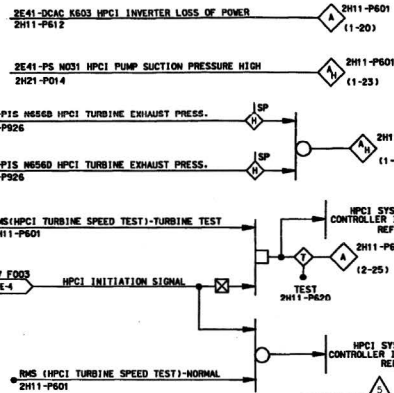
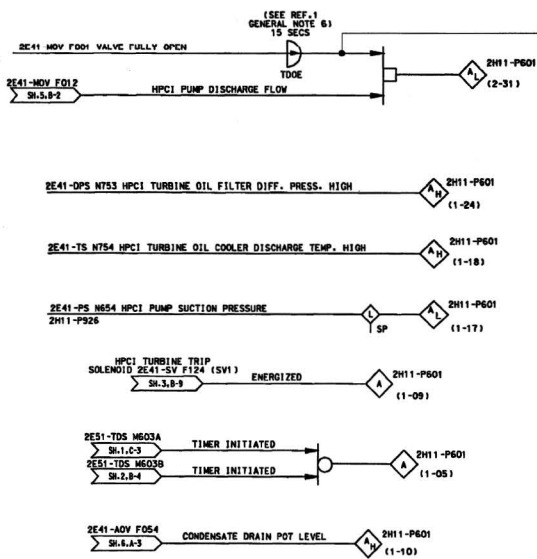
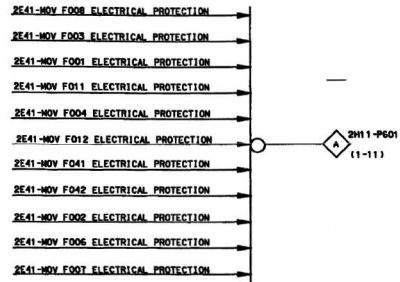
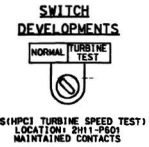
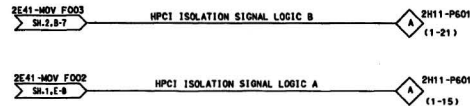
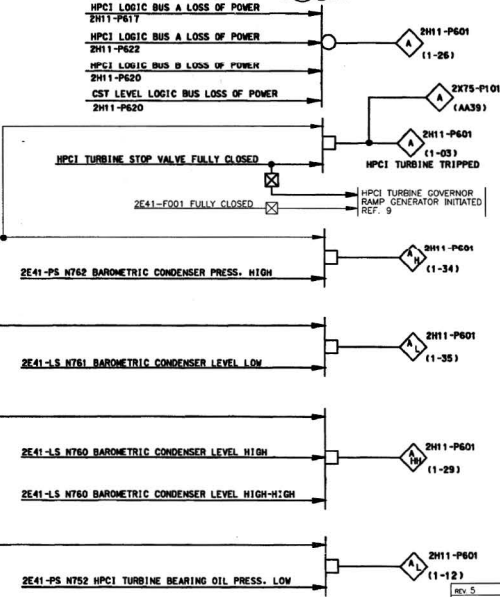


69192-H



HPCI TURBINE SPEED CONTROL 2E41-FIG-R612



FOR NOTES SEE DWD: H-24742 FOR REFERENCES SEE DWD:H-24743

SUPERSEDING

THIS DRAWING WAS DEVELOPED FROM D.E. DRAWING NO. 729627BA, SH.1.1, REV. B, SH.2.2, REV. B, AND SH.3.1, REV. B. SC31 ACCESSION DRAWING NO. 5-26104, 5-26105, AND 5-26106 RESPECTIVELY.

MPL NO. 2E41-1030 (REV. 1-84)

BECHTEL

JOB 6511 GAITHERSBURG, MARYLAND

SOUTHERN SERVICES INC. FOR

GEORGIA POWER CO., ATLANTA, GA. GENERAL ENGINEERING DEPARTMENT

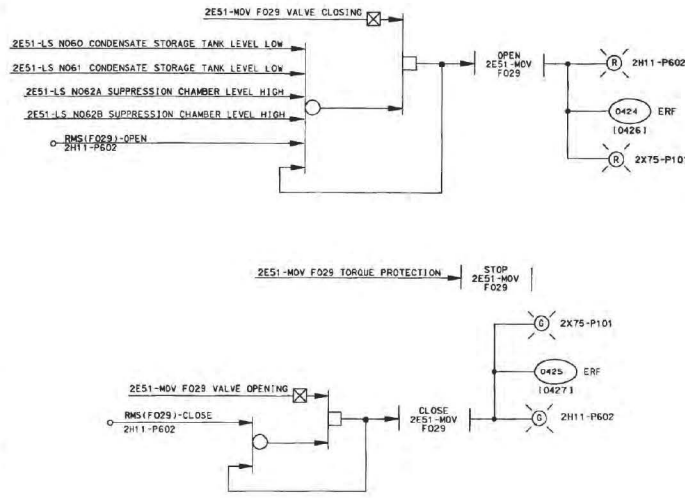
DOWNS MATCH NUCLEAR PLANT UNIT NO. 2 FLOW PRESSURE COOLANT INJECTION SYSTEM LOGIC DIAGRAMS SHEET 8 OF 8

DATE FOUR A-6081 5-16-85

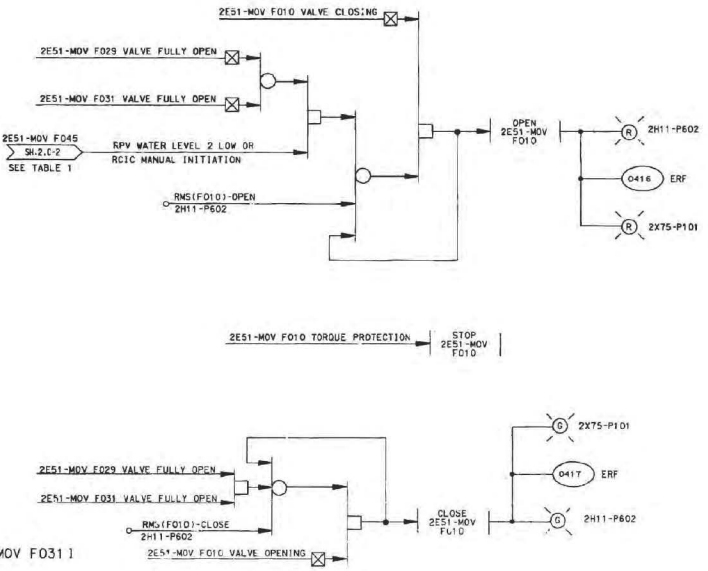
SCALE: 10-502 H-24749

REV. 5	DATE 8-5-94	BY	CHKD	APP'D	DATE
REVISED PER AEN 92-0091-002					
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SCANNED, VERIFIED BY: LEN					
REVISED PER AEN 93-0036-002					

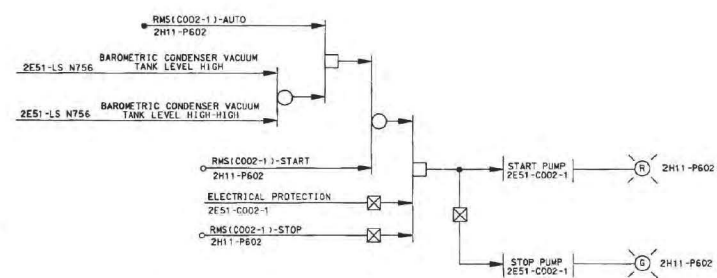
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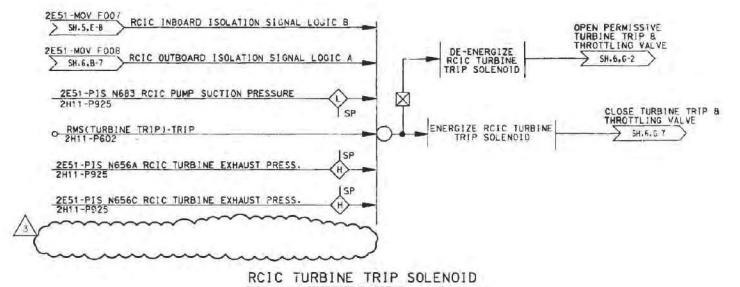
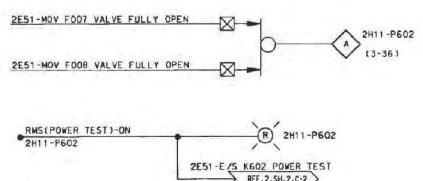
PUMP SUCTION FROM TORUS ISOLATION GATE VALVE 2E51-MOV F029 TYPICAL FOR: [2E51-MOV F031]



PUMP SUCTION FROM CONDENSATE STORAGE TANK ISOLATION GATE VALVE 2E51-MOV F010



BAROMETRIC CONDENSER VACUUM TANK CONDENSATE PUMP 2E51-CO02-1



RCIC TURBINE TRIP SOLENOID

SWITCH DEVELOPMENTS



NOTES

- ALL EQUIPMENT AND INSTRUMENTS ARE PRECEDED BY MPL. NO. 2E51 UNLESS OTHERWISE NOTED.
- FOR LOCATION AND IDENTIFICATION OF INSTRUMENTS, SEE INSTRUMENT INDEX OR EQUIPMENT LOCATION INDEX (ELL).
- FOR LOGIC DIAGRAMS-LEGEND AND GENERAL NOTES, SEE REFERENCE 1.
- FOR INFORMATION ON ALARMS, VALVE INDICATING LIGHT REQUIREMENTS AND PROCESS INSTRUMENTATION REQUIREMENTS WHICH ARE NOT SHOWN ON THE LOGIC DIAGRAMS, SEE REFERENCE 2.
- IF THE TURBINE TRIP AND THROTTLING VALVE IS CLOSED USING THE SPRING MECHANISM, THE VALVE CAN NOT BE OPENED UNTIL THE SPRING MECHANISM IS MANUALLY RESET AT THE TURBINE 2E51-CO02.
- ISOLATION SIGNAL SWITCHES SHALL BE OF THE TYPE THAT CLOSE CONTACTS FOR THE SPECIFIED ISOLATION EVENT; WHERE AUXILIARY RELAYS ARE USED IN THE ISOLATION CHANNELS THEY SHALL BE POWERED FROM THE STATION BATTERIES.
- THE RCIC SYSTEM SHALL BE DESIGNED IN ACCORDANCE WITH REFERENCE 8 AND WITH "PROPOSED CRITERIA FOR NUCLEAR POWER PLANT PROTECTION SYSTEM (IEEE-279)" AS APPLICABLE TO THE CONTROL CIRCUITRY.
- DELETED
- THE RCIC SYS. IS ARRANGED FOR TEST OF PUMP AT FULL FLOW & ALL VALVES FOR OPEN & CLOSE CAPABILITY AT ANY TIME EXCEPT WHEN INITIATION SIGNAL OR AUTO ISOLATION SIGNAL IS ACTIVATED. IN EVENT THE INITIATION SIGNAL OCCURS WHILE TEST IS UNDERWAY THE SYS. AUTOMATICALLY RETURNS TO START-UP MODE.
- IF TURBINE TRIP SOLENOID IS ENERGIZED, TRIP B THROTTLING VALVE IS DE-ENERGIZED FROM ACTUATOR B. THE VALVE CLOSES AFTER THE SOLENOID HAS BEEN DE-ENERGIZED. THE ACTUATOR MUST BE RETURNED TO THE FULLY CLOSED POSITION BEFORE THE VALVE CAN OPEN AGAIN.

FOR REFERENCES SEE DWG. H-24751

SUPERSEDING

THIS DRAWING WAS DEVELOPED FROM C.E. DRAWING NO. 7296228A, SH-11, REV. 8, SHT. 2, REV. 4, SHT. 3, REV. 4, AND, SHT. 4, REV. 8. ACCESSION DRAWING NO. S-26100, S-26102, S-26101 AND, S-26103 RESPECTIVELY.

MPL. NO. 2E51-1030

MPL. NO. 2E51-1050 (CADOVY) H24750



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Revision: 3 Date: 1-15-03
 REVISION PER ABN 00-0028-002

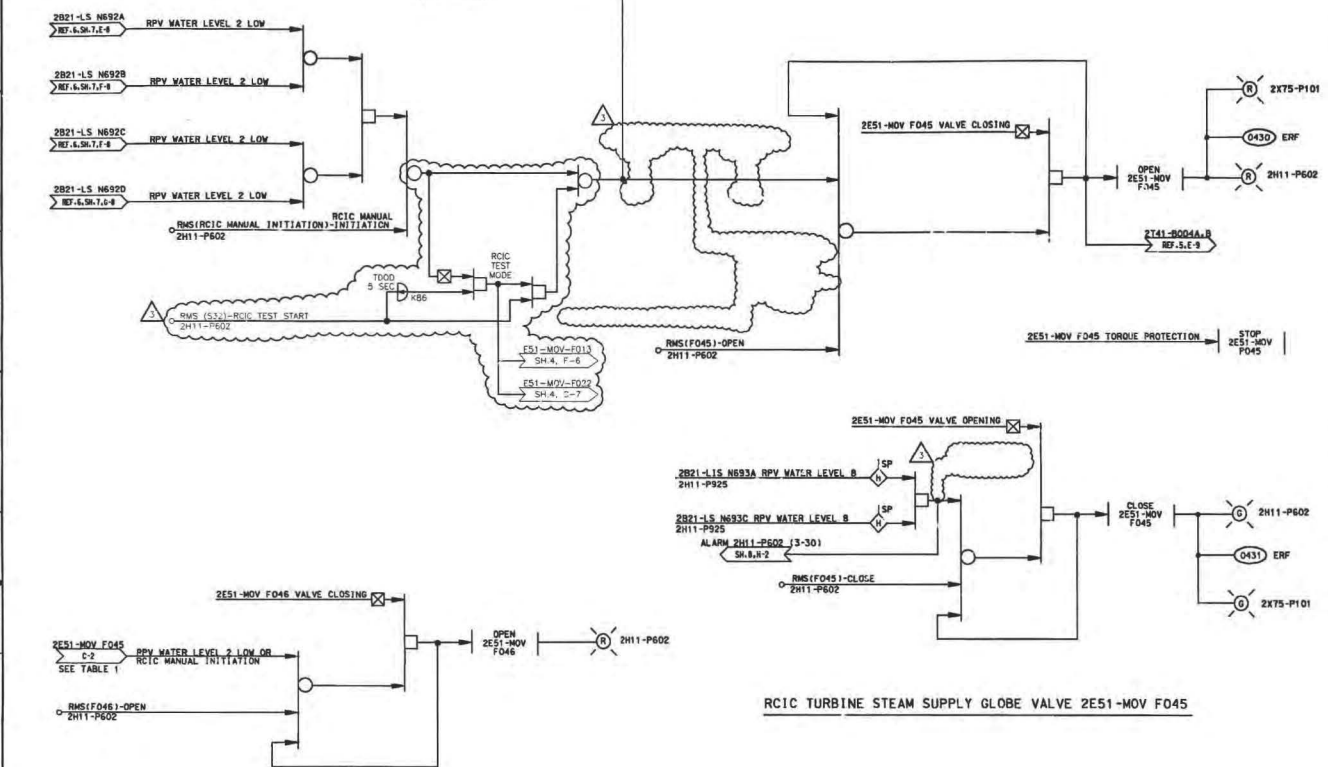
EDWIN I. HATCH NUCLEAR PLANT UNIT No.2
 REACTOR CORE ISOLATION COOLING SYSTEM
 LOGIC DIAGRAMS
 SHEET 1 OF 8

