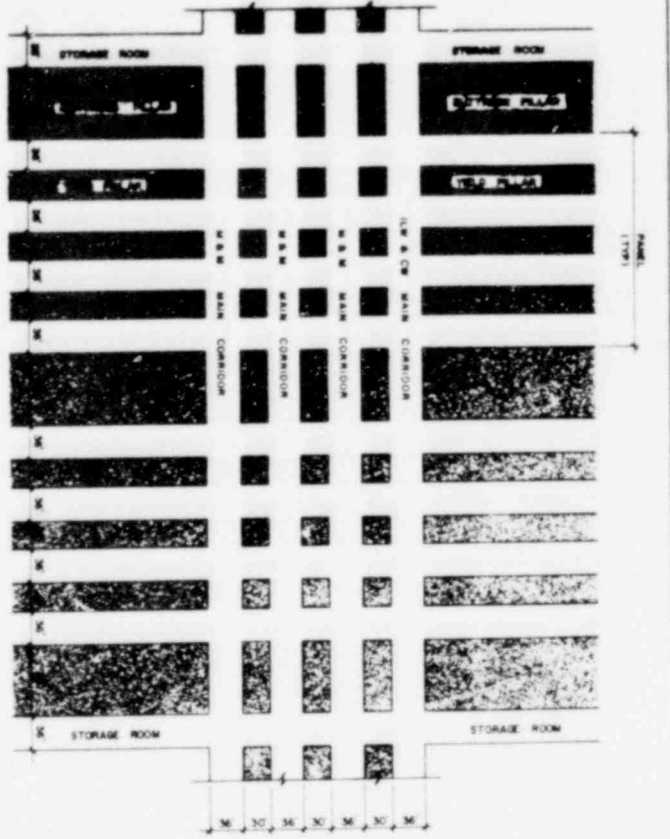
MINING AND PLACEMENT SCHEDULE SALT-CYCLE III - 5 YEARS RETRIEVABLE



CYCLE III URANIUM RECYCLE WITH PU IN HLW

OFFICE OF WASTE ISOLATION	
UNION CARBIDE CORPORATION NUCLEAR DIVISION OAK RIDGE, TENNESSEE	
NATIONAL SWINCKENHOFF, GAUER & DOUGLAS, INC. CHRYSLER NEW YORK, NY	
WASTE ISOLATION FACILITY	
ILW&CW MINING AND PLACEMENT SCHEDULE	
SALT-CYCLE III - 5 YR RETRIEVABLE	
SCALE	INCHES TO METERS
DATE	FEBRUARY, 1978
DESIGNED BY	ILW&CW
DRAWN BY	ILW&CW

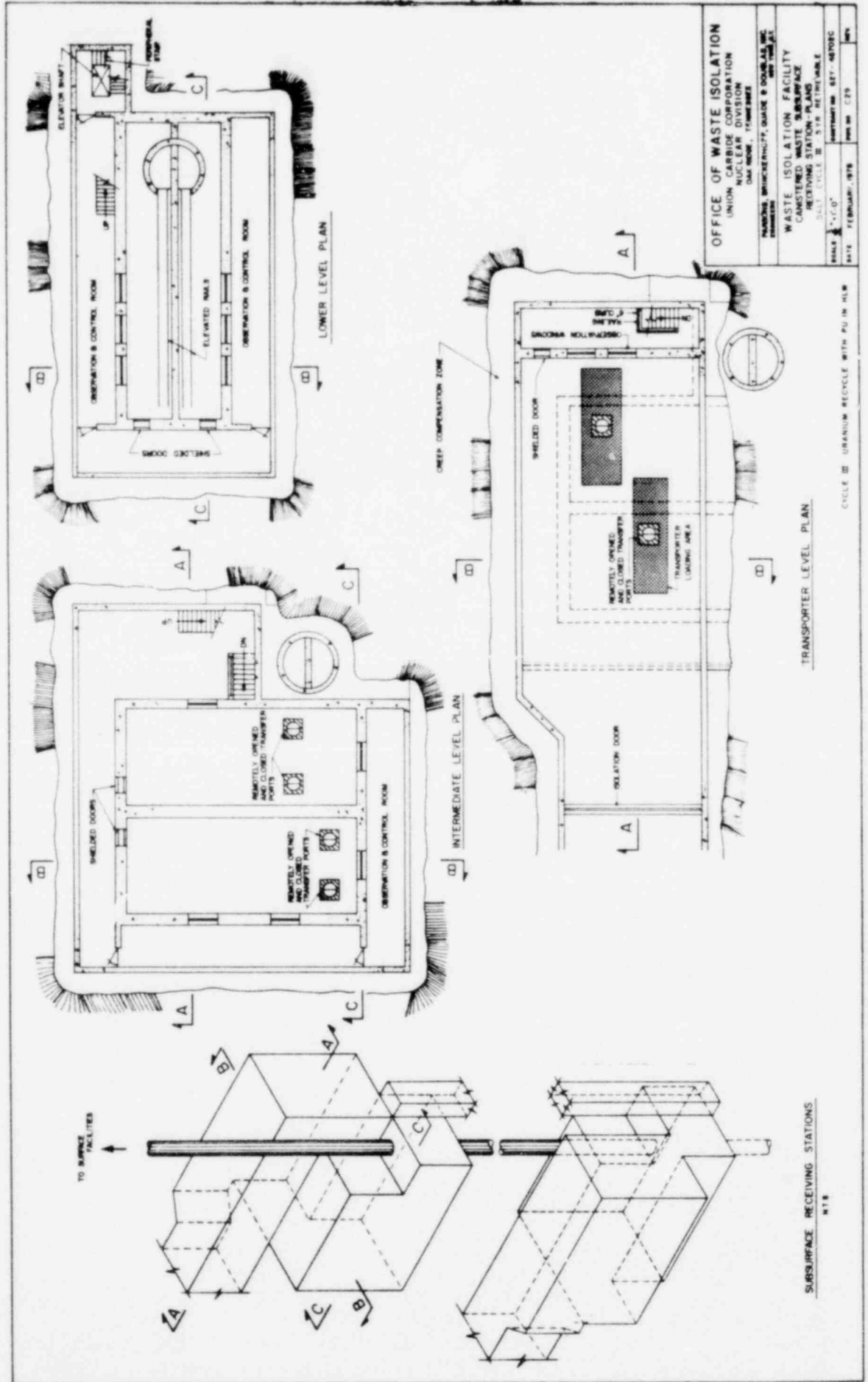




OFFICE OF WASTE ISOLATION
 UNION CARBIDE CORPORATION
 NUCLEAR DIVISION
 OAK RIDGE, TENNESSEE

WASTE ISOLATION FACILITY
 ROOM B CORRIDOR LAYOUT
 SALT-CYCLE III - 8 YR WET STORAGE & URANIUM RECYCLE WITH PU IN HLW

SCALE AS NOTED
 DATE: FEBRUARY, 1978



OFFICE OF WASTE ISOLATION
 UNION CARBIDE CORPORATION
 NUCLEAR DIVISION
 OAK RIDGE, TENNESSEE

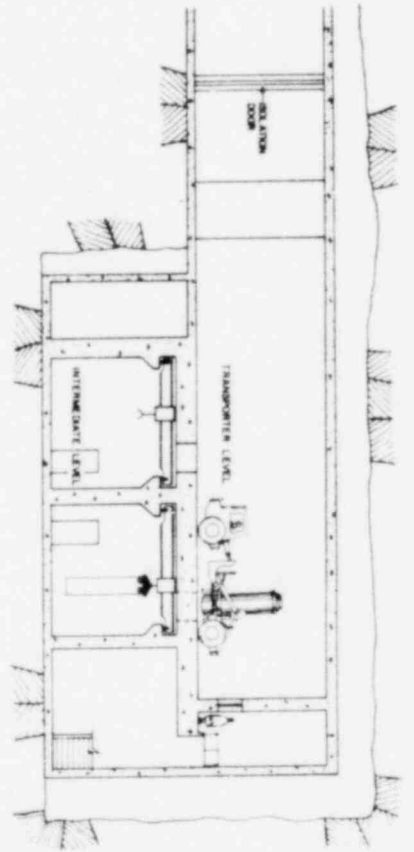
PLANNING BRIDGEPORT, GADE & DONALDSON, INC.
 WASHINGTON, D.C.

WASTE ISOLATION FACILITY
 WASTED WASTE SUBSURFACE
 RECEIVING STATION-PLANS
 CYCLE III

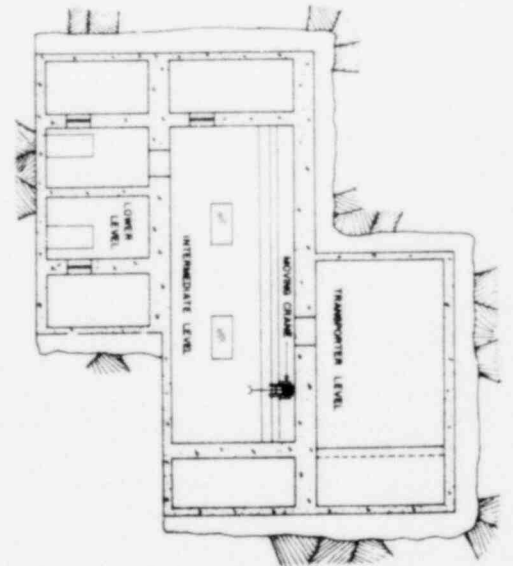
SCALE: 1/4" = 1'-0"
 DATE: FEBRUARY, 1978

PROJECT NO. 279
 SHEET NO. 279

SUBSURFACE RECEIVING STATIONS
 218

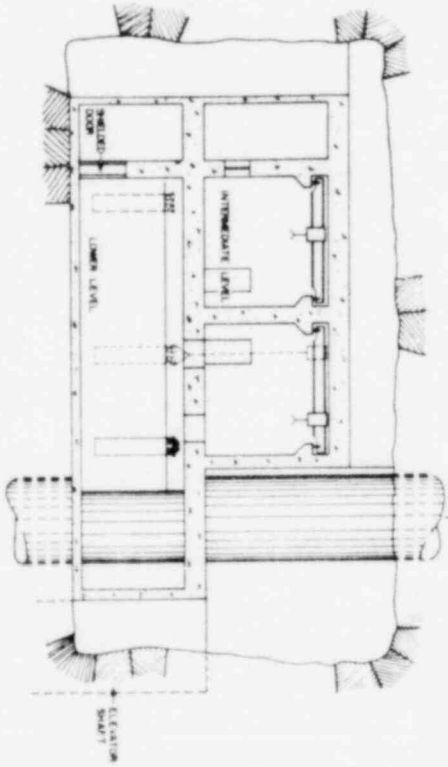


SECTION A-A



SECTION B-B

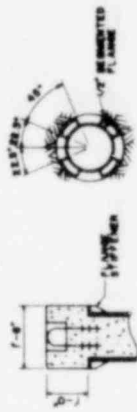
TO CONTAINED WASTE HANDLING BLDG



SECTION C-C

SCALE: 1/4" = 1'-0" (VERTICAL) 1/8" = 1'-0" (HORIZONTAL)

OFFICE OF WASTE ISOLATION	
UNION CARBIDE CORPORATION	
NUCLEAR DIVISION	
OAK RIDGE, TENNESSEE	
PROJECT: WASTE ISOLATION FACILITY	
SUBJECT: CONTAINED WASTE HANDLING	
REVISION: STATION SECTIONS	
SHEET: CYCLE B - 518 RETRIEVABLE	
DATE: FEBRUARY, 1978	SCALE: 1/4" = 1'-0" (VERTICAL) 1/8" = 1'-0" (HORIZONTAL)



DETAIL 1
SCALE 1/2" = 1'-0"



SECTION A-A
SCALE 1/2" = 1'-0"



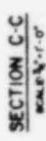
DETAIL 2
SCALE 1/2" = 1'-0"



SECTION B-B
SCALE 1/2" = 1'-0"

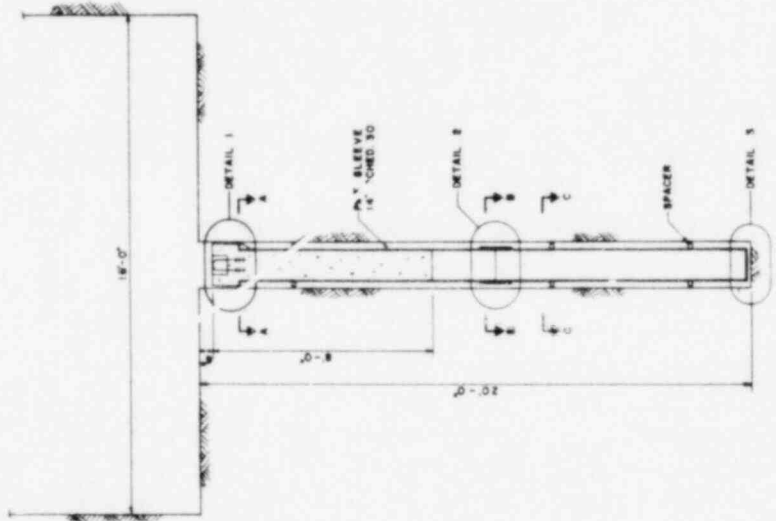


DETAIL 3
SCALE 1/2" = 1'-0"

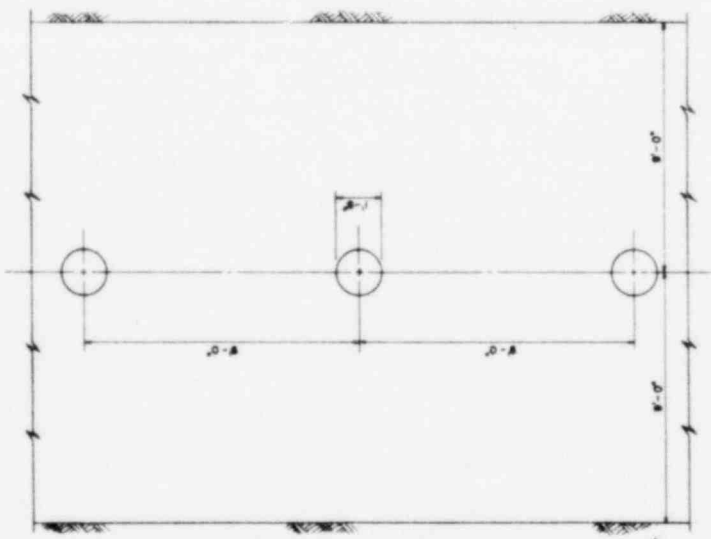


SECTION C-C
SCALE 1/2" = 1'-0"

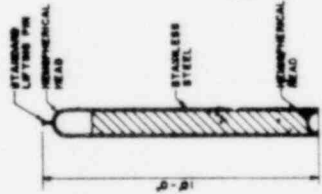
NOTE:
DETAILS SHOWN FOR HLW
TLW & CW ARE SIMILAR EXCEPT FOR HOOD SIZE
AND STORAGE METHOD



CANISTER PLACEMENT ELEVATION
SCALE 1/2" = 1'-0"



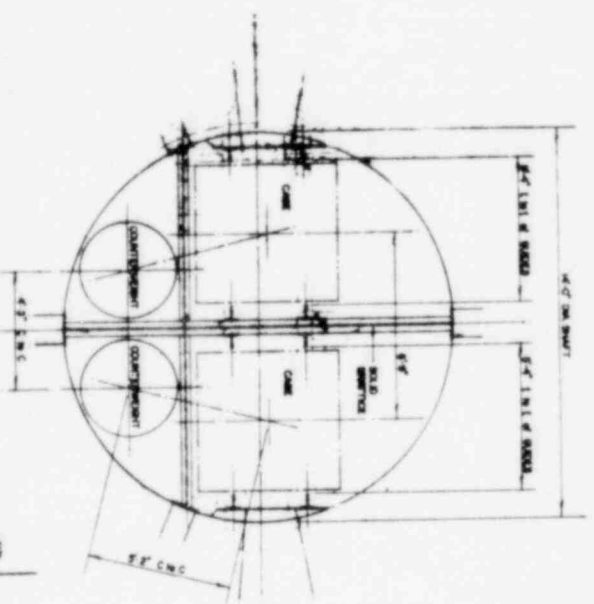
CANISTER PLACEMENT PLAN
SCALE 1/2" = 1'-0"



CANISTER DETAIL
SCALE 1/2" = 1'-0"

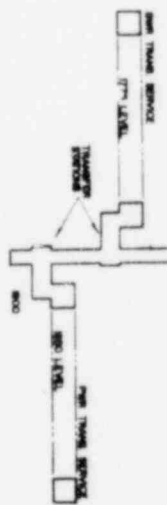
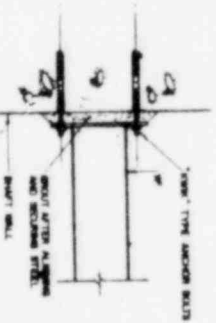
OFFICE OF WASTE ISOLATION	
UNION CARBIDE CORPORATION	
NUCLEAR DIVISION	
DAP ROOM, TENNESSEE	
DRAWING: BRUNNENHUFF, OMAHA & DOUGLAS, INC.	
PROJECT: WASTE ISOLATION FACILITY	
DRAWING NO.: SET - 40705C	
DATE: FEBRUARY, 1975	REV: 00 (S)

CYCLE III URANIUM RECYCLE WITH PU IN HLW

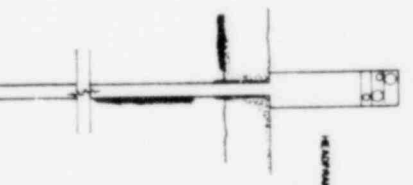


PLAN ON SHAFT

TYP. BUNTON TO WALL CONNECTION



SHAFT SECTION

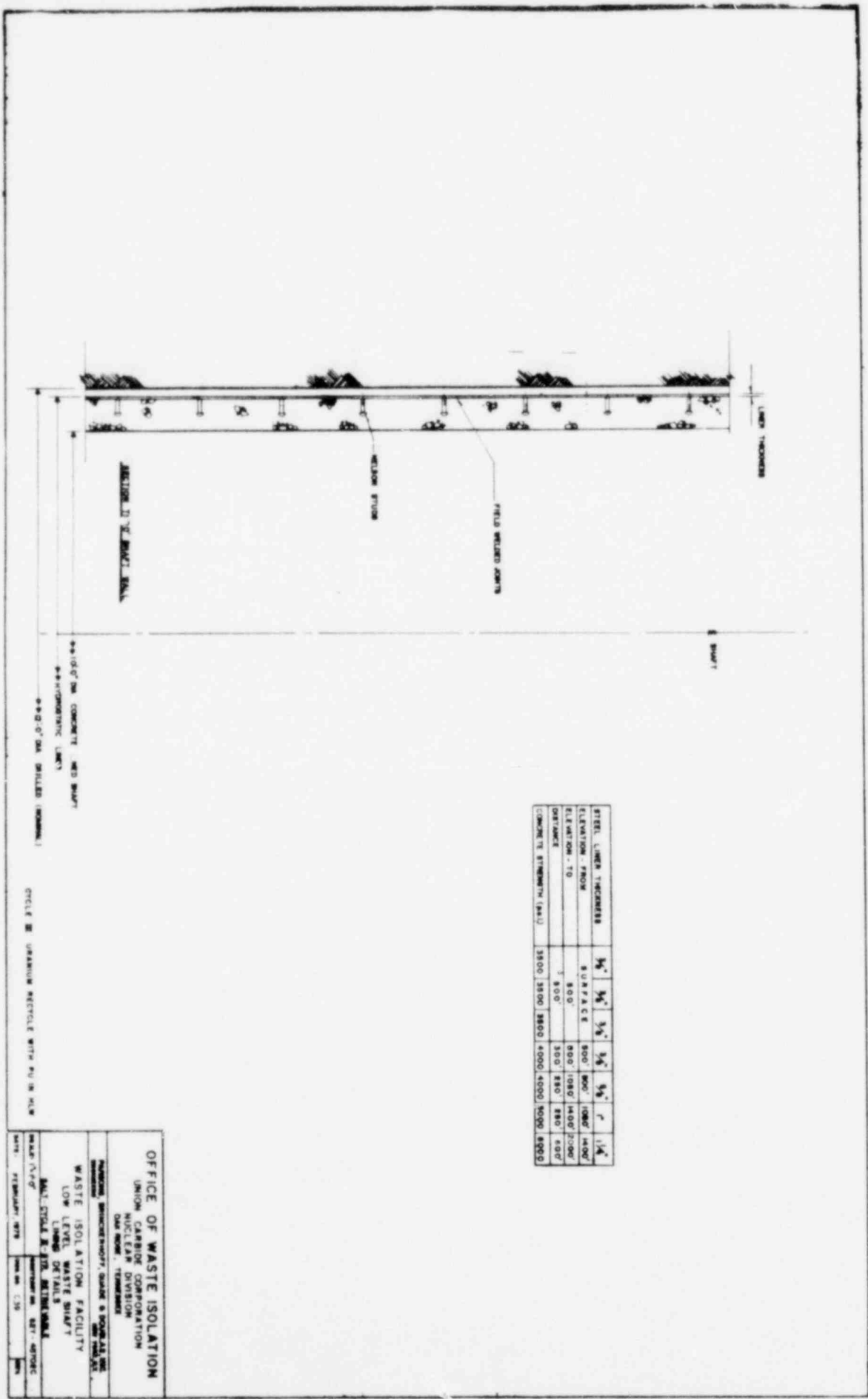


PLAN ON HEADFRAME

HEADFRAME (TORNADO RESISTANT STRUCTURE)

CIRCLE 22 UNARMED RECYCLE WITH PU IN CLR

OFFICE OF WASTE ISOLATION	
UNION CARBIDE CORPORATION	
NUCLEAR WASTE DIVISION	
OAK RIDGE, TENNESSEE	
WASTE ISOLATION FACILITY	
CANISTERED WASTE SHAFT	
SALT - CYCLE B - 578 RETRIEVABLES	
SCALE:	VERTICAL: 1/8\"/>
DATE:	REVISION: 0718



STEEL LINER THICKNESS	3/4"	3/8"	3/4"	3/8"	3/4"	3/8"	3/4"
ELEVATION - FROM	800	800	800	800	1050	1050	1050
ELEVATION - TO	800	800	800	800	1050	1050	1050
WEIGHT	1	1	1	1	1	1	1
CONCRETE STRENGTH (PSI)	3500	3500	3500	3500	4000	4000	4000

OFFICE OF WASTE ISOLATION
 UNION CARBIDE CORPORATION
 NUCLEAR DIVISION
 ONE MONROE TERRACE
 PITTSBURGH, PENNSYLVANIA 15222-0001
 WASTE ISOLATION FACILITY
 LOW LEVEL WASTE SHAFT
 LINDS DETAIL
 SHEET NO. 101-10101C
 DATE: FEBRUARY, 1978

OFFICE OF WASTE ISOLATION
 UNION CARBIDE CORPORATION
 NUCLEAR DIVISION
 OAK RIDGE, TENNESSEE

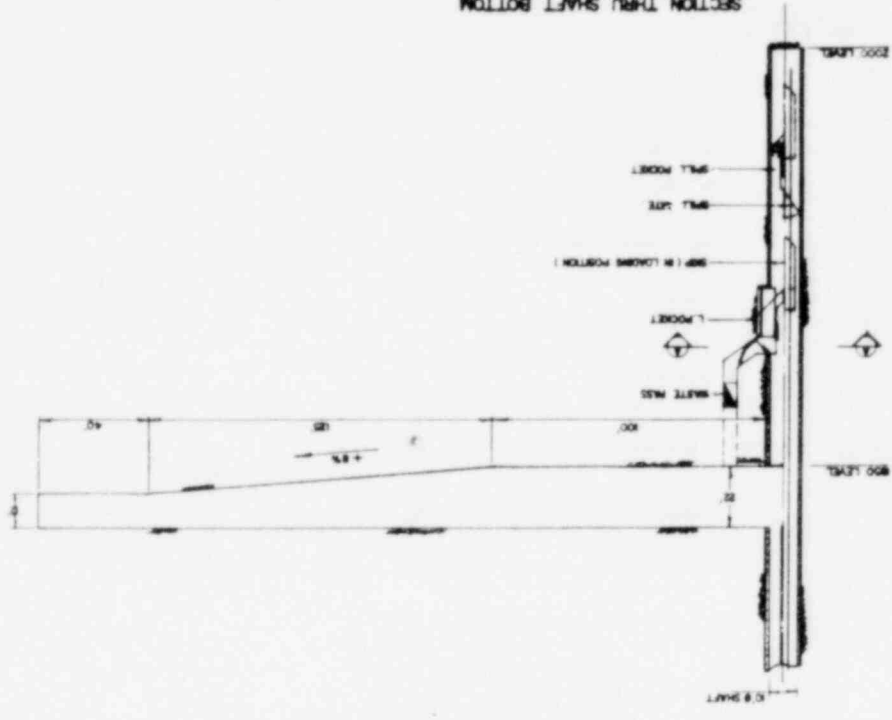
PARSONS BRINCKERHOFF, QUINN & DONAHUE, INC.
 ENGINEERS

WASTE ISOLATION FACILITY
 LOW LEVEL WASTE SHAFT
 DURING PRELIMINARY SIAE DEVELOPMENT
 SALT - CYCLE B - 3 IN. RETRIEVABLES

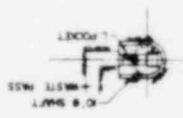
SCALE: 1/8" = 1'-0"
 DATE: FEBRUARY, 1978
 SHEET NO. C-40

CYCLE B - URANIUM RECYCLE WITH PU IN HLW

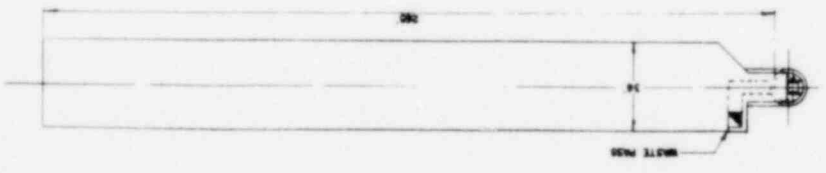
SECTION THROUGH SHAFT BOTTOM

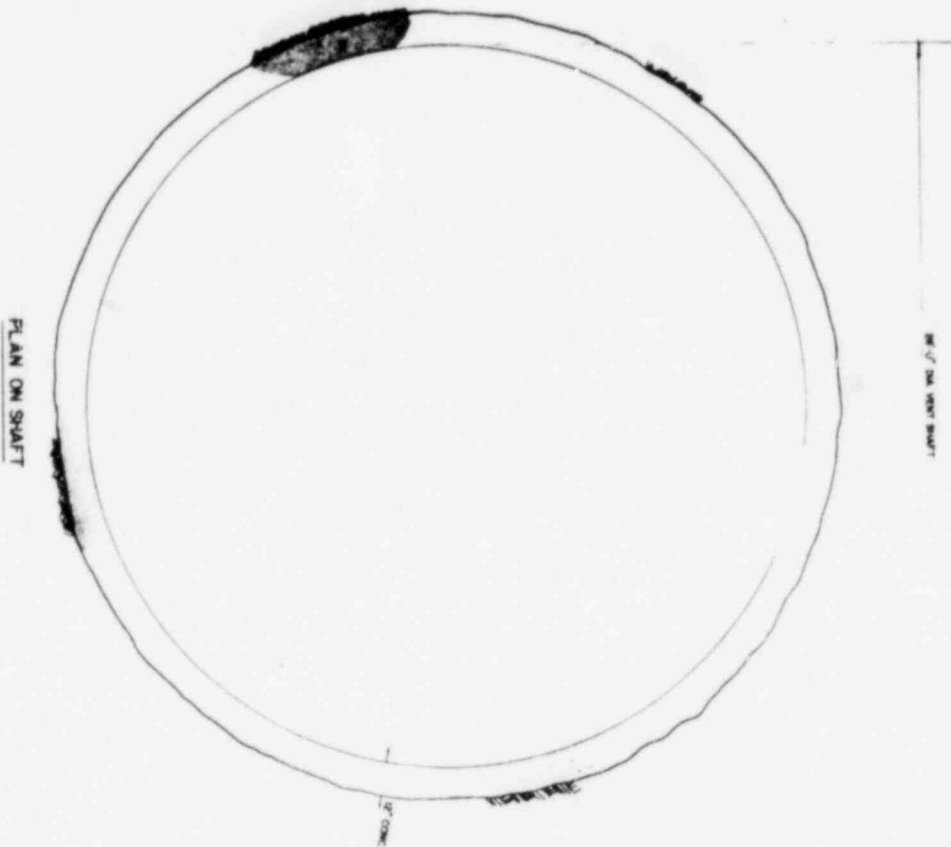


SECTION A-A



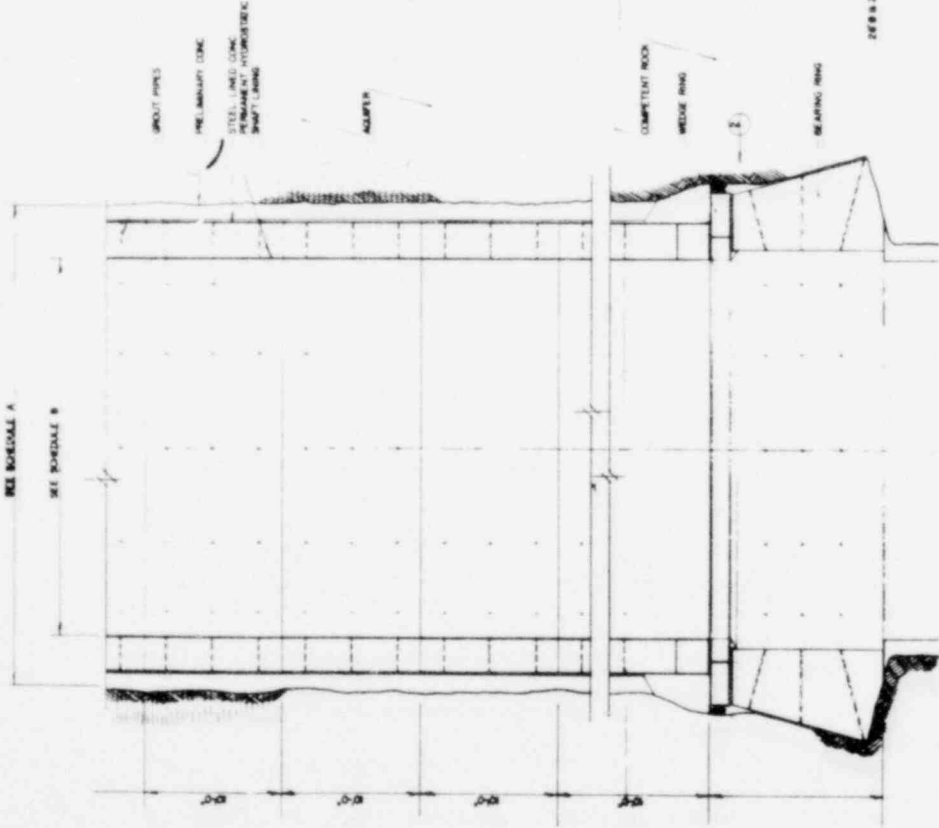
PLAN ON 1850 LEVEL STATION



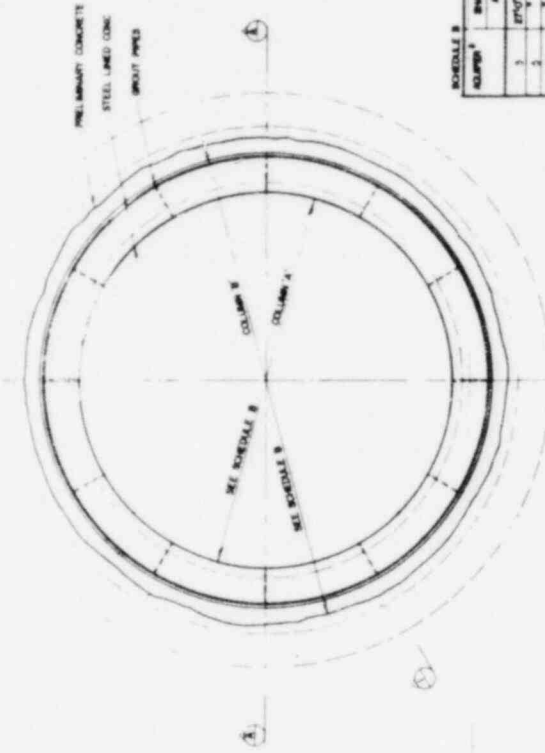


CIRCLE IS URANIUM RECTICLE WITH PU IN VIEW

OFFICE OF WASTE ISOLATION			
UNION CARBIDE CORPORATION			
NUCLEAR DIVISION			
ONE BRIDGE, TENNESSEE			
PROJECT: WASTE ISOLATION FACILITY			
SUBJECT: VENTILATION SUPPLY SHAFT			
SHEET: CYCLE # 3 OF 3 (SEE DRAWING)			
DATE	DESIGNED BY	CHECKED BY	DATE
11/17/61	J. W. HARRIS	J. W. HARRIS	11/17/61



SHAFT SECTION A A



PLAN ON SHAFT

SCHEDULE B
ADAPTER¹ SHAFT DIA.

