

(NRC) ^{needed to be filed}

AP 1001

Three Mile Island Nuclear Station

SIDE 1

Figure 1001-8

Special Operating Procedure

SOP No. 2-99
(From SOP Log Index)

NOTE: Instructions and guidelines in AP 1001 must be followed when completing this form.

Unit No. 1 & 2
Date 4-14-79

1. Title Unit II Transfer of WDL-T-8A/B to Unit I Neutralizer Feedtank WDL-T9

2. Purpose (include purpose of SOP)

Transfer a portion of Unit II WDL-T-8A/B to Unit I WDL-T9

3. Attach procedure to this form written according to the following format.

A. Limitations and Precautions

- 1. Nuclear Safety
- 2. Environmental Safety
- 3. Personnel Safety
- 4. Equipment Protection

Attached

B. Prerequisites

C. Procedure

4. Generated by H.I. Yamamoto Date 4/11/79

5. Duration of SOP - Shall be no longer than 90 days from the effective date of the SOP or (a) or (b) below - whichever occurs first.

- (a) SOP will be cancelled by incorporation into existing or new permanent procedure submitted by _____
- (b) SOP is not valid after N/A
(fill in circumstances which will result in SOP being cancelled)

6. (a) Is the procedure Nuclear Safety Related?

If "yes", complete Nuclear Safety Evaluation. (Side 2 of this Form) Yes No

(b) Does the procedure affect Environmental Protection?

If "yes", complete Environmental Evaluation. (Side 2 of this Form) Yes No

(c) Does the procedure affect radiation exposure to personnel? Yes No

NOTE: If all answers are "no", the change may be approved by the Shift Supervisor. If any questions are answered "yes", the change must be approved by the Station Superintendent/Unit Superintendent.

7. Review and Approval

Approved - Shift Supervisor [Signature]

Reviewed - List members of PORC contacted

<u>NRC P. Stoddart</u>	<u>4/11/79</u>	<u>963</u>	<u>4/13/79</u>	<u>W. Johnson</u>	<u>4/11/79</u>	<u>W. Sullivan</u>	<u>4/13/79</u>
<u>Bew</u>	<u>N/A</u>			<u>EDS</u>	<u>4/12/79</u>	<u>R. Warren</u>	<u>4/13/79</u>
<u>H. G. [Signature]</u>	<u>4/13/79</u>			<u>[Signature]</u>	<u>4-14-79</u>	<u>[Signature]</u>	<u>4/13/79</u>

Approved-Station Superintendent/Unit Superintendent [Signature]

8. SOP is Cancelled

Shift Supervisor/Shift Foreman

Date

133 098

A. Limits + Precautions

- 1. Nuclear Safety - N/A
- 2. Environmental Safety - N/A
- 3. Personnel Safety

a. No shielding required around Unit I WDL-T-9. Water to be transferred has low radiation activity.

~~b. A temporary charcoal filter setup shall be attached to Unit I WDL-T-9 Neutralizer Feed tank to remove some airborne Iodine (see Attachment II p. 1) during the transfer.~~

c. H.P. shall monitor β^- and γ activity near the ~~filter~~ ^{tank vent} as well as take an air sample.

If activity is $> 1 \times 10^9$ uci/cc gross (β^- and γ), then transfer shall stop, pending evaluation.

NRC. 4/14/79
 Rev 1
 Deleted RW
 JRP (42) 4/14/79
 ALARA CES 4/14/79
 JDP 4/14/79
 H.I.J. 4/14/79

4. Equipment Protection

a. Record initial + final levels of: Unit II Neutralizer Tanks WDL-T-8A/B, Unit I Neutralizer Feed tank WDL-T-9 and, if necessary, ~~Unit I Neutralizer Waste Storage Tank WDL-T-10~~ on Data Sheet I.

b. Monitor levels of WDL-T-8A/B, WDL-T-9 and, if necessary, ~~WDL-T-10~~ during the transfer

c. Ensure WDL-T-8A/B are vented during transfer.