NO.	REVISION	DATE	BY	CHKD	APP'D	REMARKS
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2	REVISED	3-28-85	None	None	None	None

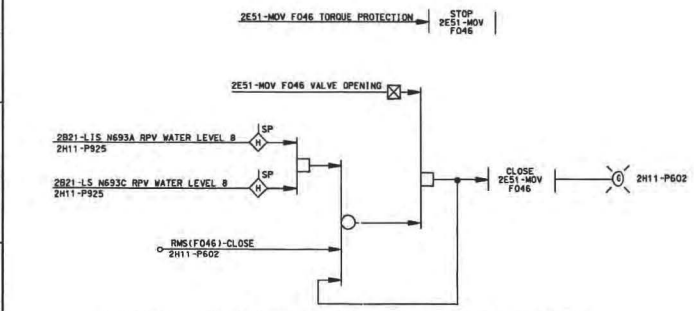
10-502 H-24750 3

16172-H

SEE TABLE 1
C-4

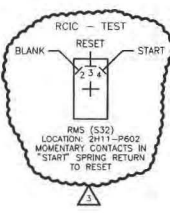
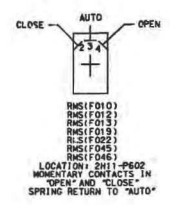


RCIC TURBINE STEAM SUPPLY GLOBE VALVE 2E51-MOV F045



RCIC TURBINE COOLING WATER SUPPLY GLOBE VALVE 2E51-MOV F046

SWITCH DEVELOPMENTS



REFERENCES

TITLE	MPL NO.	DWG. NO.
1. LOGIC DIAGRAMS - LEGEND AND GENERAL NOTES	2A21-1030	H-24700
2. RCIC SYSTEM P&ID SHEET 2	2E51-1010	H-26003 H-26024
3. NUCLEAR BOILER SYSTEM P&ID SHEET 1	2B21-1010	H-26000
4. RHR SYSTEM P&ID SHEET 1	2E11-1010	H-26014
5. SAFEGUARD EQUIP. EMERGENCY COOLING SYSTEM P&ID	2T41-1010	H-26001
6. RHR SYSTEM LOGIC DIAGRAMS - SHEETS 1 THRU 7	2E11-1030	H-24732 H-24738
7. CORE SPRAY SYSTEM LOGIC DIAGRAMS - SHEETS 1 THRU 3	2E21-1030	H-24739 H-24741
8. GE 22A2989 ELECTRICAL EQUIPMENT SEPARATION FOR SAFEGUARD SYSTEMS	2A61-4050	S-25373
9. NUCLEAR BOILER SYS LOGIC DIAGRAMS - SHEETS 1 THRU 12	2B21-1010	H-24701 H-24712
10. RCIC SYSTEM ELEMENTARY DIAGRAMS - SHEETS 1 THRU 9	2E51-1010	H-27673 H-27681 H-24102
11. ERF MULTIPLEXER SYSTEM I.E.D.	2X75-1010	H-26158
12. ANNUNCIATOR SIGNALS TO TSC I.E.D.	2X75-1010	H-26159
13. DIGITAL INPUT SIGNALS TO ERF COMPUTER SYSTEM	2X75-1010	H-26167 H-26175 H-26294

TABLE 1

TAS NUMBER	FUNCTION	SHT. NO.	COORD.
2E51-C002-2	START PERM	3	C-1
2E51-MOV F046	OPEN VALVE	2	F-1
2E51-MOV F010	OPEN PERM	1	B-6
2E51-MOV F022	CLOSE VALVE	4	C-7
2E51-MOV F013	OPEN PERM	4	E-6
2E51-MOV F012	OPEN VALVE	5	H-2
2E51-MOV F008	CLOSE PERM	6	D-4
-	RCIC FLOW CONTROLLER IN OPERATION MODE	7	A-7

FOR NOTES, SEE DWG. H-24750.

SUPERSEDING

THIS DRAWING WAS DEVELOPED FROM B.E. DRAWING NO. 7206228A, SHT. 1, REV. B, SHT. 2, REV. B, SHT. 3, REV. 7 AND, SHT. 4, REV. 8. SCS1 ACCESSION DRAWING NO. S-26100, S-26102, S-26101 AND, S-26103 RESPECTIVELY.

MPL NO. 2E51-1030 (ACR) 4294692

BECHTEL

JOB 6511 GAITHERSBURG, MARYLAND

SOUTHERN SERVICES INC. FOR

GEORGIA POWER CO., ATLANTA, GA. GENERAL ENGINEERING DEPARTMENT

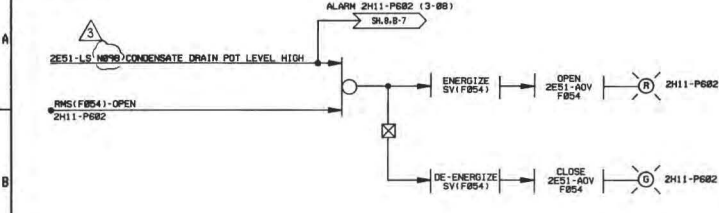
EDWIN J. HATCH NUCLEAR PLANT UNIT NO. 2 REACTOR CORE ISOLATION COOLING SYSTEM LOGIC DIAGRAMS SHEET 2 OF 8

REVISED PER AMN 94-0034-012	DATE	BY
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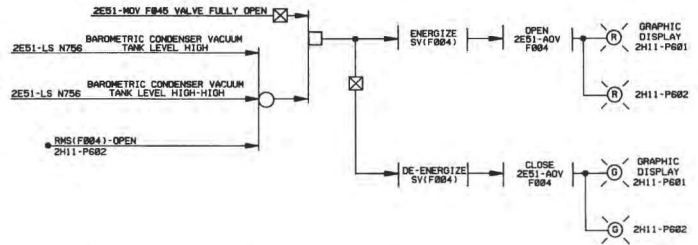
SAFFOUR A.K051 5-15-89	DES. CHECKED	DATE
1	10/20/94	3-28-95

10-502	H-24751
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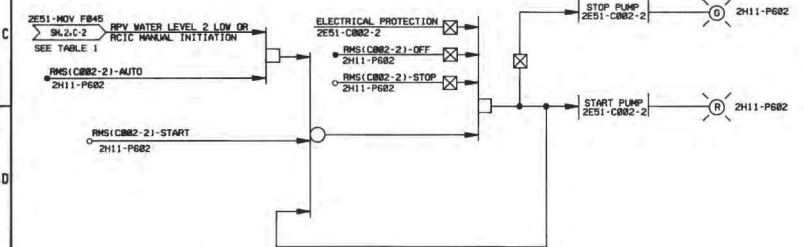
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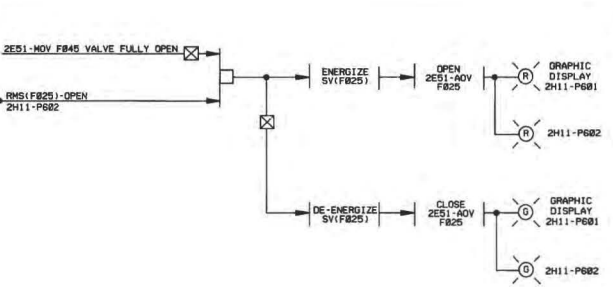
CONDENSATE DRAIN POT DRAIN VALVE 2E51-AOV F054



CONDENSATE PUMP DISCHARGE TO CRW ISOLATION INBOARD VALVE 2E51-AOV F004

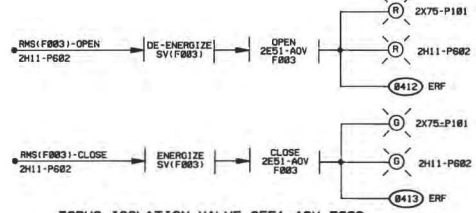
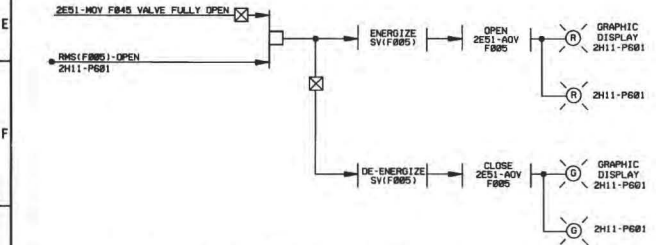


BAROMETRIC CONDENSER VACUUM PUMP 2E51-C002-2

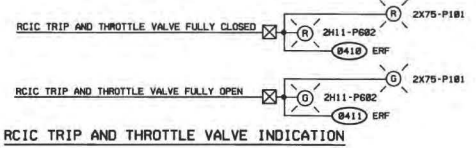


CONDENSATE PUMP DISCHARGE TO CRW ISOLATION OUTBOARD VALVE 2E51-AOV F005

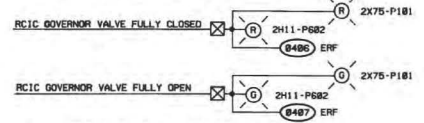
STEAM LINE DRAIN TO MAIN CONDENSER ISOLATION INBOARD VALVE 2E51-AOV F025 TYPICAL FOR STEAM LINE DRAIN TO MAIN CONDENSER ISOLATION OUTBOARD VALVE 2E51-AOV F026 2H11-P601



TORUS ISOLATION VALVE 2E51-AOV F003

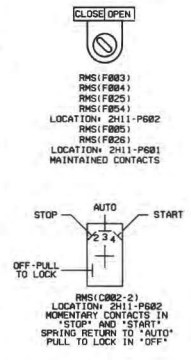


RCIC TRIP AND THROTTLE VALVE INDICATION



GOVERNOR VALVE INDICATION

SWITCH DEVELOPMENTS



CAD INTERGRAPH BKO-88

FOR NOTES, SEE DWG. H-24756. FOR REFERENCES, SEE DWG. H-24751.

SUPERSEDING

THIS DRAWING WAS DEVELOPED FROM G.E. DRAWING NO. 7296228A, SHT. 1, REV. 6, SHT. 2, REV. 6, SHT. 3, REV. 7 AND, SHT. 4, REV. 8. SCS ACCESSION DRAWING NO. S-26100; S-26102; S-26101 AND, S-26103 RESPECTIVELY.

MPL NO. 2E51-1838

BECHTEL

JOB 6511 GAITHERSBURG, MARYLAND

SOUTHERN SERVICES INC. FOR

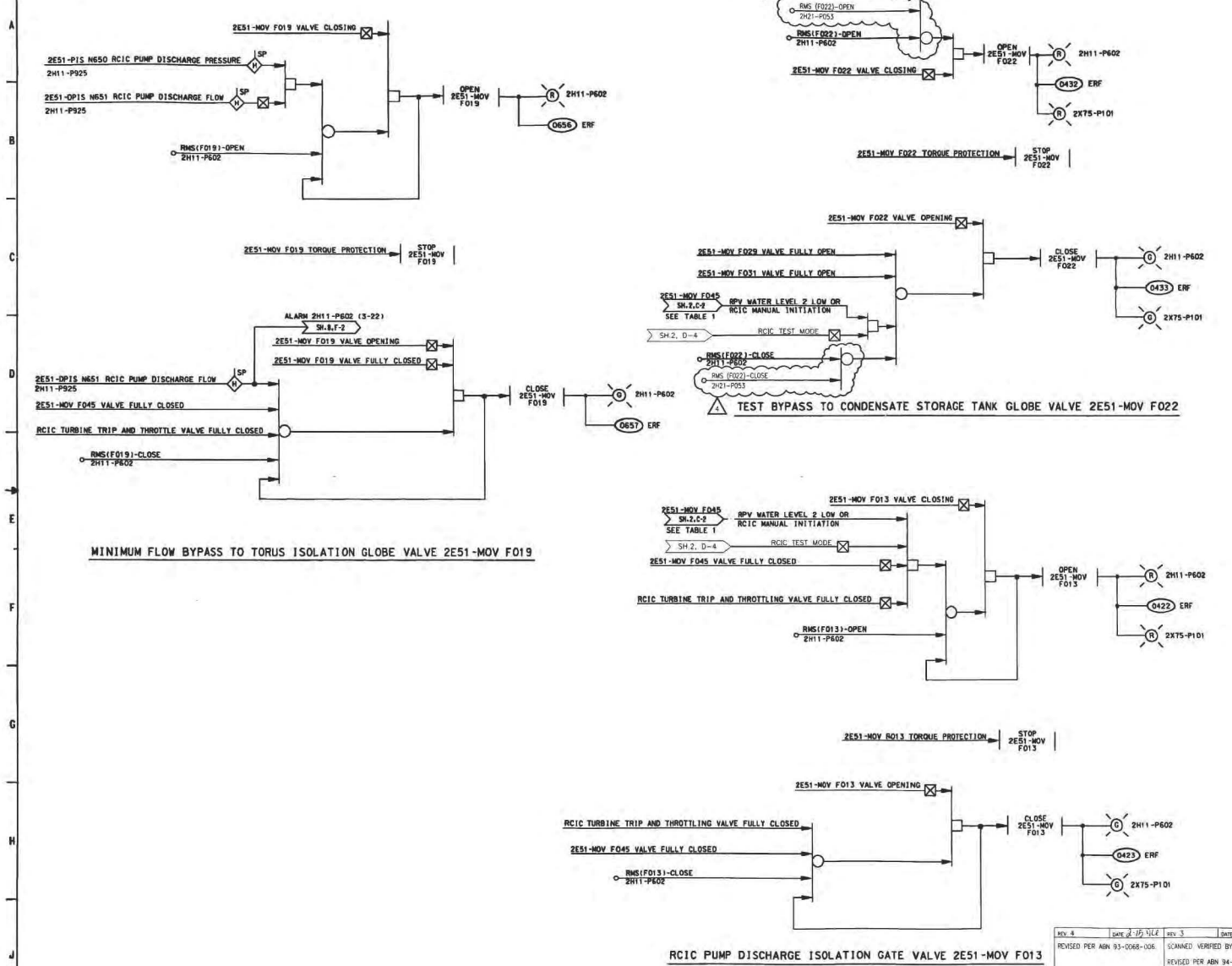
GEORGIA POWER CO., ATLANTA, GA. GENERAL ENGINEERING DEPARTMENT

EDWIN I. HATCH NUCLEAR PLANT UNIT NO. 2 REACTOR CORE ISOLATION COOLING SYSTEM LOGIC DIAGRAMS SHEET 3 OF 8

REV	DATE	BY	CHKD	APP'D
1	11/14/88
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12

REV	DATE	BY	CHKD	APP'D
1	11/14/88
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H-24753



FOR NOTES, SEE DWG. H-24750.
FOR REFERENCES, SEE DWG. H-24751.