	A	B
1	20" Ø	30" Ø
2	24" Ø	30" Ø
3	24" Ø	36" Ø
4	30" Ø	36" Ø
5	30" Ø	42" Ø
6	36" Ø	42" Ø
7	36" Ø	48" Ø

SCHEDULE A

ADAPTER ¹	STRENGTH OF CONE	THICKNESS OF CONE	STEEL LINER WITH WELD JOINTS	LINER THICKNESS
1	3,500 psi	24"	80,000 psi	7"
2	5,000 psi	24"	80,000 psi	1"
3	5,000 psi	30"	80,000 psi	1 1/2"
4	8,000 psi	30"	80,000 psi	1 1/2"
5	3,500 psi	24"	80,000 psi	1 1/2"
6	5,000 psi	30"	80,000 psi	1 1/2"
7	8,000 psi	36"	80,000 psi	3 1/4"

¹SEE Dwg. No. 132

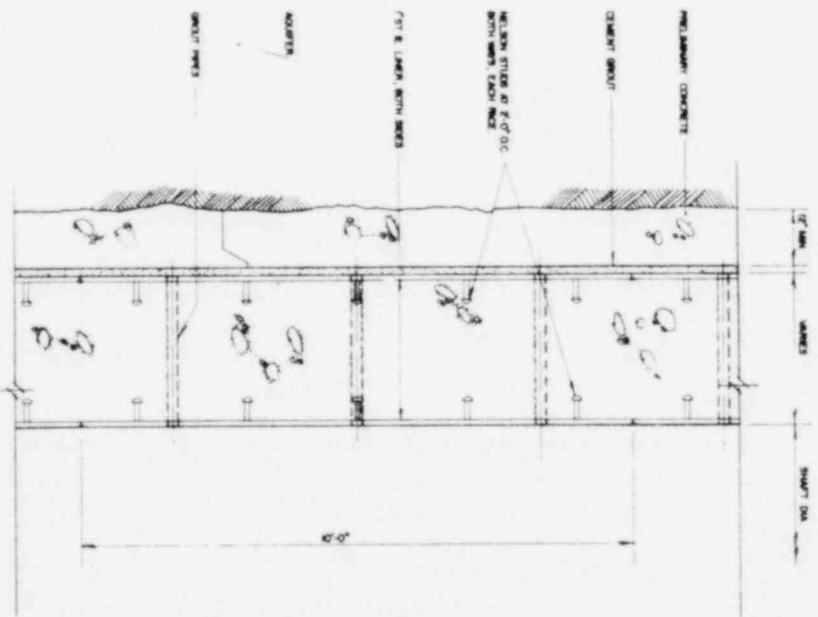
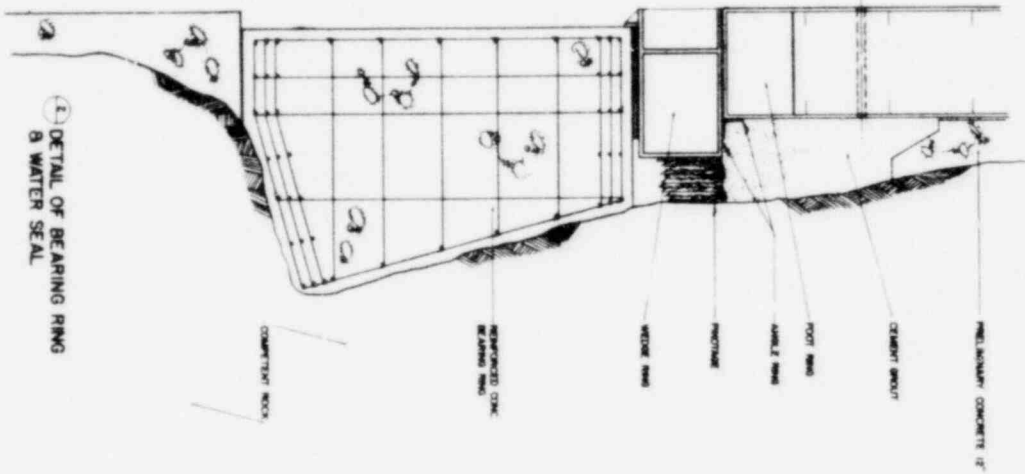
CYCLE III URANIUM RECYCLE WITH PU IN HLW

OFFICE OF WASTE ISOLATION
 UNION CARBIDE CORPORATION
 NUCLEAR DIVISION
 OAK RIDGE, TENNESSEE

WASTE ISOLATION FACILITY
 AQUIFER SHAFT DESIGN DETAILS

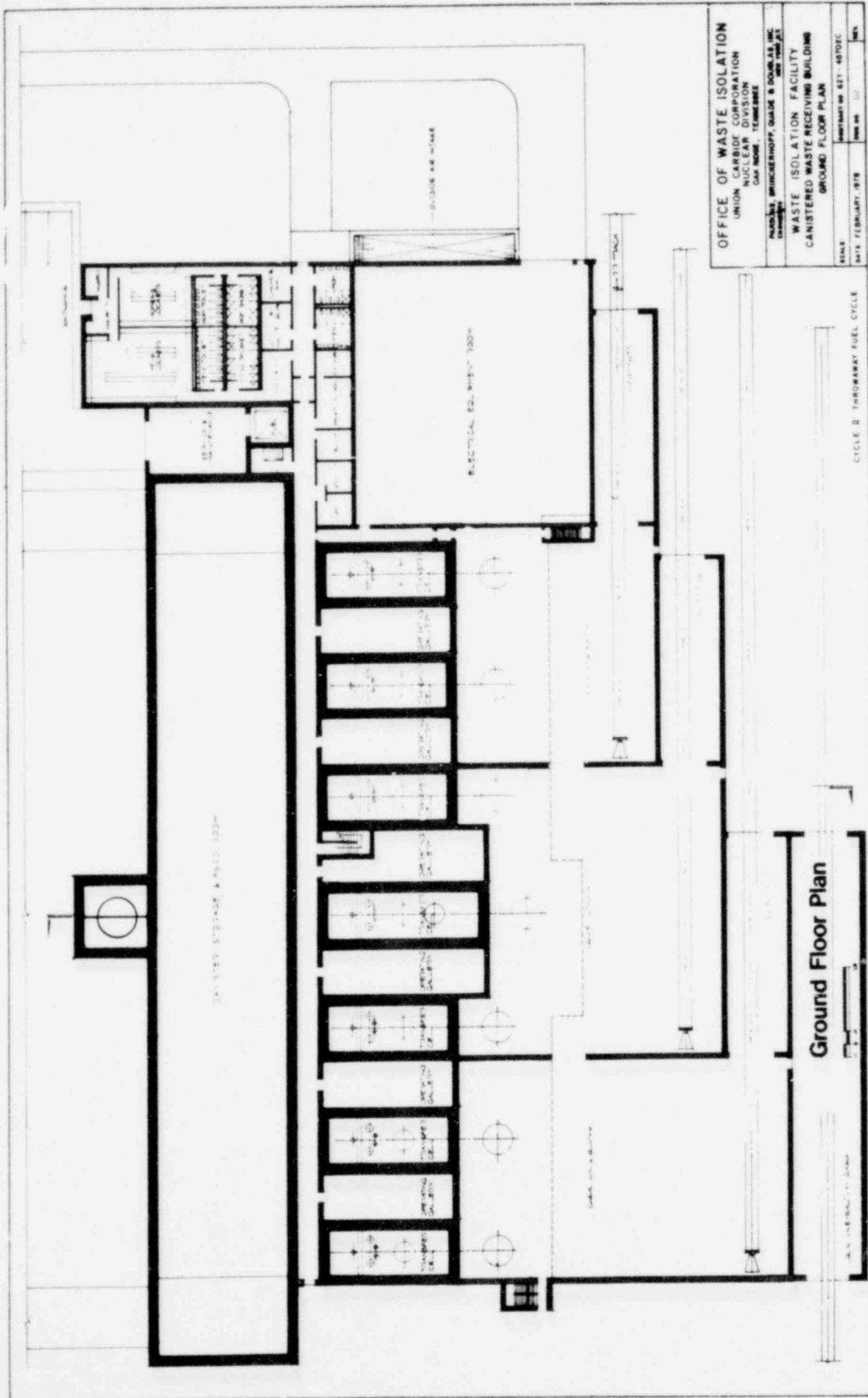
SCALE: CONTRACT NO. 837-45702C
 DATE: FEBRUARY, 1978

DESIGNED BY: []
 DRAWN BY: []
 CHECKED BY: []



CIRCLE ■ URANIUM RECYCLE WITH PU IN HLW

OFFICE OF WASTE ISOLATION			
UNION CARBID CORPORATION			
NUCLEAR DIVISION			
DUNN, TENNESSEE			
NATIONAL BINDER SHOPP, DALLAS & DORR, A.S. INC.			
WASTE ISOLATION FACILITY			
DETAIL OF HYDROSTATIC LININGS			
SHEET - CIRCLE ■ - 5/16 INCHES DIA. & 1/2 INCHES THICK			
DATE	REVISION	BY	CHK
10/17/68			



OFFICE OF WASTE ISOLATION

UNION CARBIDE CORPORATION
 NUCLEAR DIVISION
 DAYTON, TENNESSEE

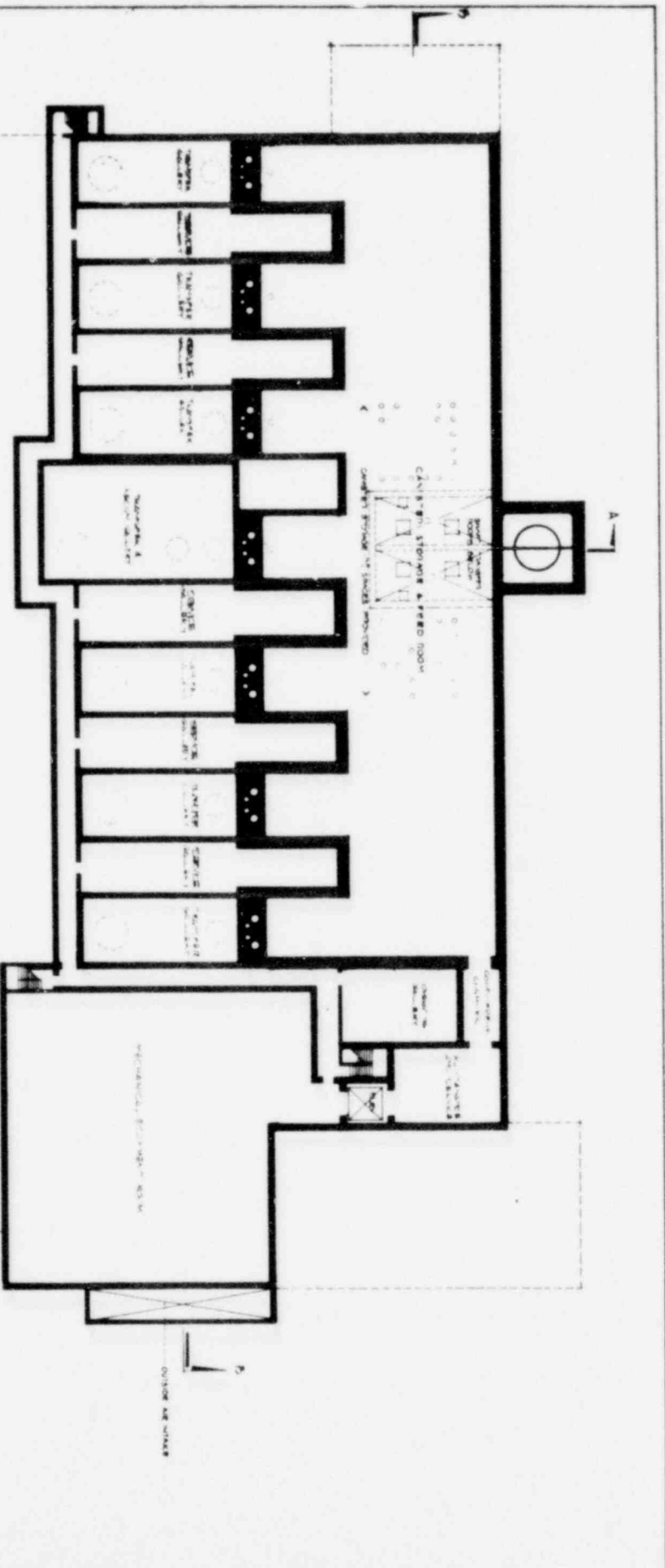
PROJECT: BRUNCKHOFF, GAUSE & DOWNS, INC.
 DRAWING NO. 427-48701C

WASTE ISOLATION FACILITY
CONTAINERED WASTE RECEIVING BUILDING
GROUND FLOOR PLAN

SCALE: AS SHOWN
 DATE: FEBRUARY, 1978

CYCLE B THROUWAY FUEL CYCLE

Ground Floor Plan



Basement Plan



CYCLE 2 TRANSFERRED FUEL CYCLE

OFFICE OF WASTE ISOLATION			
UNION CARBIDE CORPORATION			
NUCLEAR DIVISION			
DAYTON, TENNESSEE			
PROJECT: BRIDGEMAN/STONER/CLARK & DOUGLAS, INC.			
CONTRACT NO. 437-45702C			
DATE: FEBRUARY, 1978			
DRAWN BY: []			
CHECKED BY: []			
SCALE: []			

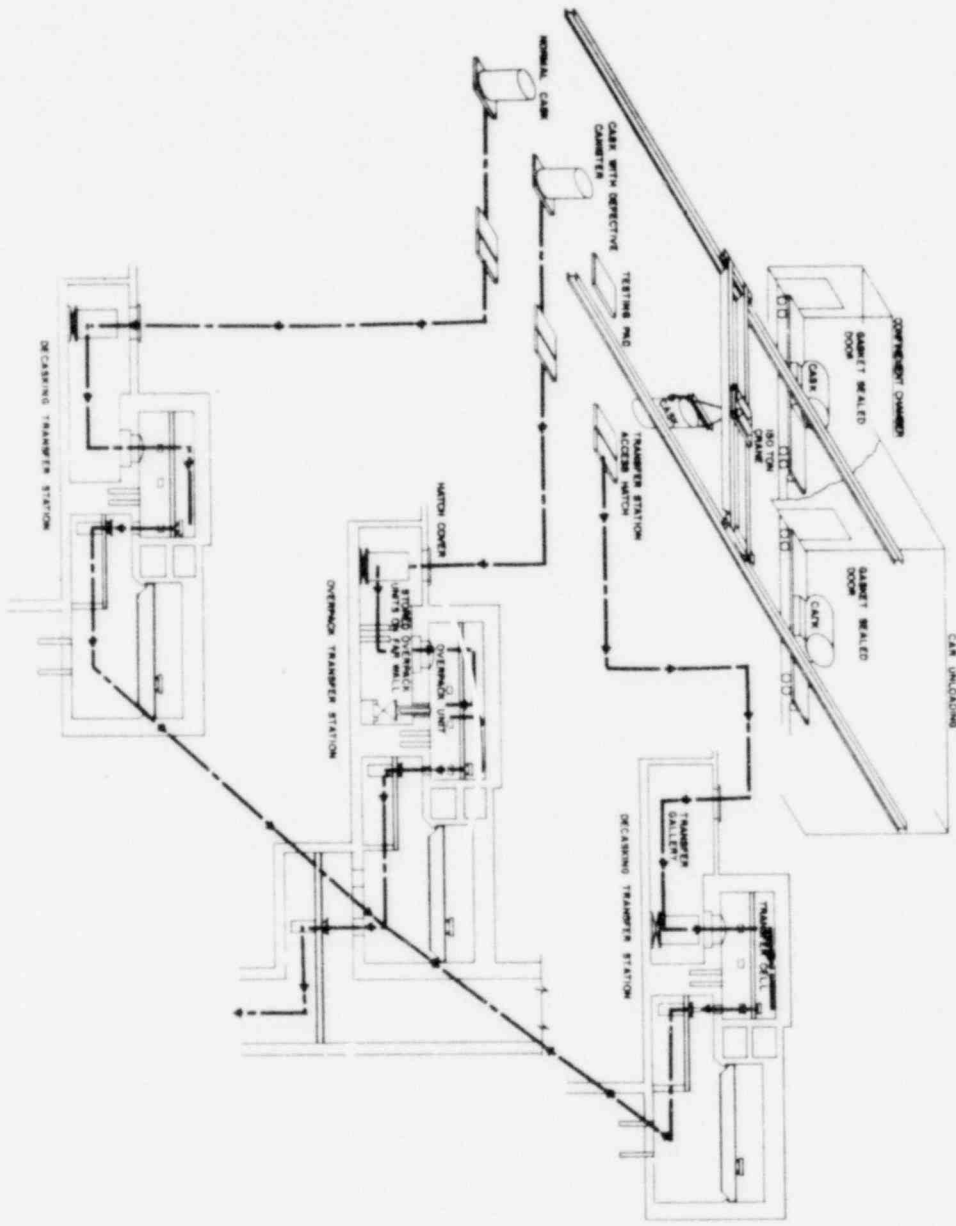
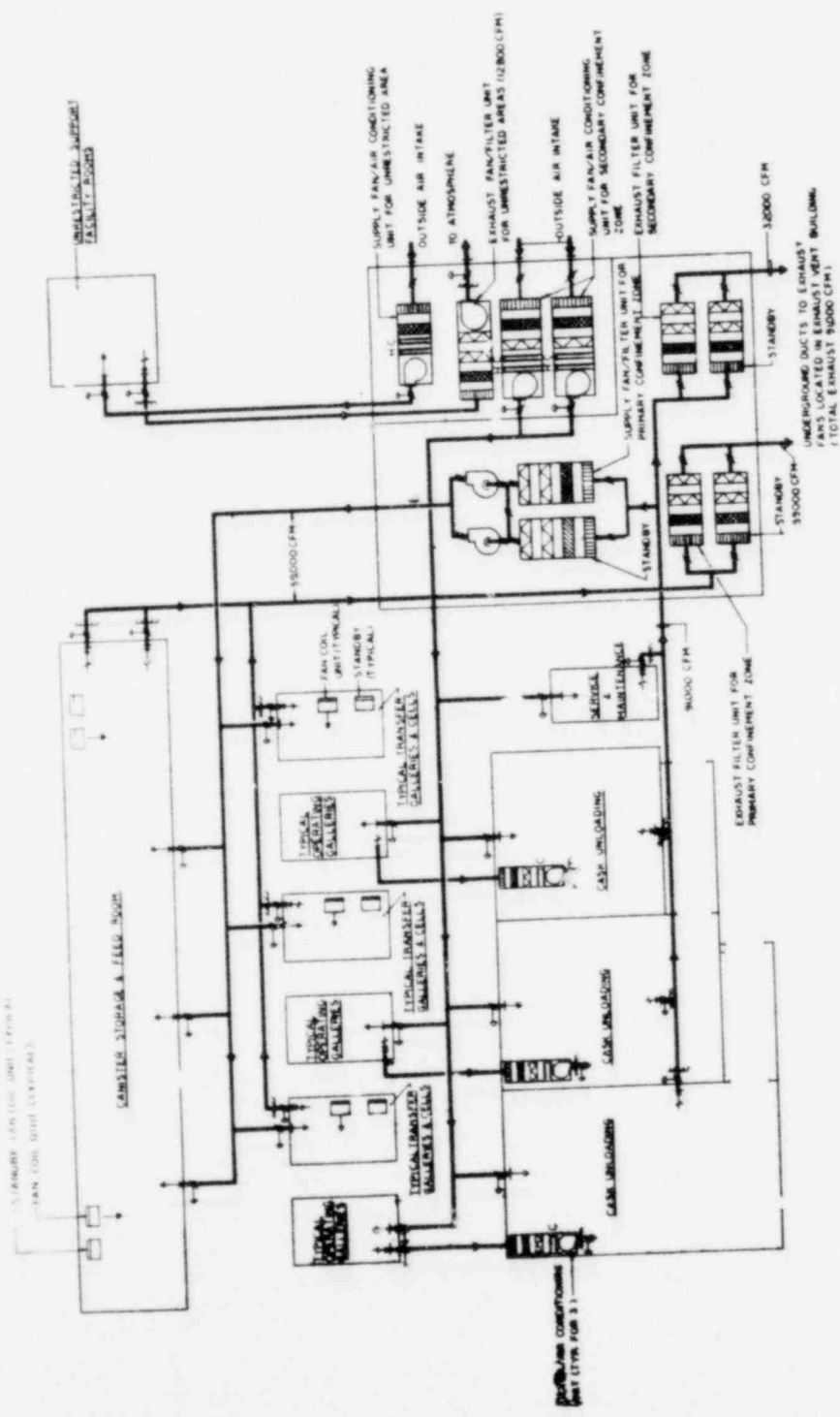


FIGURE 2. TRANSFER STATION FLOW

OFFICE OF WASTE ISOLATION	
UNION CARBIDE CORPORATION	
NUCLEAR DIVISION	
OAK RIDGE, TENNESSEE	
NATHAN B. BRINCKERHOFF, OWNER & DONOR, AS INC.	
WASTE ISOLATION FACILITY	
SCHEMATIC FLOW DIAGRAM	
CONSTRUCTION WASTE	
SCALE	AS SHOWN
DATE	1963



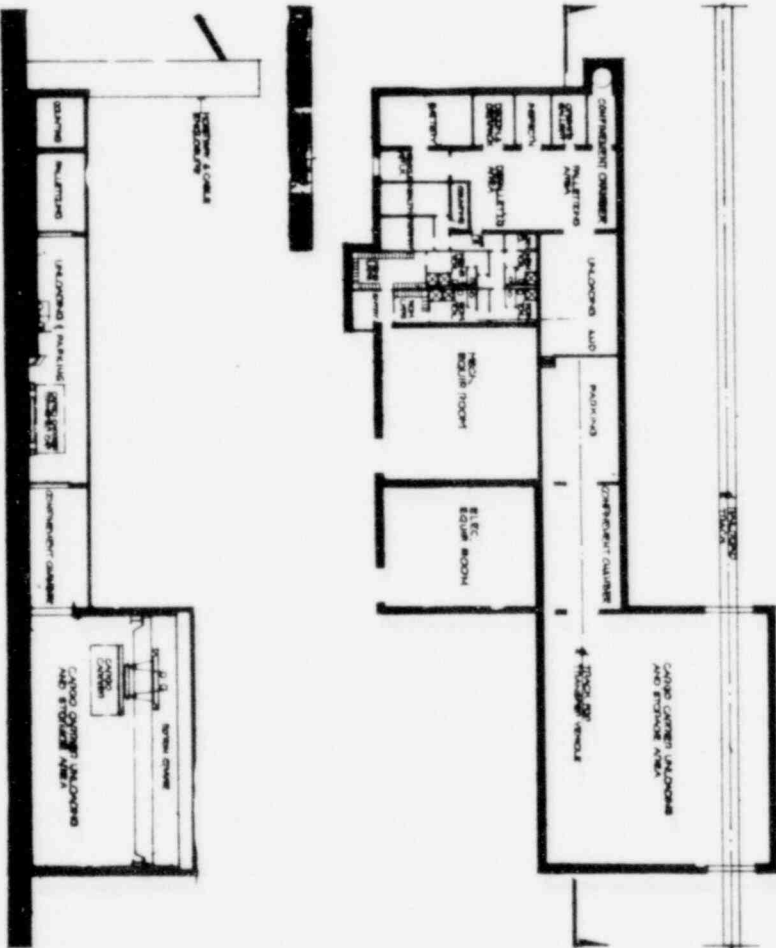
CYCLE II THRUWAY FUEL CYCLE

OFFICE OF WASTE ISOLATION
UNION CARBIDE CORPORATION
NUCLEAR DIVISION
 OAK RIDGE, TENNESSEE

WASTE ISOLATION FACILITY
 CANISTER ASSEMBLY BUILDING

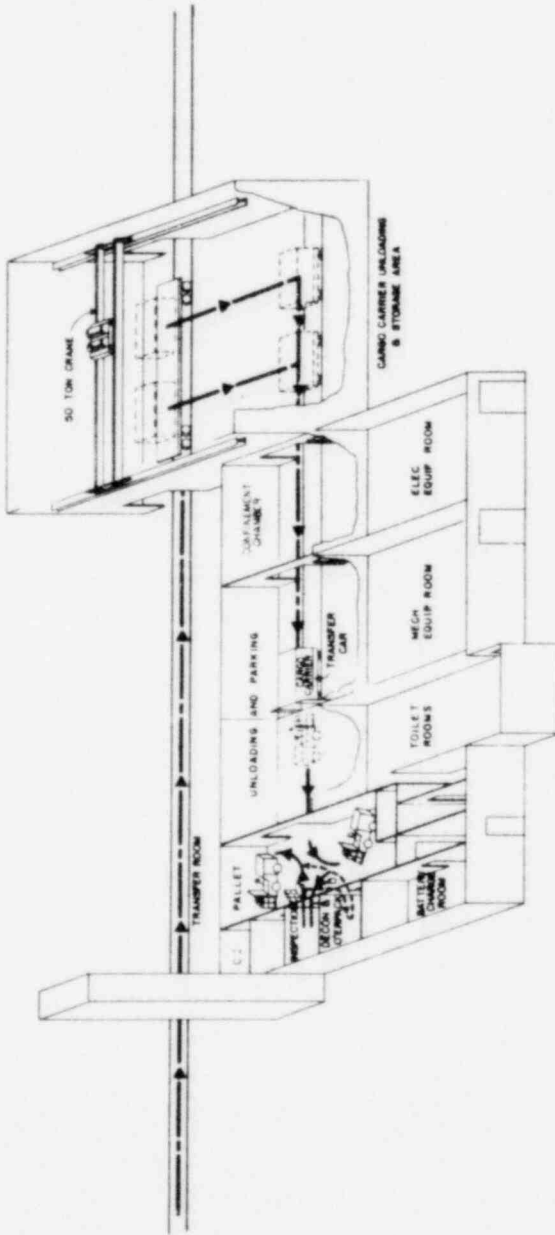
SCALE: NO SCALE
 DATE: FEBRUARY, 1978

PROJECT NO. 487-48702C
 DRAWING NO. 10



CIRCLE 8 THROUGHOUT PAPER, CIRCLE

OFFICE OF WASH STATE
 ARCHITECTURE
 1400 UNIVERSITY AVENUE
 PULLMAN, WASH. STATE
 WASHINGTON STATE
 ARCHITECTURE
 1400 UNIVERSITY AVENUE
 PULLMAN, WASH. STATE



OFFICE OF WASTE ISOLATION
 UNION CARBIDE CORPORATION
 NUCLEAR DIVISION
 DAYTON, TENNESSEE

PARSONS BRINCKERHOFF, SHAKS & MOULDER, INC.
 1000 W. 10TH AVENUE
 DENVER, COLORADO 80202

WASTE ISOLATION FACILITY
 SCHEMATIC FLOW DIAGRAM
 LOW LEVEL WASTE (LLW) BUILDING
 SALL - CYCLE II TO WASTE ISOLATION

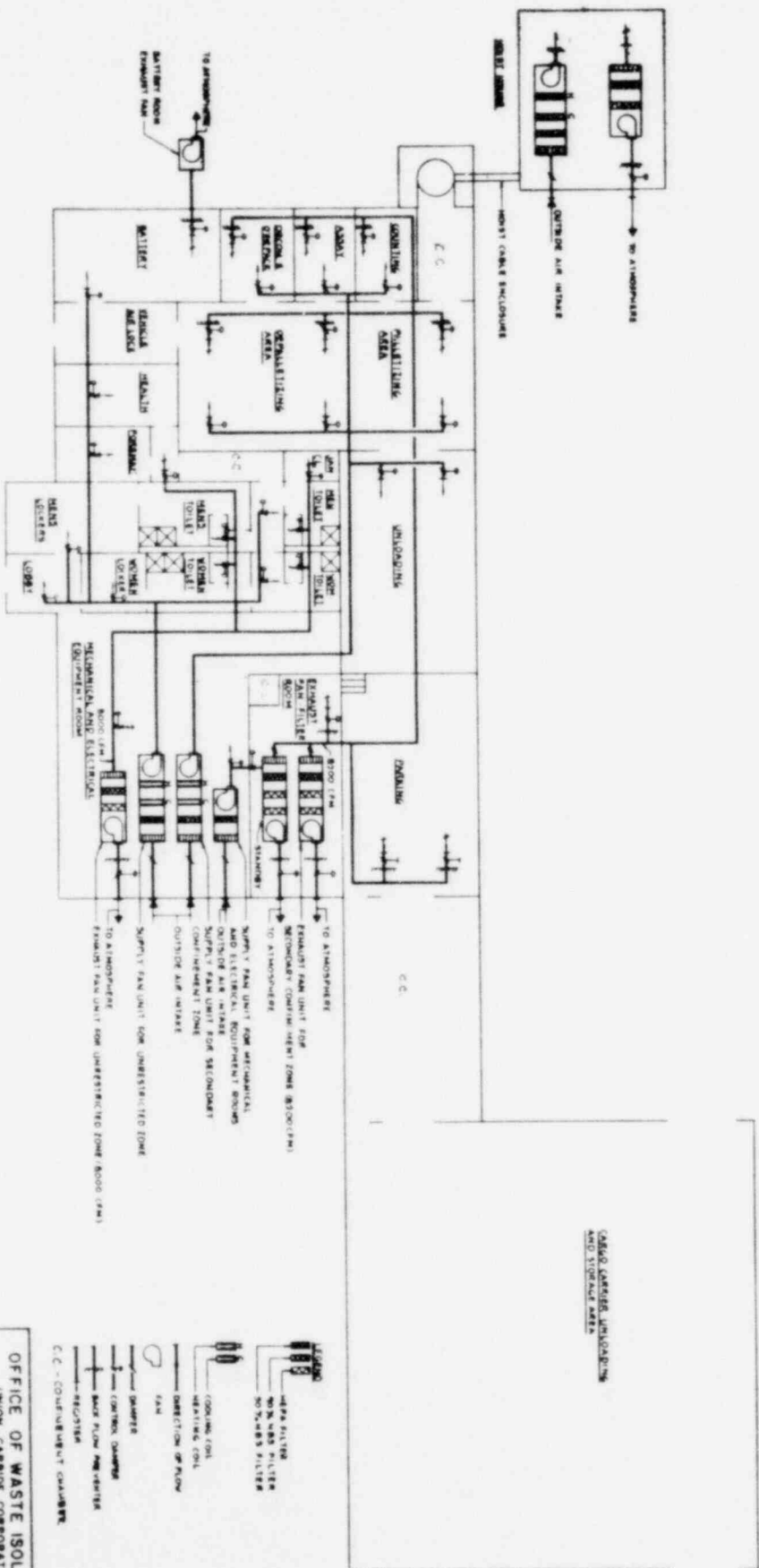
SCALE: NONE

REVISION NO. 027 - 06/01/81

DATE: FEBRUARY, 1978

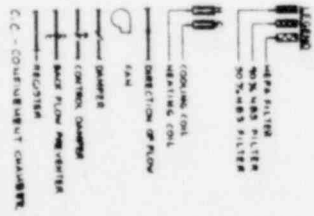
REV. 04, 0, 8

CYCLE II THROUGHWAY FUEL CYCLE



NOTE: Legend shown in next two pages, circles & bars in facility
 PLAN, circle 1, facility in facility

CIRCLE 2 - THORAWAY FUEL CYCLE

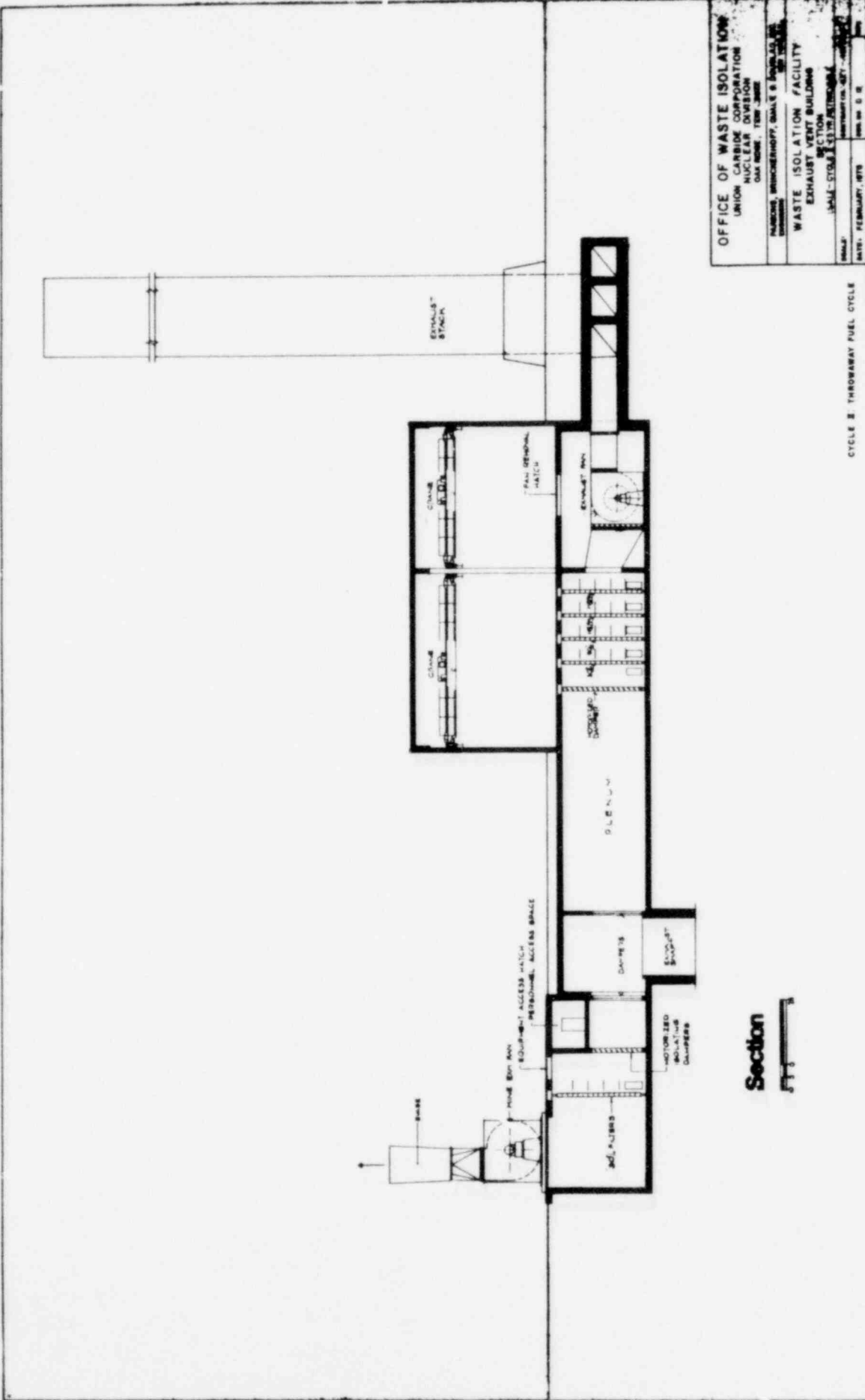


OFFICE OF WASTE ISOLATION

UNION CARBIDE CORPORATION
 NUCLEAR DIVISION
 ONE WINDY, TENNESSEE

MEMPHIS, TENNESSEE, QUAD 8 ROOM 44, INC.
 WASTE ISOLATION FACILITY

DATE: 10/1/78
 DRAWING NO. 87-4870C
 SHEET NO. 05



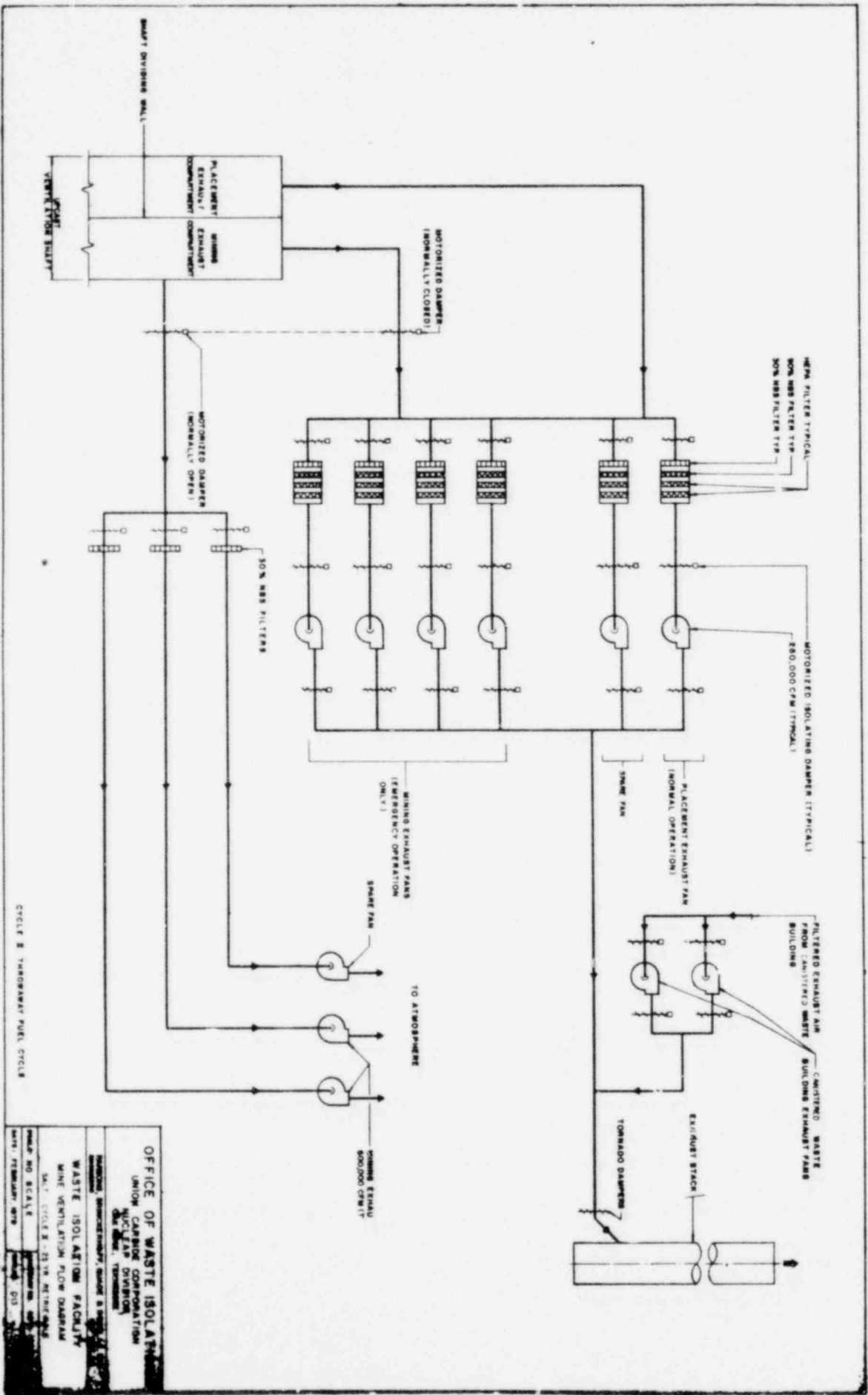
OFFICE OF WASTE ISOLATION
 UNION CARBIDE CORPORATION
 NUCLEAR DIVISION
 OAK RIDGE, TENN. 37831

PROJECT: WASTE ISOLATION FACILITY
 EXHAUST VENT BUILDING
 SECTION II
 DRAWING NO. 4871

DATE: FEBRUARY, 1978

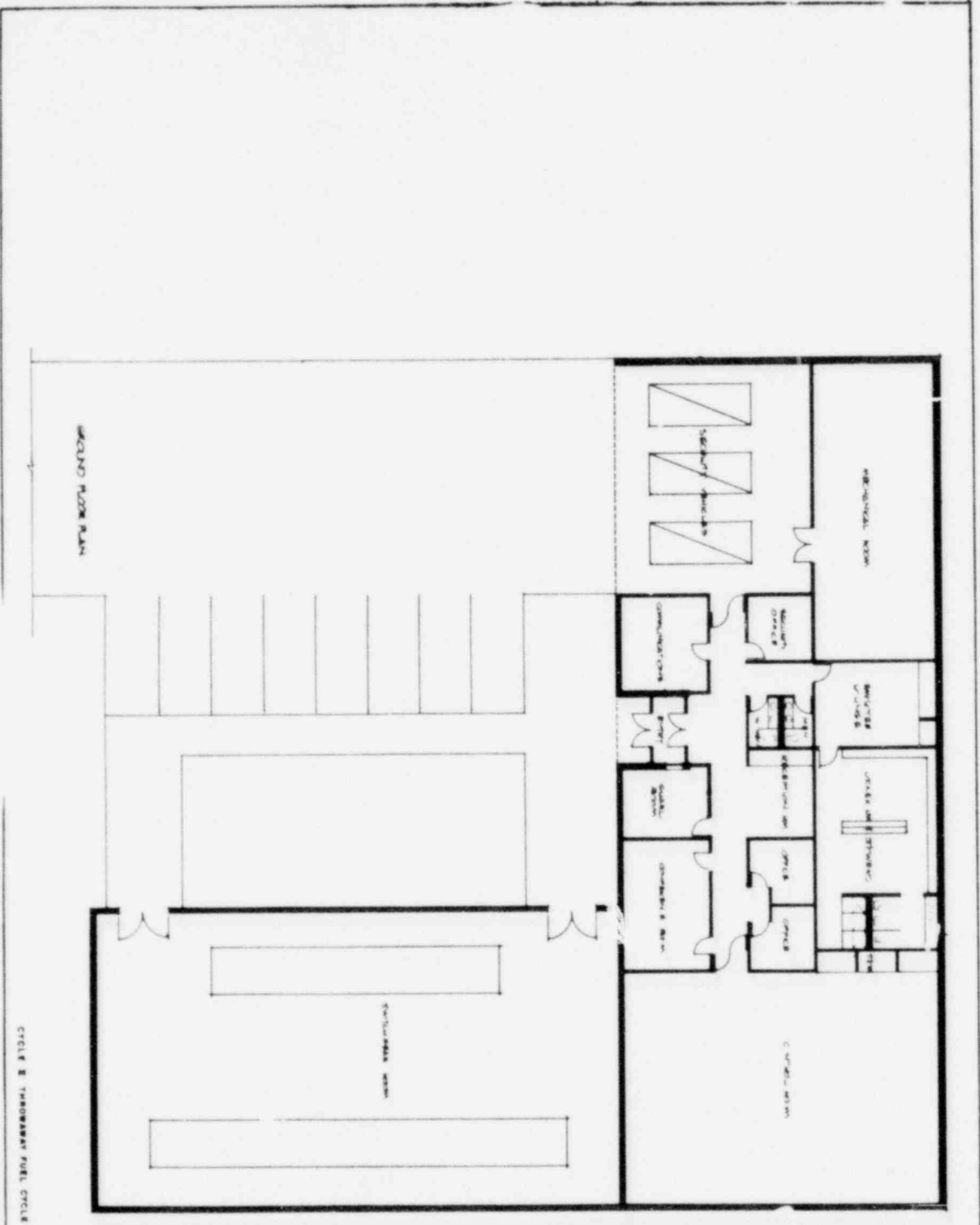
Section
 II

CYCLE II - THROWAWAY FUEL CYCLE



CYCLE 2 THROUGHOUT FUEL CYCLE

OFFICE OF WASTE ISOLATION
 UNION CARBIDE CORPORATION
 NUCLEAR DIVISION
 WASTE ISOLATION FACILITY
 MINE VENTILATION FLOW DAMPER
 S.A.T. CYCLE 2 - 23 IN NETHE QUAL
 SCALE: 1/8" = 1'-0"
 DATE: FEBRUARY 1978
 DRAWING NO: 015