~~Step~~ B. Prerequisites

1. Obtain latest activity of liquid in WDL-T8A/B.
2. Inform Unit ^I Superintendent of activity levels in WDL-T8A/B and obtain permission to transfer.
3. Notify NRC/NRA.
4. Verify other transfers do not interfere with this transfer.
5. Ensure communications have been established between the Unit II Radwaste Panel and Unit I Radwaste Panel.
6. a. Ensure that personnel minimize stay time at the Unit II radwaste panel.
6. Have H.P. or FLART evaluate & see from step B.1 for I airborn problems
RW/1 →

NRC/UR

Unit II

C.1 Procedure: Transfer of WDL-T-8A

Unit II

Note: If only Neutralizer Tank pump WDL-P8A is available, proceed to attachment I.

1. Record the initial levels of the Unit II neutralizer tanks WDL-T-8A/B and the Unit I Neutralizer Feed tank WDL-T9 on Data Sheet I.

~~WDL-T-8A~~

2. Establish normal recirculation of WDL-T-8A per step 4.8.1.1 and 4.8.1.2 of 2104-4.1.

3A. Perform following Unit II value lineup. See BER Flow Diagram Dwg. 2045.

Ensure WDL-V238A closed (WDL-V238B for WDL-T8B)

WDL-V239A open (WDL-V239B for WDL-T8B)

WDL-V240A open (WDL-V240B for WDL-T8B)

WDL-V244 close

Ensure WDL-V246A close (WDL-V246B for WDL-T8B)

WDL-V394A open (WDL-V394B for WDL-T8B)

WDL-V243A ~~open~~ close (WDL-V243B for WDL-T8B)

WDL-V322 close (WDL-V322 open for WDL-T8B)

WDL-V324A open

Ensure valves WDL-V560, V376A, V558A, and V561A are closed.

WDL-V325A open

WDL-V327A close

WDL-V326A open

33 1011

C.1 Procedure: Transfer of WDL-T-8A

- 3A. _____ WDL - V326 B close
_____ WDL - V400 A close } Discharges from
_____ WDL - V400 B close } But Urin tank
_____ WDL - V1168 close
_____ WDL - V372 close
P. - - - - - WDL - V245 close (but tank receive cross
connection)
_____ WDL - V236A close

P65
4/17/79

C.1. Procedure: Transfer of WDL-T-8A

3. Perform the following Unit I valve lineup:
As Found

As Found	As Found
WDL-V254 close	WDL-V807 close
WDL-V240 close	WDL-V153 close
WDL-V242 open	WDL-V160 close
WDL-V58 close	WDL-V151 C
WDL-V241 close	-V157 C
WDL-V183 close	-V78 C
WDL-V59 close	-V109 C
WDL-V60 open	-V108 C
WDL-V250 open	-V234 C
WDL-V158 close	-V126 C
WDL-V206 close	-V127 C

see Attached G.A.I. Dwg. 5-302-690 thru 693
Unit II valves

4. Open WDL-V243A and close WDL-V242A.

Pump down WDL-T-8A. Monitor for excessive radiation during and after transfer. Ensure WDL-P-8A has sufficient suction head.

5. ~~When~~ Before Unit I Neutralizer Feed tank WDL-T9 reaches overflow level (≈ 9.0 feet), stop

Unit II Neutralizer Tank pump WDL-P-8A and close ^{Unit II valves} WDL-V243A, WDL-V394A and WDL-V240A.

~~Record~~ Record final level of WDL-T-8A and WDL-T9 on Data Sheet I. ALSO CLOSE UNIT I WDL-V242.

C2 Procedure: Transfer of WDL-T-8B

1. Establish normal recirculation of WDL-T-8B per step 4.8.1.i and 4.8.1.2 of 2104-4.1.
2. Valve lineup of section C.2 para. 3 + 3A + 3B must be complete.
3. Open Unit II valves WDL-V243B, WDL-V322.
Close WDL-V242B and pump down WDL-T-8B.
 - a. Monitor for excessive radiation during + after transfer.
 - b. While pumping down WDL-T-8B, closely monitor the Unit I Neutralizer Feed tank WDL-T-9 to prevent over flow.
4. When Unit I WDL-T-9 reaches over flow level ($\approx 9.0'$), stop WDL-P-8B in Unit II.
Close Unit II valves WDL-V243B, WDL-V240B, WDL-V322 and WDL-V394B.
5. Close Unit II WDL-V324A, WDL-V325A and WDL-V326A. Close Unit I WDL-V242.
6. Record final level of Unit I WDL-T-9 and Unit II WDL-T-8B on Data Sheet I.
7. Return all Unit I valves to the listed "as found" positions.