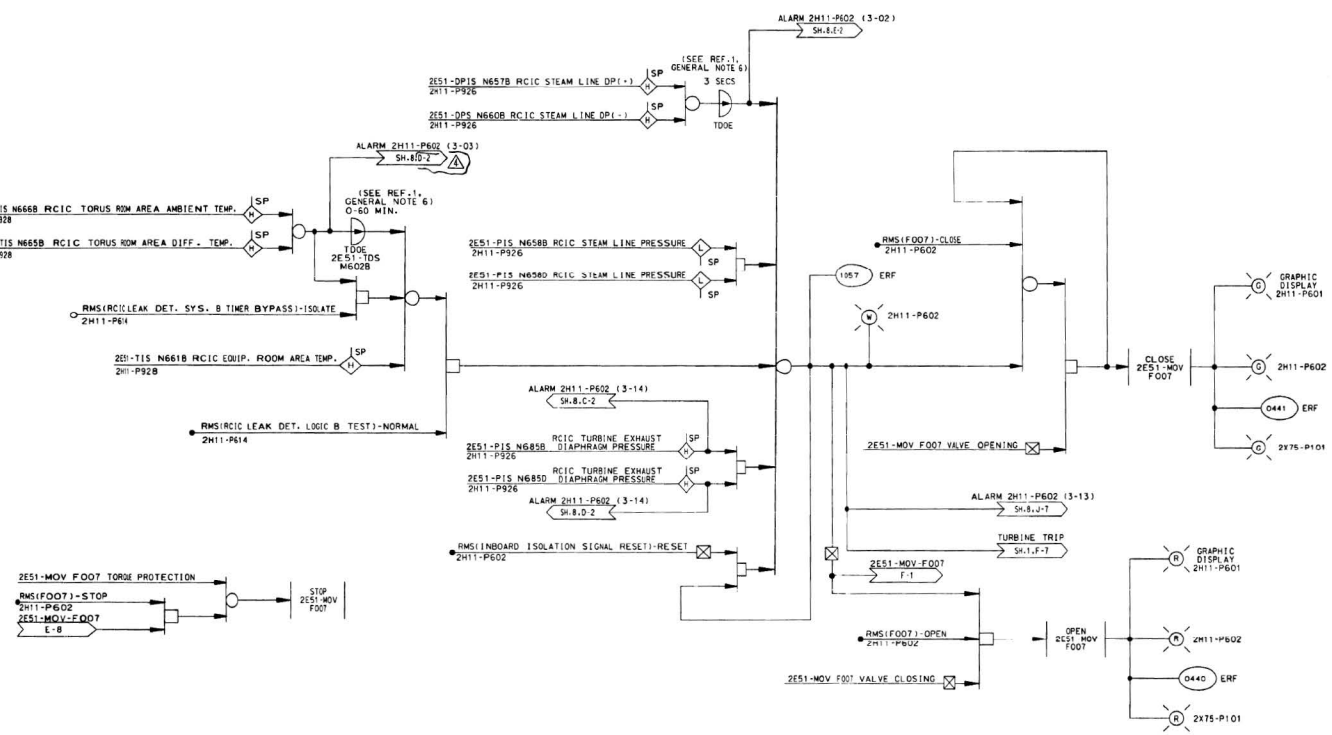
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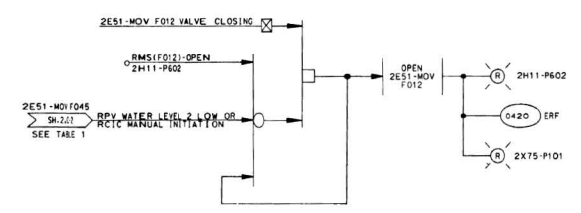
MPI NO. 2E51-1030		SHEET 4 OF 8	
BECHTEL			
JOB 6511 GAITHERSBURG, MARYLAND			
SOUTHERN SERVICES INC. FOR			
GEORGIA POWER CO., ATLANTA, GA. GENERAL ENGINEERING DEPARTMENT			
EDWIN I-HATCH NUCLEAR PLANT UNIT NO.2 REACTOR CORE ISOLATION COOLING SYSTEM LOGIC DIAGRAMS SHEET 4 OF 8			
REV. 4	DATE 2-15-96	REV. 3	DATE 1-5-96
REVISED PER AEN 93-0068-006		SCANNED VERIFIED BY T.G.	
REVISED PER AEN 94-0034-012		REVISED PER AEN 94-0034-012	
DAFFOUR A-1051 5-15-85	SCALE	DATE	BY
LOCATION	SCALE	DATE	BY
10-502		H-24753	

PC172-H

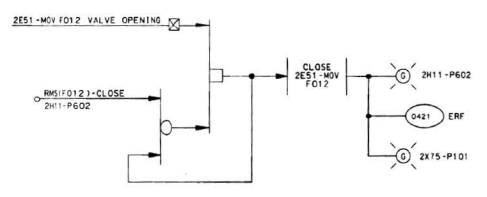
A
B
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J



RCIC STEAM SUPPLY LINE INBOARD ISOLATION GATE VALVE (PCIS VALVE GROUP 4) 2E51-MOV F007



RCIC PUMP DISCHARGE ISOLATION GATE VALVE 2E51-MOV F012



SWITCH DEVELOPMENTS



FOR NOTES SEE DWG. H-24750.
FOR REFERENCES SEE DWG. H-24751.

SUPERSEDING

THIS DRAWING WAS DEVELOPED FROM G.E. DRAWING NO. 7296220A, SH.1, REV. 8 SH.2, REV. 6; SH.3, REV. 7 AND SH.4, REV. 8. ACCESSION DRAWING NO. S-26103, S-26102, S-26101 AND S-26100 RESPECTIVELY.

MPL NO. 2E51-1030

BECHTEL

JOB 6511 CA1 THERSBURG, MARYLAND

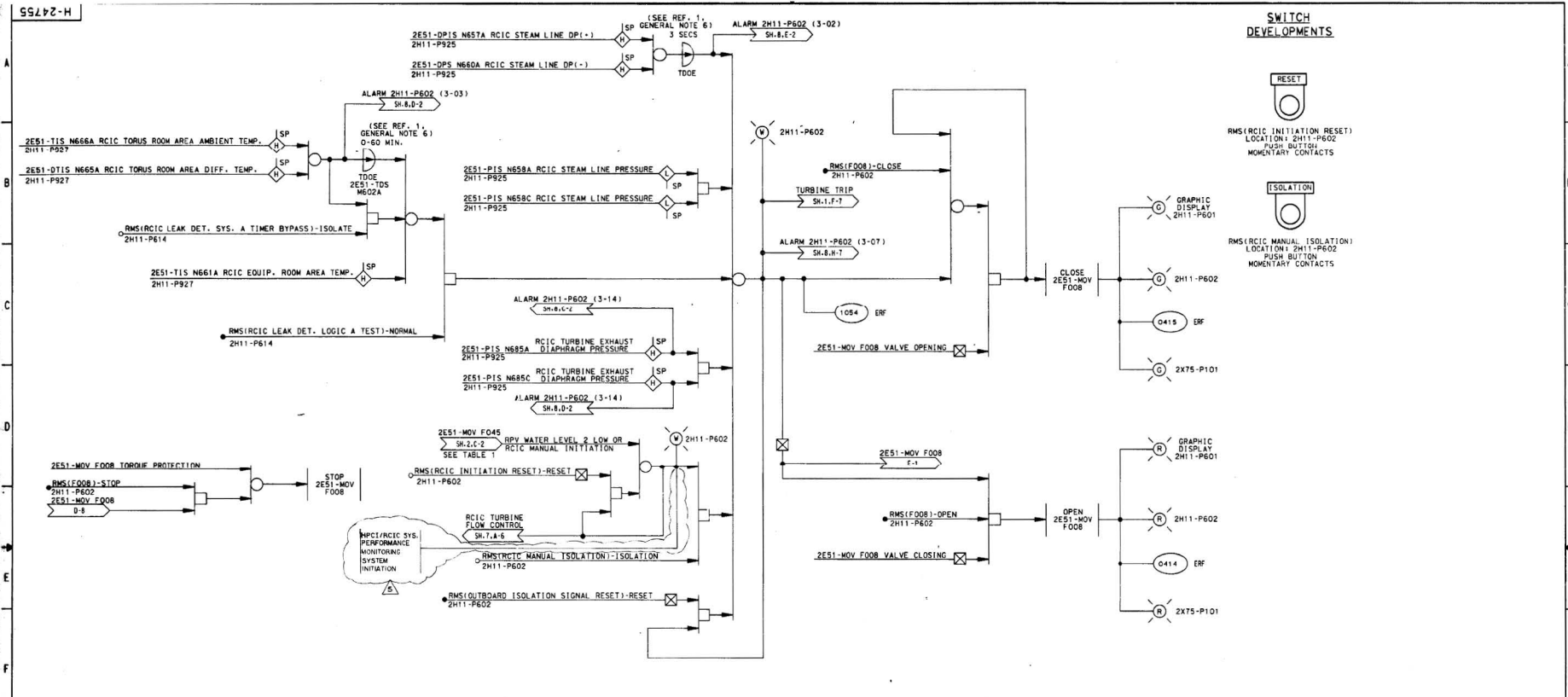
SOUTHERN SERVICES INC. FOR

GEORGIA POWER CO., ATLANTA, GA. GENERAL ENGINEERING DEPARTMENT

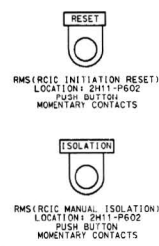
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NO.	DATE	BY	CHKD.	APP'D.	SCALE	DATE
1	10-502	H-24754				
2						
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10						
11						
12						

5512-H



SWITCH DEVELOPMENTS



RCIC STEAM SUPPLY LINE OUTBOARD ISOLATION GATE VALVE (PCIS VALVE GROUP 4) 2E51-MOV F008

FOR NOTES SEE DWG. H-24750.
FOR REFERENCES SEE DWG. H-24751.

SUPERSEDING

THIS DRAWING WAS DEVELOPED FROM G.E. DRAWING NO. 729622BA; SH1-1, REV. 8; SH1-2, REV. 6; SH1-3, REV. 7 AND; SH1-4, REV. 8. SCS ACCESSION DRAWING NO. S-26100, S-26102, S-26101 AND, S-26103 RESPECTIVELY.

MPL NO. 2E51-1030

BECHTEL

JOB 6511 GAITHERSBURG, MARYLAND

SOUTHERN SERVICES INC. FOR

GEORGIA POWER CO., ATLANTA, GA. GENERAL ENGINEERING DEPARTMENT

EDWIN I-HATCH NUCLEAR PLANT UNIT NO. 2 REACTOR CORE ISOLATION COOLING SYSTEM LOGIC DIAGRAMS SHEET 6 OF 8

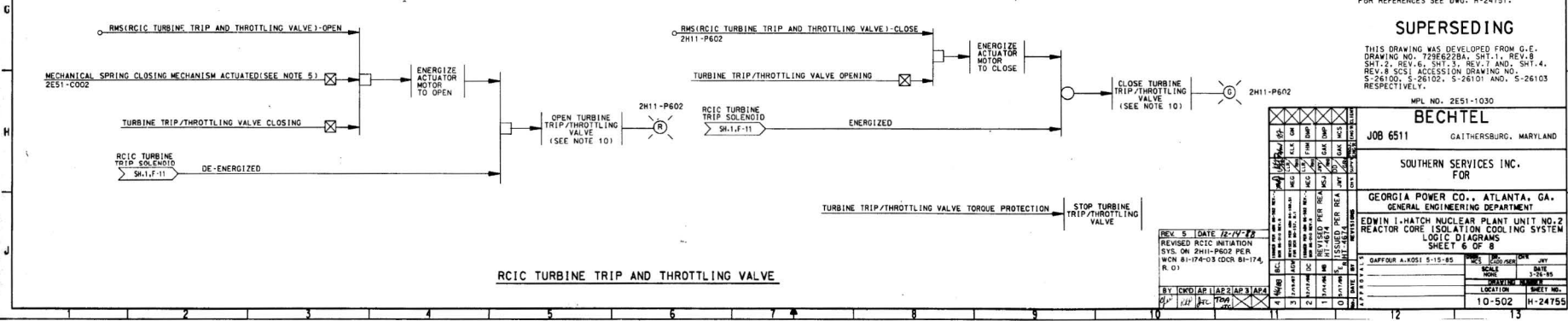
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SCALE DATE 1-24-85
LOCATION SHEET NO. 10-502 H-24755