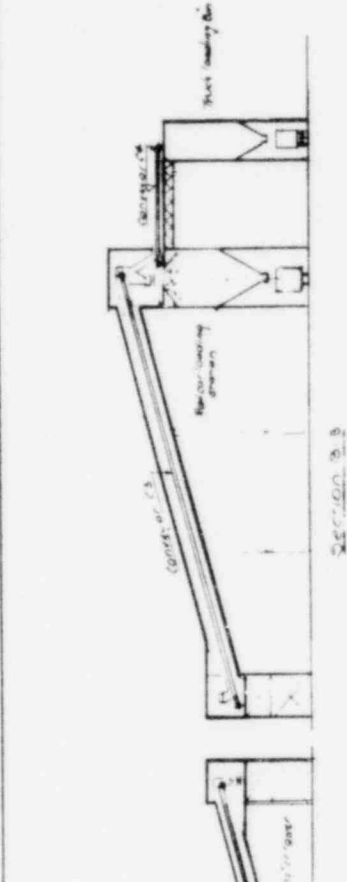
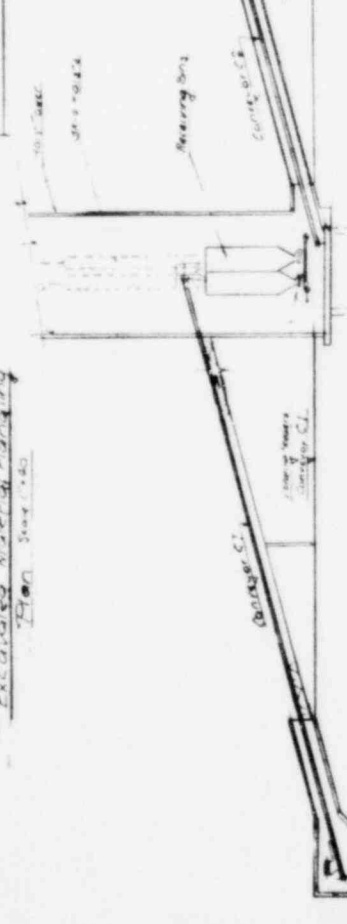
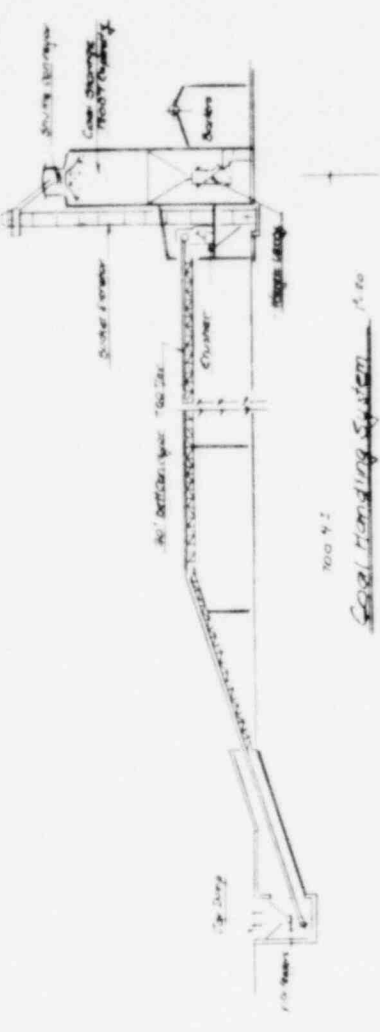
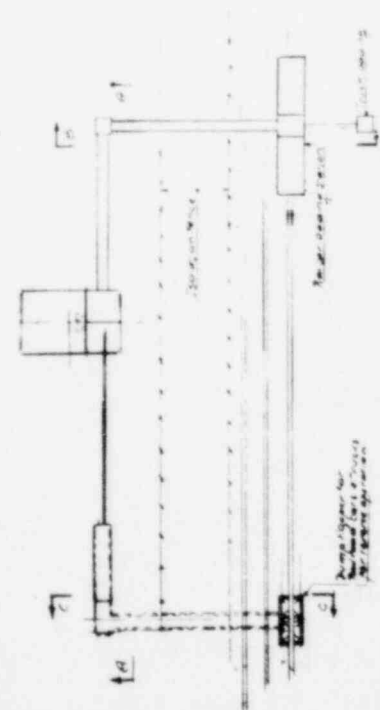


CYCLE B THROUGHOUT FUEL CYCLE

OFFICE OF WASTE ISOLATION
 UNION CARBIDE CORPORATION
 NUCLEAR DIVISION
 OAK RIDGE, TENNESSEE

WASTE ISOLATION FACILITY
 CENTRAL SITE CONTROL AND SWITCHGEAR BLDG
 SALT PILE #1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100

DATE: FEBRUARY 1978



Conveyor Schedule

Conveyor	Length	Speed	Capacity
C1	500 ft	600 RPM	5000 lbs/hr
C2	36 ft	300 RPM	5000 lbs/hr
C3	36 ft	300 RPM	5000 lbs/hr
C4	36 ft	300 RPM	5000 lbs/hr
C5	36 ft	300 RPM	5000 lbs/hr
C6	36 ft	300 RPM	5000 lbs/hr
C7	36 ft	300 RPM	5000 lbs/hr



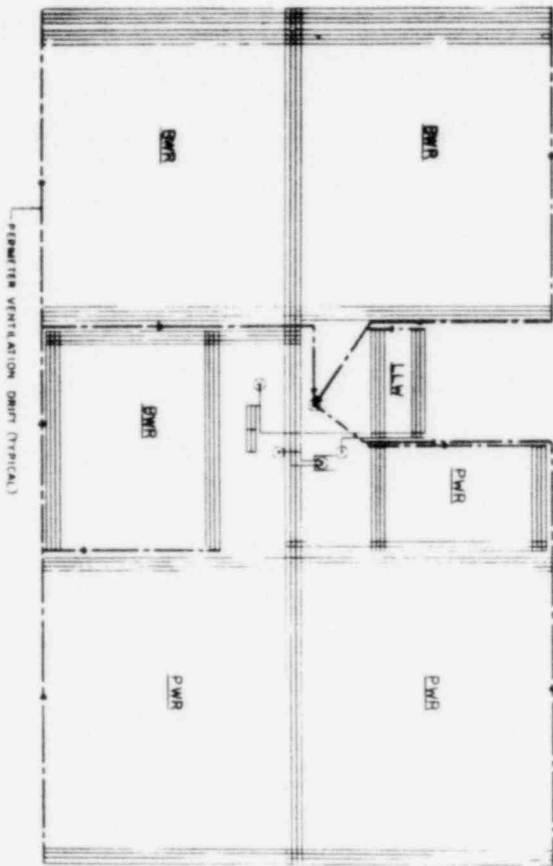
OFFICE OF WASTE ISOLATION
UNION CARBIDE CORPORATION
NUCLEAR DIVISION
ONE MOORE, TENNESSEE

WASTE ISOLATION FACILITY
UNION CARBIDE CORPORATION

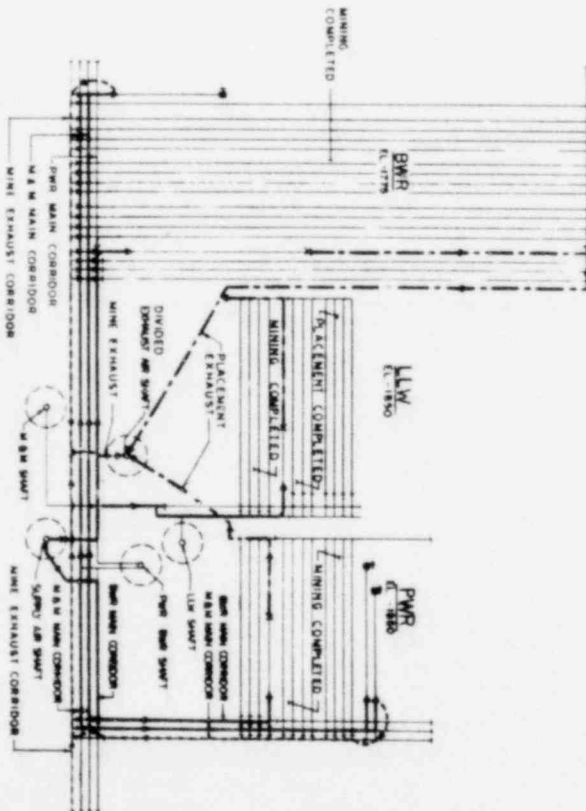
SCALE: AS SHOWN
DATE: FEBRUARY, 1978

CONTRACT NO. 87-4070C
SHEET NO. 10

CYCLE 2 THROUGHWAY FUEL CYCLE



PLACEMENT VENTILATION DRIFT SYSTEM
SCALE: 1" = 800'



PARTIAL PLAN
MINING AND PLACEMENT VENTILATION
SCALE: 1" = 400'

LEGEND

- PLACEMENT EXHAUST AIR
- MINE EXHAUST AIR
- PLACEMENT AND MINE SUPPLY AIR
- MINE OPERATIONS IN PROGRESS
- PLACEMENT OPERATIONS IN PROGRESS
- CORRIDOR OR ROOM SKELD

CYCLE B THROUGHOUT FUEL CYCLE

OFFICE OF WASTE ISOLATION

UNION CARBIDE CORPORATION

NUCLEAR DIVISION

ONE BOND, TENNESSEE

DESIGNED BY: ENGINEER, QUALITY & SAFETY

WASTE ISOLATION FACILITY

VENTILATION PLAN

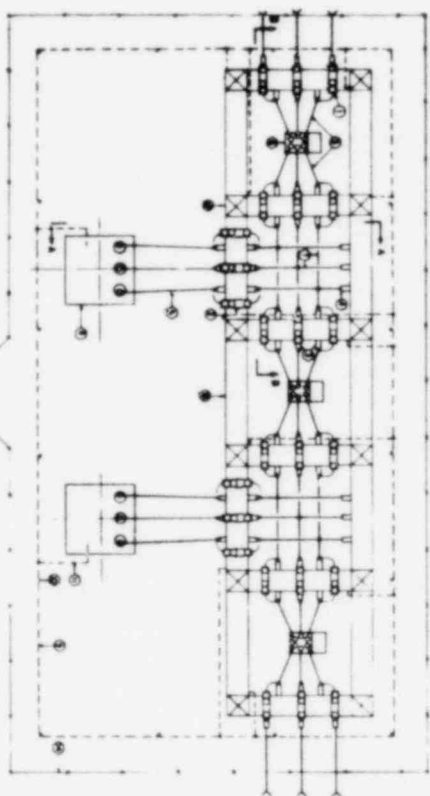
DATE: 11/18/80

SCALE: AS SHOWN

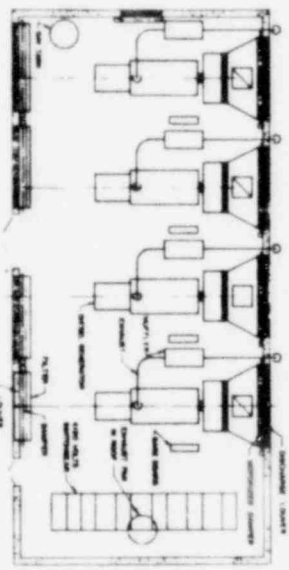
DATE: 11/18/80

SCALE: AS SHOWN

DATE: 11/18/80

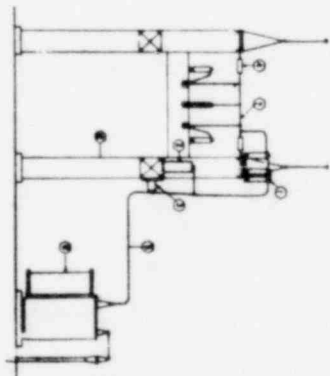


SUB-STATION PLAN

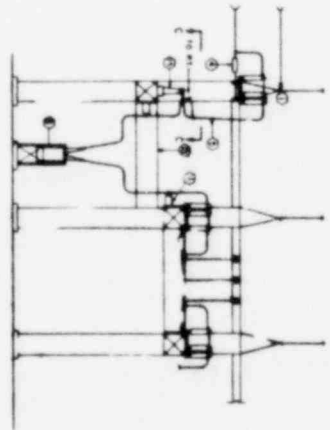


STANDBY GENERATOR

LINE	DESCRIPTION
1	115 KV BUS
2	115 KV BREAKER
3	115 KV LINE
4	115 KV TRANSFORMER
5	115 KV BUS
6	115 KV BREAKER
7	115 KV LINE
8	115 KV TRANSFORMER
9	115 KV BUS
10	115 KV BREAKER
11	115 KV LINE
12	115 KV TRANSFORMER
13	115 KV BUS
14	115 KV BREAKER
15	115 KV LINE
16	115 KV TRANSFORMER
17	115 KV BUS
18	115 KV BREAKER
19	115 KV LINE
20	115 KV TRANSFORMER



SECTION AA



SECTION BB



SECTION C-C

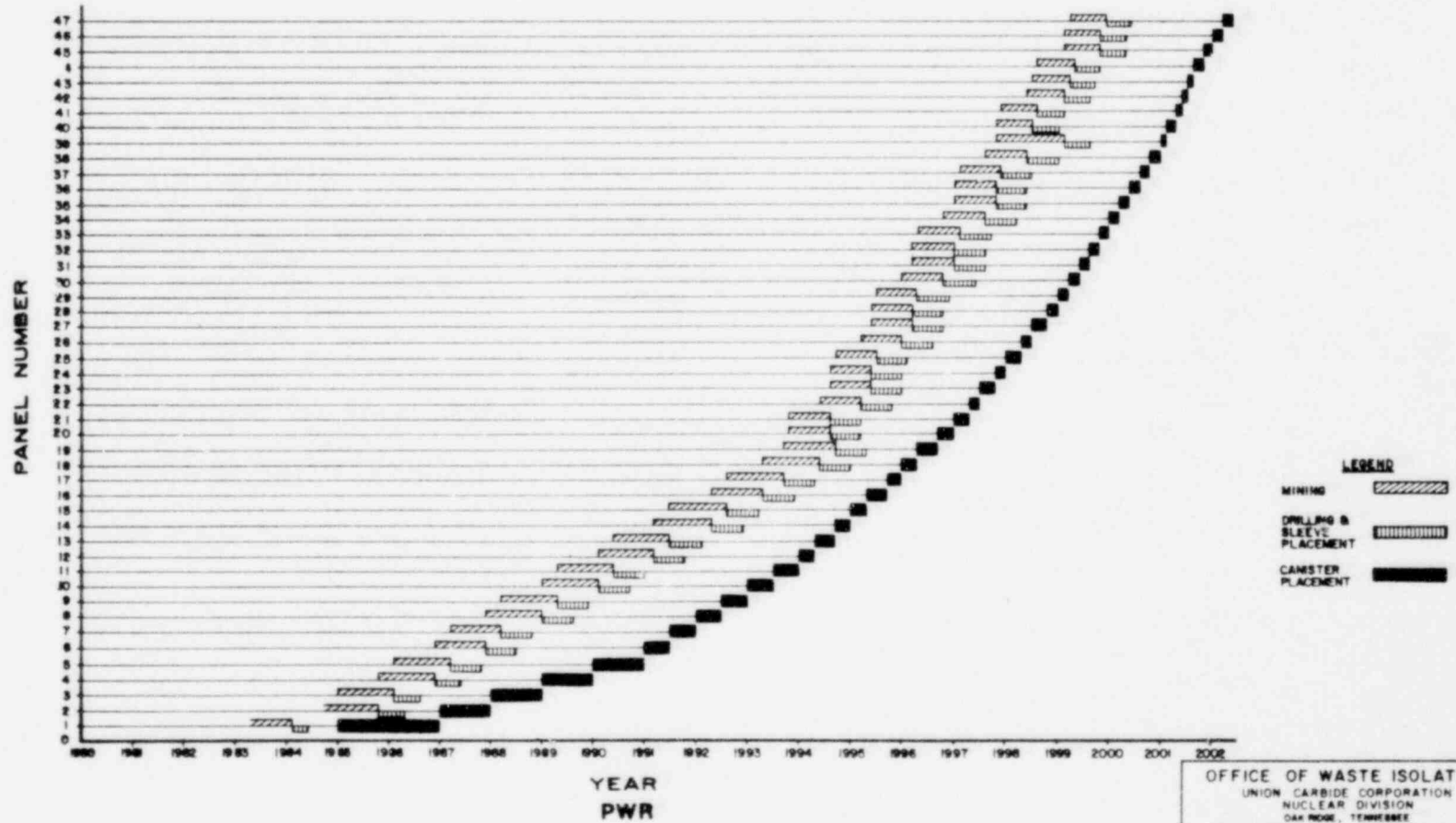
CYCLE B THROUGHOUT CYCLE

OFFICE OF WASTE ISOLATION
 UNION CARBIDE CORPORATION
 NUCLEAR DIVISION
 DATE: 1964
 DRAWING NO. 100-100-100
 WASTE ISOLATION FACILITY
 AND STAND-BY GENERATOR

DESIGNED BY: [Name]
 CHECKED BY: [Name]
 DATE: 02/11/64

MINING AND PLACEMENT SCHEDULE

SALT-CYCLE II - 25 YEARS RETRIEVABLE



OFFICE OF WASTE ISOLATION
 UNION CARBIDE CORPORATION
 NUCLEAR DIVISION
 OAK RIDGE, TENNESSEE

PURDINE, SPINCKERHOFF, GADE & DOUGLAS, INC.
 ENGINEERS
 NEW YORK, N.Y.

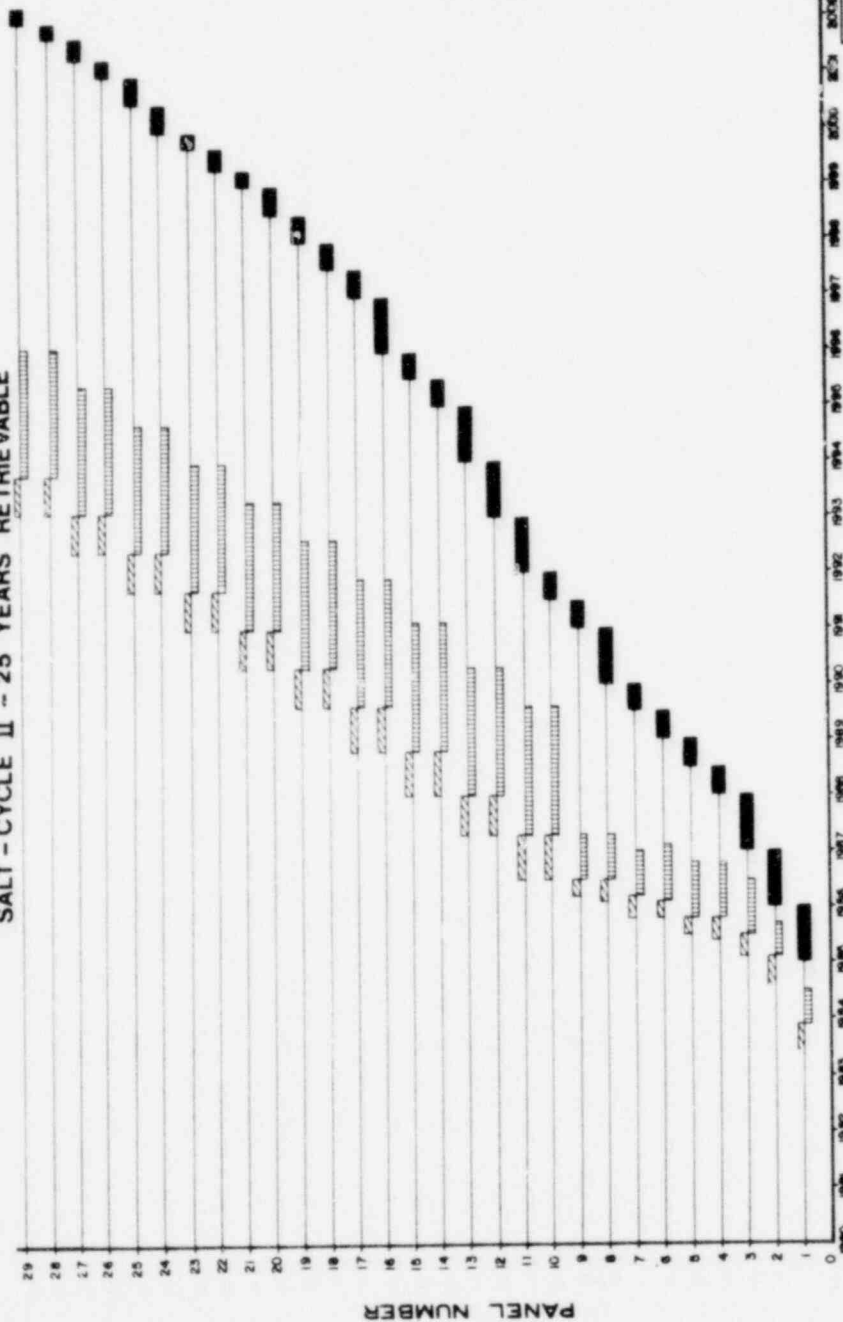
WASTE ISOLATION FACILITY
 PWR MINING AND PLACEMENT SCHEDULE
 SALT-CYCLE II - 25 YR RETRIEVABLE

SCALE: CONTINUED ON 82Y-48705C
 DATE: FEBRUARY, 1978 PWR 88-023 REV.

CYCLE II - THROWAWAY FUEL CYCLE

MINING AND PLACEMENT SCHEDULE

SALT - CYCLE II - 25 YEARS RETRIEVABLE



LEGEND

MINING

DRILLING & SLEEVE PLACEMENT

CANISTER PLACEMENT

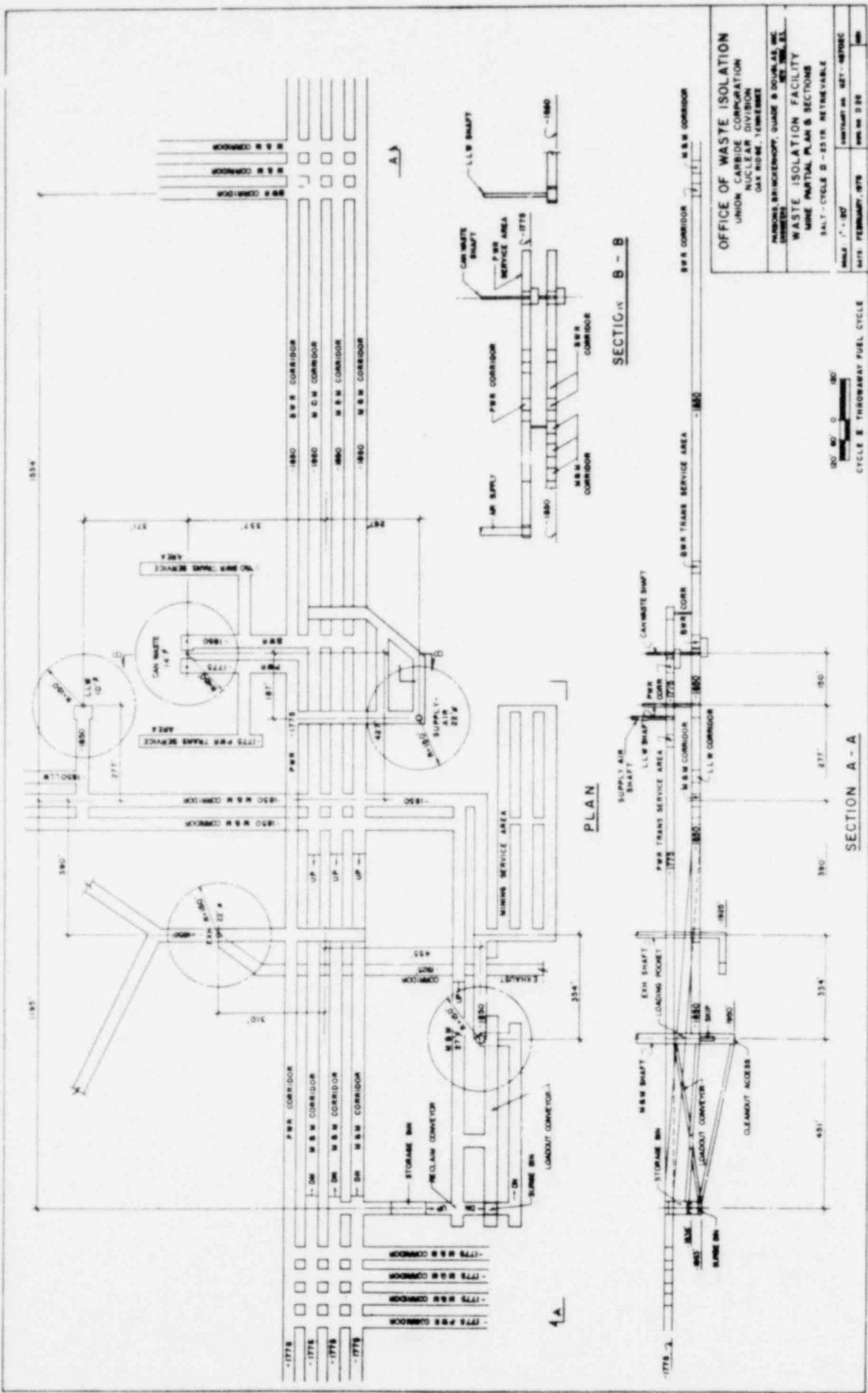
OFFICE OF WASTE ISOLATION
 UNION CARBIDE CORPORATION
 NUCLEAR DIVISION
 OAK RIDGE, TENNESSEE

WASTE ISOLATION FACILITY
 SRR MINING AND PLACEMENT SCHEDULE
 SALT - CYCLE II - 25 YEAR RETRIEVABLE

REVISION NO. SET - 4702C
 DATE: FEBRUARY, 1979

YEAR
BWR

CYCLE II - THROWAWAY FUEL CYCLE

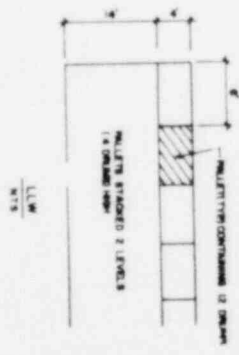
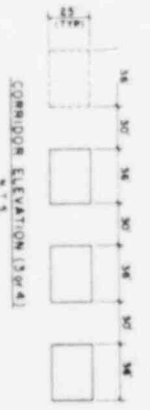
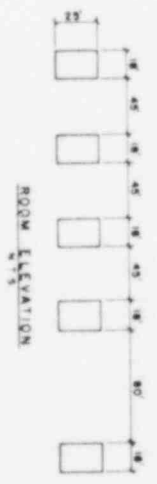
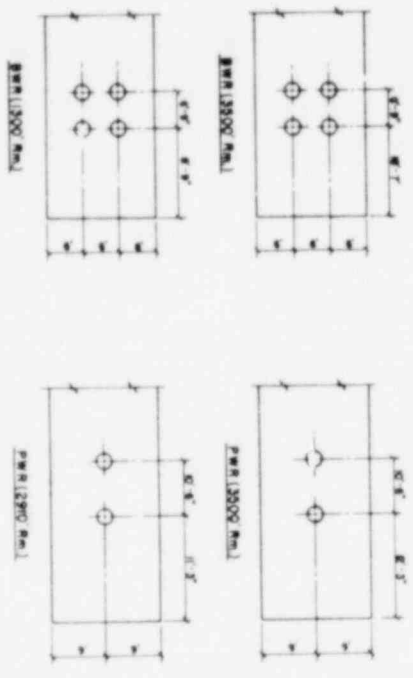
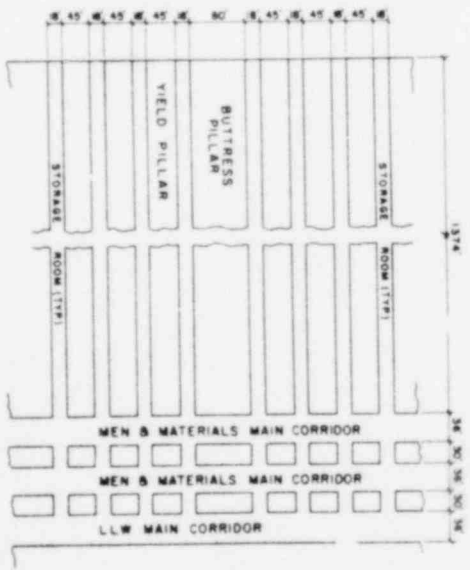
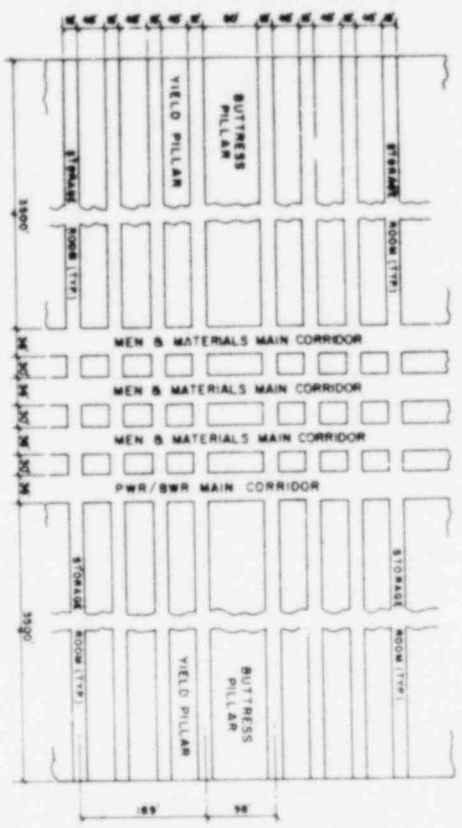


OFFICE OF WASTE ISOLATION
 UNION CARBIDE CORPORATION
 NUCLEAR DIVISION
 OAK RIDGE, TENNESSEE

WASTE ISOLATION FACILITY
 WASTE PARTIAL PLAN B SECTIONS
 SALT - CYCLE B - 23TR. RETRIEVABLE

SCALE: 1" = 30'
 DATE: FEBRUARY, 1979
 SHEET NO. 427 - 46702C
 REV. NO. 2 29





STORAGE ROOM PLAN
N.T.S.

NOTE: 1/4" OF STORAGE ROOMS ARE RESERVED FOR OVERHEAD CABLES

CORRIDOR B ROOM LAYOUT - PWR/BWR
N.T.S.

CORRIDOR B ROOM LAYOUT - LLW
N.T.S.

OFFICE OF WASTE ISOLATION

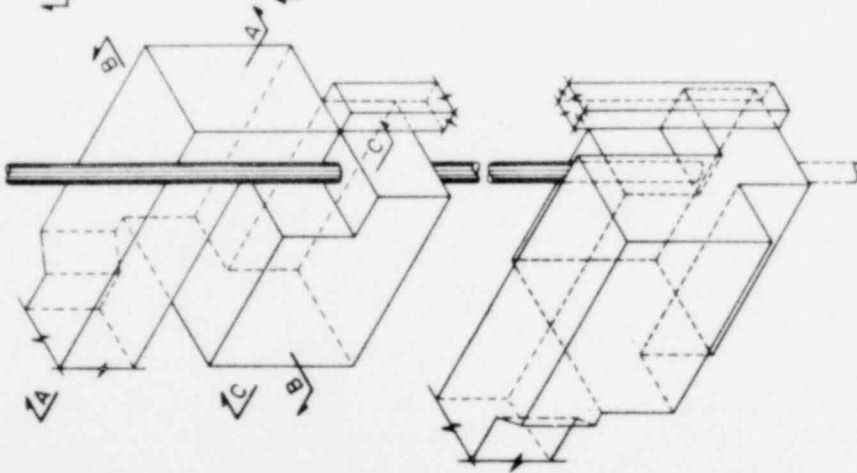
GENERAL CONTRACTOR: GARDNER & THEOBALD INC.
UNION: IUBEA DIVISION
DATE: FEBRUARY, 1978

WASTE ISOLATION FACILITY
CORRIDOR AND ROOM LAYOUT
SALT - CYCLE B - 23 IN RETRIEVABLE

SCALE: AS SHOWN
DATE: FEBRUARY, 1978

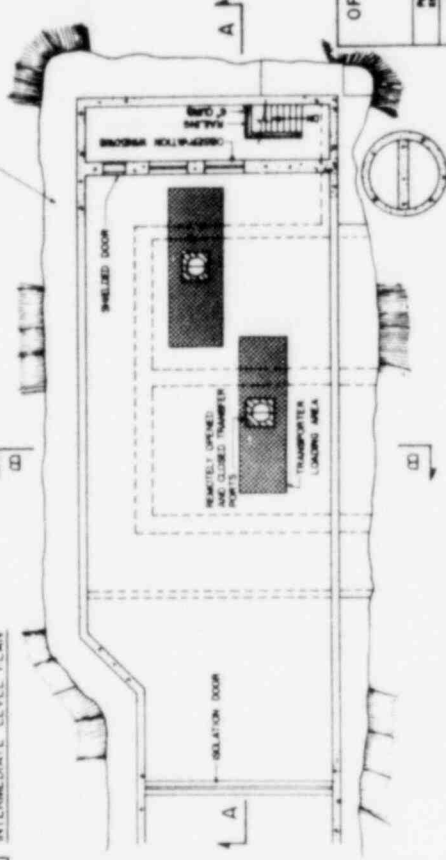
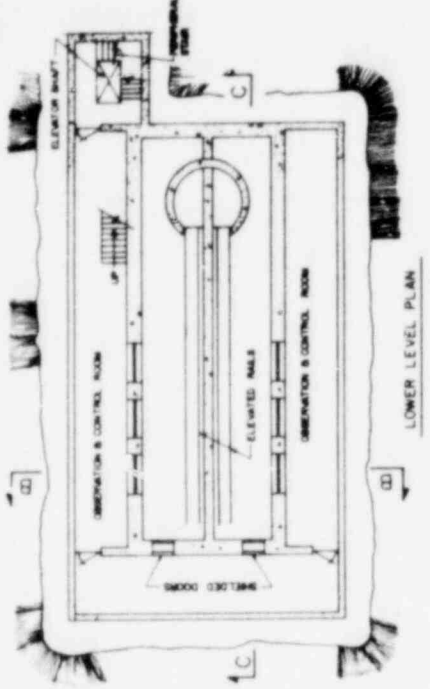
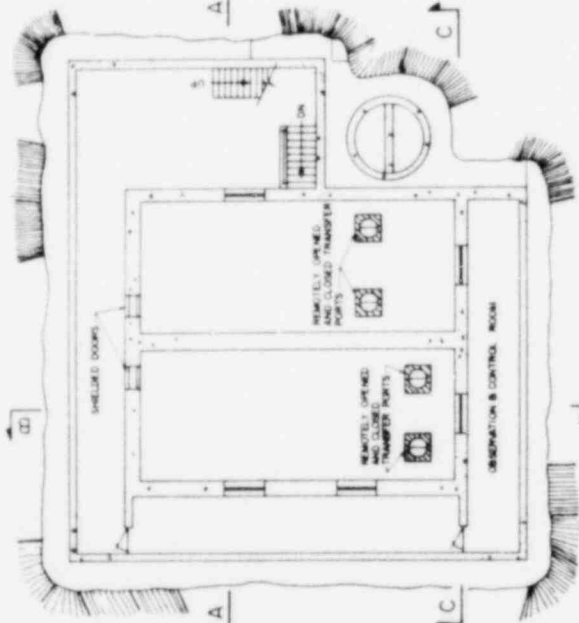
SCALE: AS SHOWN	DATE: FEBRUARY, 1978
DESIGNED BY: [Name]	CHECKED BY: [Name]
DRAWN BY: [Name]	DATE: [Date]