Attachment I

PROCEDURE FOR PUMPING WDL-TSA 7B WITH ~~WDL-P3A~~ ^{WDL-P3A ONLY} p. 1 of 3,

Alternate Procedure: When only Unit II Neutralizer tank pump WDL-P-8A is available

1. Establish the following Unit II valve lineup:

- ___ WDL-V239A open
- ___ WDL-V244 open
- ___ WDL-V246A close
- ___ WDL-V242A close
- ___ WDL-V243A ~~open~~ close
- ___ WDL-V324A open
- ___ WDL-V376A close
- ___ WDL-V558A close
- ___ WDL-V325A open
- ___ WDL-V326A open \equiv 0
- ___ WDL-V1168 close \equiv C
- ___ WDL-V239B open
- ___ WDL-V240B close
- ___ WDL-V240A 0
- ___ WDL-V394A 0
- ___ WDL-V245 C
- ___ WDL-V322 C
- ___ WDL-V560 C
- ___ WDL-V375A C
- ___ WDL-V561A C
- ___ WDL-V327A C
- ___ WDL-V326B C
- ___ WDL-V372 C
- ___ WDL-V400A close
- ___ WDL-V400B close

133-105

2. Establish the following Unit 1 value lineup:

As Found

- WDL-V254 close
- WDL-V240 close
- WDL-V242 open
- WDL-V58 close
- WDL-V241 close
- WDL-V183 close
- WDL-V59 close
- WDL-V60 open
- WDL-V250 open ≡ O
- WDL-V158 close ≡ C
- WDL-V206 close

As Found

- WDL-V307 close
- V153 close
- V160 C
- V151 C
- V157 C
- V78 C
- V109 C
- V108 C
- V234 C
- V126 C
- V127 C

133,106

0. In Unit II, start Neutralizer Tank pump WDL-P-8A and pump both Neutralizer Tanks 8A & 8B to the Unit I Neutralizer Feed tank WDL-T9. Monitor for excessive radiation during & after transfer.
3. Stop pumping when ~~either~~ Unit I Neutralizer Feed tank WDL-T9 is full at ≈ 9.0 Level.
Shut WDL-V240A, WDL-V243A, WDL-V394A
4. Return all Unit #1 valves to the "as found" position.
Close Unit #1 valve WDL-V242