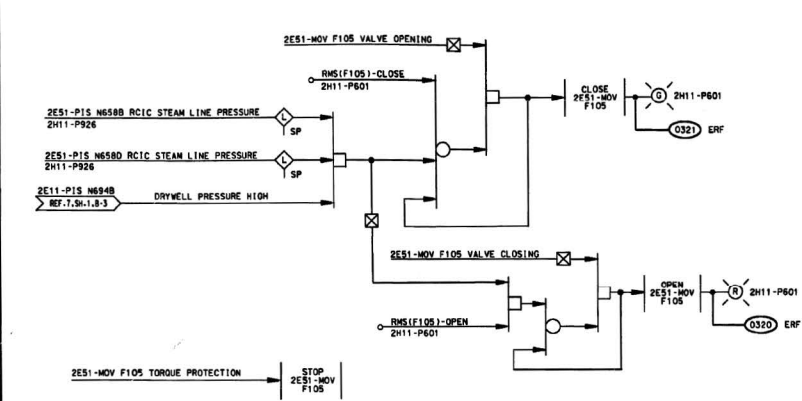
REV. 5 (DATE 72-12-78)
REVISED RCIC INITIATION SYS ON 2H11-P602 PER WCN 81-174-03 (CCR 81-174, R. 01)

NO.	DATE	BY	CHKD.	APP.	REVISION
1	72-12-78	...	...	...	...
2
3
4
5

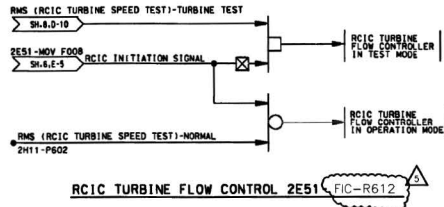
RCIC TURBINE TRIP AND THROTTLING VALVE



9512-H



**TURBINE EXHAUST VACUUM BREAKER
(PCIS VALVE GROUP 9) GATE VALVE 2E51-MOV F105**



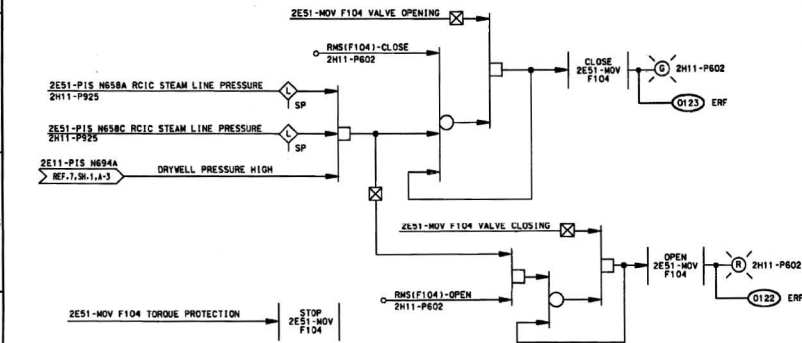
RCIC TURBINE FLOW CONTROL 2E51 (FIG-R612)

SWITCH DEVELOPMENTS

CLOSE AUTO OPEN



RMS(F104)
LOCATION: 2H11-P602
RMS(F105)
LOCATION: 2H11-P601
MOMENTARY CONTACTS
IN 'CLOSE' AND 'OPEN'
SPRING RETURN TO 'AUTO'



**TURBINE EXHAUST VACUUM BREAKER
(PCIS VALVE GROUP 9) GATE VALVE 2E51-MOV F104**

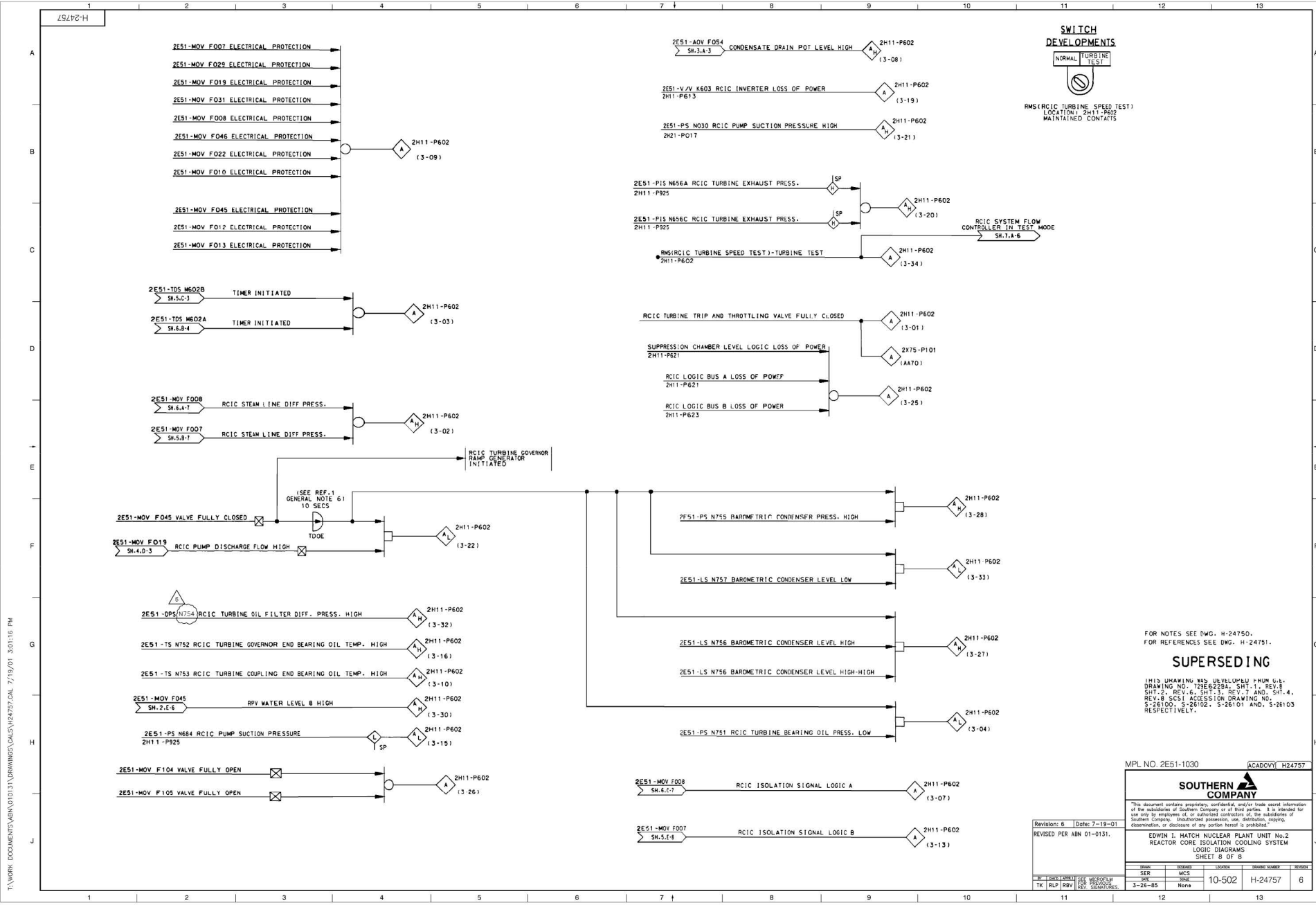
FOR NOTES: SEE DWG. H-24750.
FOR REFERENCES: SEE DWG. H-24751.

SUPERSEDING

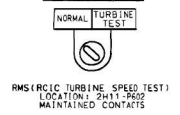
THIS DRAWING WAS DEVELOPED FROM G.E.
DRAWING NO. 7285228A, SHT.1, REV.8
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REV.8. SCS1 ACCESSION DRAWING NO.
S-28100, S-28102, S-28101 AND, S-28103
RESPECTIVELY.

MPL NO. 2E51-1030

BECHTEL																																													
JOB 6511 GAITHERSBURG, MARYLAND																																													
SOUTHERN SERVICES INC. FOR																																													
GEORGIA POWER CO., ATLANTA, GA. GENERAL ENGINEERING DEPARTMENT																																													
EDWIN I-HATCH NUCLEAR PLANT UNIT NO.2 REACTOR CORE ISOLATION COOLING SYSTEM LOGIC DIAGRAMS SHEET 7 OF 8																																													
<table border="1"> <tr><td>REV. 5</td><td>DATE 5-5-90</td><td>REV. 4</td><td>DATE 1-5-96</td></tr> <tr><td>REVISED PER AEN 92-0093-002</td><td></td><td>REVISED PER AEN 94-0034-012</td><td></td></tr> <tr><td>REV. 3</td><td></td><td>REV. 2</td><td></td></tr> <tr><td>REV. 1</td><td></td><td>REV. 0</td><td></td></tr> </table>	REV. 5	DATE 5-5-90	REV. 4	DATE 1-5-96	REVISED PER AEN 92-0093-002		REVISED PER AEN 94-0034-012		REV. 3		REV. 2		REV. 1		REV. 0		<table border="1"> <tr><td>SAFFOUR</td><td>A.KOSI</td><td>S-15-89</td><td>DATE 10-11-89</td></tr> <tr><td>SCALE</td><td></td><td></td><td></td></tr> <tr><td>DESIGNED BY</td><td></td><td></td><td></td></tr> <tr><td>CHECKED BY</td><td></td><td></td><td></td></tr> <tr><td>APPROVED BY</td><td></td><td></td><td></td></tr> <tr><td>LOCATION</td><td></td><td></td><td></td></tr> <tr><td>SHEET NO.</td><td>10-502</td><td></td><td>H-24756</td></tr> </table>	SAFFOUR	A.KOSI	S-15-89	DATE 10-11-89	SCALE				DESIGNED BY				CHECKED BY				APPROVED BY				LOCATION				SHEET NO.	10-502		H-24756
REV. 5	DATE 5-5-90	REV. 4	DATE 1-5-96																																										
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REV. 3		REV. 2																																											
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APPROVED BY																																													
LOCATION																																													
SHEET NO.	10-502		H-24756																																										



SWITCH DEVELOPMENTS



FOR NOTES SEE DWG. H-24750.
FOR REFERENCES SEE DWG. H-24751.

SUPERSEDING

THIS DRAWING HAS SUPERSEDED THE FOLLOWING DRAWINGS:
DRAWING NO. H-24750, REV. 8
SHT. 2, REV. 6, SH. 6, REV. 1, AND SH. 4,
REV. 8, SCS1 ACCESSION DRAWING NO. S-26100, S-26102, S-26101, AND S-26103
RESPECTIVELY.

MPL NO. 2E51-1030 ACAD001 H24757



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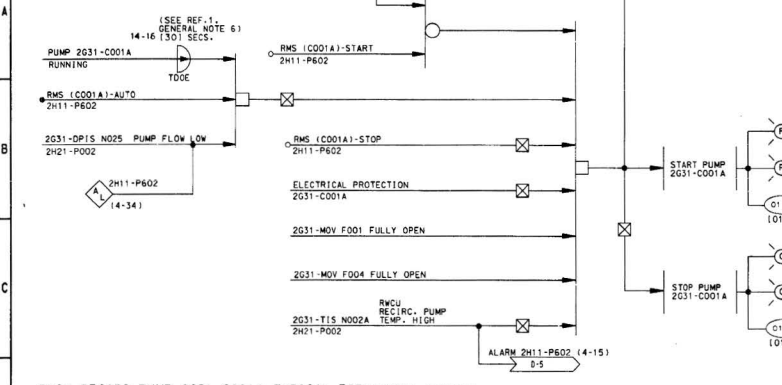
EDWIN I. HATCH NUCLEAR PLANT UNIT No.2
REACTOR CORE ISOLATION COOLING SYSTEM
LOGIC DIAGRAMS
SHEET 8 OF 8

Revision: 6	Date: 7-19-01
REVISED PER ABN 01-0131.	
BY: SRS/228/1	SEE MICROFILM FOR PREVIOUS SIGNATURES.
TR: RLP/18V	REV. SIGNATURES:

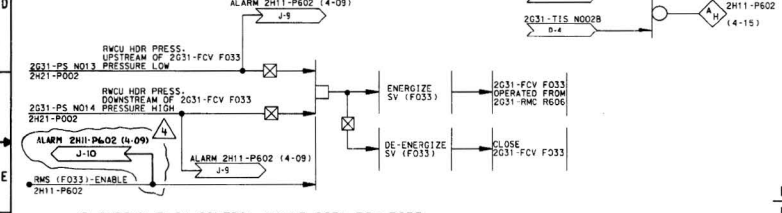
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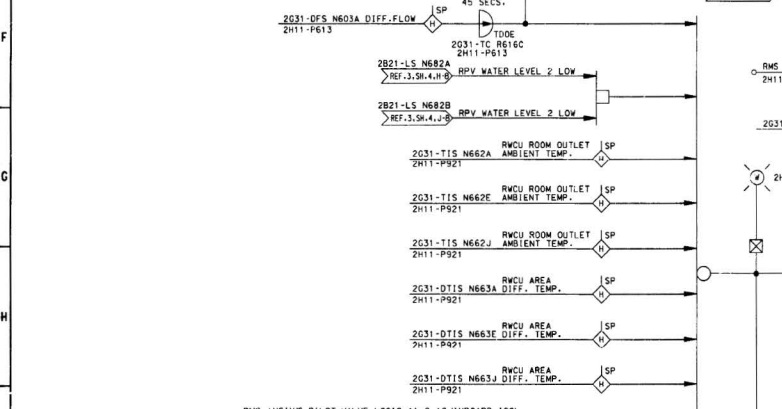
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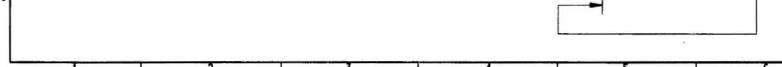
RWC RECIRC. PUMP 2G31-C001A TYPICAL FOR: [2G31-C001B] [2G31-TIS N002B]



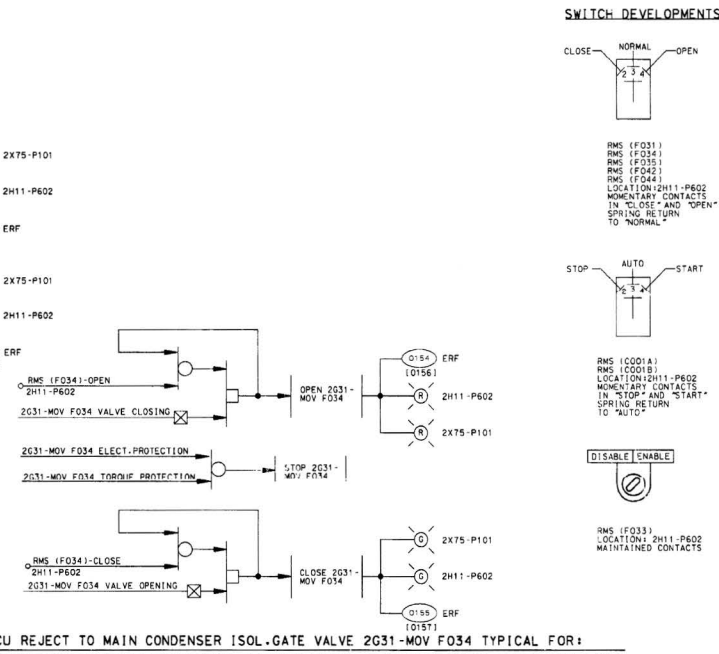
BLOWDOWN FLOW CONTROL VALVE 2G31-FCV F033



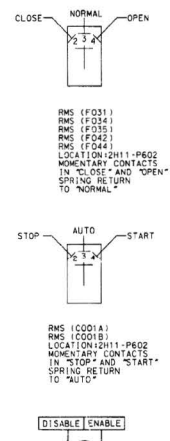
RWCU REJECT TO MAIN CONDENSER ISOL. GATE VALVE 2G31-MOV F034 TYPICAL FOR: RWCU REJECT TO WASTE COLLECTOR AND SURFG TANK ISOL. GATE VALVE (2G31-MOV F035)



RWCU SUCTION CONTAINMENT INBOARD ISOLATION GATE VALVE (PCIS VALVE GROUP 5) 2G31-MOV F001



SWITCH DEVELOPMENTS



NOTES

1. ALL EQUIPMENT AND INSTRUMENTS ARE PRECEDED BY MPL NO. 2G31 UNLESS OTHERWISE NOTED.
2. FOR LOCATION AND IDENTIFICATION OF INSTRUMENTS, SEE INSTRUMENT INDEX OR EQUIPMENT LOCATION INDEX (E.L.I.).
3. FOR LOGIC DIAGRAMS-LEGEND AND GENERAL NOTES, SEE REFERENCE 1.
4. FOR INFORMATION ON ALARMS, VALVE INDICATING LIGHT REQUIREMENTS AND PROCESS INSTRUMENTATION REQUIREMENTS WHICH ARE NOT SHOWN ON THE LOGIC DIAGRAMS, SEE REFERENCE 2.
5. APPLICABLE FOR 2G31-MOV F042 ONLY.