TO SURFACE FACILITIES



SUBSURFACE RECEIVING STATIONS

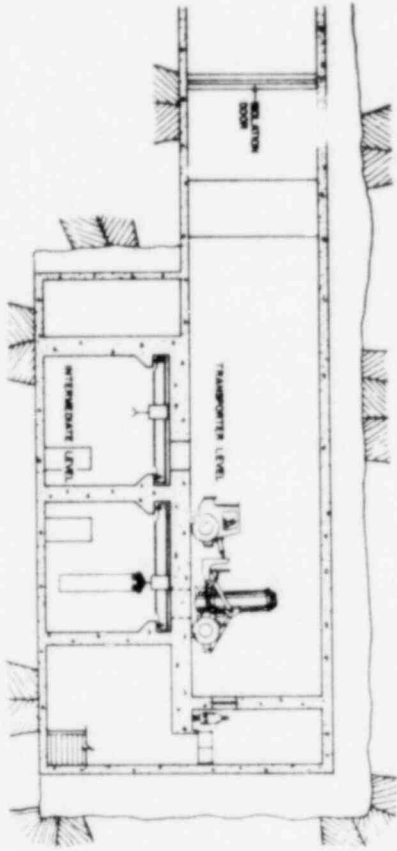
ETB



TRANSPORTER LEVEL PLAN

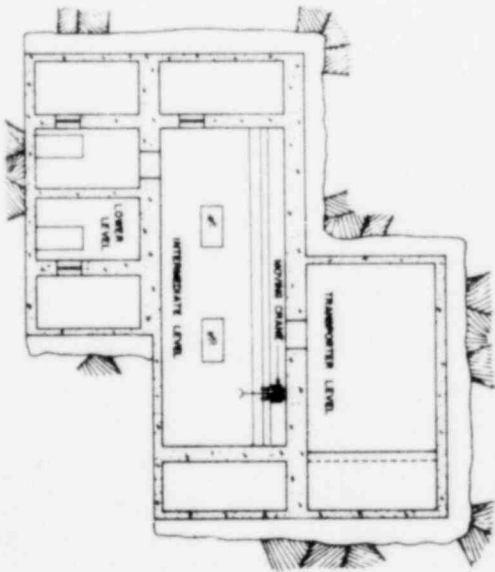
CYCLE B - THROWAWAY FUEL CYCLE

OFFICE OF WASTE ISOLATION	
UNION CARBIDE CORPORATION	
NUCLEAR DIVISION	
OAK RIDGE, TENNESSEE	
PREPARED BY: HARRISON BRUNCKENHOFF, GUYARD & SOULAS, INC.	
DATE: FEBRUARY, 1978	
PROJECT: WASTE ISOLATION FACILITY	
SUBPROJECT: CANISTERED WASTE SUBSURFACE RECEIVING STATION - PLAN	
SHEET: CYCLE B - THROWAWAY FUEL CYCLE	
SCALE: 1/4" = 1'-0"	
DRAWING NO. 857-10705C	
DATE: FEBRUARY, 1978	SCALE: 1/4" = 1'-0"
DRAWN BY: GIB	CHECKED BY: GIB

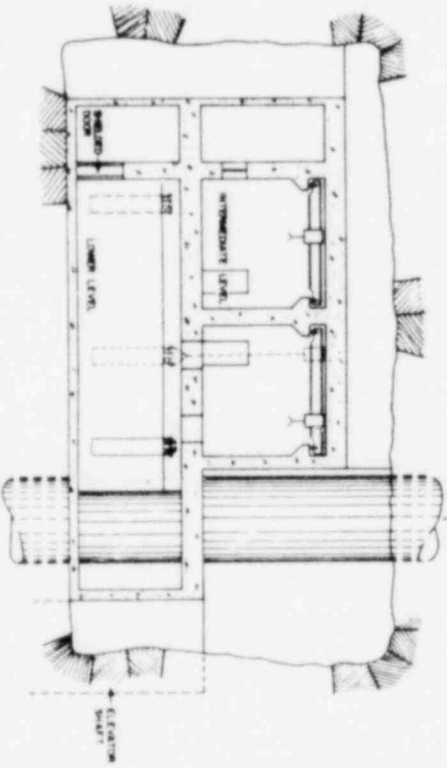


SECTION A-A

TO CAPTURED WASTE HANDLING AREA



SECTION B-B



SECTION C-C

CIRCLE B - TRANSPORTER HOIST DRIVE

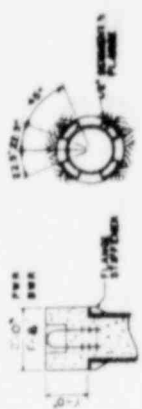
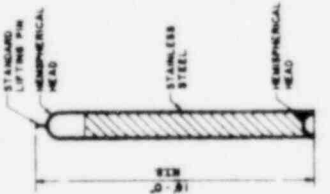
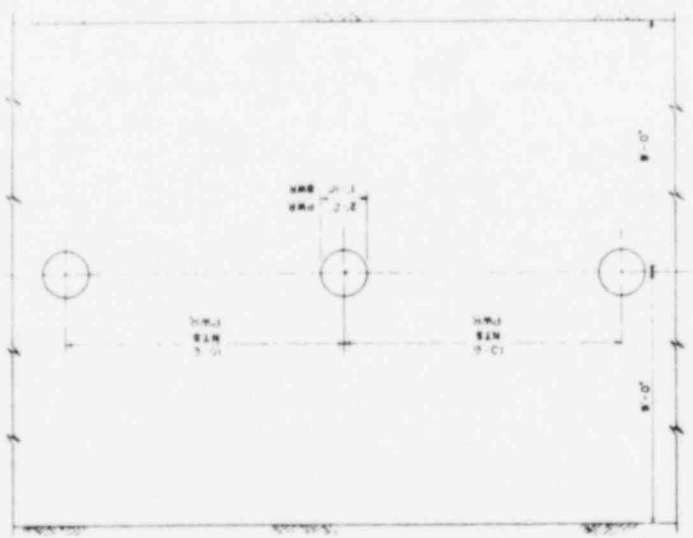
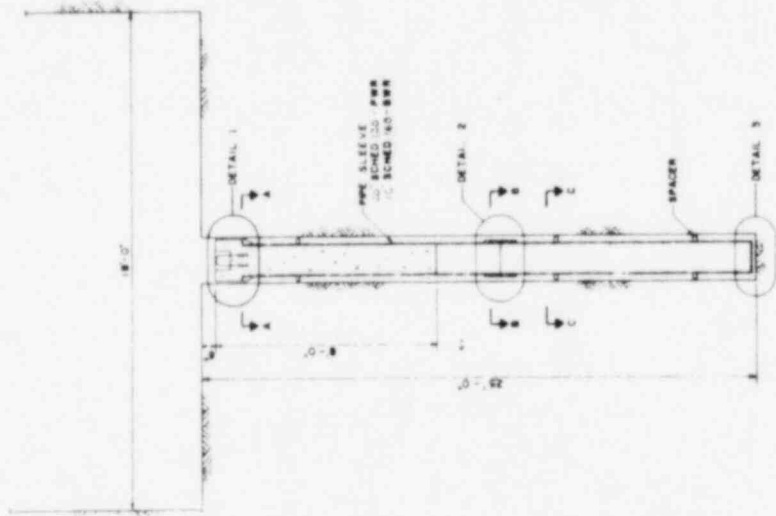
OFFICE OF WASTE ISOLATION

UNION CARBIDE CORPORATION
NUCLEAR DIVISION
DAYTON, OHIO

WASTE ISOLATION FACILITY

CAPTURED WASTE HANDLING
STATION - SECTION
SCALE: CIRCLE B - 1/4" = 1'-0"

DATE	REVISION	BY
10/1/68	1	WJG



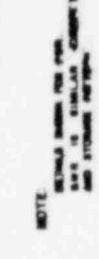
SECTION A-A
SCALE 1/4" = 1'-0"



SECTION B-B
SCALE 1/4" = 1'-0"



SECTION C-C
SCALE 1/4" = 1'-0"



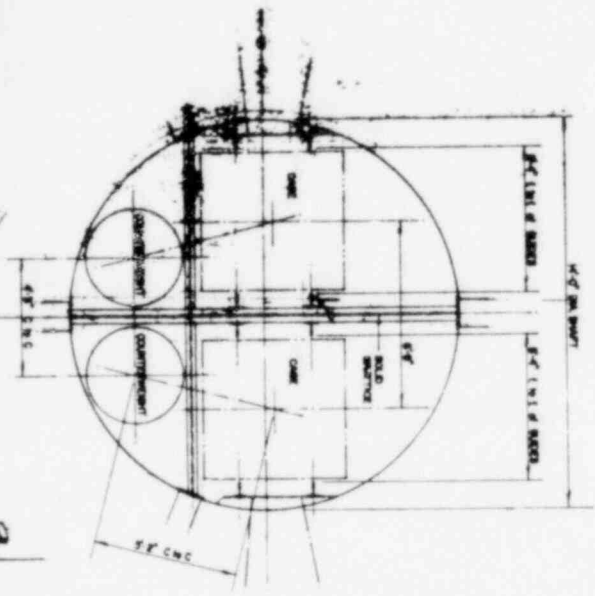
NOTE:
STAINLESS STEEL FOR PIPE
DETAILS IS 304L. CHECK FOR CORROSION
AND STORAGE METHODS.

CANISTER DETAIL
SCALE 1/4" = 1'-0"

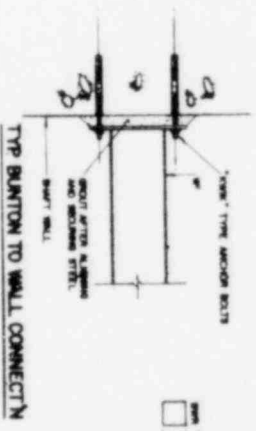
CANISTER PLACEMENT ELEVATION
SCALE 1/4" = 1'-0"

OFFICE OF WASTE ISOLATION	
UNION CARBIDE CORPORATION	
NUCLEAR DIVISION	
ONE NORTH ZION AVENUE	
MORRISTOWN, NEW JERSEY 07960	
WASTE ISOLATION FACILITY	
CANISTERED WASTE STORAGE	
SALT CYCLES IS 1A RETRIEVABLE	
DRAWN BY: MCH	PROJECT NO. 857-45703C
DATE: FEBRUARY, 1979	FIG. NO. 0-3

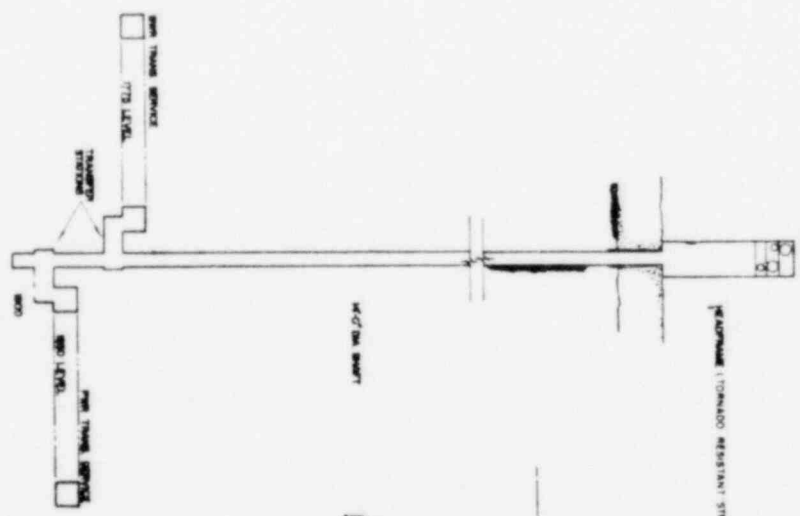
CYCLE 2 THROUGHWAY FUEL CYCLE



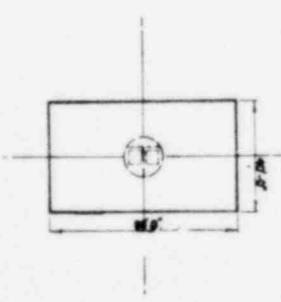
PLAN OF SHAFT



TYP. SECTION TO WALL CONNECTION



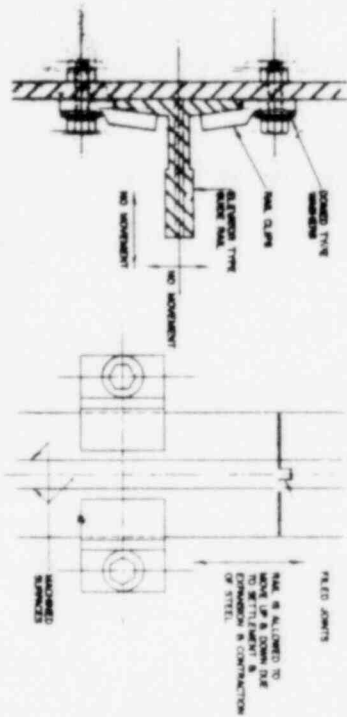
SHAFT SECTION



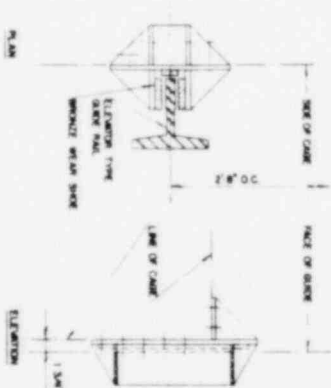
PLAN OF HEADFRAME

CYCLE B THORP/PAWR FUEL CYCLE

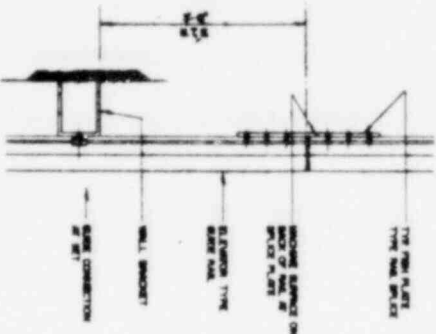
OFFICE OF WASTE ISOLATION	
UNION LABSIDE CORPORATION	
NUCLEAR DIVISION	
OAK RIDGE, TENNESSEE	
PROJECT: SHREVEPORT, GAULT & DONALDSON	
WASTE ISOLATION FACILITY	
CANISTERED WASTE SHAFT	
SHEET: CYCLE B / 25TH REVISION	
DATE: FEBRUARY, 1978	DESIGNED BY: AFD/DC
NO. 011	REV.



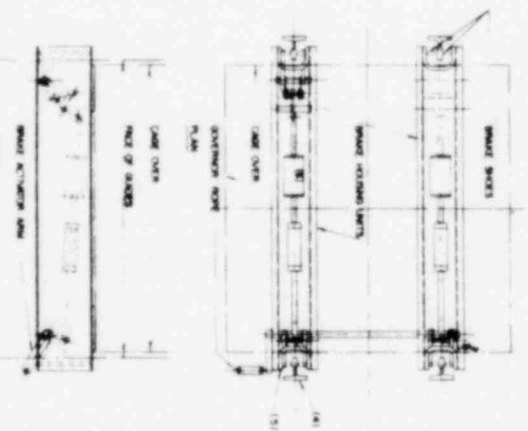
TYPICAL GUIDE RAIL ASSEMBLY



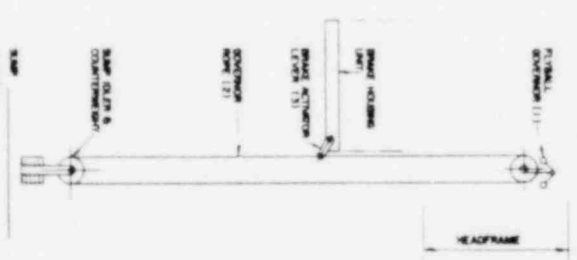
TYPICAL GUIDE SHOE



GUIDE GENERAL ASSEMBLY



FLEXIBLE SAFETY DEVICE



SHAFT SAFETY GEAR ARRANGEMENT

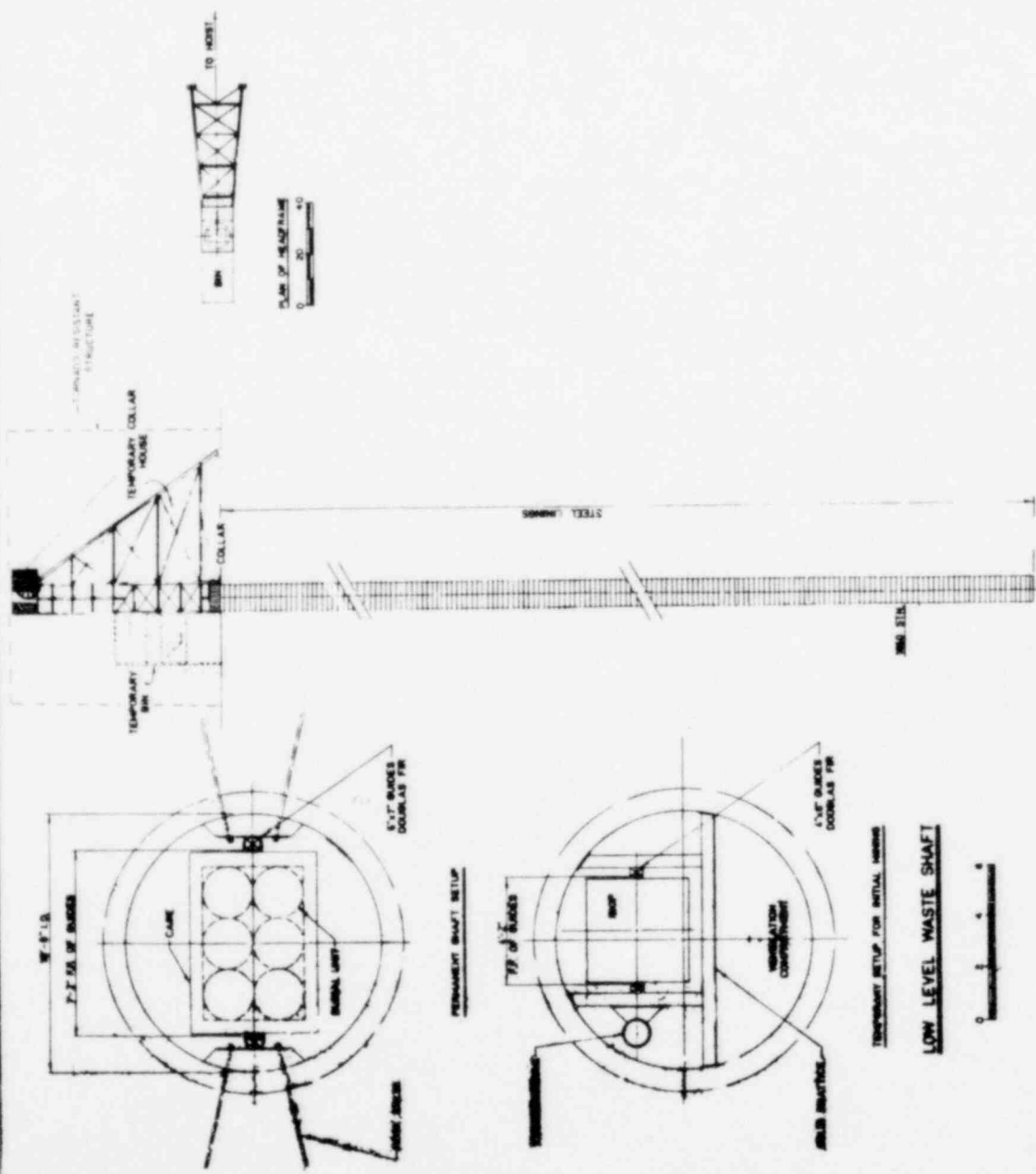
NOTES

WARNING SYMBOLS

SHOWN IN OUTLINED CONDITION, THE DETAILS ON THE RAIL CONNECTION (1) SHOW THE SHOWN SHEET AND STOP ITS POSITION. AS THE OVERHUNG HOPE (2) IS BEING STOPPED, THE ACTIVATION LEVEL (3) IS PULLED UP INTO THE JOY (SHOWN IN POSITION). THE JOY AND FORCE OF THE LIFTING SIDE OF THE GUIDE RAIL (4) BY THE SAFETY MECHANISM AS THE CONNECTION CONTAINS ITS DESIGN. THE SAFETY MECHANISM AND SIDE OF AN INCLINED SURFACE DESIGN. (5) ADJUST THE GUIDE RAIL. THE "STOPPING" BLOCK (5) BEARS TO SPRING FOR TO THIS DESIGN ACTION. PROVIDING A CONTACT POINT ON THE GUIDE RAIL. BETWEEN THE CONNECTION TO BESET WITH A LAMINA. THE SHOWN OVER A STATE DISTANCE. SHOULD THE OVERHUNG HOPE BEING STOPPED. (6) NOTIFICATIONALLY SHOWS THE SHOWN CONNECTION.

OFFICE OF WASTE ISOLATION

UNION CARBIDE CORPORATION
 NUCLEAR DIVISION
 ONE MOORE, TOWNSEND
 NATIONALE BRUCKERHOFF, DAVIS & DONOVAN, INC.
 WASTE ISOLATION FACILITY
 CANISTERED WASTE CONVEYANCE
 SAFETY MECHANISM
 SMT - CYCLE II 25 19 107 001 018
 CONTRACT NO. 457 45702C
 REV. NO. 011



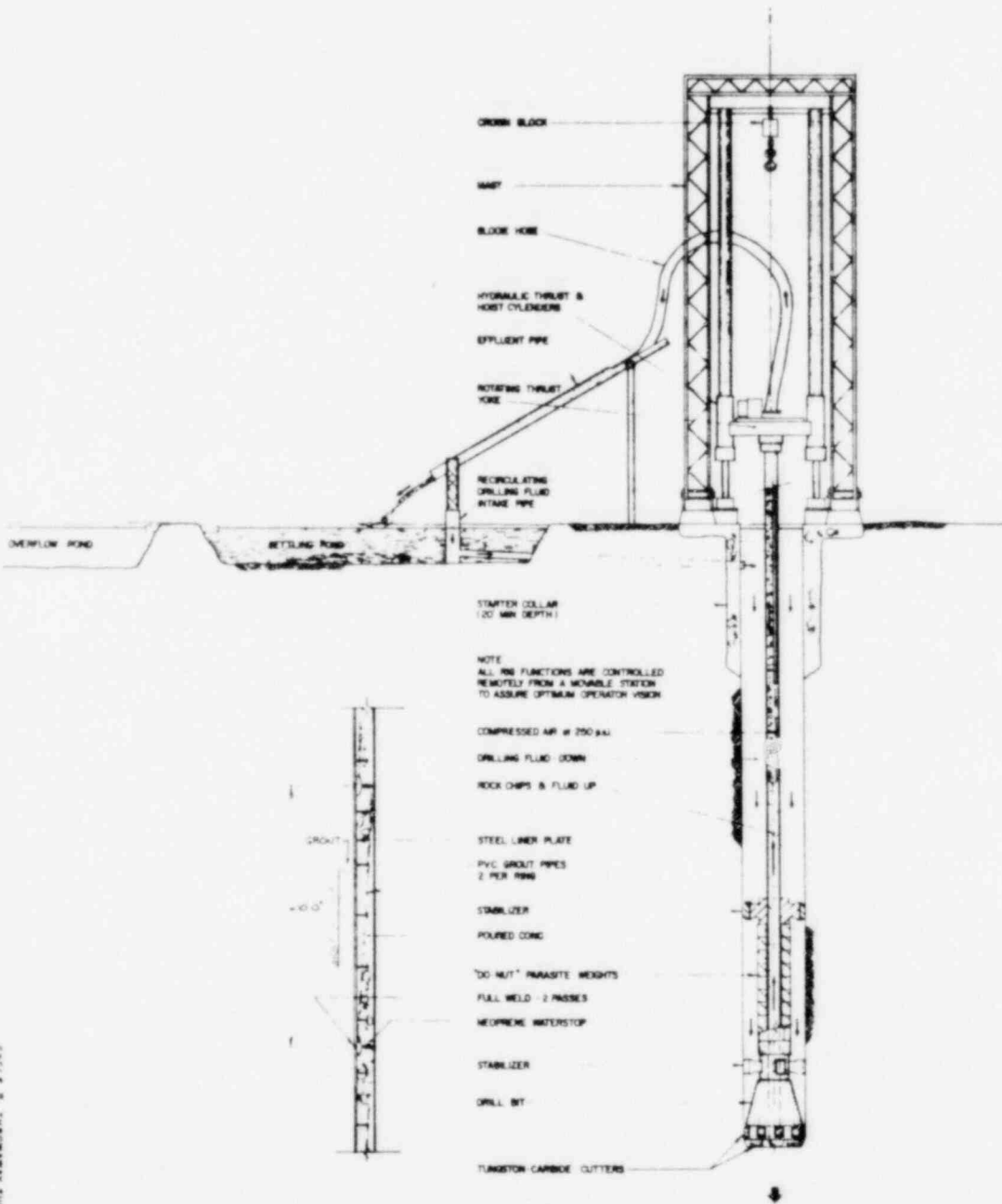
OFFICE OF WASTE ISOLATION
 UNION CARBIDE CORPORATION
 NUCLEAR DIVISION
 OAK RIDGE - TENNESSEE

PARSONS, BRINCKERHOFF, QUAIN & DOUGLAS, INC.
 1000 AVENUE D, NEW YORK, N.Y.

WASTE ISOLATION FACILITY
 LOW LEVEL WASTE SHAFT

SCALE - CYCLE II SITE RETRIEVABLE
 SHAFT AS NOTED
 DATE: FEBRUARY, 1978

CYCLE II THROWAWAY FUEL CYCLE

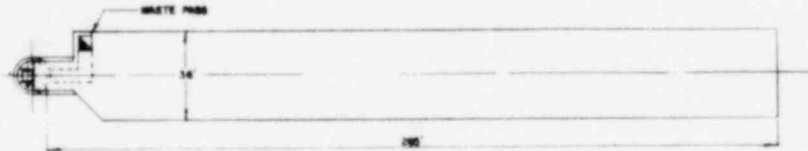


SHAFT LINING ARRANGEMENT

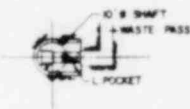
BLIND HOLE DRILLING METHOD

CIRCLE 2 - HORIZONTAL PIVEL CIRCLE

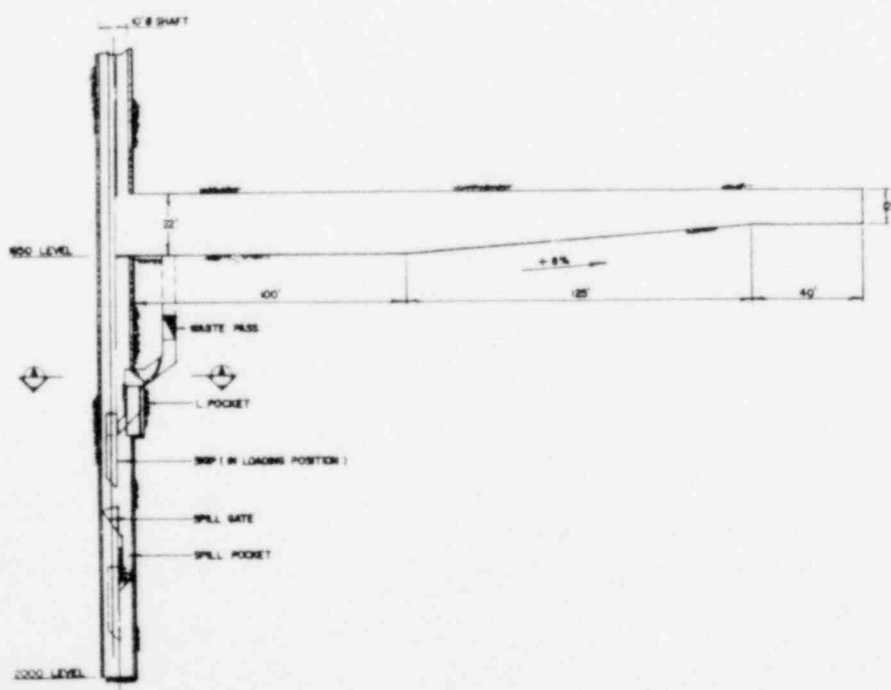
OFFICE OF WASTE ISOLATION	
UNION CARBIDE CORPORATION	
NORTH AVENUE DIVISION	
500 WEST 10TH STREET	
DENVER, COLORADO 80202	
PROJECT: WASTE ISOLATION FACILITY	
SUBJECT: LOW LEVEL WASTE SHAFT	
DRAWING: BLIND HOLE DRILLING METHOD	
SCALE: CIRCLE 2 - 25' PER VERTICAL INCH	
DATE: FEBRUARY 1978	BY: [Signature]
CHECKED: [Signature]	DATE: [Signature]



PLAN OF 1850 LEVEL STATION



SECTION 'A-A'

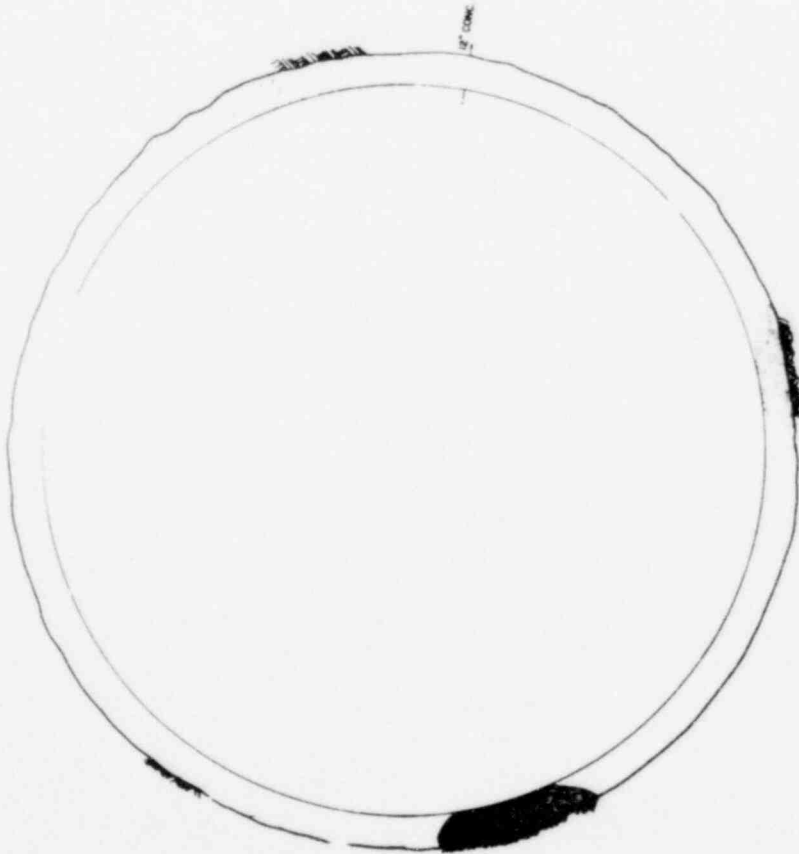


SECTION THRU SHAFT BOTTOM

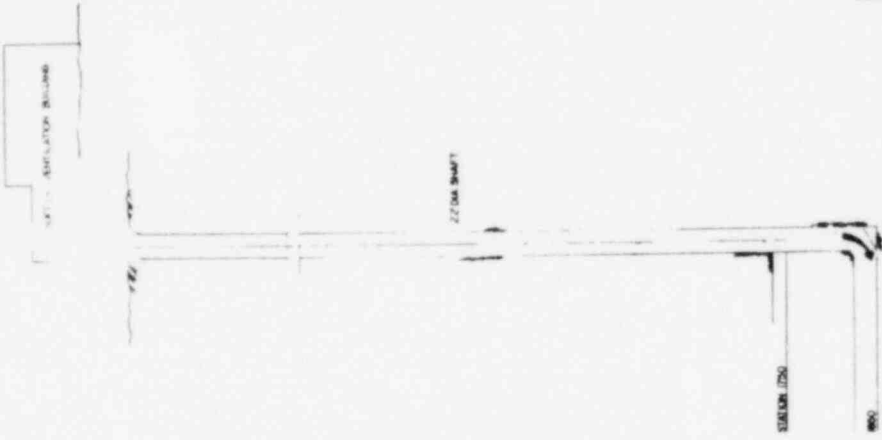
CYCLE 2 THROUGH FUEL CYCLE

OFFICE OF WASTE ISOLATION UNION CARBIDE CORPORATION NUCLEAR DIVISION OAK RIDGE, TENNESSEE	
PROJECT: WASTE ISOLATION FACILITY LOW LEVEL WASTE SHAFT DESIGN PRELIMINARY WORK DEVELOPMENT SALT CYCLE 2 25 TH RECYCLE	DRAWING NO: 87-4570C SHEET NO: 038
DATE: FEBRUARY, 1978	1978

27.00 DIA VENT SHAFT



PLAN OF SHAFT

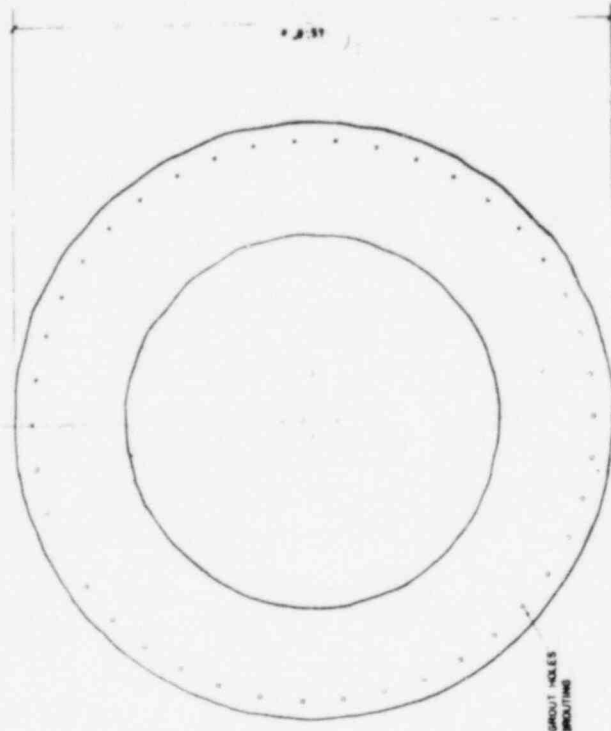
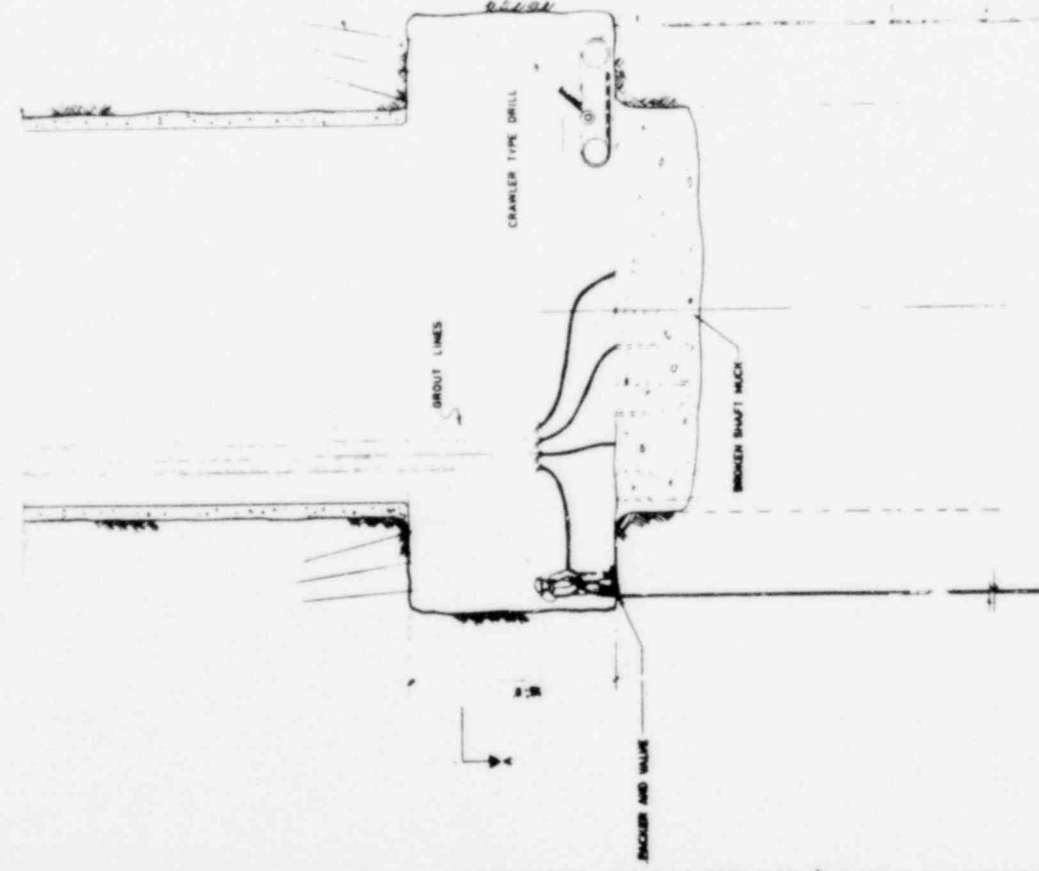


SHAFT SECTION

OFFICE OF WASTE ISOLATION	
UNION CARBIDE CORPORATION	
NUCLEAR DIVISION	
OAK RIDGE, TENNESSEE	
DRAWING: BRUCKENHOFF, QUADE & DOUGLAS INC	
DATE: 10/11/67	
WASTE ISOLATION FACILITY	
VENTILATION SUPPLY SHAFT	
SCALE - CYCLE II AS SHOWN	
DATE: FEBRUARY, 1978	1000 00 0 40
	1000

CYCLE II THROWAWAY FUEL CYCLE

8'-0" 37'-0" 12'-0"