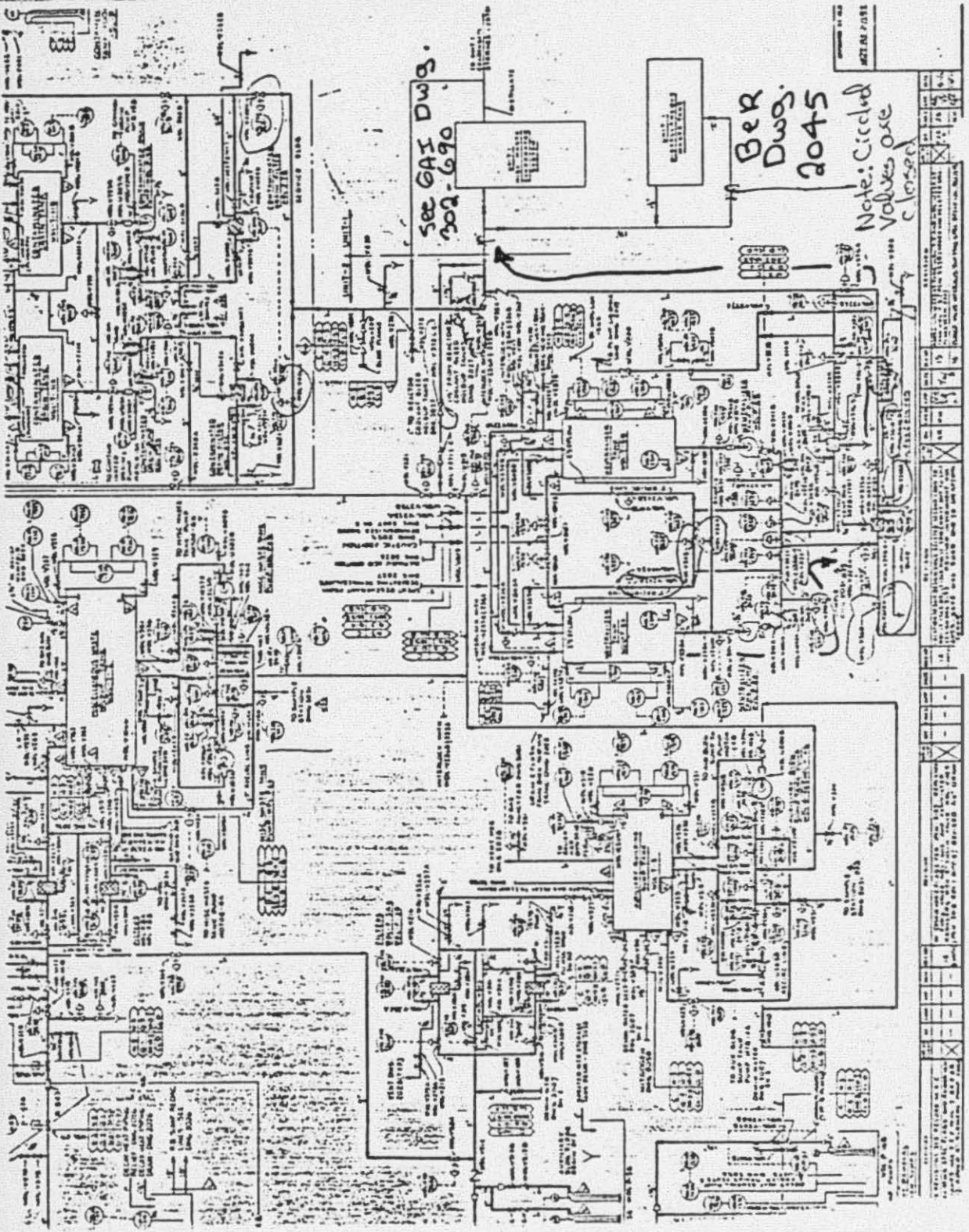
Data Sheet I

Record and final

1. Initial levels of Unit II Neutralizer Tanks WDL-T-8A/B
and Unit I Neutralizer Feed tank WDL-T9

		Initial		Final	
WDL-T-8A	Level	_____	ft.	_____	ft.
WDL-T-8B	Level	_____	ft.	_____	ft.
WDL-T9	Level	_____	ft.	_____	ft.