REFERENCES

TITLE	MPL NO.	DWG. NO.
1. LOGIC DIAGRAMS-LEGEND AND GENERAL NOTES	2A21-1030	H-24700
2. REACTOR WATER CLEAN-UP SYSTEM P&ID SHEETS 1 & 2	2G31-1010	H-26036
3. NUCLEAR BOILER SYSTEM LOGIC DIAGRAMS SHEETS 1 THRU 12	2B21-1030	H-24701
4. STANDBY LIQUID CONTROL SYSTEM LOGIC DIAGRAMS	2C41-1030	H-24721
5. ERF MULTIPLEXER SYSTEM	2X75-1010	H-26158
6. DIGITAL INPUT SIGNAL TO THE ERF COMPUTER SYSTEM (I.E.D. SHTS. 6 & 14 OF 15)	2X75-1010	H-26175
7. ERF CLASS I.E. DIGITAL ISOLATION SYSTEM (I.E.D.)	2X75-1010	H-26157

SUPERSEDING

THIS DRAWING WAS DEVELOPED FROM G.E. DRAWING NO. 729608, SH. 1, REV. 10 SCST ACCESSION DRAWING NO. 5A-23510

MPL NO. 2G31-1030

BECHTEL

JOB 6511 GAITHERSBURG, MARYLAND

SOUTHERN SERVICES INC. FOR

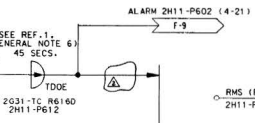
GEORGIA POWER CO., ATLANTA, GA. GENERAL ENGINEERING DEPARTMENT
EDWIN I. HATCH NUCLEAR PLANT UNIT NO. 2
REACTOR WATER CLEAN UP SYSTEM
LOGIC DIAGRAMS
SHEET 1 OF 2

NO.	DATE	BY	CHKD	REVISION
1	10-502	...	...	...

SCALE	DATE	BY	CHKD
10-502

651P2-H

2031-DES N603B DIFF.FLOW
2H11-P612



2031-T15 N008 NON-REGENERATING HX OUTLET
2H21-P002

RMS (SLCS)-STOP
REF.4.C.1
2021-LS N682C
REF.3.5H.4.F
2021-LS N682D
REF.3.5H.4.G



2031-MOV F004 VALVE CLOSING

2H11-P609

2031-T15 N6620
2H11-P924

2031-T15 N662H
2H11-P924

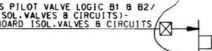
2031-T15 N662M
2H11-P924

2031-DT15 N663D
2H11-P924

2031-DT15 N663H
2H11-P924

2031-DT15 N663M
2H11-P924

RMS (MS1VS) PILOT VALVE LOGIC B1 & B2/
OUTBOARD ISOL. VALVES & CIRCUITS)-
REF.3.5H.4.H.3



2031-MOV F004 TORQUE PROTECTION

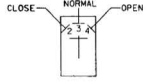
STOP 2031-MOV F004

RMS (F004)-CLOSE
2H11-P601

2031-MOV F004 VALVE OPENING

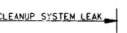
CLOSE 2031-MOV F004

SWITCH DEVELOPMENTS

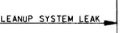


RMS (F001)
LOCATION: 2H11-P602
RMS (F004)
LOCATION: 2H11-P601
MOMENTARY CONTACTS
IN "CLOSE" AND "OPEN"
SPRING RETURN TO "NORMAL"

2031-TC R616C
5H.1.F.5



2031-TC R616D
A-4

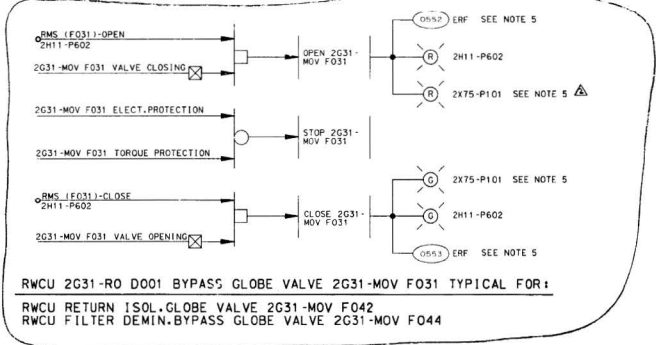


2H11-P602
(4-21)

2031-TS N020 CLEANUP FILTER INLET TEMP.HIGH
2H11-P602
(4-27)

RWCU SUCTION CONTAINMENT OUTBOARD ISOLATION GATE VALVE (PCIS VALVE GROUP 5) 2031-MOV F004

1. FOR NOTES AND REFERENCES, SEE DWG. H-24758



RWCU 2031-RO D001 BYPASS GLOBE VALVE 2031-MOV F031 TYPICAL FOR:
RWCU RETURN ISOL.GLOBE VALVE 2031-MOV F042
RWCU FILTER DEMIN.BYPASS GLOBE VALVE 2031-MOV F044

SUPERSEDING

THIS DRAWING WAS DEVELOPED FROM G.E. DRAWING NO. 1252608, SH-1, REV.10 SC51 ACCESSION DRAWING NO. 5X-23510

MPL NO. 2031-1030

BECHTEL

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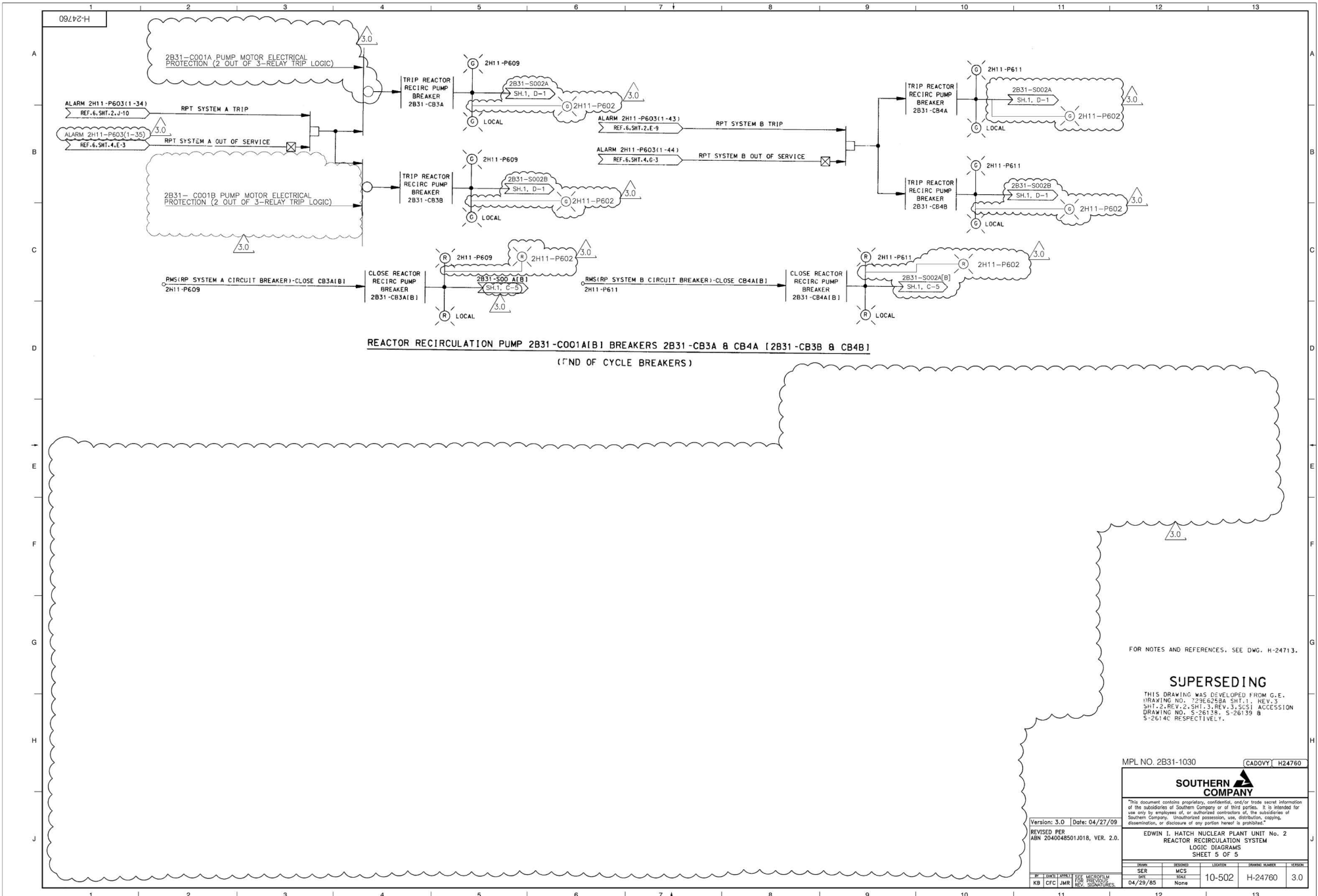
SOUTHERN SERVICES INC. FOR

GEORGIA POWER CO., ATLANTA, GA. GENERAL ENGINEERING DEPARTMENT

EDWIN I. HATCH NUCLEAR PLANT UNIT NO. 2 REACTOR WATER CLEAN UP SYSTEM LOGIC DIAGRAMS SHEET 2 OF 2

Table with columns for revision, date, and description. Includes fields for 'REVISION', 'DATE', and 'DESCRIPTION'.

Table with columns for scale, date, location, and sheet number. Includes fields for 'SCALE', 'DATE', 'LOCATION', and 'SHEET NO.'.



FOR NOTES AND REFERENCES, SEE DWG. H-24713.

SUPERSEDING

THIS DRAWING WAS DEVELOPED FROM G.E. DRAWING NO. 2365236A SH1-1, REV. 3 SH1-2, REV. 2, SH1-3, REV. 3, SC51 ACCESSION DRAWING NO. S-26138, S-26139 & S-2614C RESPECTIVELY.

MPL NO. 2B31-1030 (CAD0VY) H24760



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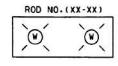
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 REVISED PER: HAN 2040048501018, VER. 2.0.

EDWIN I. HATCH NUCLEAR PLANT UNIT No. 2
 REACTOR RECIRCULATION SYSTEM
 LOGIC DIAGRAMS
 SHEET 5 OF 5

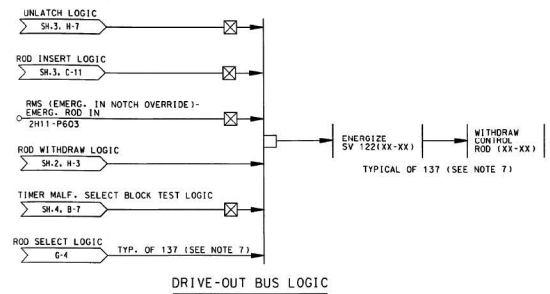
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1912Z-H

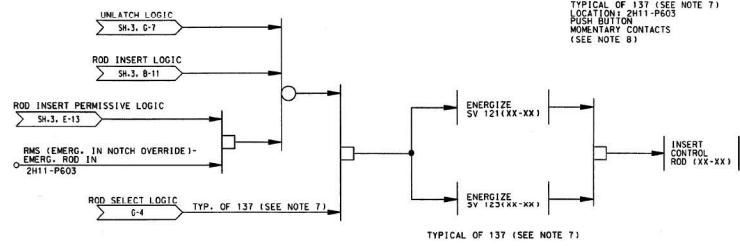
SWITCH DEVELOPMENTS



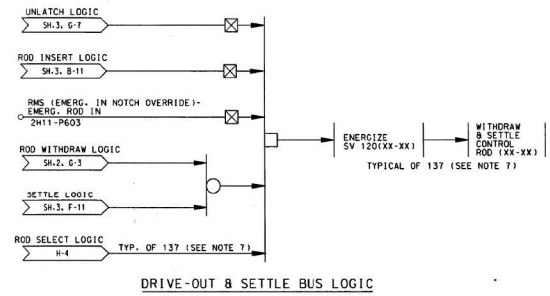
RMS (ROD SELECT) TYPICAL OF 137 (SEE NOTE 7) LOCATION: 2H11-P603 PUSH BUTTON FOR MOMENTARY CONTACTS (SEE NOTE 8)