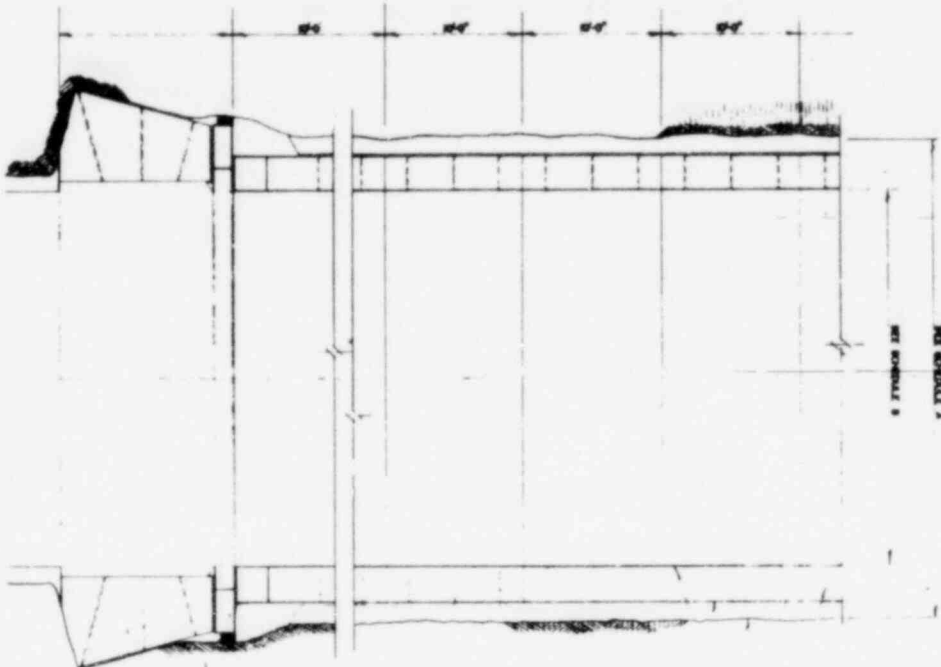
SIZE AND NUMBER OF GROUT HOLES TO BE DETERMINED BY GROUTING SPECIALIST

PLAN A-A

NON WATER BEARING
 APPROX 150 FT
 WATER BEARING
 NON WATER BEARING

CYCLE II THROUGHWAY FUEL CYCLE

OFFICE OF WASTE ISOLATION	
UNION CARBIDE CORPORATION	
NUCLEAR DIVISION	
OAK RIDGE, TENNESSEE	
PARSONS BRINCKERHOFF, MADE & DOUBLAS, INC	
MEMPHIS, TENNESSEE	
WASTE ISOLATION FACILITY	
TYPICAL GROUTING STATION	
SCALE:	SALT - CYCLE II IS NOT DIMENSIONABLE
DATE: FEBRUARY, 1978	JOB NO. 342
	10%

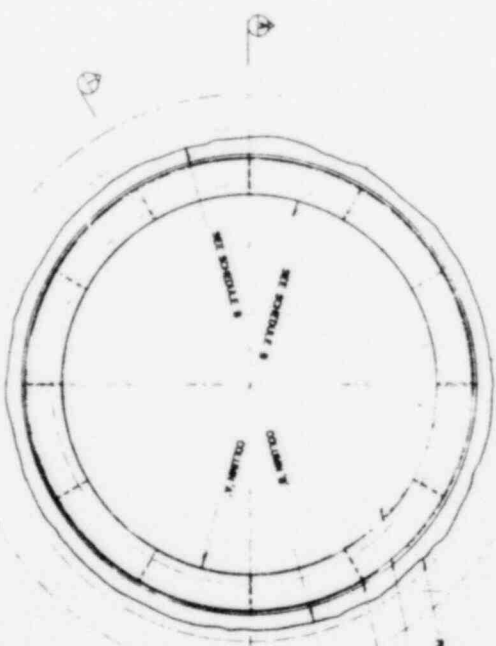


SHAFT SECTION A-A

REINFORCED CONCRETE
 STEEL LINED CONCRETE
 REINFORCED HYDROBONIC
 SHAFT LINING
 BRICK PILES
 ASBESTOS
 COMPARTMENT ROOF
 INSULATED BRICK
 REINFORCED CONCRETE

SCHEDULE 1

ASBESTOS STRENGTH OF CONK	THICKNESS OF CONK	STEEL LINING WEIGHT (LBS. PER SQ. FT.)	CONK WEIGHT (LBS. PER SQ. FT.)
1 3,000 PSI	2"	90,000 PSI	1"
2 5,000 PSI	2"	90,000 PSI	1"
3 6,000 PSI	2"	90,000 PSI	1"
4 6,000 PSI	2"	90,000 PSI	1"
5 6,000 PSI	2"	90,000 PSI	1"
6 6,000 PSI	2"	90,000 PSI	1"
7 6,000 PSI	2"	90,000 PSI	1"
8 6,000 PSI	2"	90,000 PSI	1"
9 6,000 PSI	2"	90,000 PSI	1"
10 6,000 PSI	2"	90,000 PSI	1"



PLAN ON SHAFT

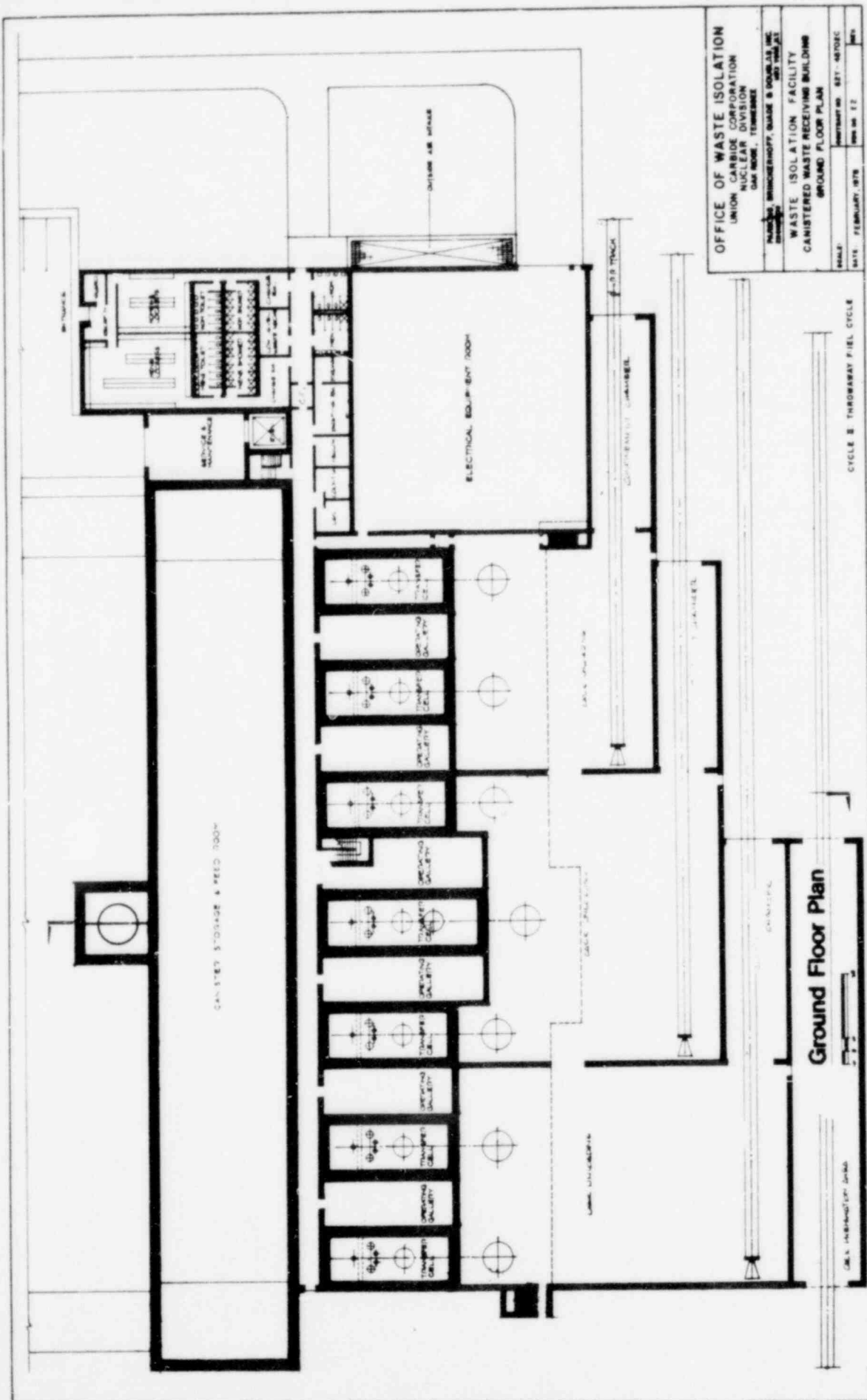
SCHEDULE 2

ASBESTOS STRENGTH OF CONK	THICKNESS OF CONK	STEEL LINING WEIGHT (LBS. PER SQ. FT.)	CONK WEIGHT (LBS. PER SQ. FT.)
1 3,000 PSI	2"	90,000 PSI	1"
2 5,000 PSI	2"	90,000 PSI	1"
3 6,000 PSI	2"	90,000 PSI	1"
4 6,000 PSI	2"	90,000 PSI	1"
5 6,000 PSI	2"	90,000 PSI	1"
6 6,000 PSI	2"	90,000 PSI	1"
7 6,000 PSI	2"	90,000 PSI	1"
8 6,000 PSI	2"	90,000 PSI	1"
9 6,000 PSI	2"	90,000 PSI	1"
10 6,000 PSI	2"	90,000 PSI	1"

*SEE DRAWING 022

CYCLE 8 THROUGHOUT FUEL CYCLE

OFFICE OF WASTE ISOLATION
 UNION CARBIDE CORPORATION
 NUCLEAR DIVISION
 OAK RIDGE, TENNESSEE
 NATIONAL BRUNNENHOFF, DIALON & DOUGLAS, INC.
 CHEMISTS
 WASTE ISOLATION FACILITY
 ASBESTOS SHAFT DESIGN DETAILS
 SCALE - CYCLE 8, 12/18 REFERENCE
 SHEET NO. 027 - 10/10/82
 DATE 12/18/82

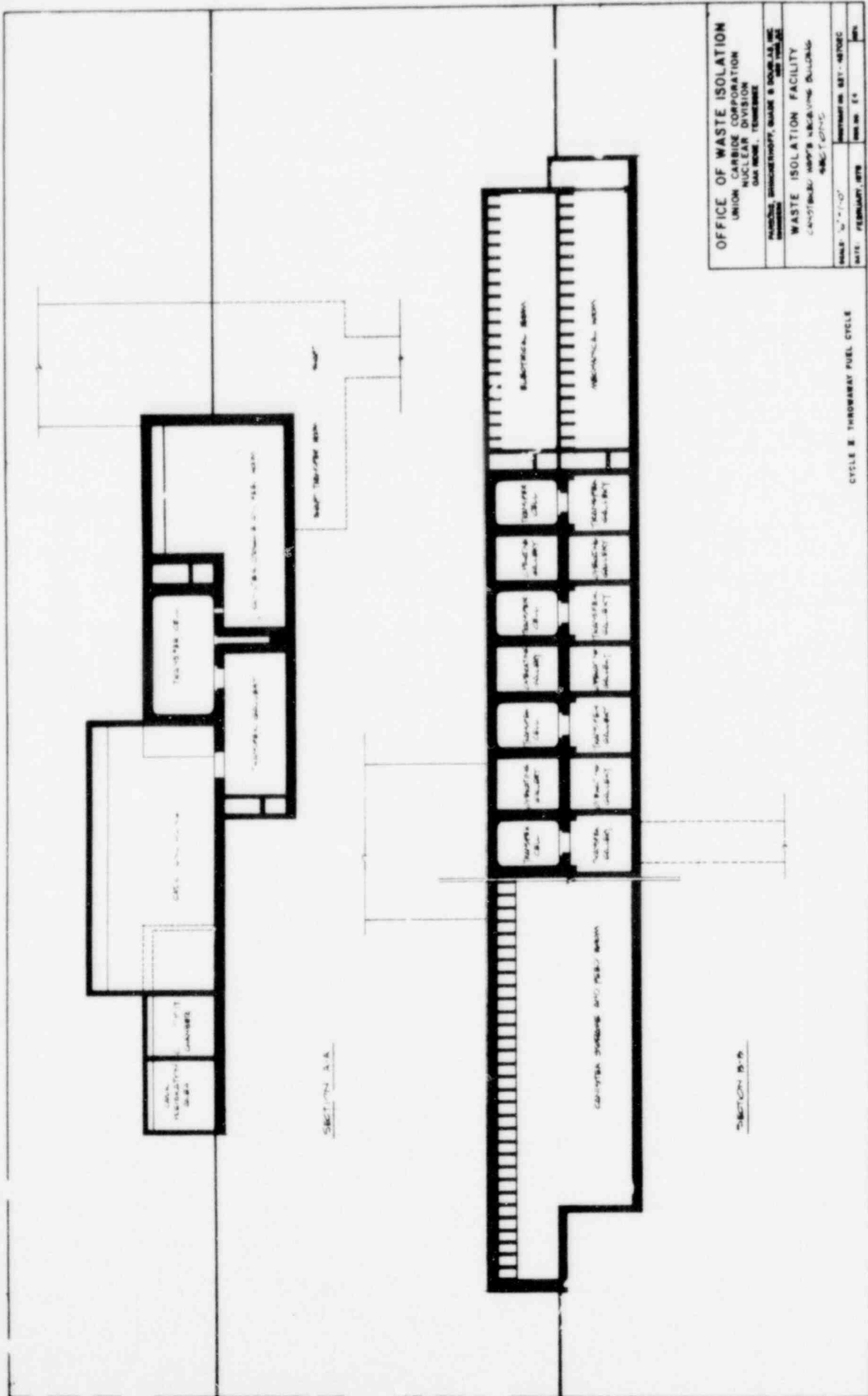


OFFICE OF WASTE ISOLATION
 UNION CARBIDE CORPORATION
 NUCLEAR DIVISION
 OAK RIDGE, TENNESSEE
 PLANNED BY: BRUNNENBERGER, SHANKS & DOUGLAS, INC.
 DRAWN BY: J. H. HARRIS
WASTE ISOLATION FACILITY
CANISTERED WASTE RECEIVING BUILDING
GROUND FLOOR PLAN
 SCALE: 1/8" = 1'-0"
 DATE: FEBRUARY, 1978
 SHEET NO. 12

Ground Floor Plan

DATE: FEBRUARY, 1978

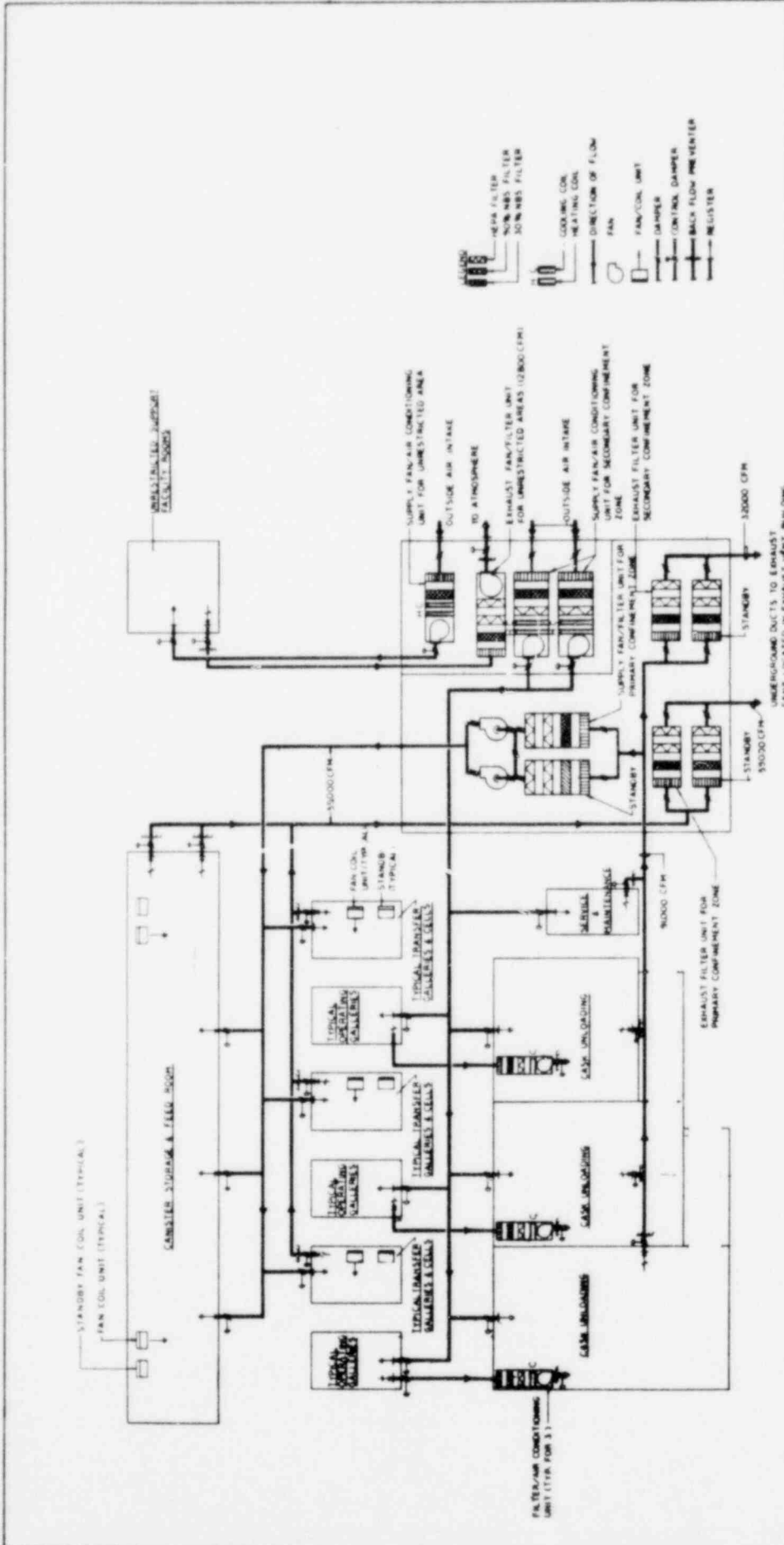
CYCLE 8 TROWAY PIEL CYCLE



OFFICE OF WASTE ISOLATION
 UNION CARBIDE CORPORATION
 NUCLEAR DIVISION
 1000 WEST 10TH AVENUE
 DENVER, COLORADO 80202

WASTE ISOLATION FACILITY
 1000 WEST 10TH AVENUE
 DENVER, COLORADO 80202

SCALE: 1/4" = 1'-0"
 DATE: FEBRUARY, 1978
 DRAWING NO. 817-0102C
 SHEET NO. 14

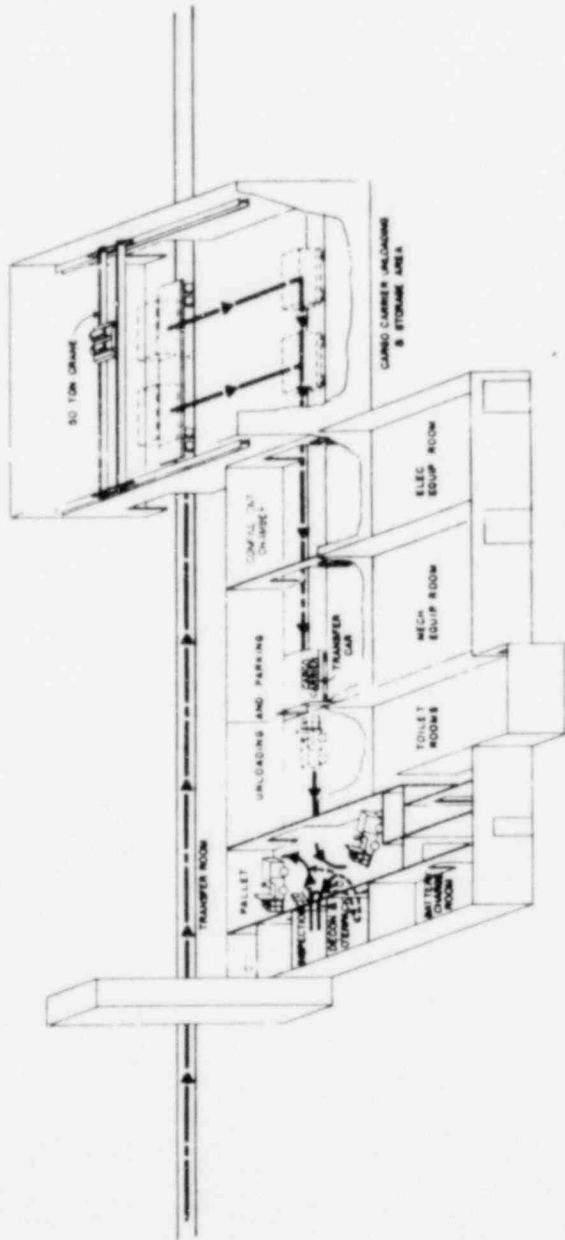


OFFICE OF WASTE ISOLATION
 UNION CARBIDE CORPORATION
 NUCLEAR DIVISION
 OAK RIDGE, TENNESSEE

PROJECT: BRIDGEPORT, GRADE 8 BUILDING FOR WASTE ISOLATION
 WASTE ISOLATION FACILITY
 CANISTERED WASTE RECEIVING BUILDING
 SCHEMATIC VENTILATION AIR FLOW DIAGRAM

SCALE: NO SCALE
 DATE: FEBRUARY, 1978
 DRAWING NO: 817-48702C
 SHEET NO: 18

CYCLE III THROUGHWAY FUEL CYCLE

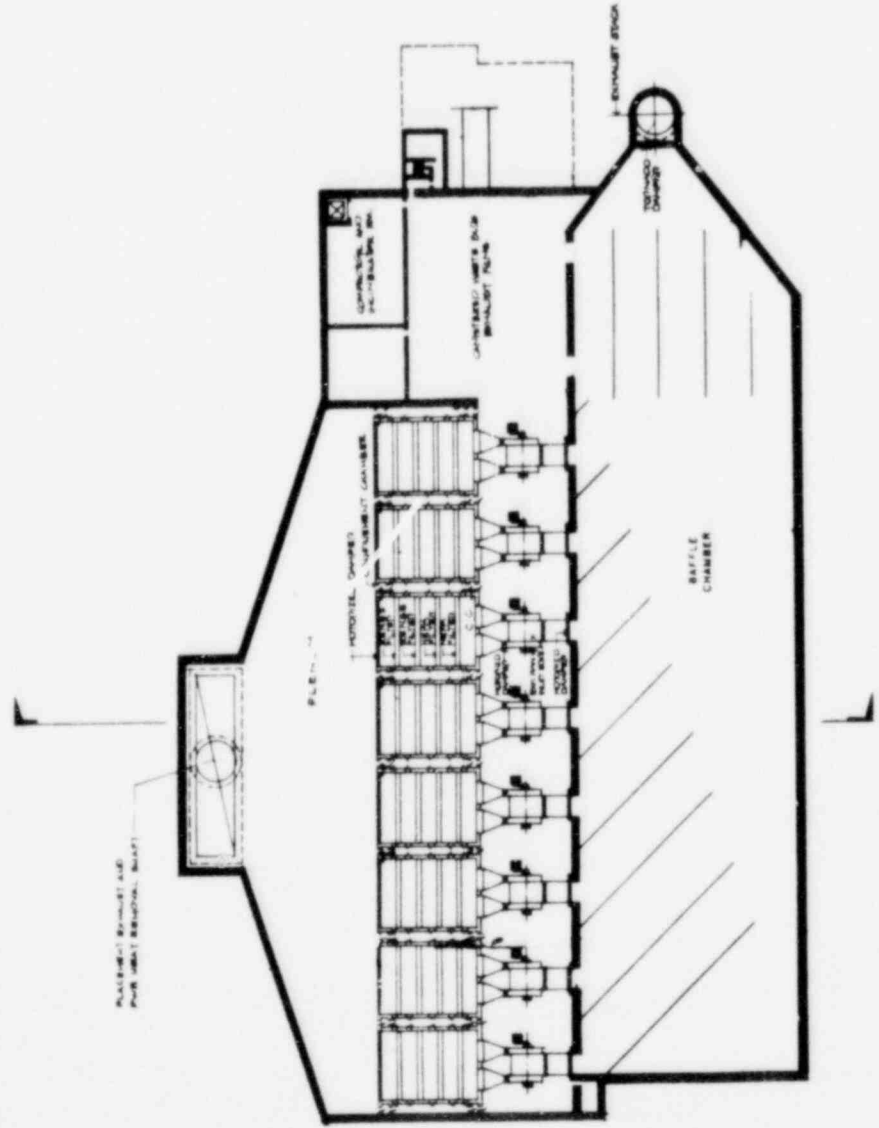


OFFICE OF WASTE ISOLATION
 UNION CARBIDE CORPORATION
 NUCLEAR DIVISION
 100 NORTH ZEEB RD.
 PITTSBURGH, PENNSYLVANIA 15212

WASTE ISOLATION FACILITY
 ROBOTIC FLOW DIAGRAM
 LOW LEVEL WASTE CLAY BALLS
 SCALE: 1/8" = 1'-0"

DRAWN BY: [Name]
 DATE: [Date]
 REV. NO. 1.0

CYCLE 2: THROWAWAY FUEL CYCLE



OFFICE OF WASTE ISOLATION
 UNION CARBIDE CORPORATION
 NUCLEAR DIVISION
 ONE ONE ONE THUNDERBOLT

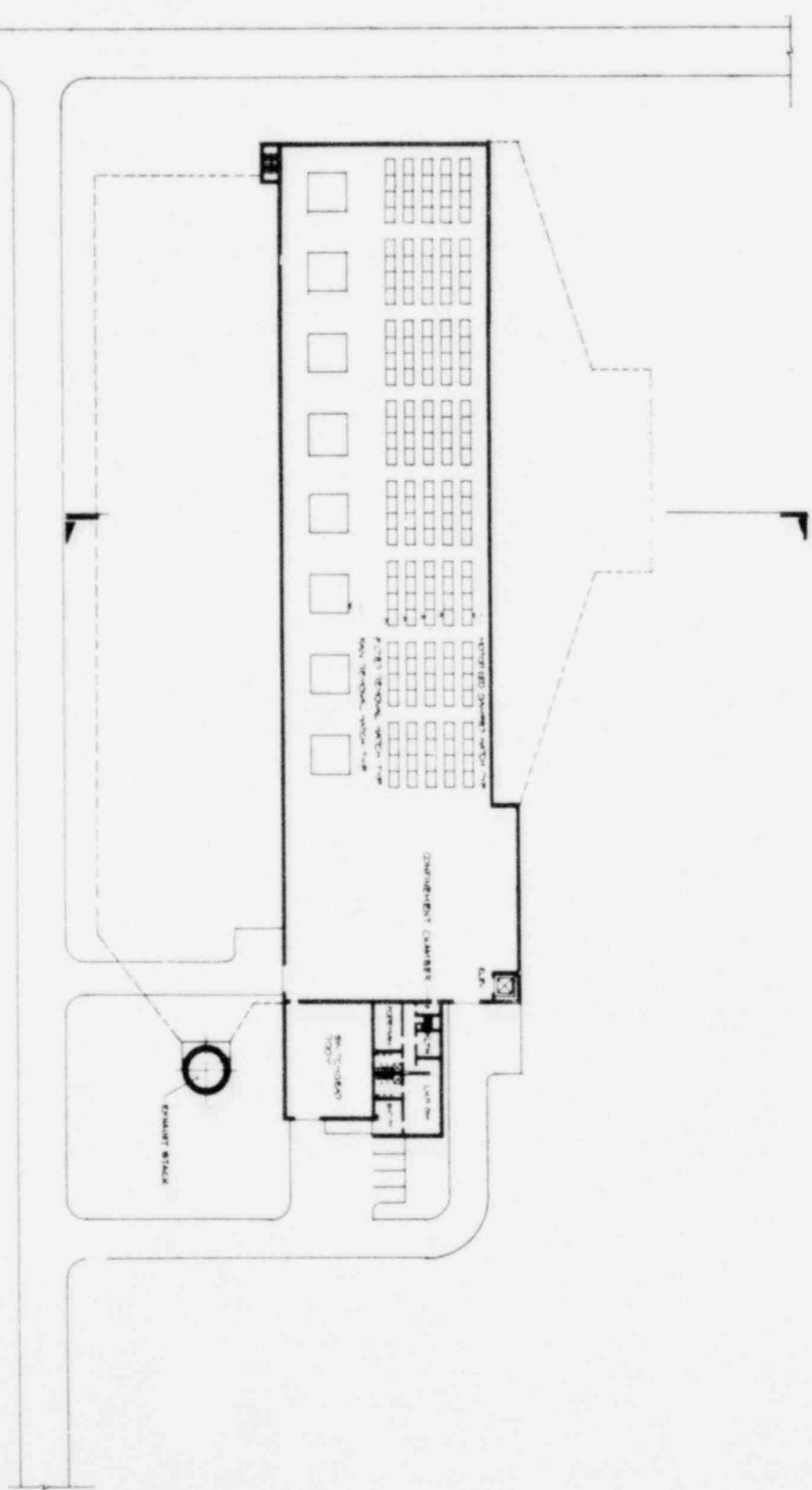
WASTE ISOLATION FACILITY
 EXHAUST VENT BUILDING NO. 1
 BASEMENT PLAN

DATE: FEBRUARY, 1975

CYCLE 8: THROUGHWAY FUEL CYCLE

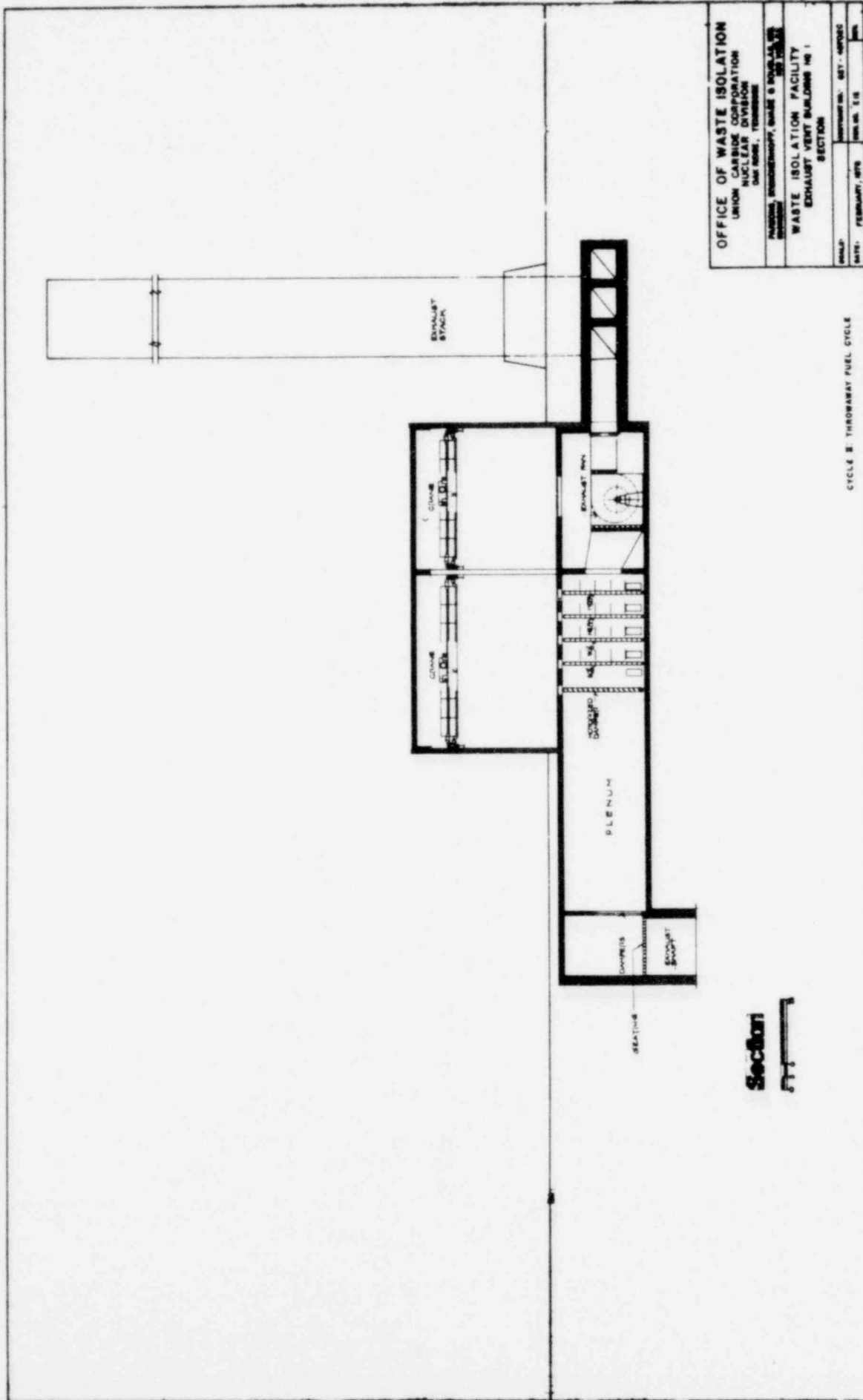
Basement Plan

Ground Floor Plan



CYCLE 2 THROUGHOUT FUEL CYCLE

OFFICE OF WASTE ISOLATION			
UNION CARBIDE CORPORATION			
NUCLEAR DIVISION			
OAK RIDGE, TENNESSEE			
NATHAN BIRKENHOFF, DAVID B. DONALD, INC.			
DESIGNER			
WASTE ISOLATION FACILITY			
EXHAUST VENT BUILDING NO. 1			
GROUND FLOOR PLAN			
SCALE	DATE	REVISION	BY
AS SHOWN	FEBRUARY, 1978		

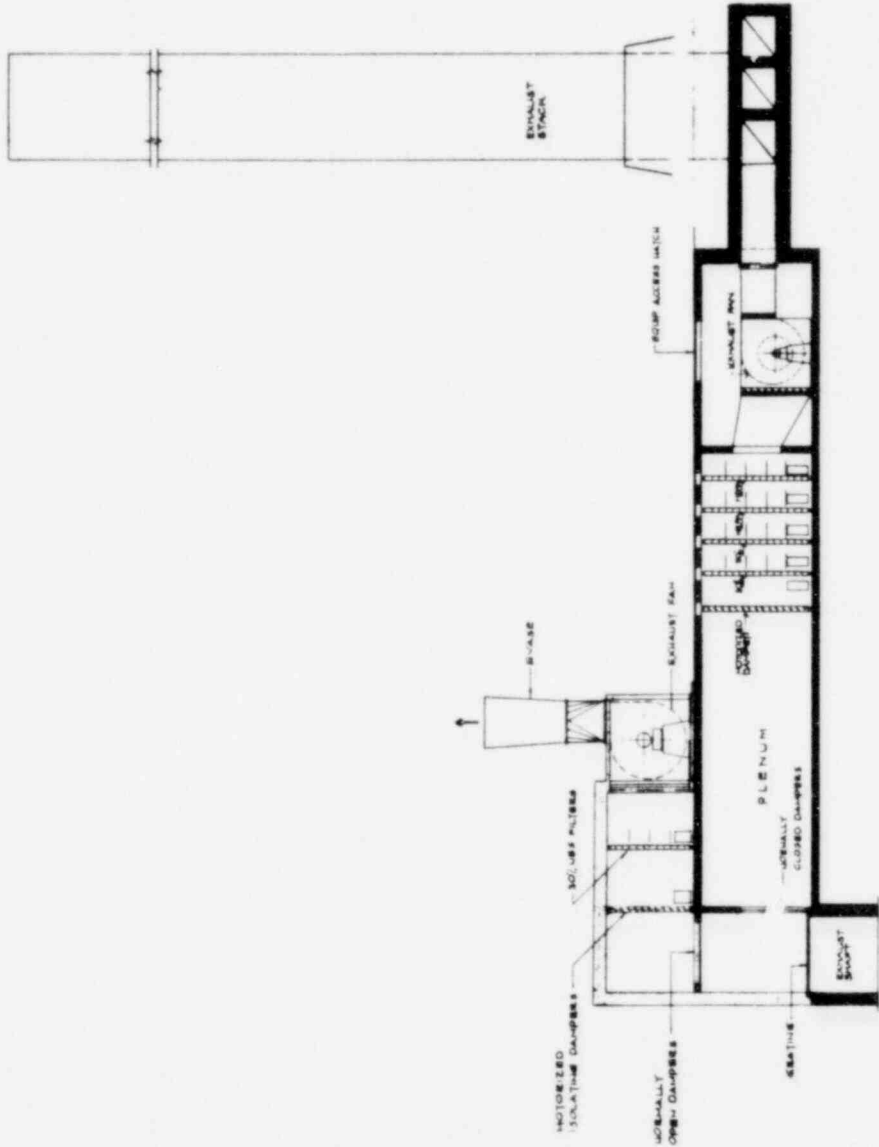


OFFICE OF WASTE ISOLATION
 UNION CARBIDE CORPORATION
 NUCLEAR DIVISION
 ONE NORTON AVENUE
 PITTSBURGH, PENNSYLVANIA 15201