2. Recession



Unit II Radwaste Misc. Disposal

601 551

SEE GAI DWG.
302-690

BER
DWG.
2045

Note: Circled
Values are
Closed

NO.	DESCRIPTION	REV.	DATE	BY	CHKD.
1					
2					
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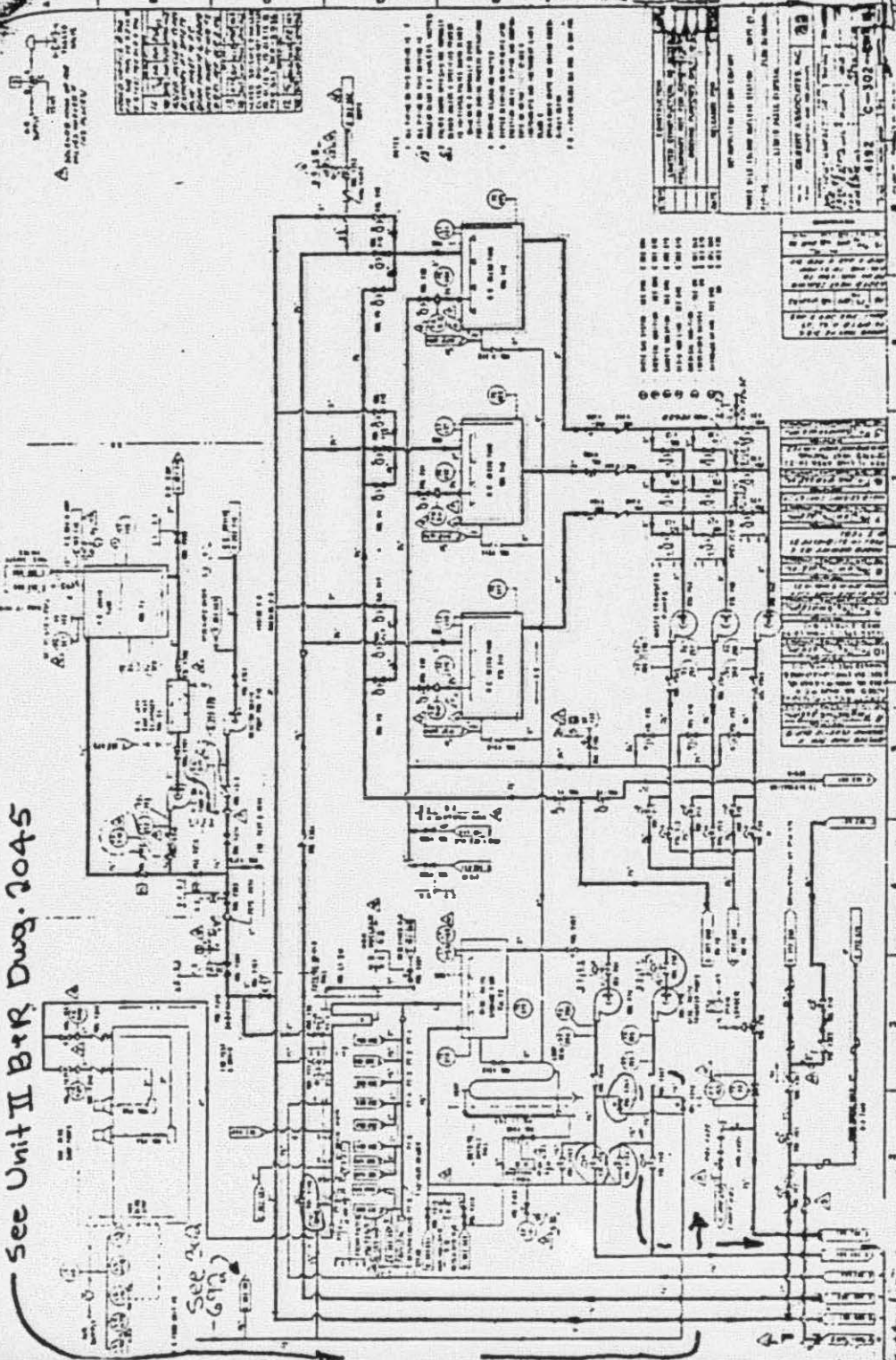
Attachment IV

Note: Circled valves are to be closed.

Unit 1
Unit 2
Unit 3
069
088

See Unit II B & R Dwg. 2045

See 204
-672



NO.	DESCRIPTION	DATE
1
2
3
4
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6
7
8
9
10