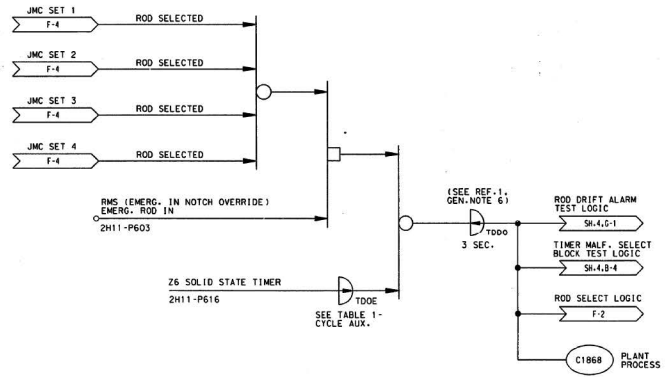
DRIVE-OUT BUS LOGIC



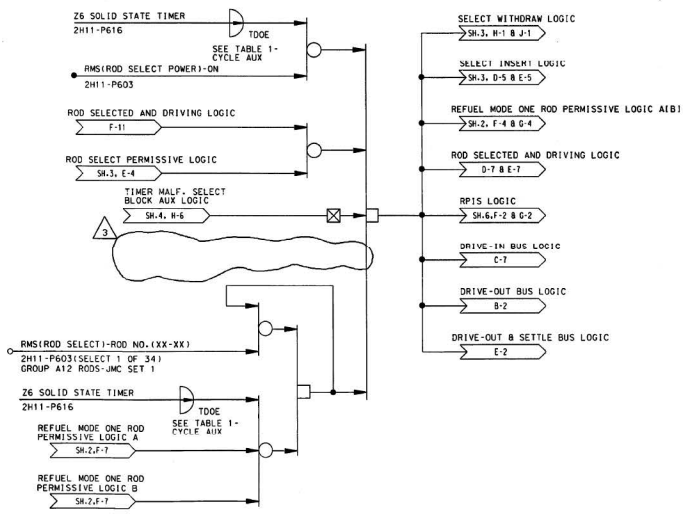
DRIVE-IN BUS LOGIC



DRIVE-OUT & SETTLE BUS LOGIC



ROD SELECTED AND DRIVING LOGIC



ROD SELECT LOGIC GROUP A12 RODS-JMC SET 1 TYPICAL FOR: GROUP A34 RODS-JMC SET 2 (SELECT 1 OF 34) GROUP B12 RODS-JMC SET 3 (SELECT 1 OF 35) GROUP B34 RODS-JMC SET 4 (SELECT 1 OF 34)

FOR NOTES, SEE DWG. H-24717. FOR REFERENCES, SEE DWG. H-24718.

SUPERSEDING

THIS DRAWING WAS DEVELOPED FROM G.E. DRAWING NO. 761E7868A, SHT.1, REV.2 SHT.2, REV.2 SHT.3, REV.1 SHT.4, REV.1 SHT.5, REV.0 SHT.6, REV.0 SHT.7, REV.0 THRU. S-25288 RESPECTIVELY.

CAD DON-H24781.DGN INTERGRAPH VEP-01

MPL NO. 2C11-1030

BECHTEL

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SOUTHERN SERVICES INC. FOR

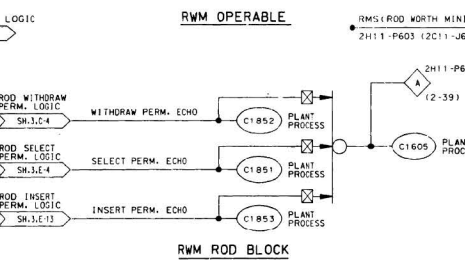
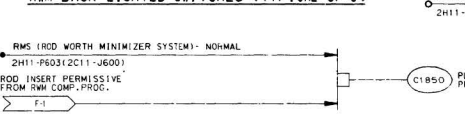
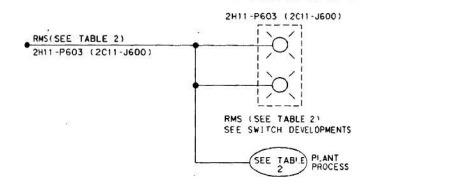
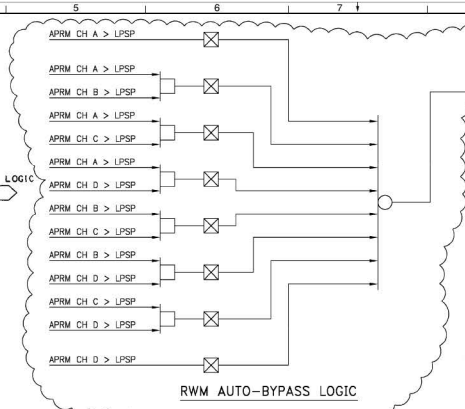
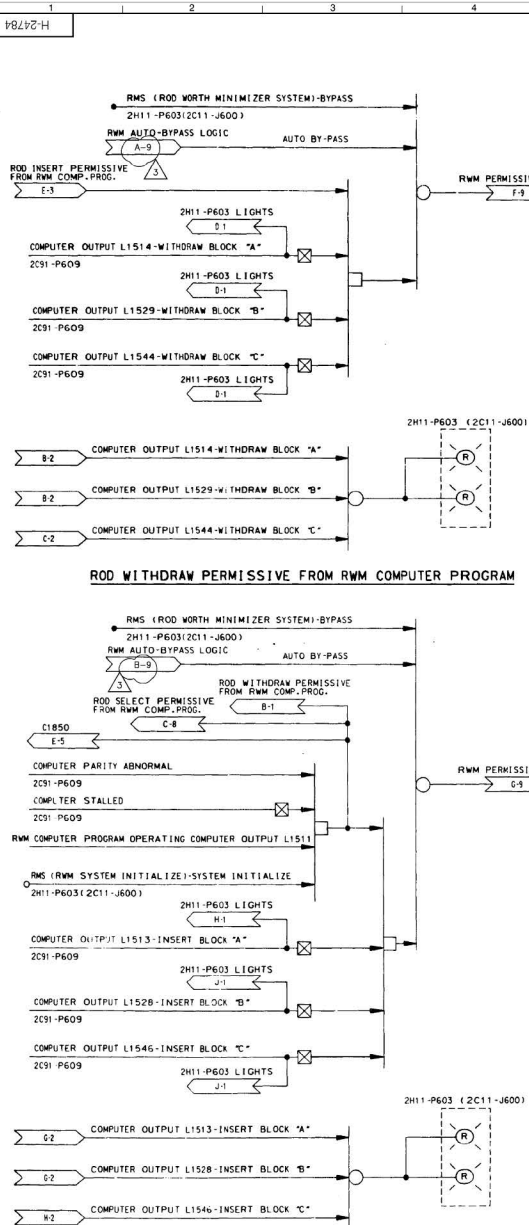
GEORGIA POWER CO., ATLANTA, GA. GENERAL ENGINEERING DEPARTMENT

EDWIN T. HATCH NUCLEAR PLANT UNIT NO. 2 CONTROL ROD DRIVE HYDRAULIC SYSTEM LOGIC DIAGRAMS SHEET 5 OF 9

REVISION 3 DATE 1-28-80 REVISED PER ASN 91-0070-002

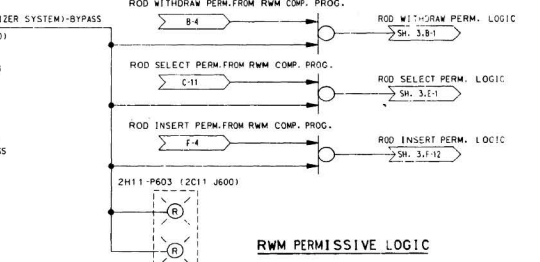
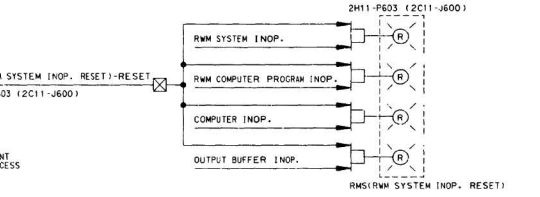
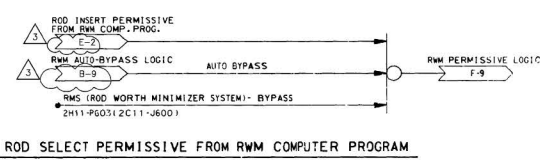
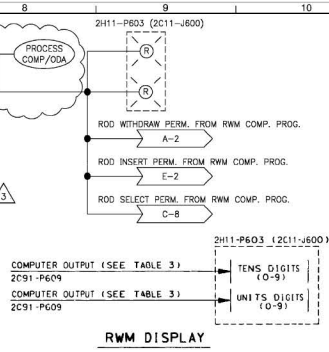
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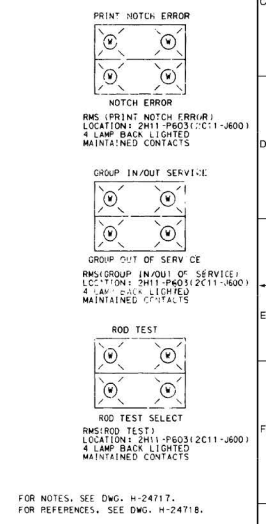
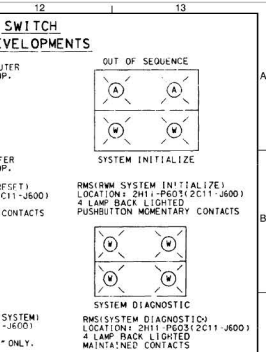
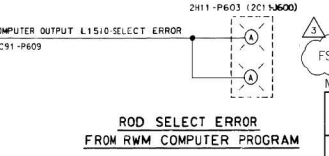
**TABLE 2
RWM BACK LIGHTED SWITCHES**

RMS	INPUT	COMP. INT.
RWM SYSTEM INITIALIZED	1. COMPUTER OUTPUT L1509 OUT OF SEQUENCE	NA
	2. RMS (SYSTEM INITIALIZED)	NA
SYSTEM DIAGNOSTIC	1. RMS (SYSTEM DIAGNOSTIC)	C1859
	2. RMS (PRINT NOTCH ERROR)	C1847
GROUP IN/OUT OF SERVICE	1. COMPUTER OUTPUT L1531 GROUP OUT OF SERVICE PLANT PROCESS	NA
	2. RMS (GROUP IN/OUT OF SERVICE)	C1848
ROD TEST	1. COMPUTER OUTPUT L1547 ROD TEST SELECT	NA
	2. RMS (ROD TEST)	C1849



**TABLE 3
RWM DISPLAY**

COMPUTER OUTPUT	RWM DISPLAY
01500-01515	FIRST INSERT ERROR X-AXIS
	FIRST INSERT ERROR Y-AXIS
01516-01531	SECOND INSERT ERROR X-AXIS
	SECOND INSERT ERROR Y-AXIS
01532-01547	WITHDRAW ERROR X-AXIS
	WITHDRAW ERROR Y-AXIS
01548-01555	LATCH GROUP NUMBER ERROR



FOR NOTES, SEE DWG. H-24717.
FOR REFERENCES, SEE DWG. H-24718.

SUPERSEDING

THIS DRAWING WAS DEVELOPED FROM G.E. DRAWING NO. 761E7858A, SH. 1 - REV. 2
SH. 2 - REV. 2
SH. 3 - REV. 1
SH. 4 - REV. 1
SH. 5 - REV. 0
SH. 6 - REV. 0
SH. 7 - REV. 0
SH. 8 - REV. 0
THRU: S-25234 RESPECTIVELY

MPL NO. 2C11-1030

FSAR FIGURE NO. 7.7-1 (SHEET 8 OF 9)

MPL NO. 2C11-1030 ACAD00V H24784

SOUTHERN COMPANY

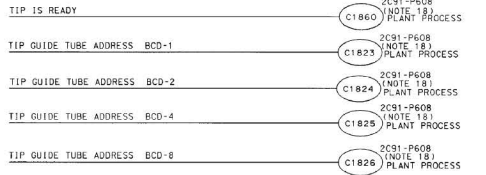
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EDWIN L. HATCH NUCLEAR PLANT UNIT NO. 2
CONTROL ROD DRIVE HYDRAULIC SYSTEM
LOGIC DIAGRAM
SHEET 8 OF 9

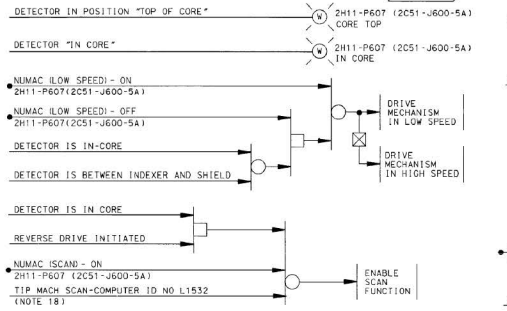
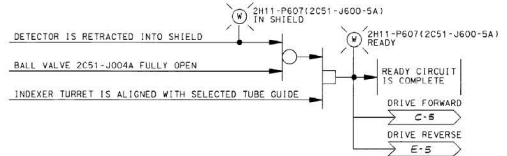
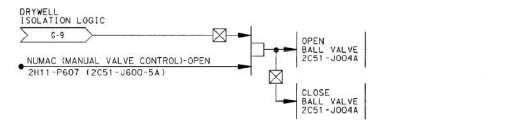
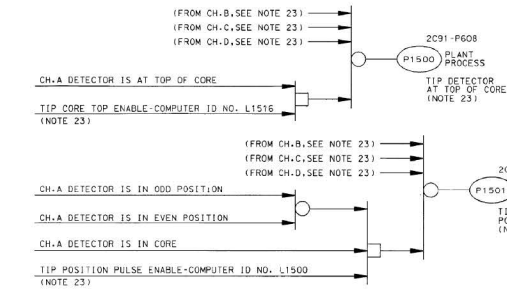
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Revision: 3 Date: 6-8-88
REVISED PER ABN 94-0008-001.