WASTE ISOLATION FACILITY
 EXHAUST VENT BUILDING NO. 1
 SECTION

PROJECT NO. 421 - OFFICE
 REV. NO. 1.18
 DATE: FEBRUARY, 1978

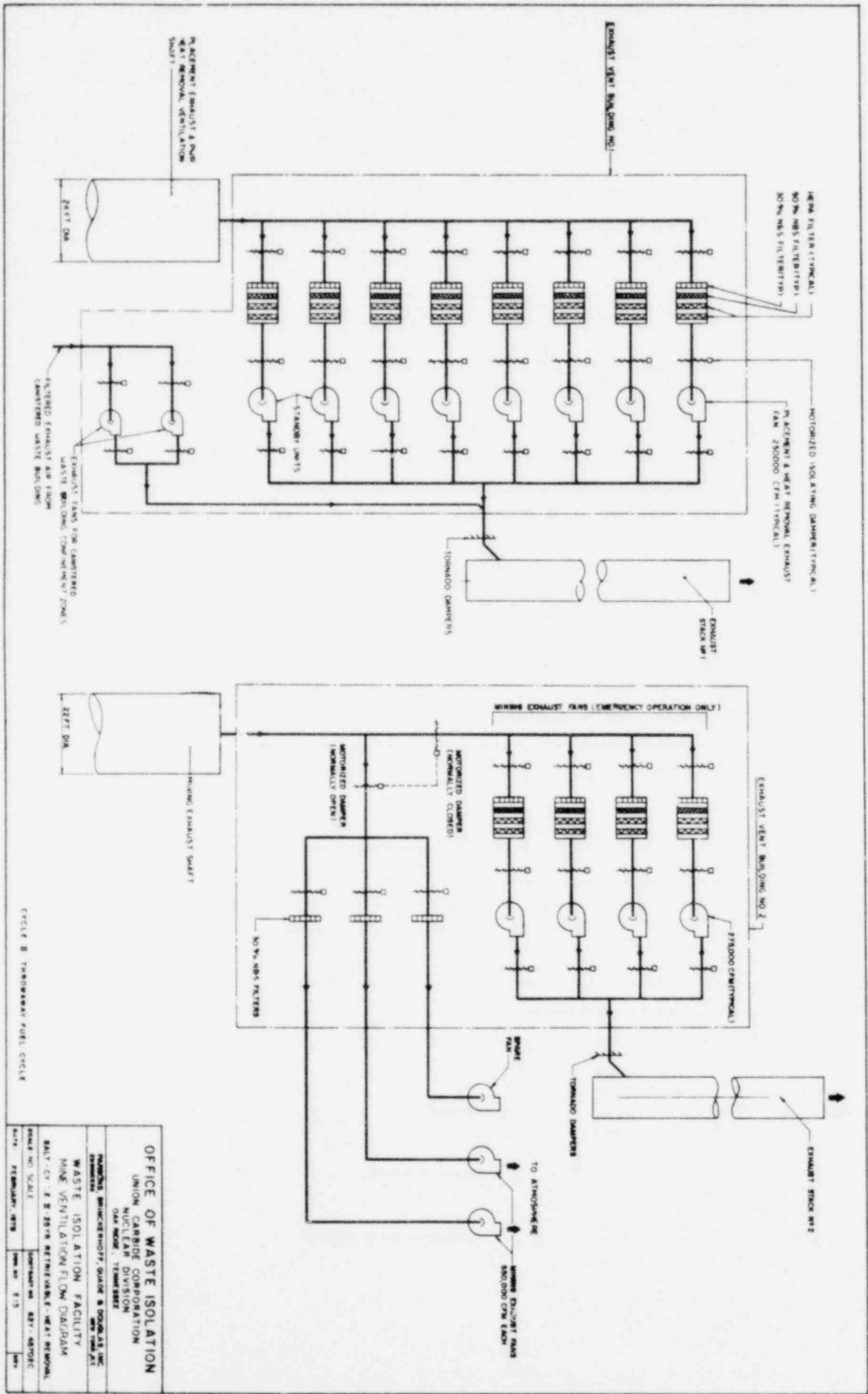
CYCLE B THROMWAY FUEL CYCLE



Section

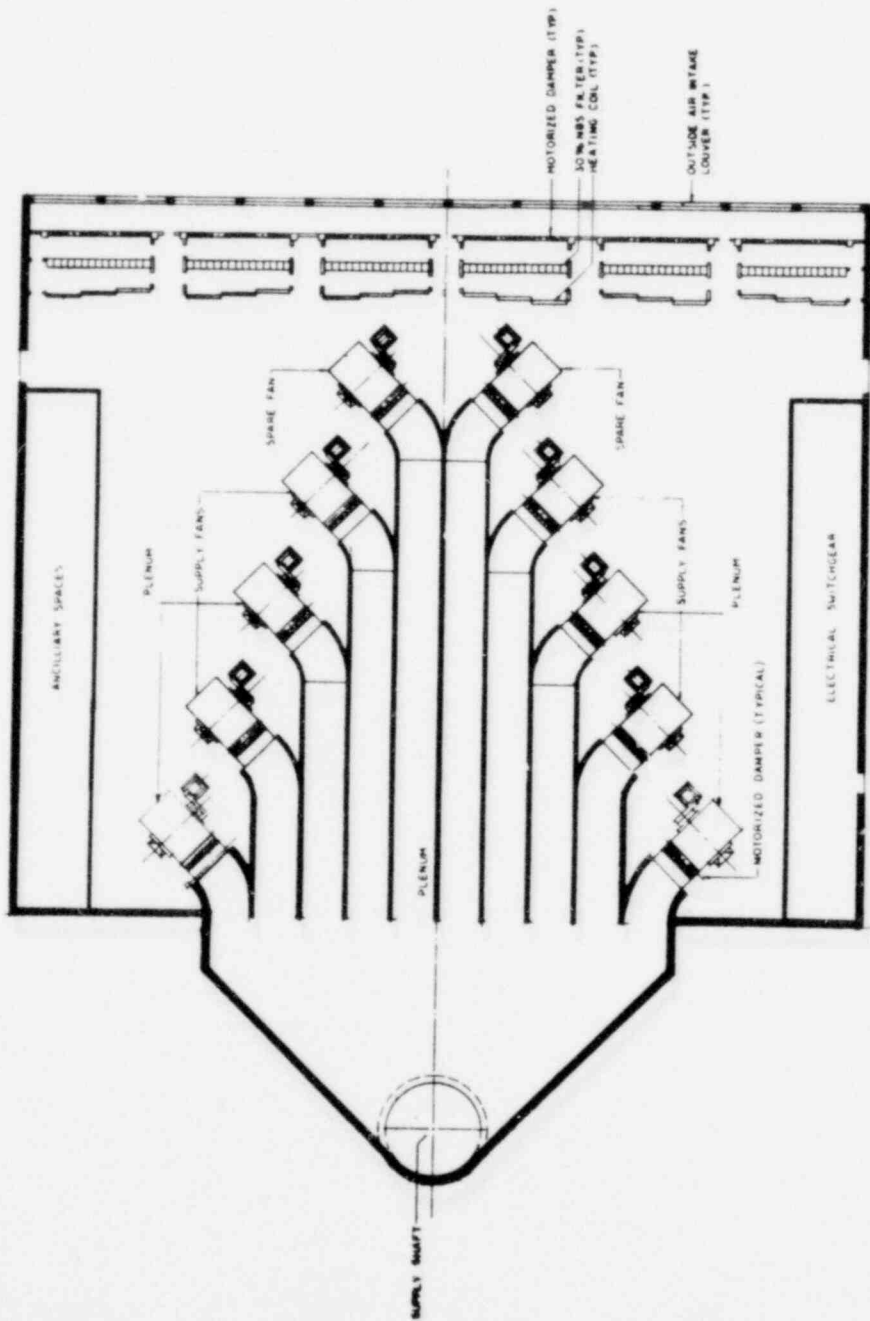
OFFICE OF WASTE ISOLATION	
UNION CARBIDE CORPORATION	
NUCLEAR DIVISION	
DAN NORTON, TENNESSEE	
NATIONAL ENGINEERING, BUILD & SERVICE CO.	
MEMPHIS, TENNESSEE	
WASTE ISOLATION FACILITY	
EXHAUST VERT BUILDING H2 2	
SECTION	
SCALE	VERTICAL: 1/8" = 1'-0" HORIZONTAL: 1/4" = 1'-0"
DATE	FEBRUARY, 1978
REV. NO.	1-1
BY	WJS

CYCLE B THROUGHWAY FUEL CYCLE



CIRCLE 3 THROUGHOUT FUEL CYCLE

OFFICE OF WASTE ISOLATION	
UNION CARBIDE CORPORATION NUCLEAR DIVISION ONE WOODLAWN, TONAWANDA	
WASTE ISOLATION FACILITY MINE VENTILATION FLOW DIAGRAM	
SCALE: NO. SCALE	DATE: FEBRUARY, 1979
DESIGNER: WASTE ISOLATION FACILITY	CONTRACT NO. 871-45702
DATE: FEBRUARY, 1979	REV. NO. 1/1



FLOOR PLAN



CYCLE E THRUWAY FUEL CYCLE

OFFICE OF WASTE ISOLATION UNION CARBIDE CORPORATION NUCLEAR DIVISION DAYTON, OHIO, TENNESSEE	
PROJECT: ENGINEERING, GRADE 6 BUILDING DESIGN: 100-100000-100000-100000-100000	
WASTE ISOLATION FACILITY SUPPLY VENT BUILDING (464417E)	
DATE: FEBRUARY, 1975	REVISION: 817-45702C
BY: E. J.	CHK: []

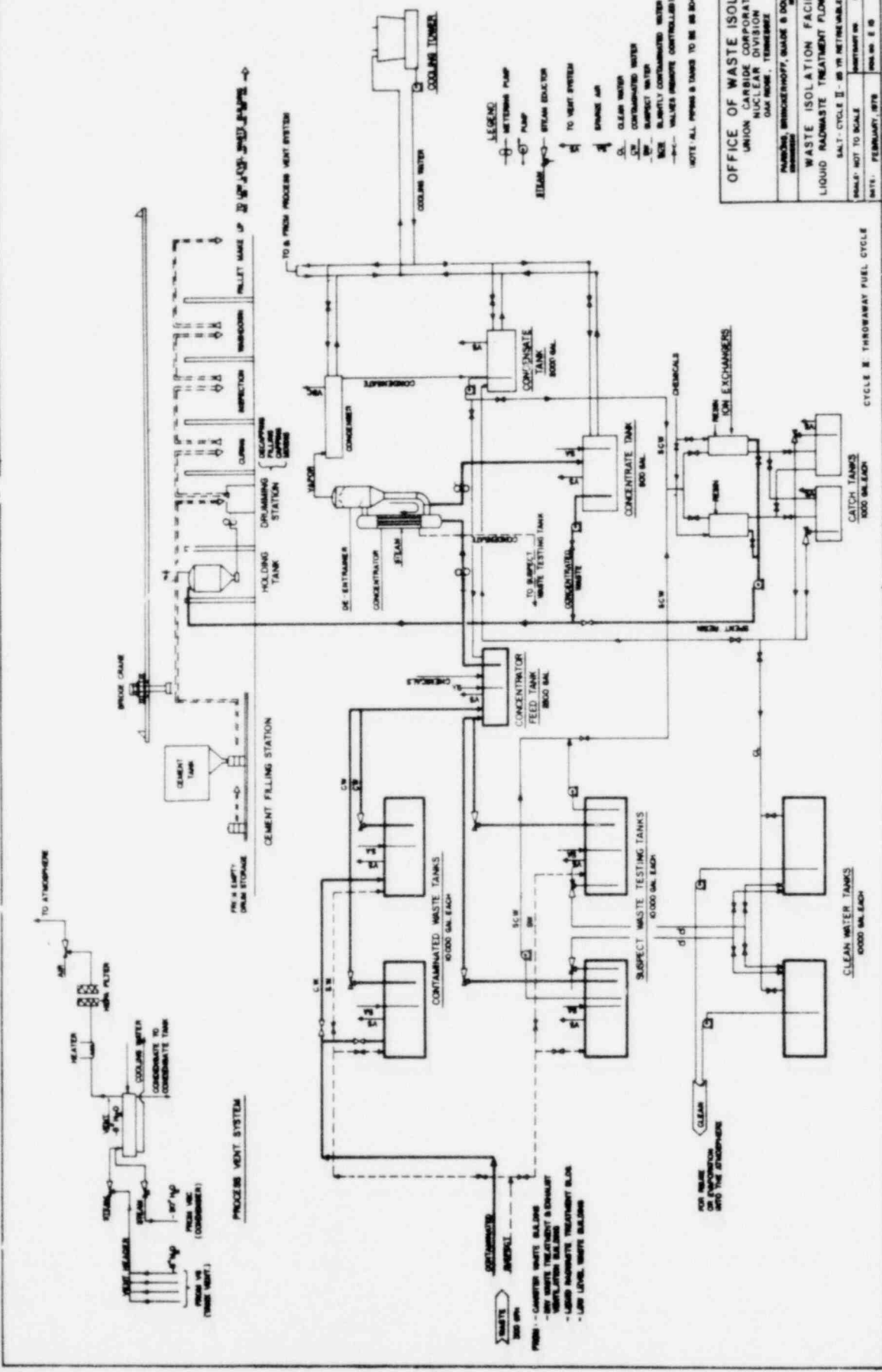
OFFICE OF WASTE ISOLATION
 UNION CARBIDE CORPORATION
 NUCLEAR DIVISION
 DAY TOWN, TENNESSEE

PLUMBING, BRUNNENHOFF, BLAKE & DOUGLAS, INC.
 (SEE DRAWING)

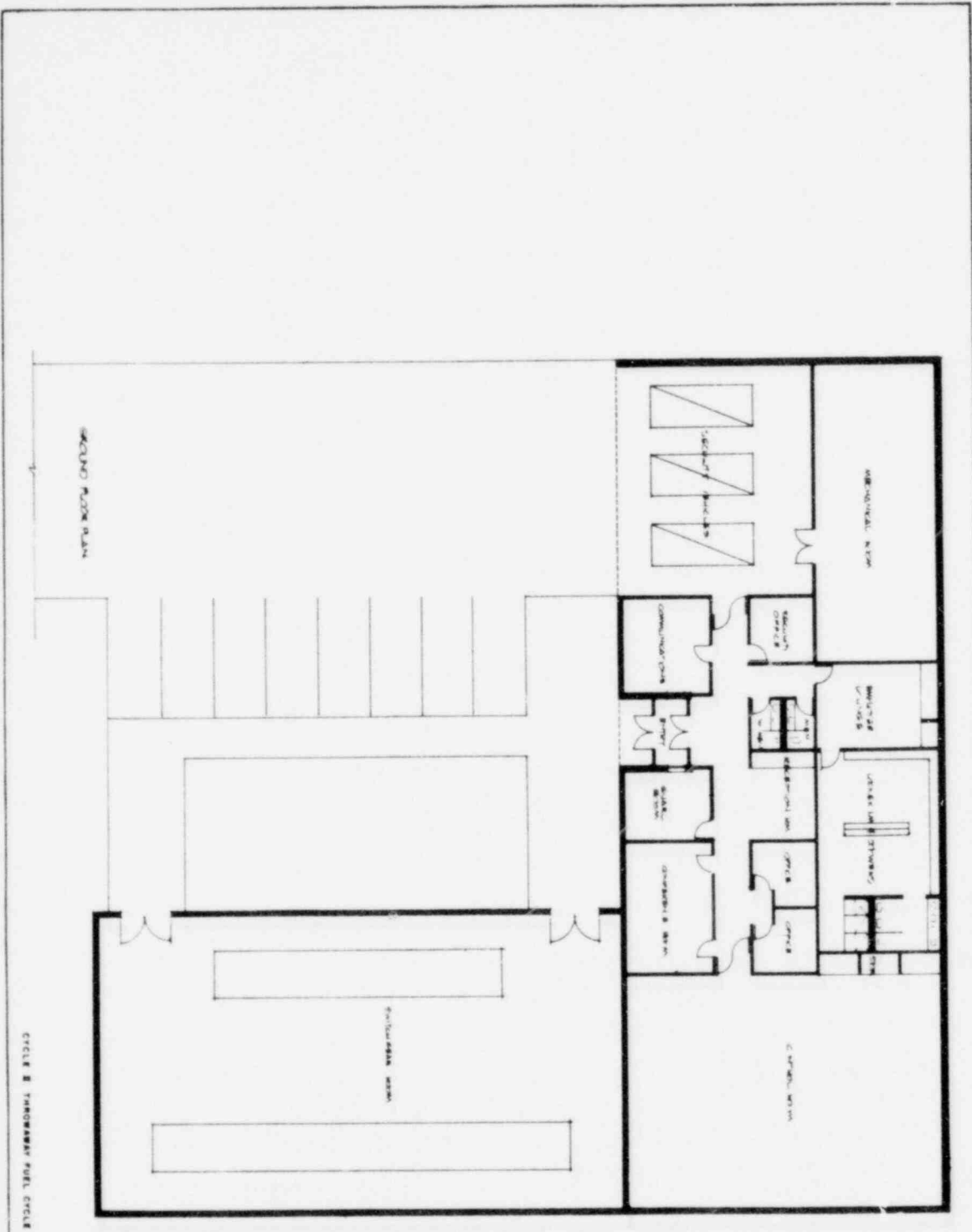
WASTE ISOLATION FACILITY
LIQUID RAHWASTE TREATMENT FLOW DIAGRAM

SALT CYCLE II - 85 1/2 RETENTIONABLE
 SALT CYCLE I - 85 1/2 RETENTIONABLE

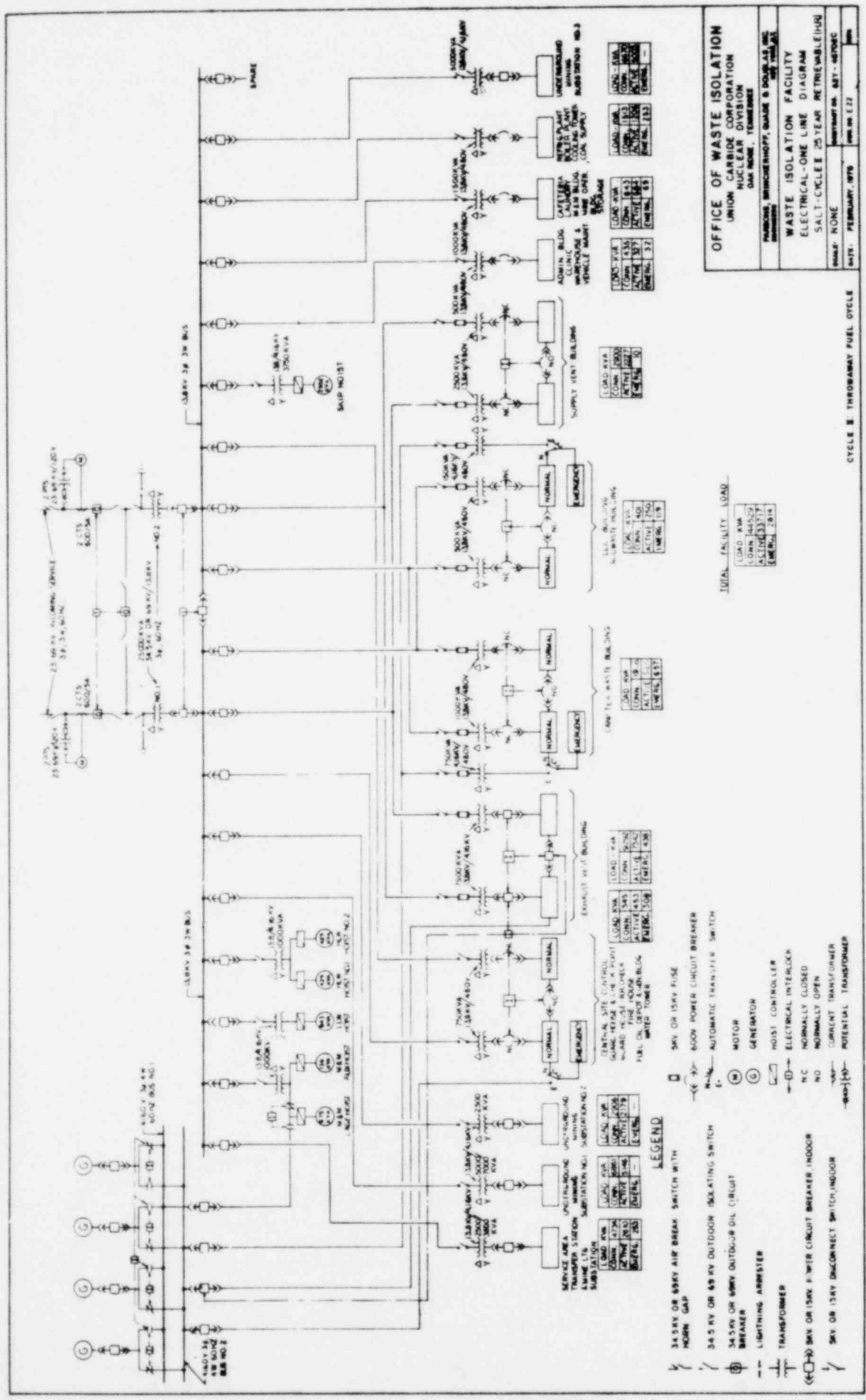
SCALE: SHEET NO. 60702C
 DATE: FEBRUARY, 1978
 DRAWING NO. 60702C



CYCLE II - THROUGHWAY FUEL CYCLE



OFFICE OF WASTE ISOLATION			
UNION CARBIDE CORPORATION			
NUCLEAR DIVISION			
ONE NORTH TOWER			
MEMPHIS, TENNESSEE			
WASTE ISOLATION FACILITY			
DESIGNED BY: UNION CARBIDE CORPORATION			
DRAWN BY: J. W. ...			
DATE: FEBRUARY, 1978			
SCALE: 1/4" = 1'-0"	PROJECT NO: 871-4070C	DATE: FEBRUARY, 1978	REV: 1/3



OFFICE OF WASTE ISOLATION
 UNION CARBIDE CORPORATION
 NUCLEAR DIVISION
 OAK RIDGE, TENNESSEE

WASTE ISOLATION FACILITY
 ELECTRICAL ONE LINE DIAGRAM
 SALT-CYCLE 25 YEAR RETRIEVABLE (H)U

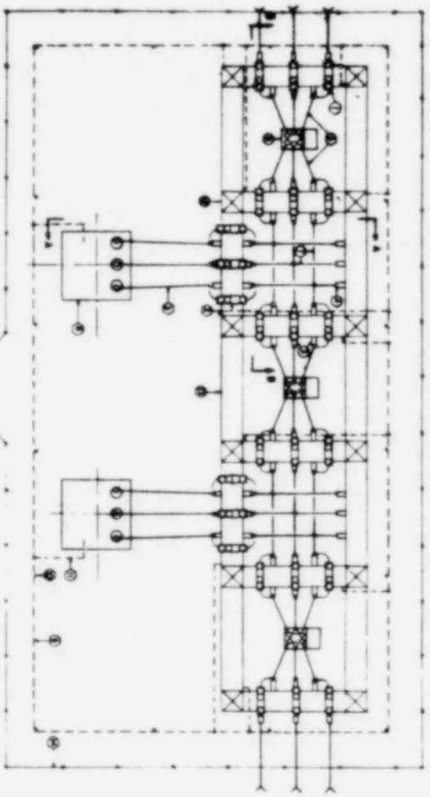
SCALE: NONE
 DATE: FEBRUARY, 1978
 SHEET NO. 121

TOTAL FACILITY LOAD

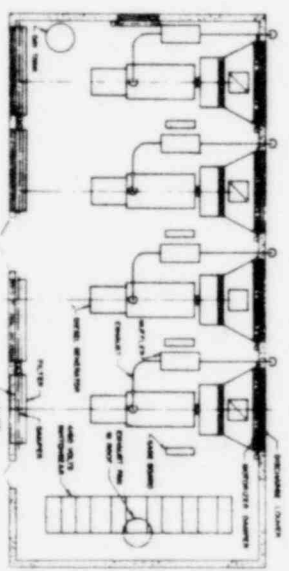
LOAD KVA	144522
LOAD MW	337.7
ACTIVE KW	2815

- LEGEND**
- 34.5KV OR 69KV AIR BREAK SWITCH WITH MOUNT GAP
 - 34.5 KV OR 69 KV OUTDOOR ISOLATING SWITCH
 - 34.5KV OR 69KV OUTDOOR OIL CIRCUIT BREAKER
 - LIGHTNING ARRESTER
 - TRANSFORMER
 - 34.5KV OR 15KV F-1 WATER CIRCUIT BREAKER (INDOOR)
 - 34.5KV OR 15KV DISCONNECT SWITCH (INDOOR)
 - 34.5KV OR 15KV FUSE
 - 34.5KV POWER CIRCUIT BREAKER
 - 34.5KV AUTOMATIC TRANSFER SWITCH
 - MOTOR
 - GENERATOR
 - HOIST CONTROLLER
 - ELECTRICAL INTERLOCK
 - N.C. NORMALLY CLOSED
 - N.O. NORMALLY OPEN
 - CURRENT TRANSFORMER
 - POTENTIAL TRANSFORMER

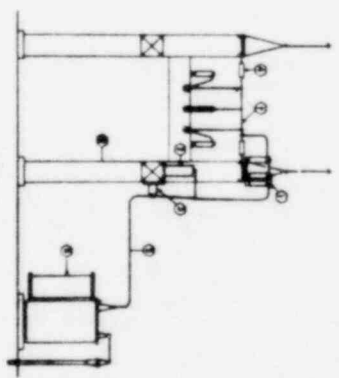
CYCLE 2: THROUGHWAY FUEL CYCLE



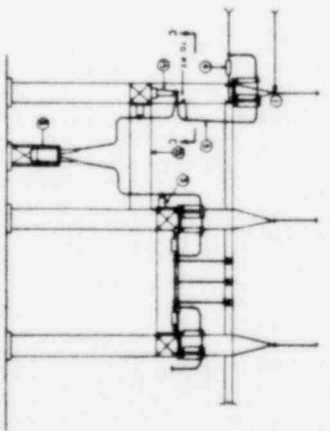
SUB-STATION PLAN



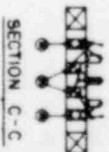
STANDBY GENERATOR



SECTION A-A



SECTION B-B



SECTION C-C

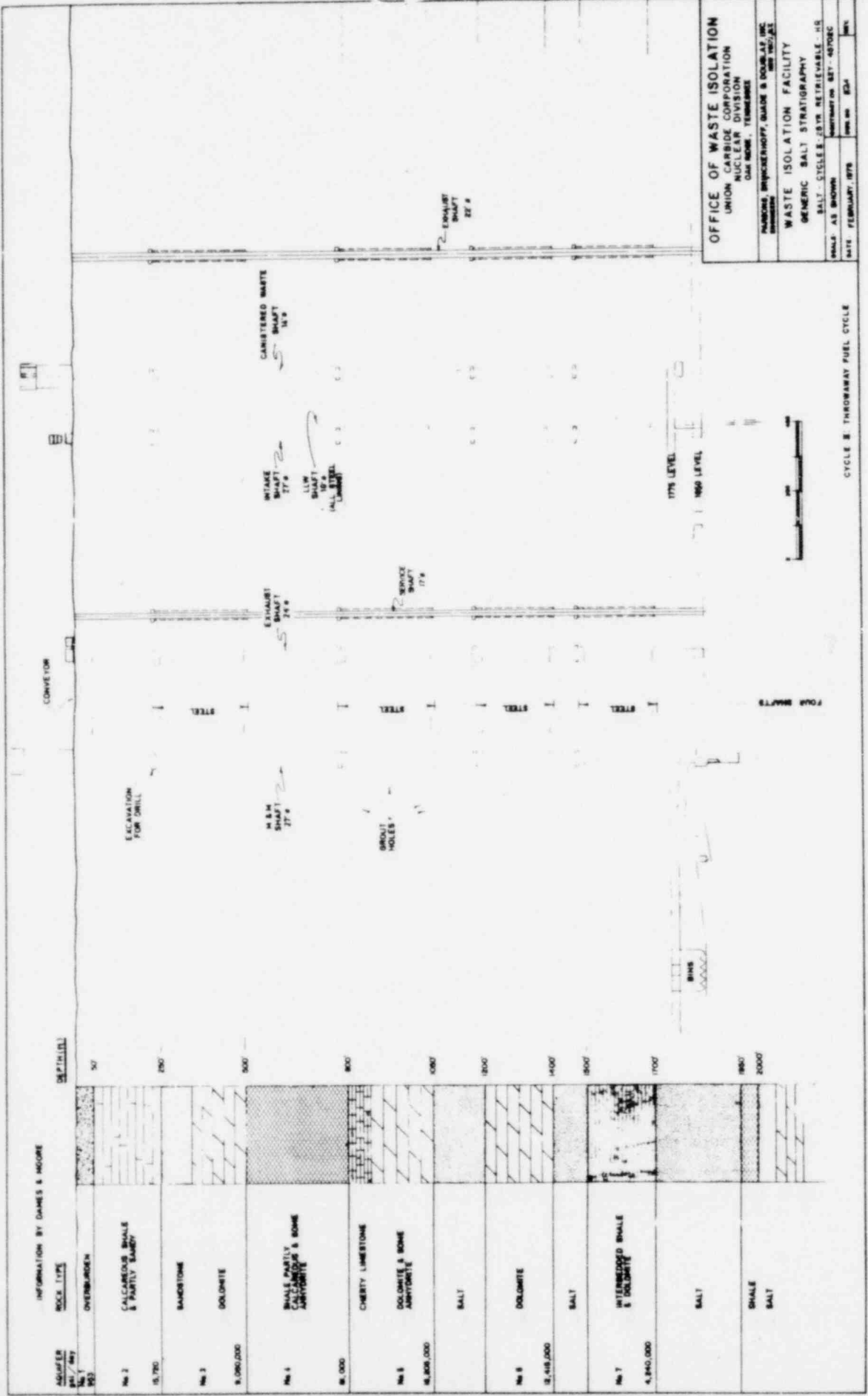
ITEM	DESCRIPTION
1	...
2	...
3	...
4	...
5	...
6	...
7	...
8	...
9	...
10	...
11	...
12	...
13	...
14	...
15	...
16	...
17	...
18	...
19	...
20	...

CYCLE B THROUGHOUT PUEL CYCLE

OFFICE OF WASTE ISOLATION
 UNION NUCLEAR CORPORATION
 NUCLEAR DIVISION
 ONE WINDY HILLS DRIVE
 WASTE ISOLATION FACILITY
 MAIN ELECTRICAL SUBSTATION
 AND STANDBY GENERATOR

SCALE: 1/8" = 1'-0"
 DATE: FEBRUARY, 1978

DESIGNED BY: EST. - 40705C
 DRAWN BY: EST. - 40705C



OFFICE OF WASTE ISOLATION
 UNION CARBIDE CORPORATION
 NUCLEAR DIVISION
 ONE ROOM, TENNESSEE

PARSONS BRINCKERHOFF, SHAW & DOUGLAS INC.
 1975

WASTE ISOLATION FACILITY
 GENERIC SALT STRATIGRAPHY

SALT - CYCLE 3, 28 YR RETRIEVABLE - HQ
 SHALE - AS SHOWN
 CONTRACT NO. 87-40702C
 DATE: FEBRUARY, 1979
 SHEET NO. 25A

INFORMATION BY JAMES S. MCGEE

ADJUSTER
 No. 1
 853

DEPTH (FEET)

50	OVERBURDEN
150	CALCAREOUS SHALE & PARTLY SANDY
200	SANDSTONE
300	DOLOMITE
400	SHALE, PARTLY CALCAREOUS & SOME AMYGDALITE
500	CHERTY LIMESTONE
600	DOLOMITE & SOME AMYGDALITE
700	SALT
800	DOLOMITE
900	SALT
1000	INTERBEDDED SHALE & DOLOMITE
1100	SALT
1200	SHALE
1300	SALT

CONVEYOR

ELEVATION FOR DRILL

STEEL

STEEL

STEEL

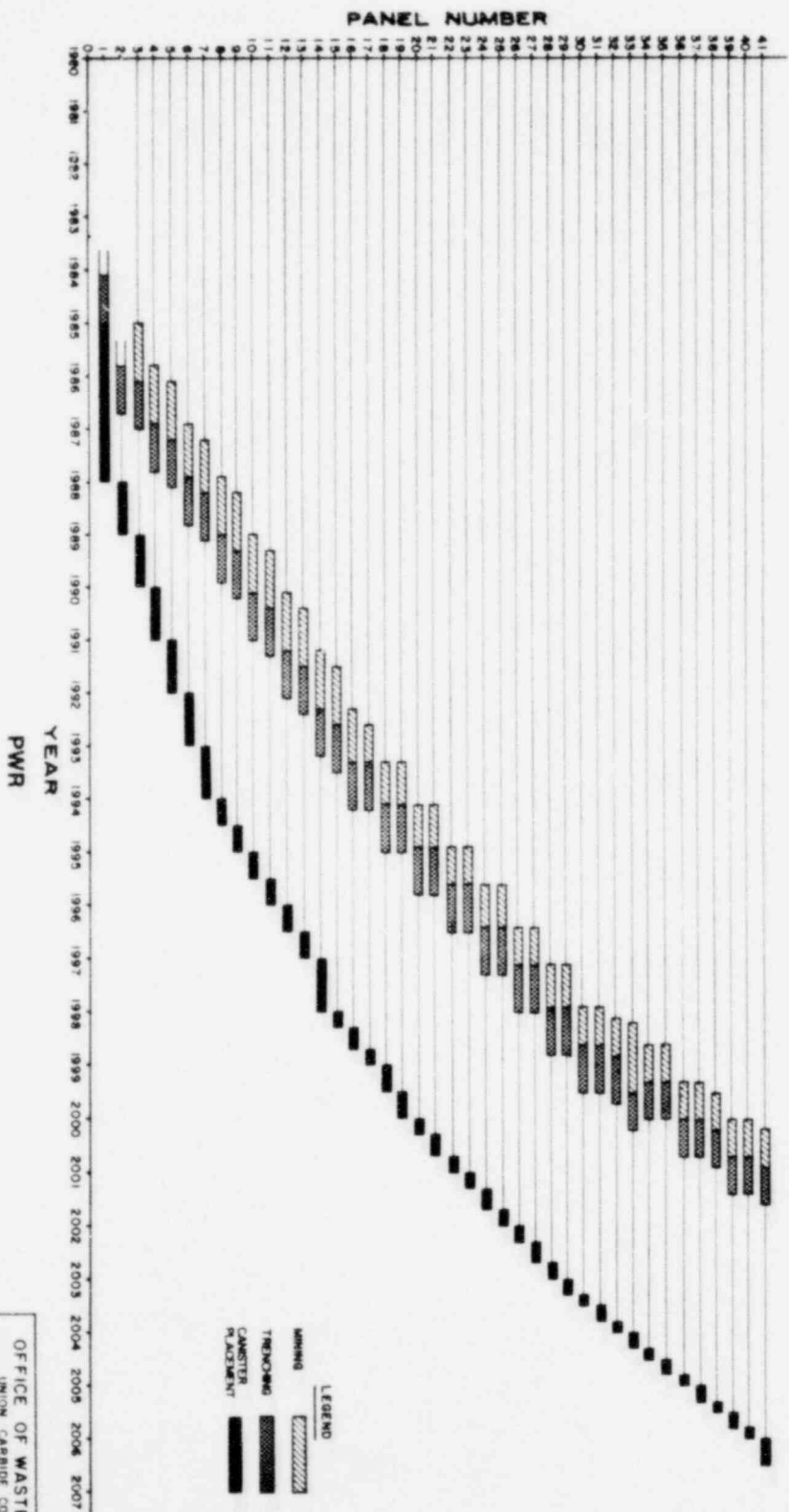
STEEL

FOUR SHAFTS

1775 LEVEL
 1660 LEVEL

CYCLE 3 THROUWAY FUEL CYCLE

MINING AND PLACEMENT SCHEDULE SALT - CYCLE II - 25 YEARS RETRIEVABLE - HEAT REMOVAL



LEGEND

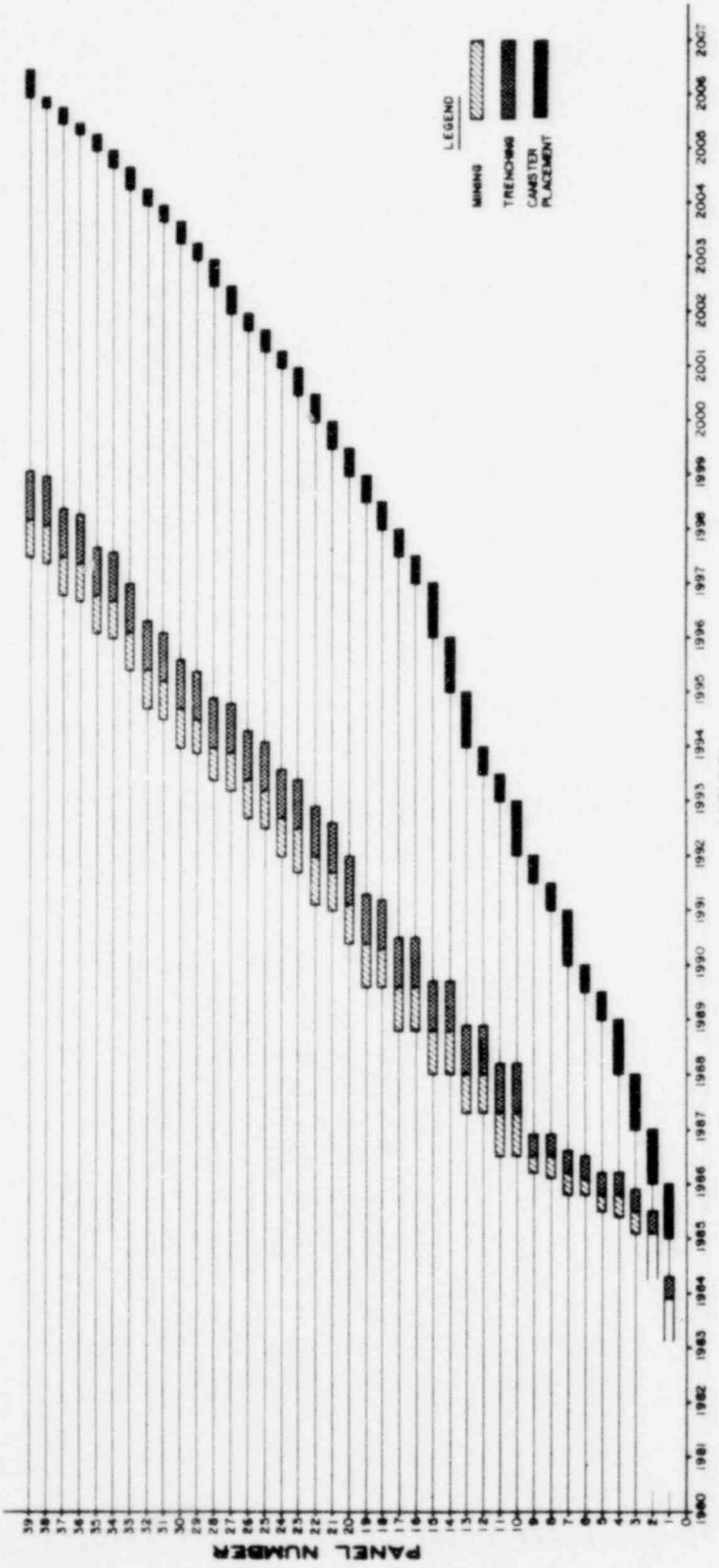
- Mining
- Trending
- Canister Placement
- Placement