See 202-672-691

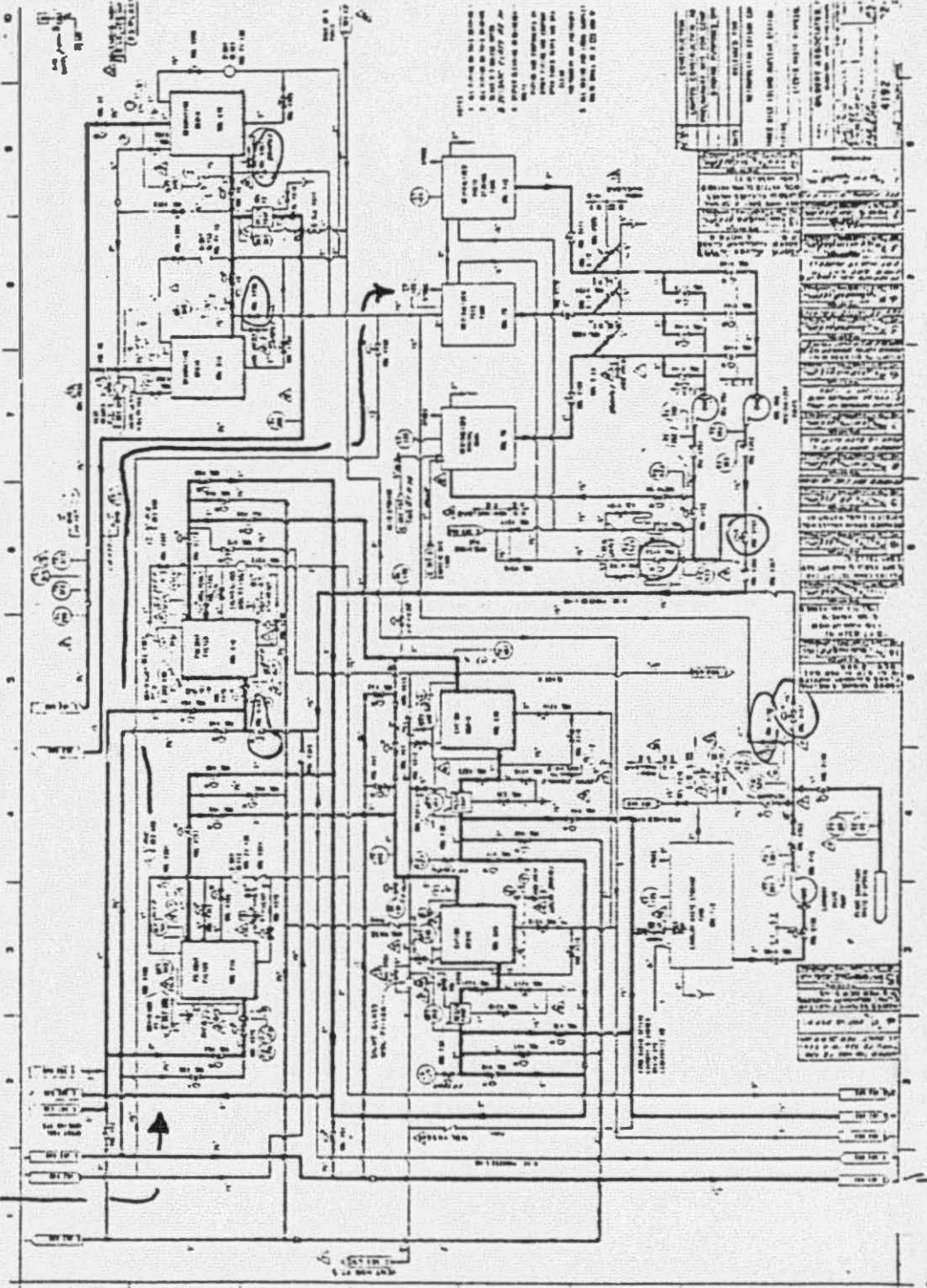
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Attachment IV

Note: Circled Valves are to be closed.