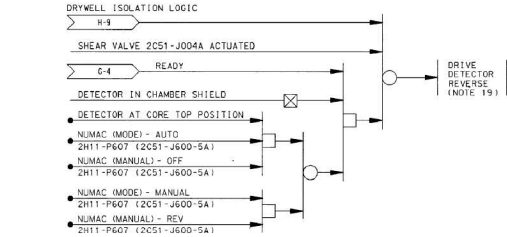
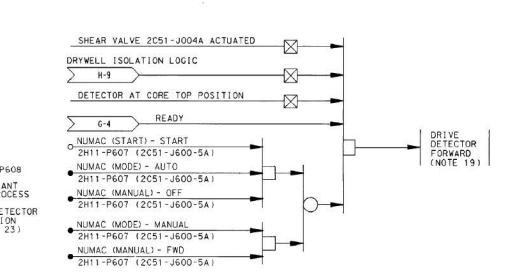
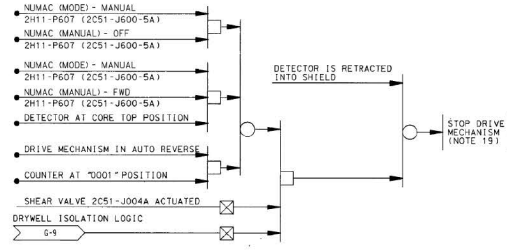
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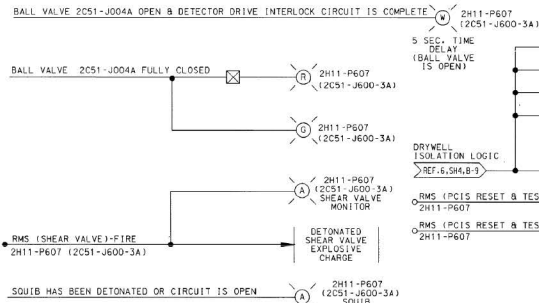
COMPUTER DIGITAL INPUTS FROM 2C51D TRAVERSING IN-CORE PROBE SYSTEM CHANNEL A; TYPICAL FOR CHANNELS B, C, D (SEE TABLE 9)



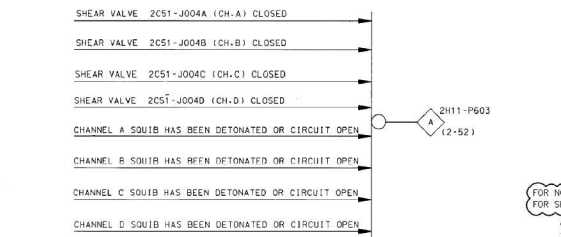
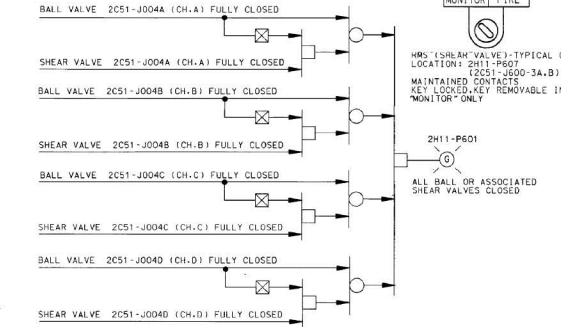
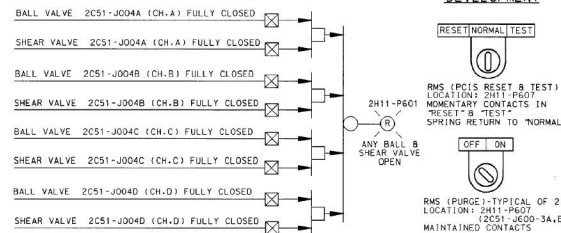
DRIVE CONTROL UNIT FOR CHANNEL A TYPICAL FOR CHANNELS B, C, AND D (2C51-J600-5B, C AND D)



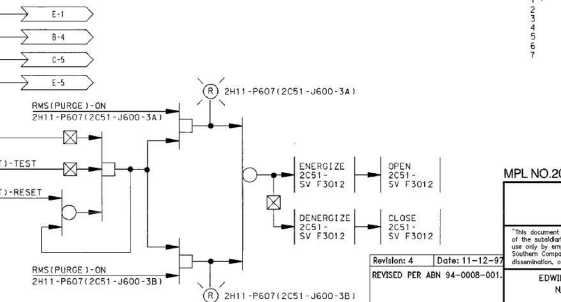
TIP DETECTOR DRIVE CONTROL LOGIC (NOTE 19) FOR CH. A; TYP. FOR CH. B, C, AND D (2C51-J600-5B, C, AND D)



BALL AND SHEAR VALVE CONTROL MONITOR FOR CH. A; TYPICAL FOR CH. B, AND (2C51-J-600-3B) FOR CHANNELS C AND D

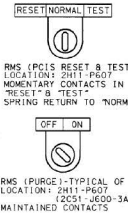


BALL AND SHEAR VALVE STATUS AND ANNUNCIATION LOGIC

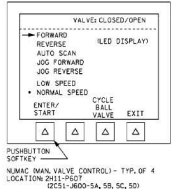
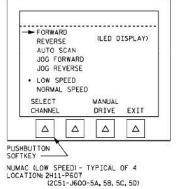
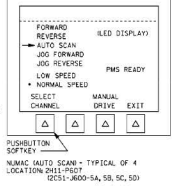
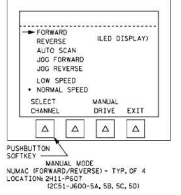


DRY GAS PURGE CONTROL LOGIC

SWITCH DEVELOPMENT



LED DISPLAY



FOR NOTES AND REFERENCES, SEE DRAWING H-24722 FOR SHEET 6 OF 6 SEE DRAWING H24780

SUPERSEDING

THIS DRAWING WAS DEVELOPED FROM G.E. DRAWING NO. 7296318 SHEET 102 ACCESSION DWS. NO.

1	5	2-28698
2	5	2-28699
3	5	2-28700
4	5	2-28701
5	5	2-28702
6	4	2-16375
7	4	2-28703

MPL NO. 2C51-1030 (ACADOVY) H24785

SOUTHERN COMPANY

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EDWIN I. HATCH NUCLEAR PLANT UNIT No. 2
NEUTRON MONITORING SYSTEM (NMS)
SHEET 5 OF 6

DATE	ISSUED	LOGIC	ISSUED NUMBER	REVISION
04/00/86	WCS			
01/01/86	JOB			
03/22/86	NO SCALE			

10-502 H-24785 4

SWITCH DEVELOPMENTS

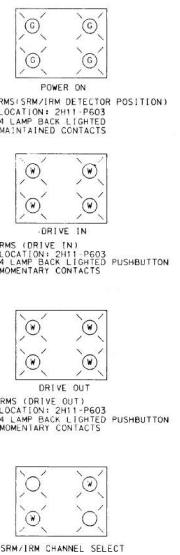
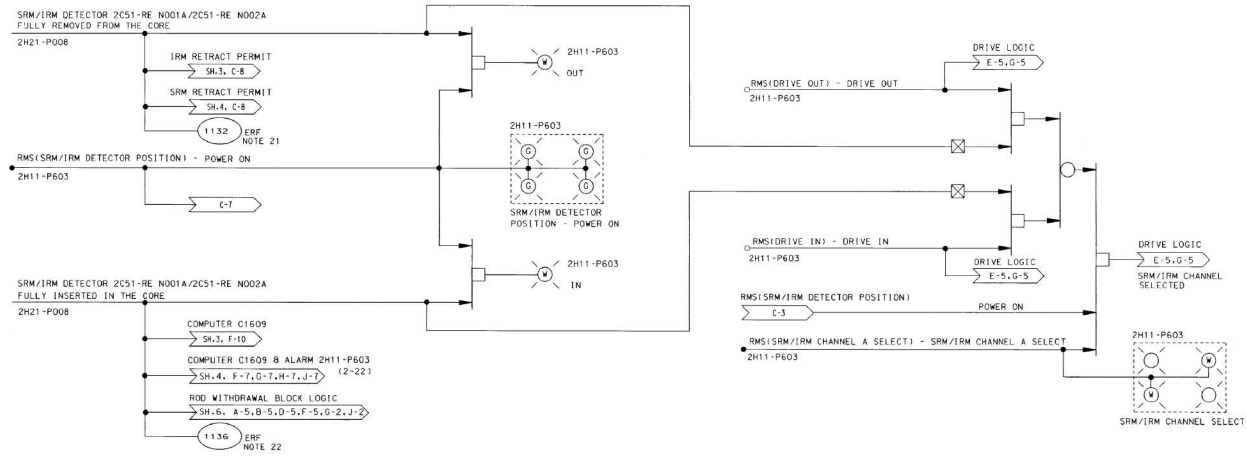


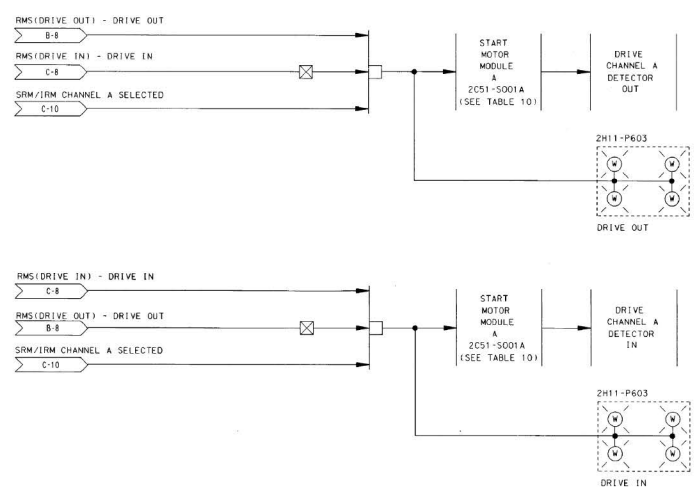
TABLE 10

SRM CHANNEL A	MOTOR MODULE A	2C51-S001 A
SRM CHANNEL B	MOTOR MODULE B	2C51-S001 B
SRM CHANNEL C	MOTOR MODULE C	2C51-S001 C
SRM CHANNEL D	MOTOR MODULE D	2C51-S001 D
IRM CHANNEL A	MOTOR MODULE E	2C51-S001 E
IRM CHANNEL B	MOTOR MODULE F	2C51-S001 F
IRM CHANNEL C	MOTOR MODULE G	2C51-S001 G
IRM CHANNEL D	MOTOR MODULE H	2C51-S001 H
IRM CHANNEL E	MOTOR MODULE J	2C51-S001 J
IRM CHANNEL F	MOTOR MODULE K	2C51-S001 K
IRM CHANNEL G	MOTOR MODULE L	2C51-S001 L
IRM CHANNEL H	MOTOR MODULE M	2C51-S001 M

SRM/IRM MOTOR MODULES

TABLE 9

DESCRIPTION	COMPUTER ID NUMBERS			
	CHANNEL A	CHANNEL B	CHANNEL C	CHANNEL D
DRIVE CONTROL UNIT	2C51-J600-5A	2C51-J600-5B	2C51-J600-5C	2C51-J600-5D
TIP MACH SCAN	L1532	L1533	L1534	L1535
TIP POSITION PULSE ENABLE	L1500	L1501	L1502	L1503
TIP CORE TOP ENABLE	L1516	L1517	L1518	L1519
TIP GUIDE TUBE ADDRESS	BCD-1	C1823	C1827	C1831
	BCD-2	C1824	C1828	C1832
	BCD-4	C1825	C1829	C1833
	BCD-8	C1826	C1830	C1834
TIP READY	C1860	C1861	C1862	C1863



FOR NOTES AND REFERENCES, SEE DRAWING H-24722

SUPERSEDING

THIS DRAWING WAS DEVELOPED FROM G.E. DRAWING NO. 72966318
 THIS DRAWING IS A REVISION OF G.E. DRAWING NO. 72966318
 1 5 5-28698
 2 5 5-28698
 3 5 5-28700
 4 5 5-28701
 5 5 5-28702
 6 4 5-16375
 7 5 5-28703

SOURCE RANGE MONITOR/INTERMEDIATE RANGE MONITOR DETECTOR DRIVE CONTROL SYSTEM CHANNEL A
 TYPICAL: FOR SRM CHANNELS B,C,D AND IRM CHANNELS B,C,D,E,F,G,H.

MPL NO.2C51-1030 (ACADOVY) H24786

SOUTHERN COMPANY

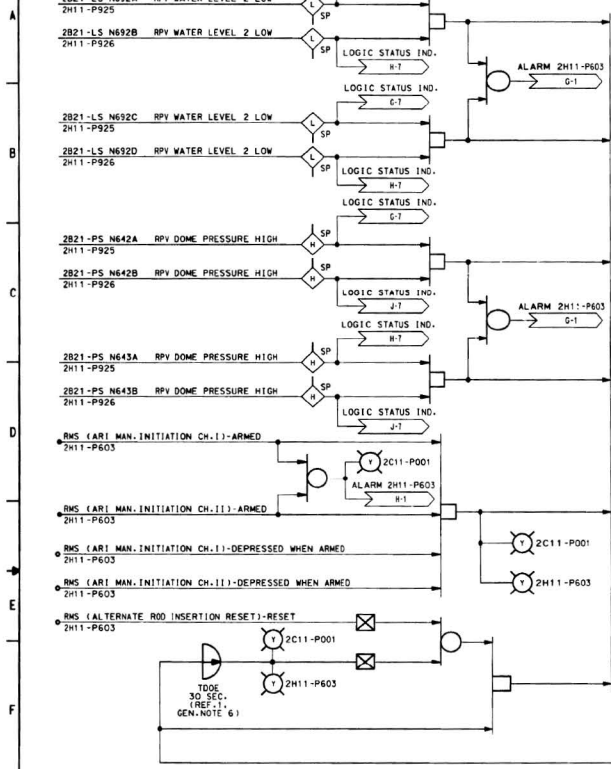
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EDWIN I. HATCH NUCLEAR PLANT UNIT No.2
 NEUTRON MONITORING SYSTEM (NMS)
 LOGIC DIAGRAMS
 (SHEET 6 OF 8)

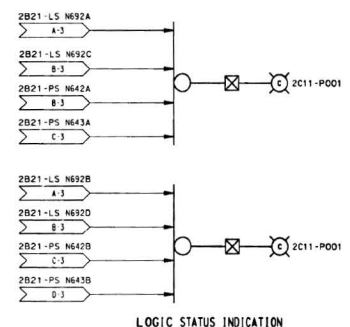
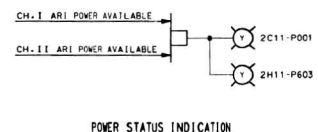
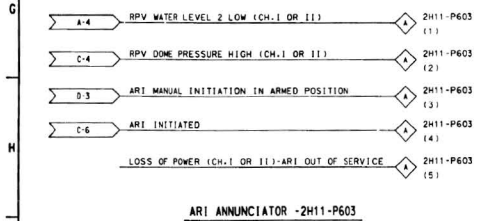
Revision: 3 Date: 11-12-97
 SCANNED, VERIFIED BY: BBT
 REVISED PER AEN 94-008-001.