OFFICE OF WASTE ISOLATION	
UNION CARBIDE CORPORATION	
NUCLEAR DIVISION	
OAK RIDGE, TENNESSEE	
MINING, BRIDGEPORT, GAULD & DOOLAN, INC.	
MEMPHIS, TENNESSEE	
WASTE ISOLATION FACILITY	
PWR MINING AND PLACEMENT SCHEDULE	
SALT - CYCLE II - 25 YEAR RETRIEVABLE - HEAT REMOVAL	
SCALE	DATE
DATE: FEBRUARY, 1978	DESIGNED BY: EJS

CYCLE II THROUGHOUT FUEL CYCLE

MINING AND PLACEMENT SCHEDULE

SALT - CYCLE II - 25 YEARS RETRIEVABLE - HEAT REMOVAL

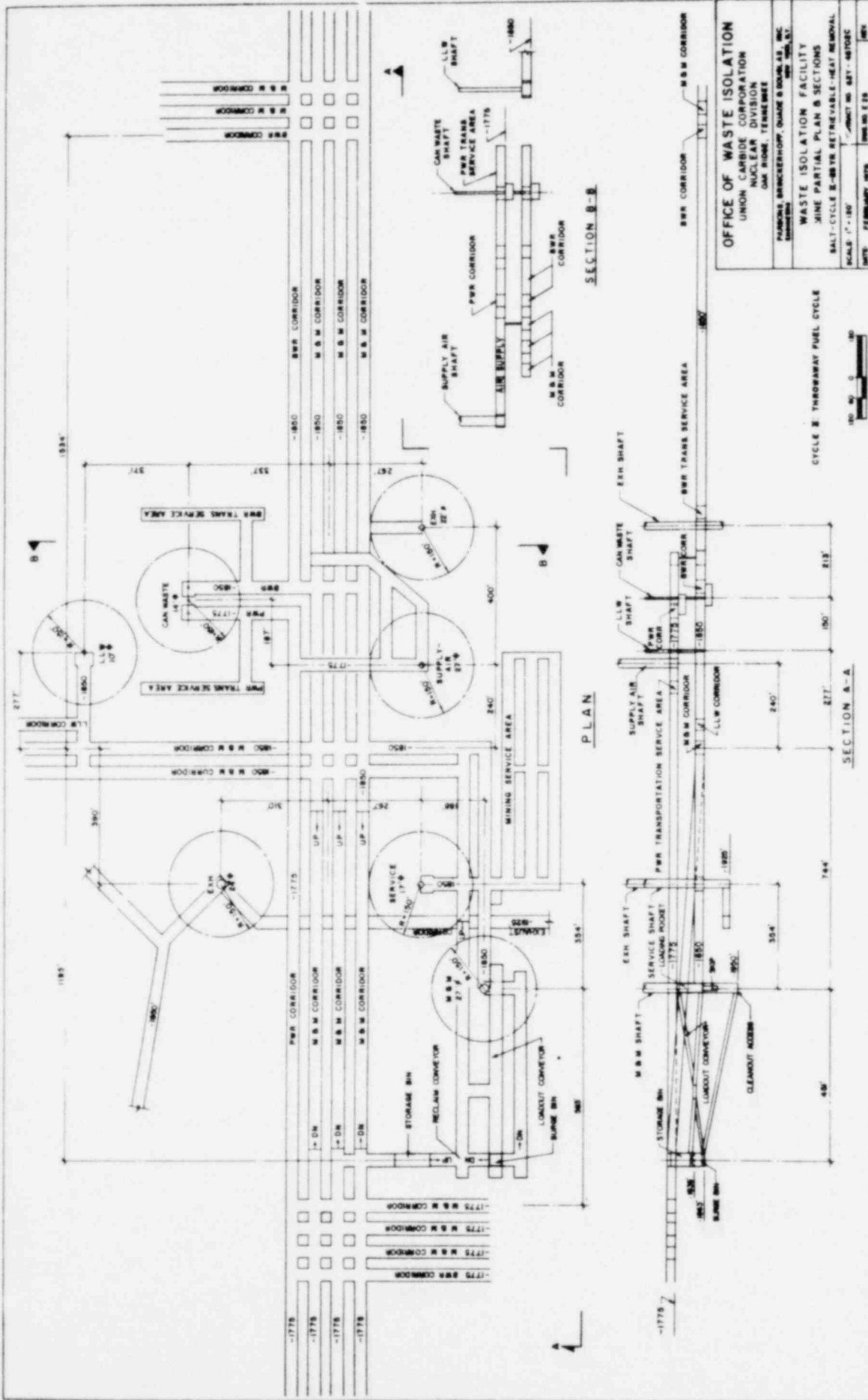


OFFICE OF WASTE ISOLATION
 UNION CARBIDE CORPORATION
 NUCLEAR DIVISION
 200 FORT WASHINGTON AVENUE
 PHILADELPHIA, PENNSYLVANIA 19103-1001

WASTE ISOLATION FACILITY
 BWR MINING AND PLACEMENT SCHEDULE
 SALT - CYCLE II - 25 YR RETRIEVABLE - HEAT REMOVAL

SCALE: 1" = 1 YEAR
 DATE: FEBRUARY, 1979

CYCLE II THROUGHWAY FUEL CYCLE
 SHEET NO. 828



OFFICE OF WASTE ISOLATION
 UNION CARBIDE CORPORATION
 NUCLEAR DIVISION

PLANNING, BRICKERHOFF, SHAW & BOWLES, INC.
 1000 W. BROADWAY, SUITE 1200, NEW YORK, N.Y. 10011

WASTE ISOLATION FACILITY
 MINE PARTIAL PLAN & SECTIONS
 SALT-CYCLE B-BB-YR RETRIEVABLE-HEAT REMOVAL

SCALE: 1" = 100'
 DATE: FEBRUARY, 1978
 SHEET NO. 451 - 40102C

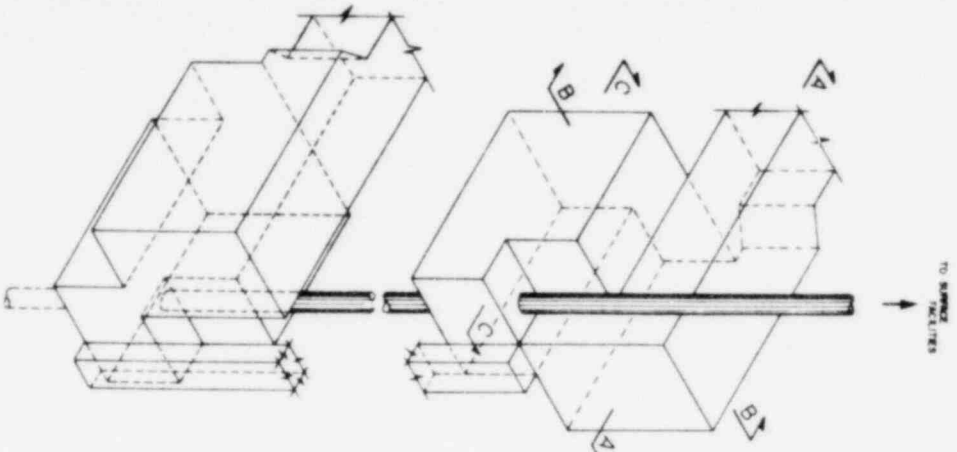
CYCLE X: THROWAWAY FUEL CYCLE



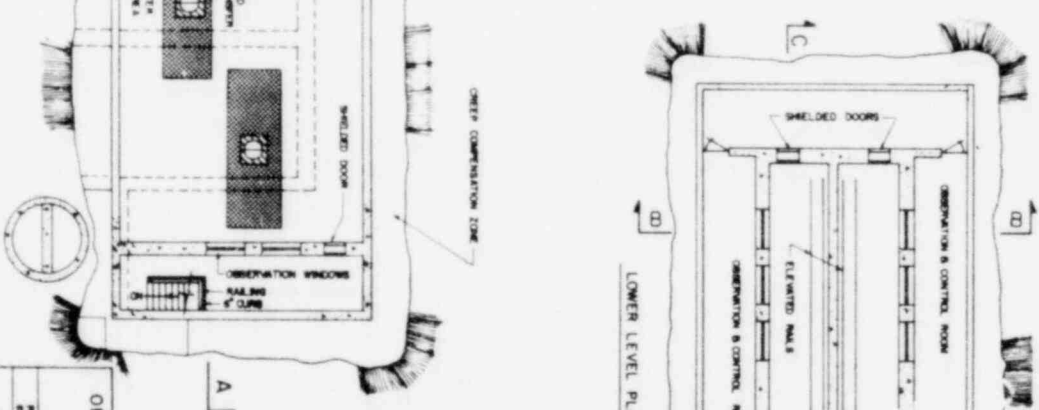
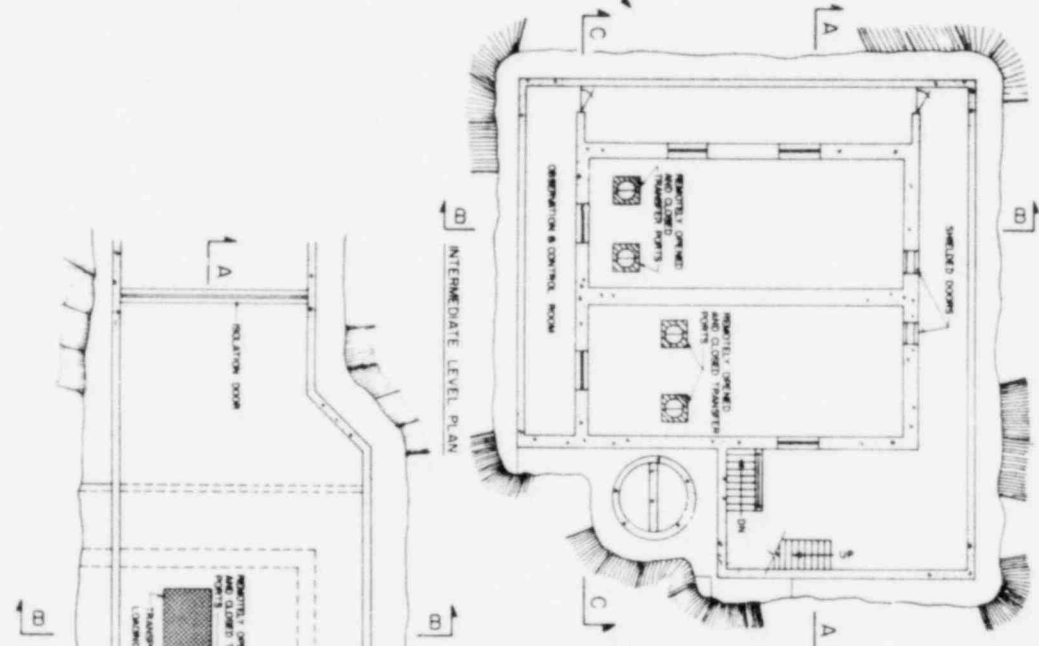
PLAN

SECTION B-B

SECTION A-A



SURFACE RECEIVING STATIONS
N 18



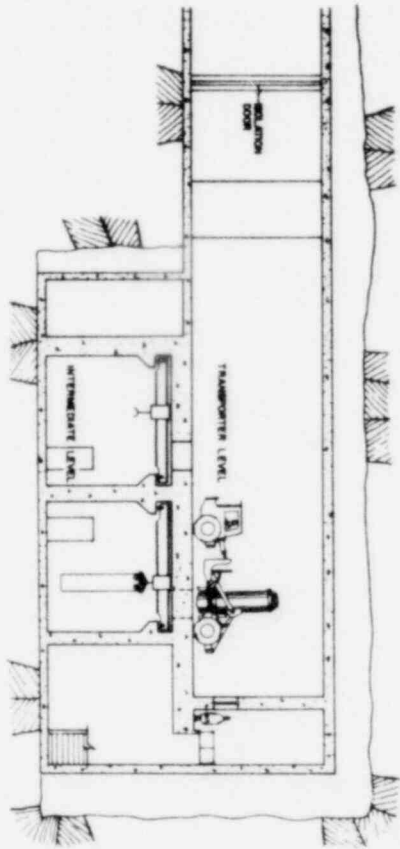
TRANSPORTER LEVEL PLAN

CIRCLE B TEMPORARY FUEL CYCLE

OFFICE OF WASTE ISOLATION
 UNION CARBIDE CORPORATION
 NUCLEAR DIVISION
 OAK RIDGE, TENNESSEE

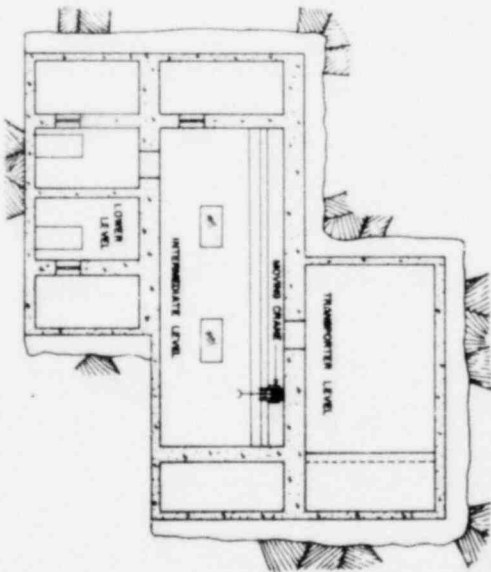
WASTE ISOLATION FACILITY
 CANNED WASTE SURVIVAL
 RECEIVING STATION - PLAN
 SALT CYCLE II 251W REFERENCE 1 - HEAT REMOVAL
 SCALE: 1/4" = 1'-0"

DESIGNED BY: [] DRAWN BY: []
 CHECKED BY: [] DATE: []

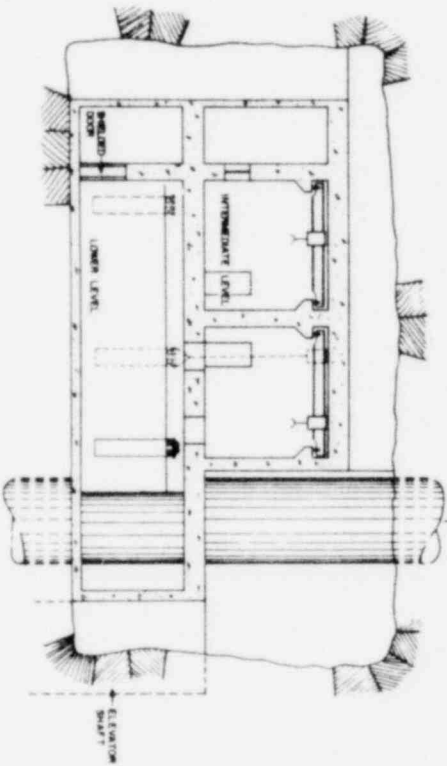


SECTION A-A

TO COMPLETED WASTE HANDLING LINE



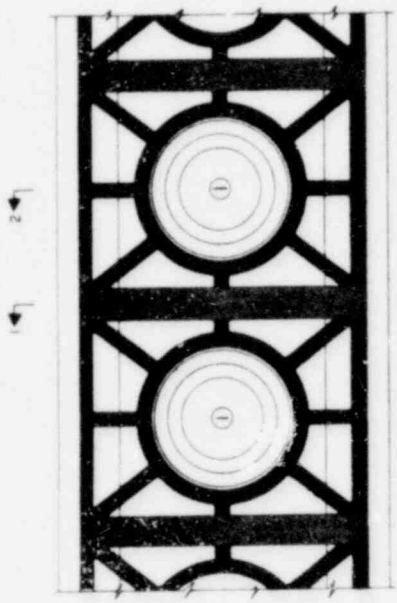
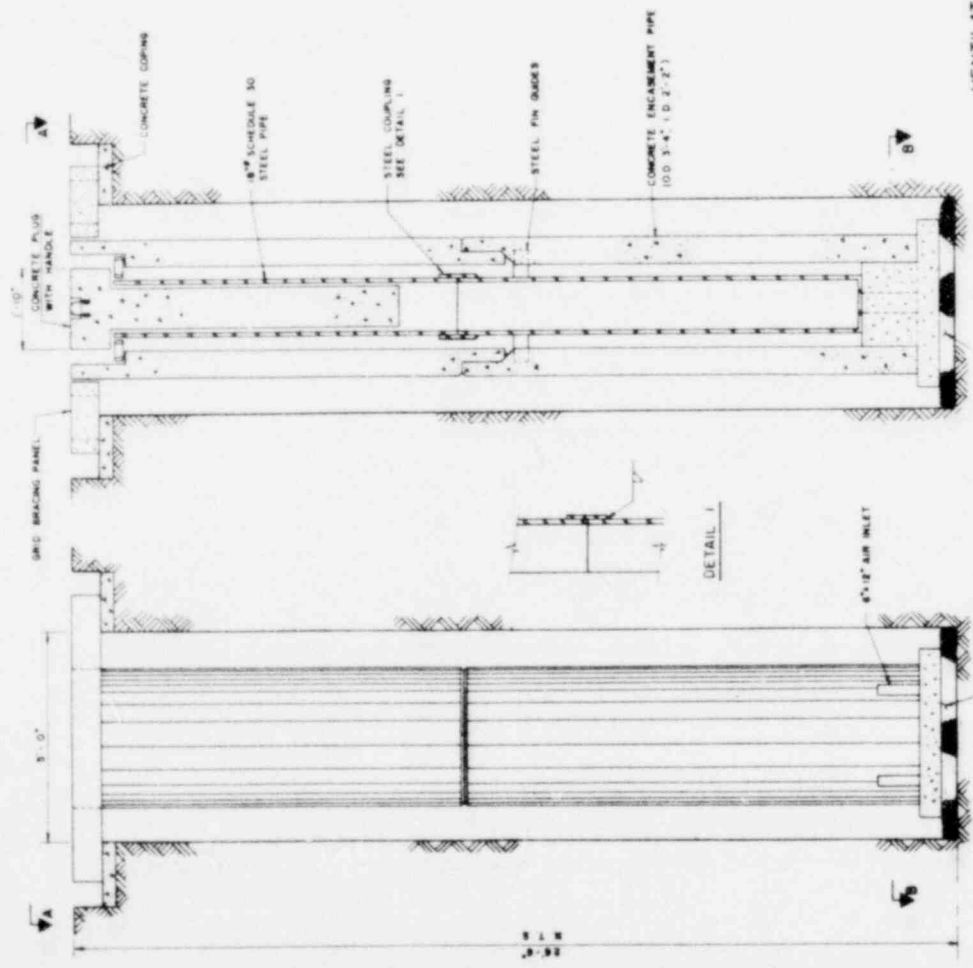
SECTION B-B



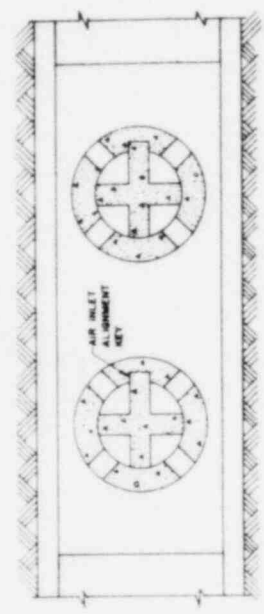
SECTION C-C

CYCLE 2 THROUGHWAY PUGL CYCLE

OFFICE OF WASTE ISOLATION	
UNION CARBIDE CORPORATION	
NUCLEAR DIVISION	
DALLAS, TEXAS	
PROJECT: WASTE ISOLATION FACILITY	
DRAWING: WASTE RECEIVING STATION - SECTIONS	
SHEET: CYCLE 2 THROUGHWAY PUGL CYCLE	
DATE: 11/1/67	SCALE: AS SHOWN
BY: J. W. GIBSON	CHECKED: J. W. GIBSON
APP.:	DATE: 11/1/67



SECTION A-A
PRECAST BRACING GRID

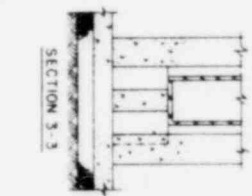
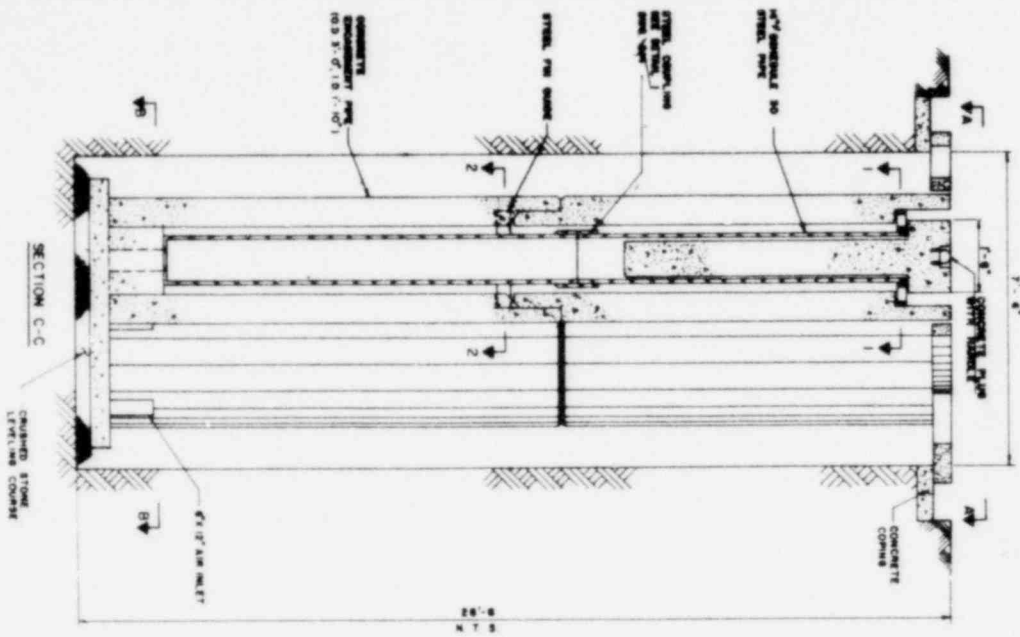


SECTION B-B
PRECAST BASE SLAB

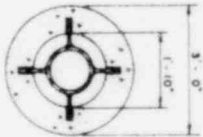
VENTILATED SPENT FUEL STORAGE
FOR PRESSURIZED WATER REACTOR

OFFICE OF WASTE ISOLATION	
UNION CARBIDE CORPORATION	
NUCLEAR DIVISION	
OAK RIDGE, TENNESSEE	
PARSONS BRINCKERHOFF, QUAD & DONALD, INC.	
WASTE ISOLATION FACILITY	
PWR INVERT STORAGE DETAIL	
SALT-CYCLE 2-BBYR RETRIEVABLE-HEAT REMOVAL	
SCALE: N = 1'-0"	CONTRACT NO. FEBRUARY, 1979
DATE: FEBRUARY, 1979	WORK NO. E32
	REV.

CYCLE 2 THROUGHWAY FUEL CYCLE



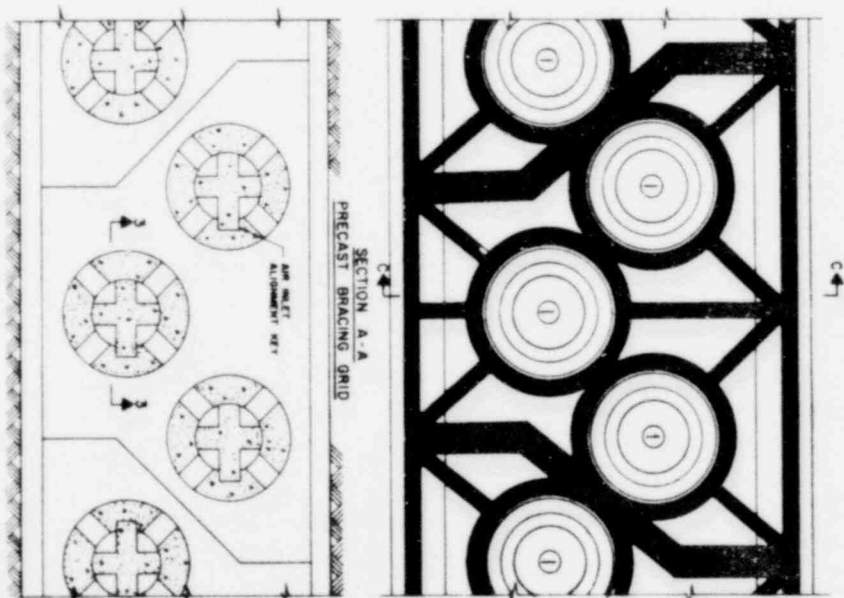
SECTION 2-2



SECTION 1-1

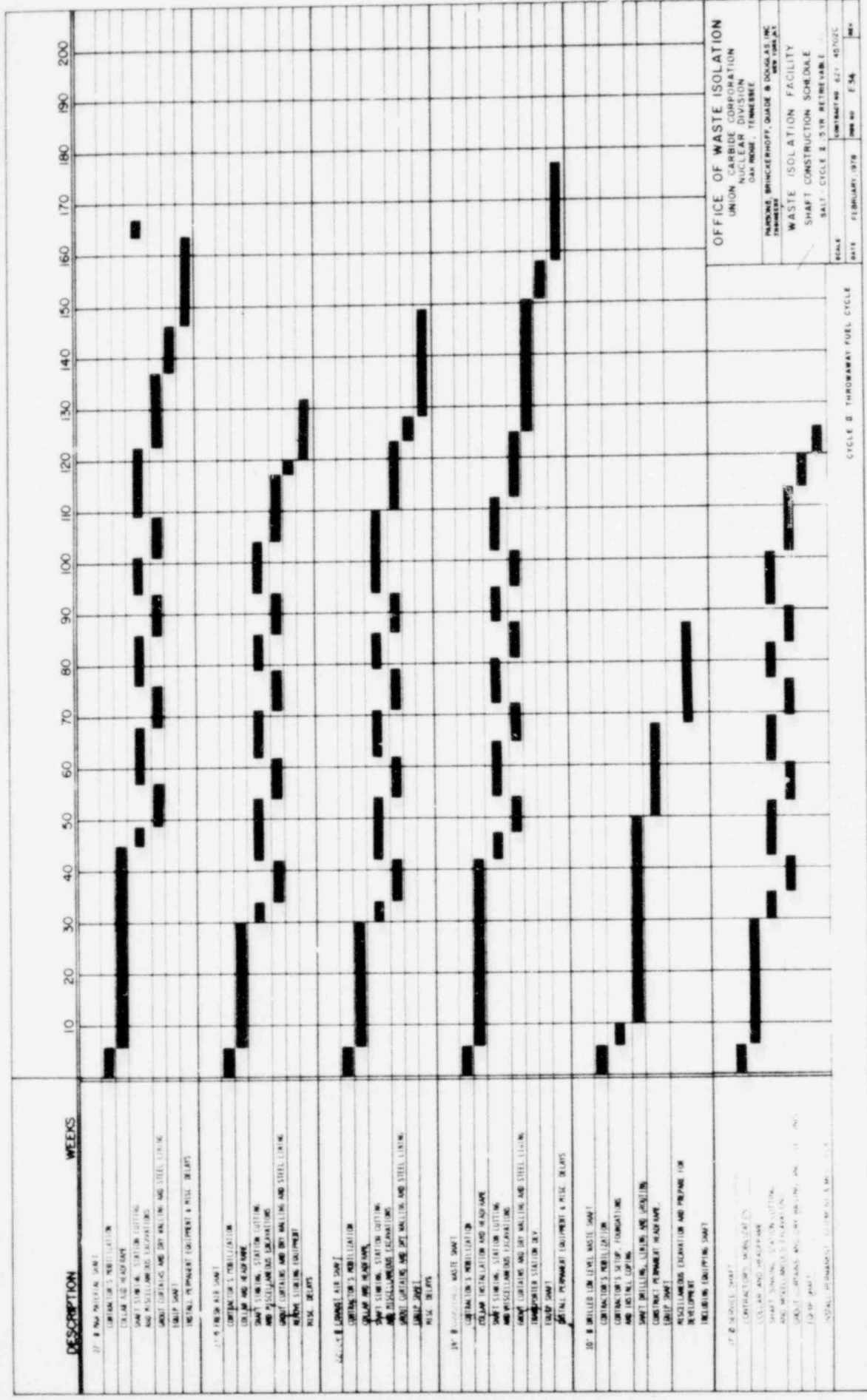


**VENTILATED SPENT FUEL STORAGE
FOR BOILING WATER REACTOR**



SECTION B-B
PRECAST BASE SLAB

OFFICE OF WASTE ISOLATION			
UNION CARBIDE CORPORATION			
NUCLEAR DIVISION			
ONE MOORE TERRACE			
PUNAHONUA, HAWAII			
WASTE ISOLATION FACILITY			
BWR INVERT STORAGE DETAIL			
SHEET NO. 20-100-100-100-100-100			
SCALE: 1/4" = 1'-0"	DATE: 10/1/78	DESIGNED BY: [Name]	CHECKED BY: [Name]
BY: [Name]	DATE: 10/1/78	APP. NO. 133	REV. 1



DESCRIPTION WEEKS

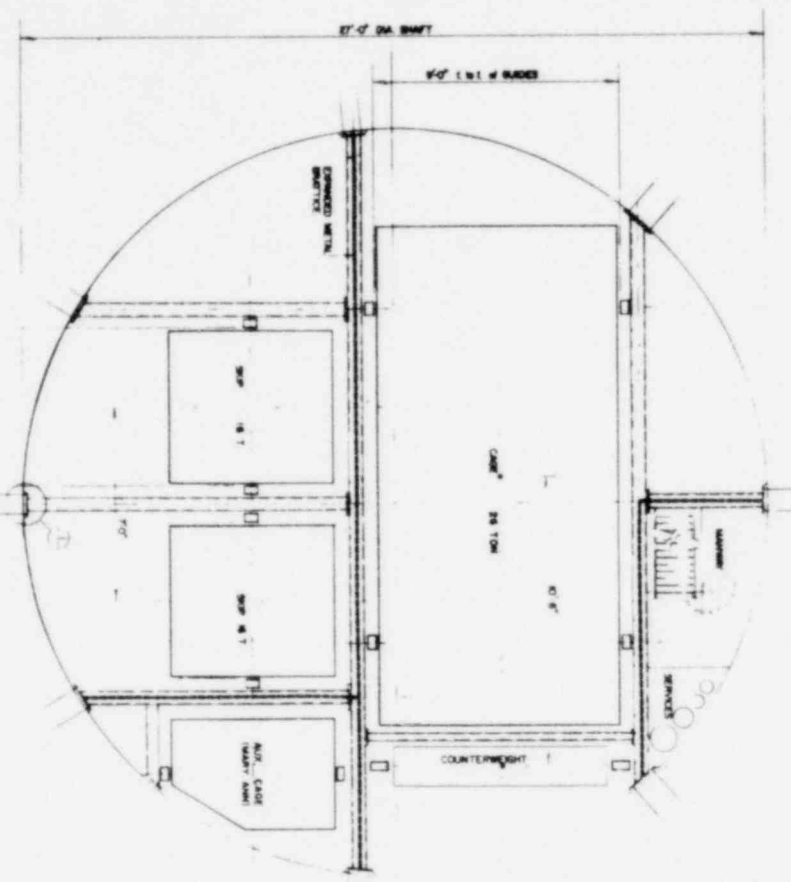
17 - B WASTE SHAFT
 CONTRACTOR'S MOBILIZATION
 EXCAVATION AND HEADWALL
 SHAFT SINKING, STARTING CUTTING
 AND MISCELLANEOUS EXCAVATIONS
 GROUT CURTAINS AND DRY WALLING AND STEEL LINING
 (BOTH SHAFT)
 INSTALL PERMANENT EQUIPMENT & PILE DRIFTS

18 - FRESH AIR SHAFT
 CONTRACTOR'S MOBILIZATION
 EXCAVATION AND HEADWALL
 SHAFT SINKING, STARTING CUTTING
 AND MISCELLANEOUS EXCAVATIONS
 GROUT CURTAINS AND DRY WALLING AND STEEL LINING
 (BOTH SHAFTS INCLUDING EQUIPMENT)

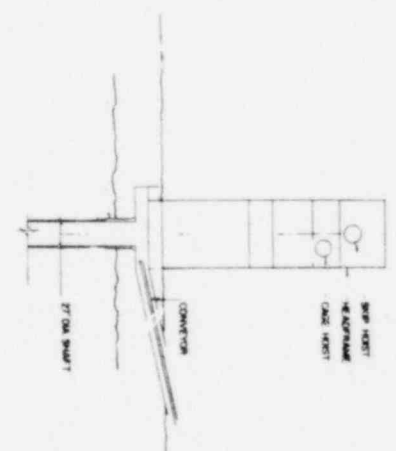
19 - LOW LEVEL WASTE SHAFT
 CONTRACTOR'S MOBILIZATION
 EXCAVATION AND HEADWALL
 SHAFT SINKING, STARTING CUTTING
 AND MISCELLANEOUS EXCAVATIONS
 GROUT CURTAINS AND DRY WALLING AND STEEL LINING
 (BOTH SHAFTS)
 INSTALL PERMANENT EQUIPMENT & PILE DRIFTS

20 - MILLER LOW LEVEL WASTE SHAFT
 CONTRACTOR'S MOBILIZATION
 EXCAVATION AND HEADWALL
 SHAFT SINKING, STARTING CUTTING
 AND MISCELLANEOUS EXCAVATIONS
 GROUT CURTAINS AND DRY WALLING AND STEEL LINING
 (BOTH SHAFTS)
 INSTALL PERMANENT EQUIPMENT & PILE DRIFTS

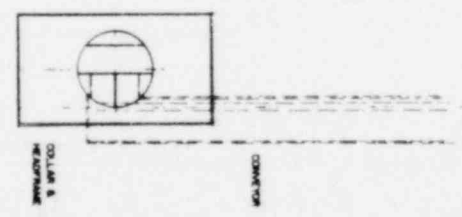
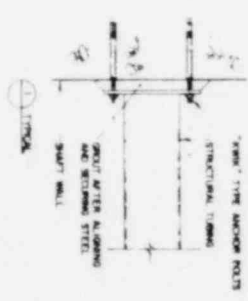
17 - B WASTE SHAFT
 CONTRACTOR'S MOBILIZATION
 EXCAVATION AND HEADWALL
 SHAFT SINKING, STARTING CUTTING
 AND MISCELLANEOUS EXCAVATIONS
 GROUT CURTAINS AND DRY WALLING AND STEEL LINING
 (BOTH SHAFTS)
 INSTALL PERMANENT EQUIPMENT & PILE DRIFTS



PLAN ON SHAFT
SCALE



SECTION

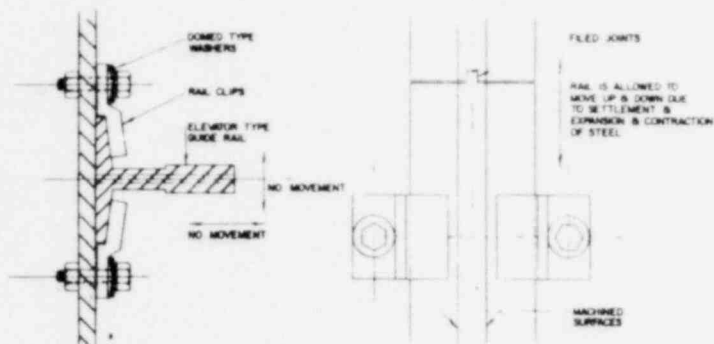


PLAN

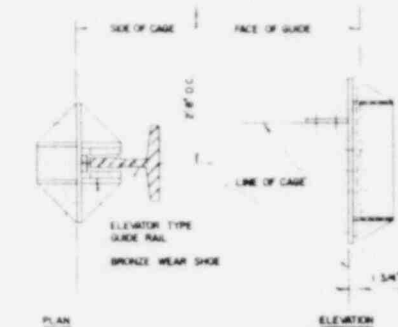


CYCLE # TRANSFER FUEL CYCLE

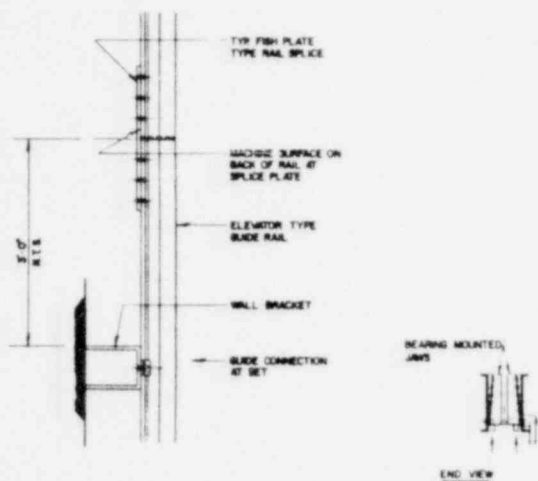
OFFICE OF WASTE ISOLATION			
UNION CARBIDE CORP.			
SALT - CYCLE # 23 OR RETRIEVABLE IS			
WASTE ISOLATION FACILITY			
MEN AND MATERIAL SHAFT			
SCALE	PERMANENT	DATE	BY



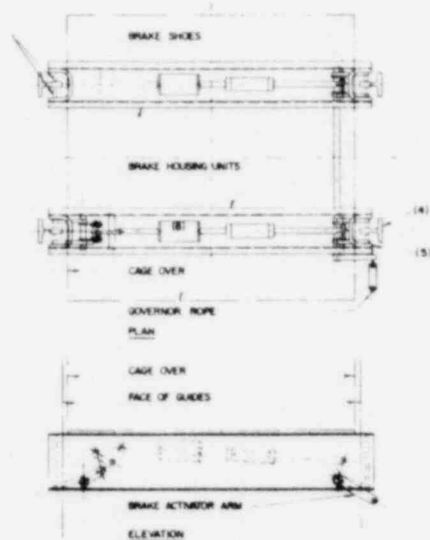
TYPICAL GUIDE RAIL ASSEMBLY



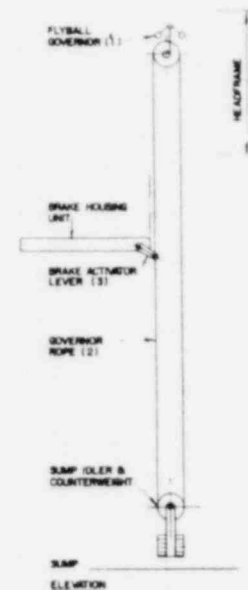
TYPICAL GUIDE SHOE



GUIDE GENERAL ASSEMBLY



FLEXIBLE SAFETY DEVICE



SHAFT SAFETY GEAR ARRANGMENT

CYCLE II THROWAWAY FUEL CYCLE

NOTE

BRAKING SEQUENCE

DURING AN OVERSPEED CONDITION, THE WEIGHTS ON THE FLY-BALL GOVERNOR (1) ENGAGE THE SHEAVE WHEEL AND STOP ITS ROTATION. AS THE GOVERNOR ROPE (2) IS NOW STOPPED, THE ACTUATOR LEVER (3) IS PULLED UP INTO THE SHIP ENGAGING POSITION. THE JAWS ARE FORCED UP ON EITHER SIDE OF THE GUIDE RAIL (4) BY THE SAFETY MECHANISM. AS THE CONVEYANCE CONTINUES ITS DESCENT, THE BEARING-MOUNTED JAWS RISE UP AN INCLINED SURFACE, WEARING AGAINST THE GUIDE RAILS. THE "HORNSHOE" BLOCK (5) BEGINS TO SPREAD DUE TO THIS WEARING ACTION, PROVIDING A CONSTANT PRESSURE ON THE GUIDE RAILS, BRINGING THE CONVEYANCE TO REST WITH A GRADUAL SLOW-DOWN OVER A GIVEN DISTANCE. SHOULD THE GOVERNOR ROPE BREAK, SPRING (6) AUTOMATICALLY ENGAGES THE BRAKING MECHANISM.