see 300-690

Unit 2 WDL Dwg. 300-681

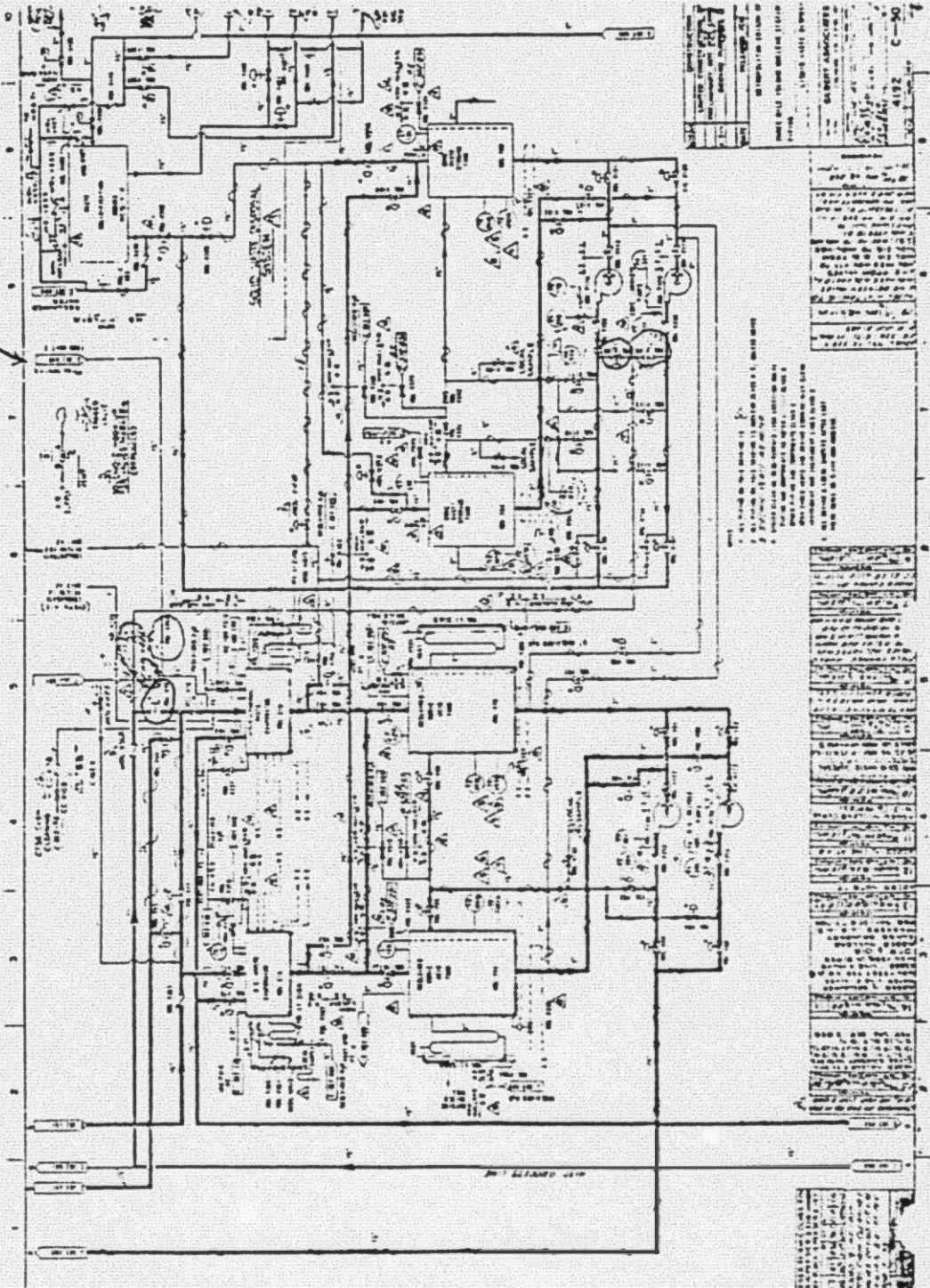


Attachment IV

133 112

see 300-690

Note: Circled valves are to be closed



Unit I w/1 DWG. 300-692

NO.	REVISION	DATE	BY	CHKD.
1	AS SHOWN			
2	REVISED FOR UNIT I			
3	REVISED FOR UNIT II			
4	REVISED FOR UNIT III			
5	REVISED FOR UNIT IV			
6	REVISED FOR UNIT V			
7	REVISED FOR UNIT VI			
8	REVISED FOR UNIT VII			
9	REVISED FOR UNIT VIII			
10	REVISED FOR UNIT IX			
11	REVISED FOR UNIT X			
12	REVISED FOR UNIT XI			
13	REVISED FOR UNIT XII			
14	REVISED FOR UNIT XIII			
15	REVISED FOR UNIT XIV			
16	REVISED FOR UNIT XV			
17	REVISED FOR UNIT XVI			
18	REVISED FOR UNIT XVII			
19	REVISED FOR UNIT XVIII			
20	REVISED FOR UNIT XIX			
21	REVISED FOR UNIT XX			
22	REVISED FOR UNIT XXI			
23	REVISED FOR UNIT XXII			
24	REVISED FOR UNIT XXIII			
25	REVISED FOR UNIT XXIV			
26	REVISED FOR UNIT XXV			
27	REVISED FOR UNIT XXVI			
28	REVISED FOR UNIT XXVII			
29	REVISED FOR UNIT XXVIII			
30	REVISED FOR UNIT XXIX			
31	REVISED FOR UNIT XXX			