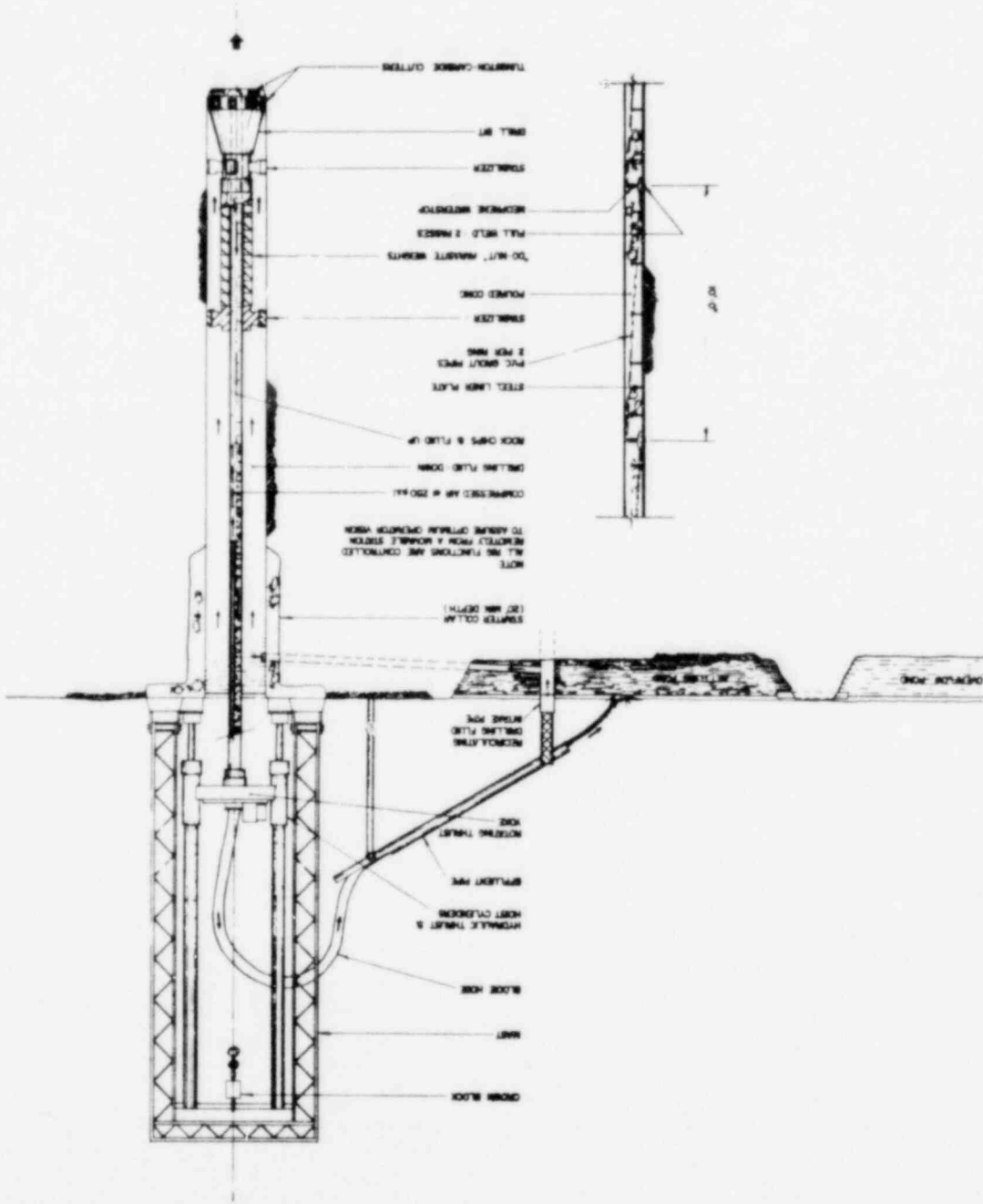
OFFICE OF WASTE ISOLATION
UNION CARBIDE CORPORATION
NUCLEAR DIVISION
OAK RIDGE, TENNESSEE

FURBENS, BRINCKERHOFF, QUADE & DOUGLAS, INC.
ENGINEERS

WASTE ISOLATION FACILITY
CANISTERED WASTE CONVEYANCE
SAFETY MECHANISM
SALT-CYCLE II - 5 YR. RETRIEVABLE - IIR

SCALE	CONTRACT NO. 621-45702C
DATE: FEBRUARY, 1979	WPP NO. F-20 REV.

SHaft LINING ARRANGEMENT
BLIND HOLE DRILLING METHOD



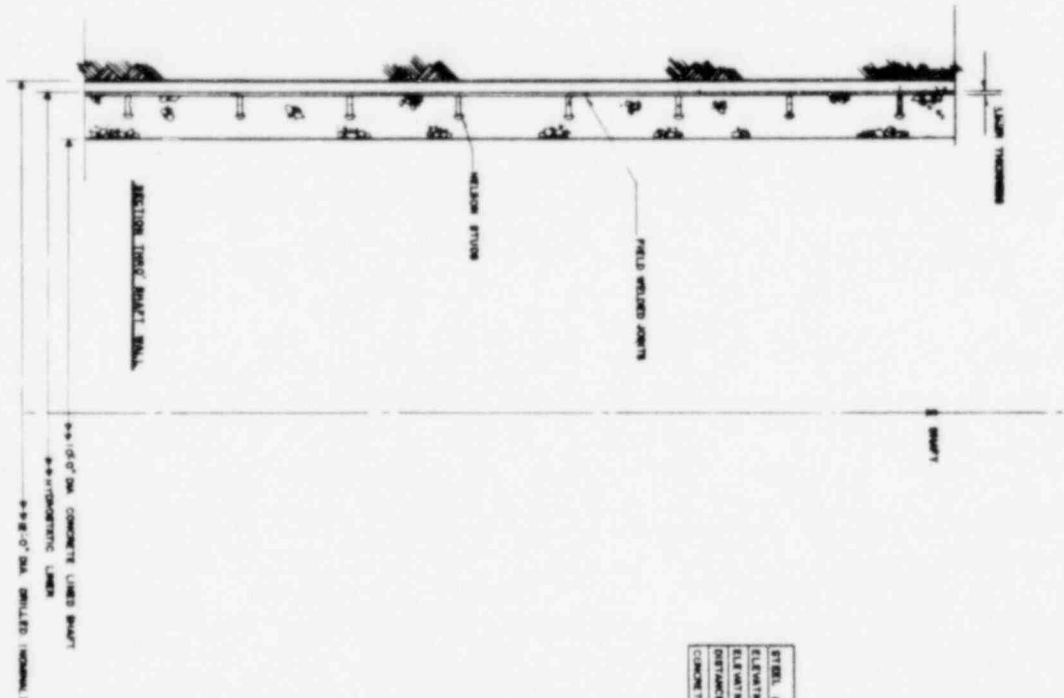
OFFICE OF WASTE ISOLATION
UNION CARBIDE CORPORATION
NUCLEAR DIVISION
DAY HOOD, TENNESSEE

PARSONS BRINCKERHOFF, QUAD & DONALD, INC.
DESIGNER

WASTE ISOLATION FACILITY
LOW LEVEL WASTE SHAFT
BLIND HOLE DRILLING METHOD
SHEET - CYCLE 3 - 28 THRU RETRIEVABLE - 112

SCALE: CONTRACT NO. 4871-ME708C
DATE: FEBRUARY, 1978 SHEET NO. E-42 REV. 1

CYCLE 3 THROUGHWAY FUEL CYCLE



STEEL LINER THICKNESS	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"
ELEVATION - FROM SURFACE	800'	800'	800'	1080'	1080'	1400'
ELEVATION - TO	800'	800'	1080'	1080'	1400'	1400'
OUTLANCE	800'	800'	1080'	1080'	1400'	1400'
CONCRETE STRENGTH (KALI)	3800	3800	3800	4000	4000	4000

CIRCLE NO. : KOSABARI POEL CIRCLE

OFFICE OF WASTE ISOLATION
 UNION CARBIDE CORPORATION
 NUCLEAR DIVISION
 ONE MOORE, TEMPERANCE

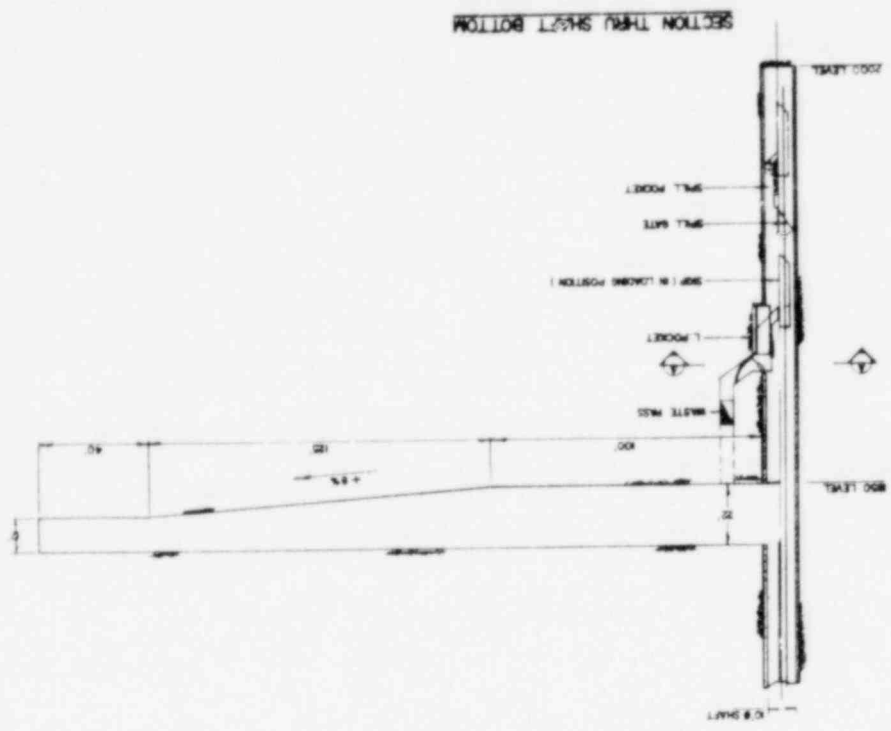
PREPARED BY: SHARON HOFFMAN, QUAKER & DONALDSON, INC.
 WASTE ISOLATION FACILITY
 LOW LEVEL WASTE SHAFT
 LINING DETAILS
 SALT-STEEL LINING, DETAIL NO. 108

SCALE: 1/4" = 1'-0"
 SHEET NO. 431 - 43703C
 DATE: FEBRUARY, 1978

OFFICE OF WASTE ISOLATION
 UNION CARBIDE CORPORATION
 NUCLEAR DIVISION
 OAK RIDGE, TENNESSEE

WASTE ISOLATION FACILITY
 LOW LEVEL WASTE SHAFT
 DURING FUEL CYCLE DEVELOPMENT

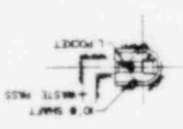
DATE: FEBRUARY, 1978
 SHEET NO. 187-45705C
 REV. 1



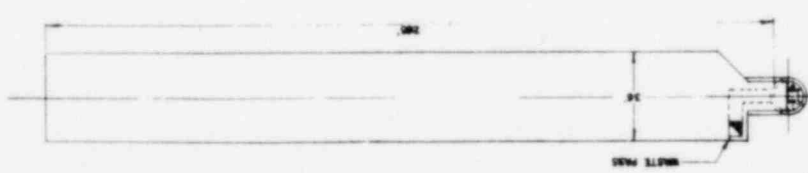
SECTION THROUGH SHAFT BOTTOM

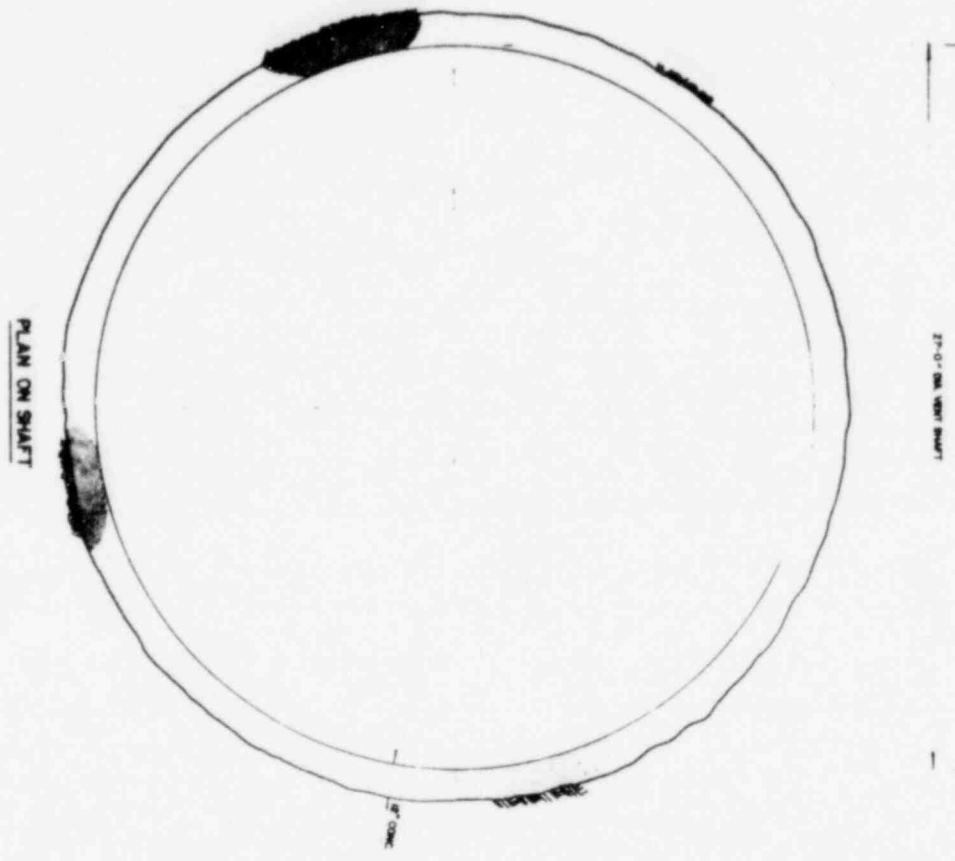
CYCLE B THROUGHWAY FUEL CYCLE

SECTION 'A-A'



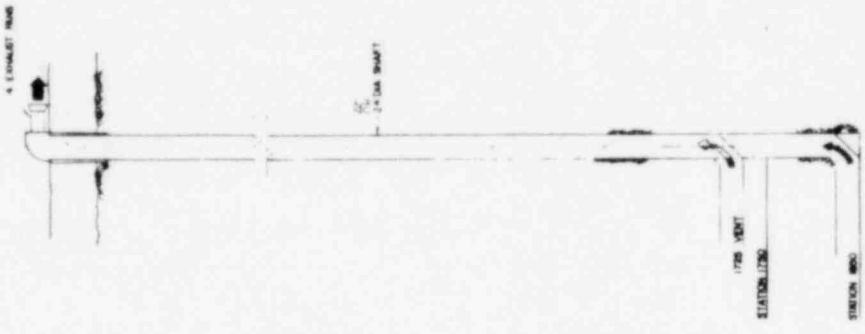
PLAN ON 1850 LEVEL STATION



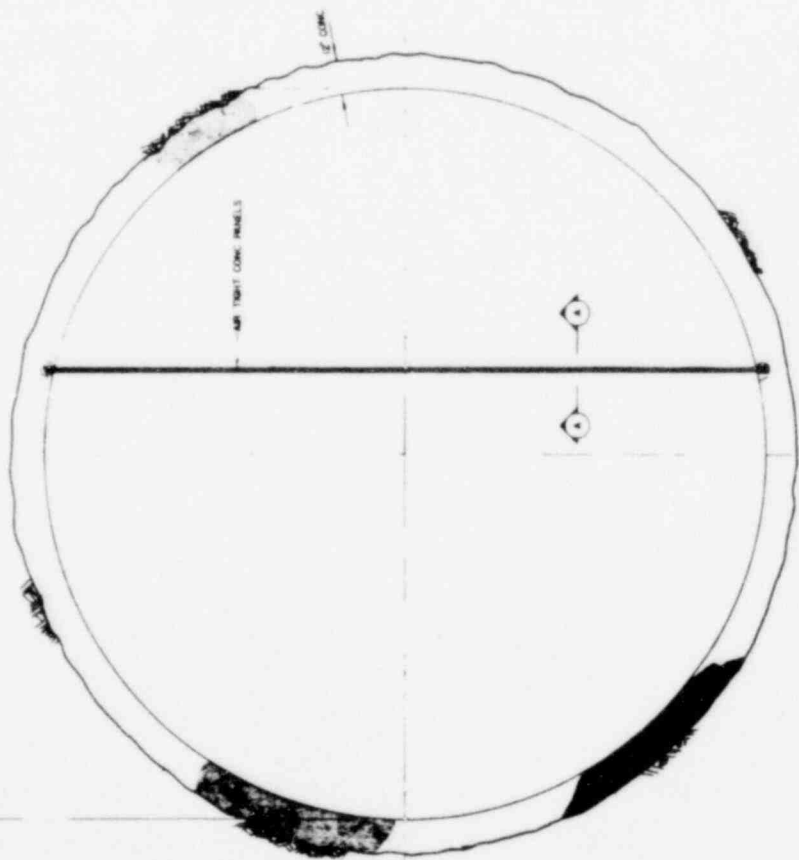


CYCLE 8 - TOWER/WASTE PAVILION CYCLE

OFFICE OF WASTE ISOLATION			
UNION CARBIDE CORPORATION			
NUCLEAR DIVISION			
DALLAS, TEXAS			
PROJECT: WASTE ISOLATION FACILITY			
SUBJECT: VENTILATION SUPPLY SHAFT			
SHEET: 1 - CYCLE 8 - 8' DIA. VENT. SHAFT			
DATE	DESIGNED BY	CHECKED BY	SCALE
10/1/78	W. J. B.	W. J. B.	AS SHOWN



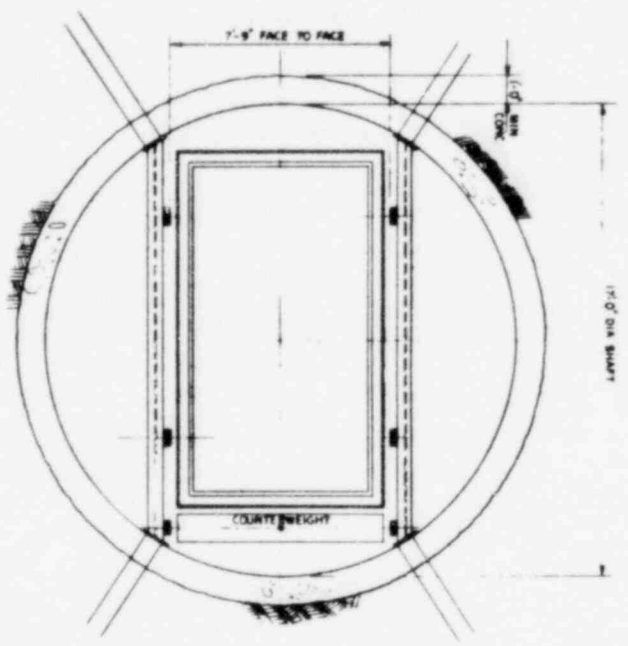
SECTION 'AA'



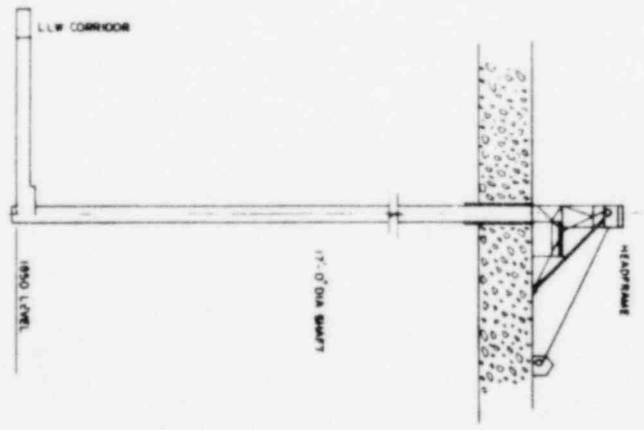
SHAFT SECTION

CYCLE 8 THROUGHWAY FUEL CYCLE

OFFICE OF WASTE ISOLATION	
UNION CARBIDE CORPORATION	
FUEL CYCLE 8 ISOLATION	
DIA. NO. 880 - TOWER 880	
DRAWING: BRUCKENHOFF, SHASE & DONALD, INC.	
DATE: FEBRUARY, 1978	
SCALE: 1/4" = 1'-0"	
PROJECT NO. 881-80702C	
REV. NO. 1.0.0	
REV.	



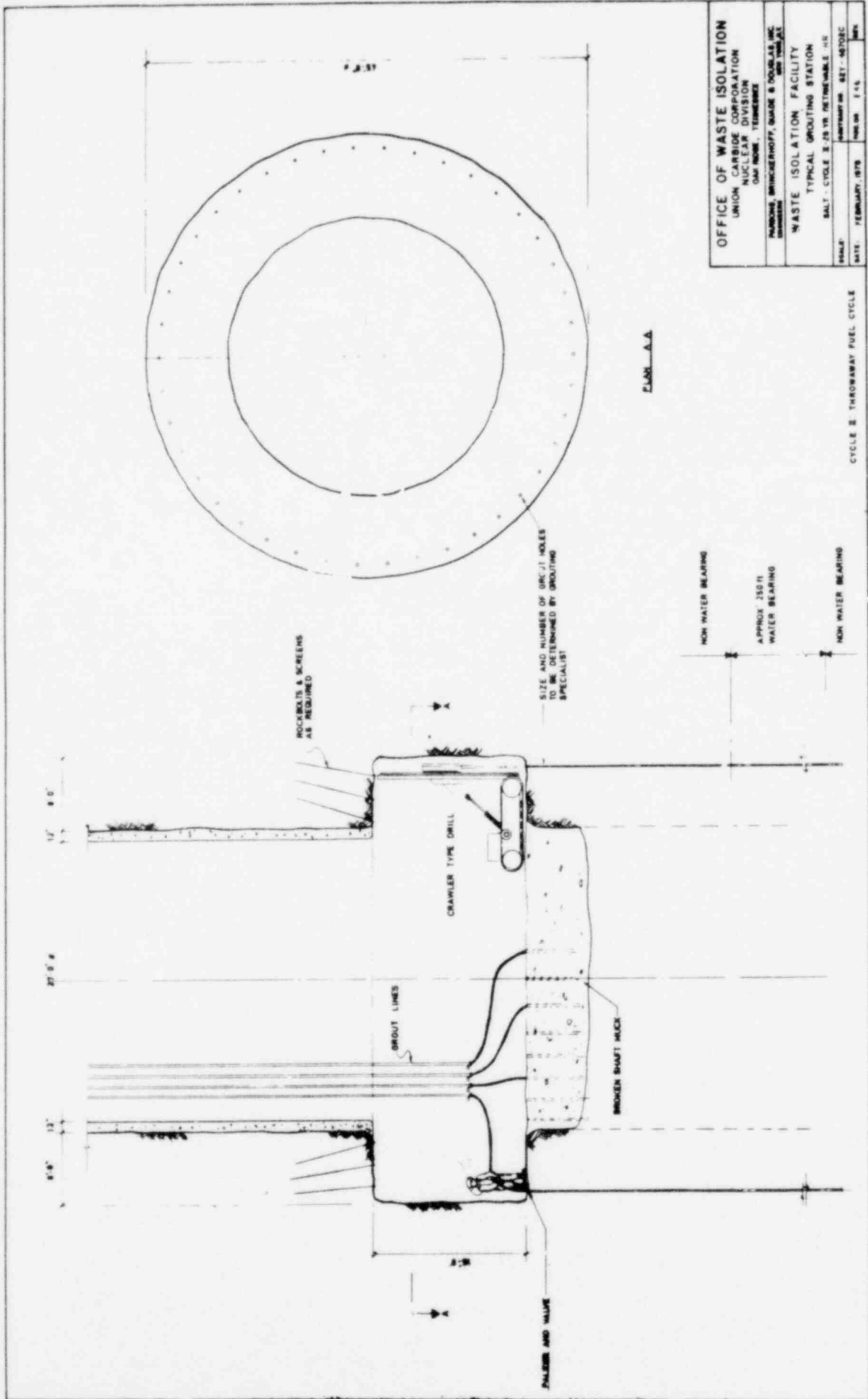
PLAN
SCALE 1/4" = 1'-0"



SHAFT SECTION

CYCLE 2 THROUGH PEARL CYCLE

OFFICE OF WASTE ISOLATION	
UNION CARBIDE CORPORATION NUCLEAR DIVISION DAYTON, OHIO	
WASTE ISOLATION FACILITY	
SERVICE SHAFT	
SCALE 1/4" = 1'-0"	
DATE: 11/15/68	BY: J. W. ...



OFFICE OF WASTE ISOLATION
 UNION CARBIDE CORPORATION
 NUCLEAR DIVISION
 OAK RIDGE, TENNESSEE

PREPARED BY: BRUNNENHOFF, SAUER & VOLLMER, INC.
 1000 W. 10th St., Tulsa, Okla. 74103

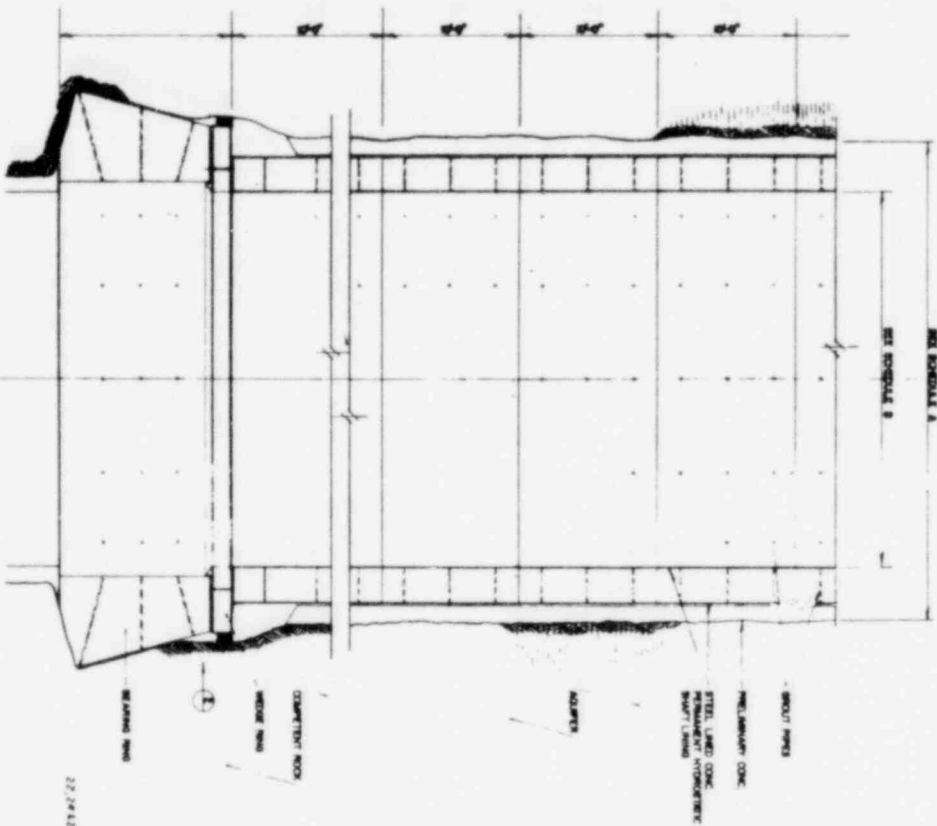
WASTE ISOLATION FACILITY
 TYPICAL GROUTING STATION

SCALE: 1" = 20' VERTICAL, 1" = 10' HORIZONTAL

DATE: FEBRUARY, 1978

CYCLE 3 THROUGHWAY FUEL CYCLE

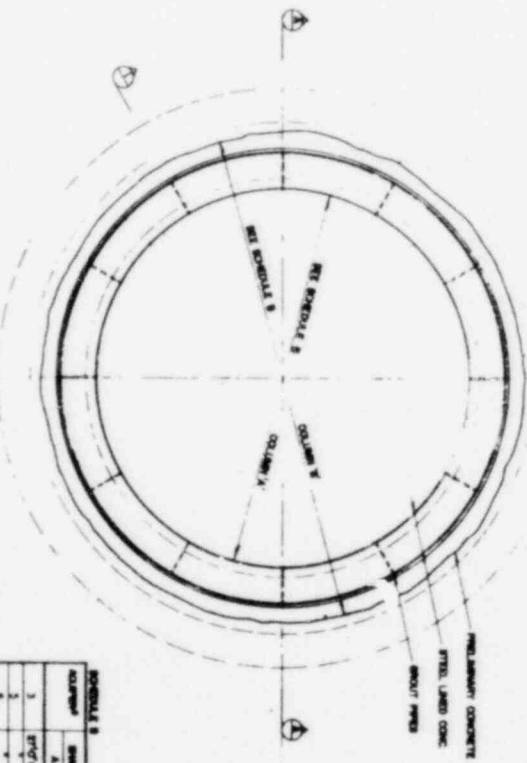
SHAFT SECTION A-A



22'-2 1/2" x 17'-8"

NO.	ADAPTIVE STRENGTH OF CONCRETE	THICKNESS OF CONCRETE	STEEL LINED CONCRETE STRENGTH (YIELD STRENGTH)	LENGTH
1	3,000 PSI	8"	50,000 PSI	1'
2	4,000 PSI	8"	50,000 PSI	1'
3	4,000 PSI	8"	50,000 PSI	11'
4	4,000 PSI	8"	50,000 PSI	11'
5	4,000 PSI	8"	50,000 PSI	11'
6	4,000 PSI	8"	50,000 PSI	11'
7	4,000 PSI	8"	50,000 PSI	11'
8	4,000 PSI	8"	50,000 PSI	11'
9	4,000 PSI	8"	50,000 PSI	11'
10	4,000 PSI	8"	50,000 PSI	11'

PLAN ON SHAFT



REINFORCEMENT

NO.	SHAFT DIA.	REINFORCEMENT
1	8"	4#4
2	8"	4#4
3	8"	4#4
4	8"	4#4
5	8"	4#4
6	8"	4#4
7	8"	4#4
8	8"	4#4
9	8"	4#4
10	8"	4#4

OFFICE OF WASTE ISOLATION

UNION CARBIDE CORPORATION
 NUCLEAR DIVISION
 ONE MOORE, TOWNSHIP

WASTE ISOLATION FACILITY
 AQUIFER SHAFT DESIGN DETAILS

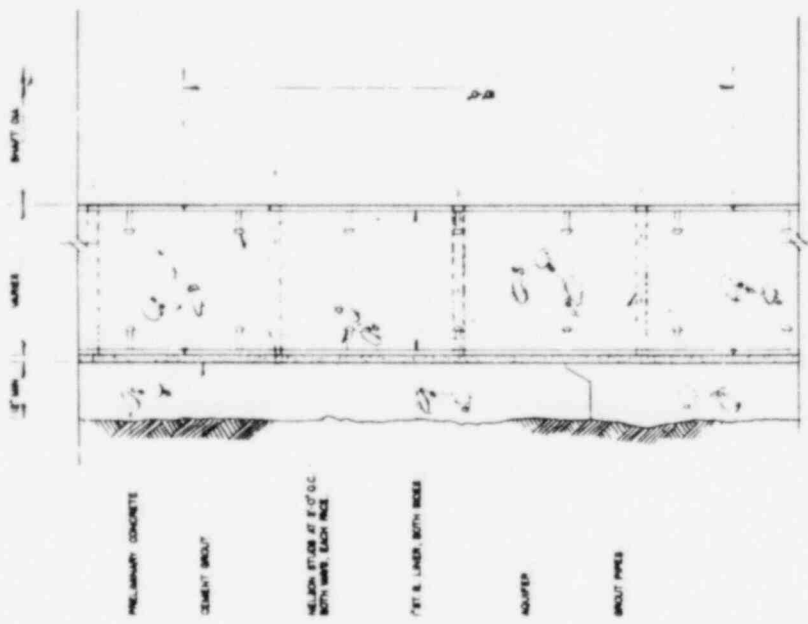
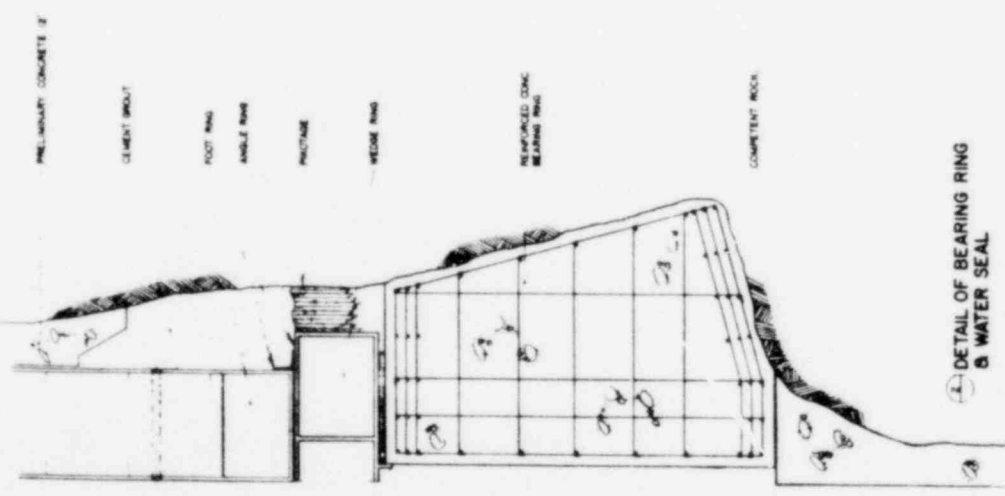
DATE - CYCLE 22 22 17 8 DETAIL NO. 10

SCALE - 1/4" = 1'-0"

DATE - FEBRUARY 1978

CYCLE 22 THROUGHOUT THIS CYCLE

*SEE SHEET NO. 12A



⊕ DETAIL OF PERMANENT HYDROSTATIC LINING

OFFICE OF WASTE ISOLATION	
UNION CARBIDE CORPORATION	
NUCLEAR DIVISION	
DAYTON, TENNESSEE	
NATIONALS BRUNCKERHOFF, SHAPIRO & DOUGLAS, INC.	
DESIGNERS	
WASTE ISOLATION FACILITY	
DETAIL OF HYDROSTATIC LININGS	
SALT - CYCLE 2, 25 YR. RETRIEVABLE - NR	
DRAWN BY	SET - 02/25/78
DATE	FEBRUARY, 1978
SCALE	1" = 4'

CYCLE 2 - THROUGHWAY FUEL CYCLE