DATE	REVISION	LOGIC	ORIGIN NUMBER	ISSUE
10-502	H-24786			3

H-2478-H



ALTERNATE ROD INSERTION (ARI) SYSTEM



SWITCH DEVELOPMENTS



RMS (ARI MANUAL INITIATION - CH. I)
RMS (ARI MANUAL INITIATION - CH. II)
LOCATION: 2H11-P603
ROTATE COLLAR TO ARM
OR DISARM (MAINTAINED CONTACTS)
LEFT POSITION - ARI DISARMED
RIGHT POSITION - ARI ARMED
PUSH BUTTON TO
ACTIVATE ARI (MOMENTARY CONTACTS)
DISARMED/ARMED LABELING SHOWN
ABOVE IS FOR INFORMATION ONLY.
THE ACTUAL SWITCHES DO NOT HAVE
INDIVIDUAL COLLAR POSITION LABELS.



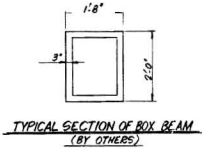
RMS (ALTERNATE ROD INSERTION RESET)
LOCATION: 2H11-P603
PUSH BUTTON
MOMENTARY CONTACTS

FOR NOTES, SEE DWG. H-24717
FOR REFERENCES, SEE DWG. H-24718

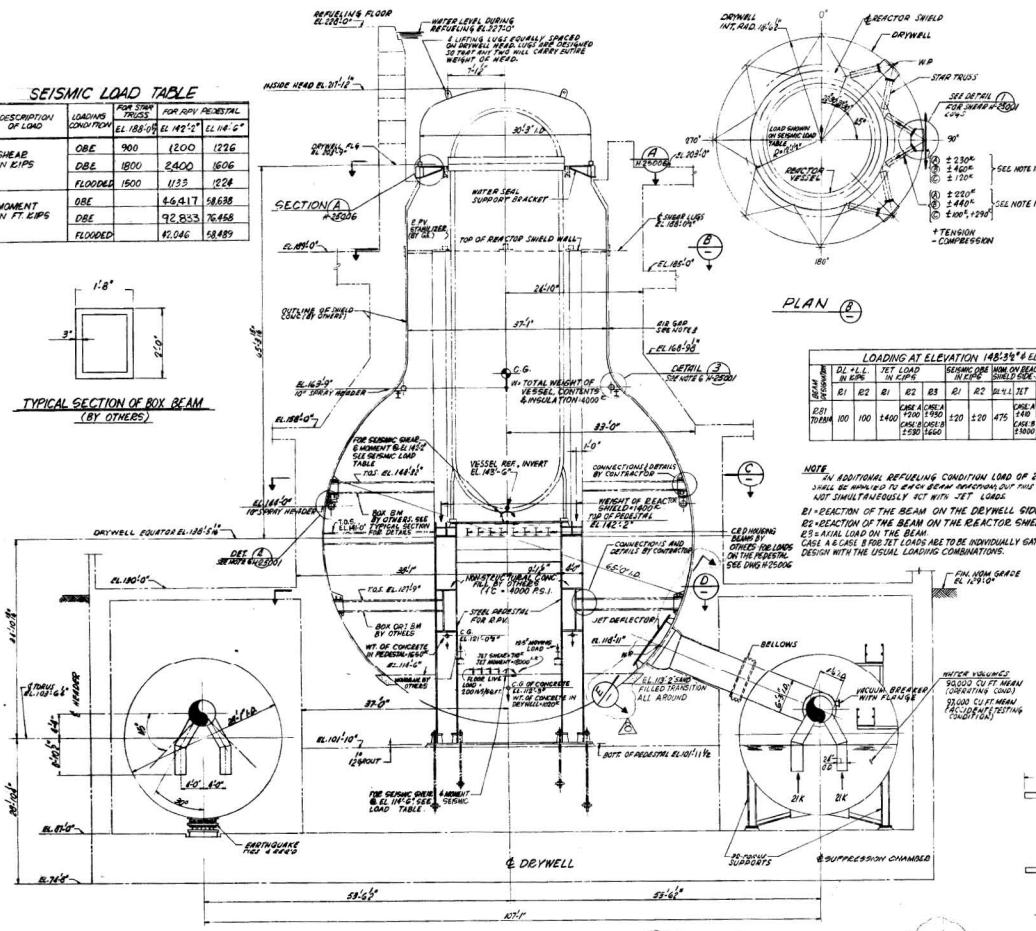
MPL NO. 2C11-1030																					
BECHTEL																					
JOB 6511 GAITHERSBURG, MARYLAND																					
SOUTHERN SERVICES INC. FOR																					
GEORGIA POWER CO., ATLANTA, GA. GENERAL ENGINEERING DEPARTMENT																					
EDWIN HATCH NUCLEAR PLANT UNIT NO. 2 CONTROL ROD DRIVE HYDRAULIC SYSTEM LOGIC DIAGRAMS SHEET 9 OF 9																					
<table border="1"> <tr> <th>NO.</th> <th>DATE</th> <th>BY</th> <th>CHKD.</th> <th>APP'D.</th> <th>SCALE</th> <th>DATE</th> <th>CHKD.</th> <th>APP'D.</th> </tr> <tr> <td>1</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	NO.	DATE	BY	CHKD.	APP'D.	SCALE	DATE	CHKD.	APP'D.	1									<table border="1"> <tr> <td>10-502</td> <td>H-2478</td> </tr> </table>	10-502	H-2478
NO.	DATE	BY	CHKD.	APP'D.	SCALE	DATE	CHKD.	APP'D.													
1																					
10-502	H-2478																				

SEISMIC LOAD TABLE

DESCRIPTION OF LOAD	FOR 300K TRUSS		FOR 400K PEDESTAL	
	LOADING COND FROM EL. 188'-0"	EL. 182'-0"	EL. 182'-0"	EL. 186'-0"
SHEAR IN RIPS	OBE	900	1200	1226
	DBE	1800	2400	1806
	FLOODED	1800	1135	1828
MOMENT IN FT. KIPS	OBE	64.617	94.638	
	DBE	92.833	76.488	
	FLOODED	42.046	58.489	



TYPICAL SECTION OF BOX BEAM (BY OTHERS)

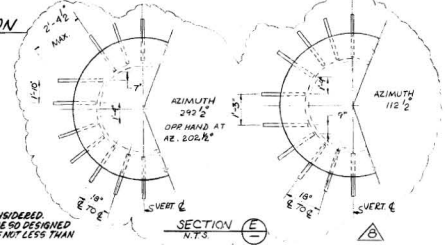


VERTICAL SECTION

REACTOR SHIELD COLUMN LOADS

LOAD	JET LOAD CASE 1	JET LOAD CASE 2	JET LOAD CASE 3	DBE	OBE	DBE
F ₁	±190	±100	±650	-175	±170	±140
F ₂	±350	±100	±100	7	-	-
F ₃	±580	±140	±500	12	±125	±135
M ₁	±5	±5	±5	-	-	-
M ₂	±970	±100	±110	30	-	-
M ₃	±580	±390	±290	20	-	-

NOTES:
 1. JET LOADS IN ALL CASES ARE TO BE INDEPENDENTLY CONSIDERED; BUT ONLY ONE CASE AT A TIME.
 2. ALL FORCES ARE IN KIPS AND MOMENTS IN FT. KIPS.
 3. REACTOR SHIELD COLUMNS ARE OF ASTM A-441 STEEL AND ARE WELDED TO THE TOP OF THE PEDESTAL TO DEVELOP FULL PLASTICITY.
 4. NO TEMPERATURE GRADIENT NEED BE CONSIDERED. HOWEVER, THE TOP OF THE PEDESTAL SHALL BE SO DESIGNED THAT IT MAY HAVE A RESERVED STRENGTH OF NOT LESS THAN 20% FOR ALL LOADING COMBINATIONS.

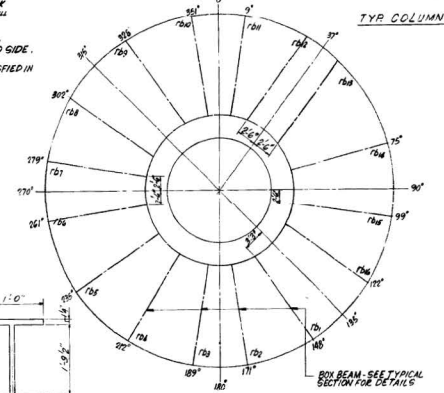
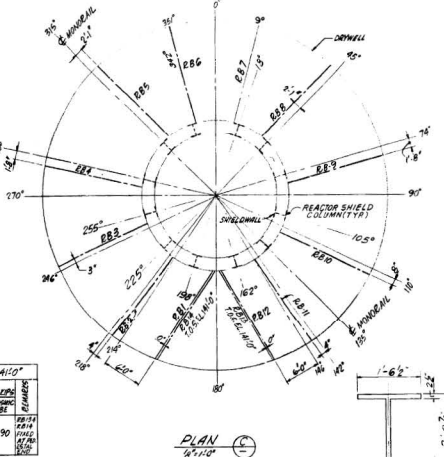


PLAN

LOADING AT ELEVATION 188'-0" EL. 182'-0"

BEAM POSITION	DL ± LL	JET LOAD IN RIPS	SEISMIC OBE IN RIPS	SEISMIC DBE IN RIPS	SEISMIC OBE IN FT. KIPS	SEISMIC DBE IN FT. KIPS
DB1 TRUSS 100	100	1400	1000	1500	120	475
DB2 TRUSS 100	100	1400	1000	1500	120	475
DB3 TRUSS 100	100	1400	1000	1500	120	475
DB4 TRUSS 100	100	1400	1000	1500	120	475
DB5 TRUSS 100	100	1400	1000	1500	120	475
DB6 TRUSS 100	100	1400	1000	1500	120	475
DB7 TRUSS 100	100	1400	1000	1500	120	475
DB8 TRUSS 100	100	1400	1000	1500	120	475
DB9 TRUSS 100	100	1400	1000	1500	120	475
DB10 TRUSS 100	100	1400	1000	1500	120	475
DB11 TRUSS 100	100	1400	1000	1500	120	475
DB12 TRUSS 100	100	1400	1000	1500	120	475
DB13 TRUSS 100	100	1400	1000	1500	120	475
DB14 TRUSS 100	100	1400	1000	1500	120	475
DB15 TRUSS 100	100	1400	1000	1500	120	475
DB16 TRUSS 100	100	1400	1000	1500	120	475
DB17 TRUSS 100	100	1400	1000	1500	120	475
DB18 TRUSS 100	100	1400	1000	1500	120	475
DB19 TRUSS 100	100	1400	1000	1500	120	475
DB20 TRUSS 100	100	1400	1000	1500	120	475

NOTE:
 1. AN ADDITIONAL REFUELING CONDITION LOAD OF 26K SHALL BE APPLIED TO EACH BEAM ORIENTATION BUT THIS WILL NOT SIMULTANEOUSLY ACT WITH JET LOADS.
 2. REACTION OF THE BEAM ON THE DRYWELL SIDE.
 3. REACTION OF THE BEAM ON THE REACTOR SHIELD SIDE.
 4. REACTION LOAD ON THE BEAM.
 5. REACTION LOADS ARE TO BE INDIVIDUALLY SATISFIED IN DESIGN WITH THE USUAL LOADING COMBINATIONS.



TYP BEAM SECTION 765 THRU 766

LOADING AT ELEVATION 182'-0"

BEAM POSITION	DL ± LL	JET LOAD IN RIPS	SEISMIC OBE IN RIPS	SEISMIC DBE IN RIPS	SEISMIC OBE IN FT. KIPS	SEISMIC DBE IN FT. KIPS
DB1 TRUSS 100	100	1400	1000	1500	120	475
DB2 TRUSS 100	100	1400	1000	1500	120	475
DB3 TRUSS 100	100	1400	1000	1500	120	475
DB4 TRUSS 100	100	1400	1000	1500	120	475
DB5 TRUSS 100	100	1400	1000	1500	120	475
DB6 TRUSS 100	100	1400	1000	1500	120	475
DB7 TRUSS 100	100	1400	1000	1500	120	475
DB8 TRUSS 100	100	1400	1000	1500	120	475
DB9 TRUSS 100	100	1400	1000	1500	120	475
DB10 TRUSS 100	100	1400	1000	1500	120	475
DB11 TRUSS 100	100	1400	1000	1500	120	475
DB12 TRUSS 100	100	1400	1000	1500	120	475
DB13 TRUSS 100	100	1400	1000	1500	120	475
DB14 TRUSS 100	100	1400	1000	1500	120	475
DB15 TRUSS 100	100	1400	1000	1500	120	475
DB16 TRUSS 100	100	1400	1000	1500	120	475
DB17 TRUSS 100	100	1400	1000	1500	120	475
DB18 TRUSS 100	100	1400	1000	1500	120	475
DB19 TRUSS 100	100	1400	1000	1500	120	475
DB20 TRUSS 100	100	1400	1000	1500	120	475

NOTE:
 1. AN ADDITIONAL REFUELING CONDITION LOAD OF 34K SHALL BE APPLIED TO EACH BEAM ORIENTATION BUT THIS WILL NOT SIMULTANEOUSLY ACT WITH JET LOADS.



KEY PLAN

NOTES
 1. GENERAL ELECTRIC ORIENTATION REFERRED TO BEAM ORIENTATION EAST.
 2. FOR ADDITIONAL LOADING AND DESIGN CONDITIONS SEE SPECIFICATION 21.002.
 3. THE LATERAL AND CYLINDRICAL PORTS OF THE DRYWELL SHALL BE SEPARATED FROM THE REACTOR SHIELD COLUMN BY AN AIR GAP OF 3/4" ± 1/16".
 4. SEISMIC LOADINGS SHOWN ARE THOSE FOR THE OPERATING BEAM ORIENTATION FOR THE DESIGN BEAM ORIENTATION THESE LOADS SHALL BE MODIFIED BY 100%.
 5. SEISMIC LOADS AT BASE OF PEDESTAL SEE 2.0 OF THE DRYWELL REACTOR PEDESTAL REACTOR CONCRETE FILL AND EQUIPMENT.
 6. DRYWELL OF DRY HEADERS AND PENETRATIONS:
 A. THE CONTRACTOR SHALL DESIGN AND CONSTRUCT THE DRYWELL AND DRY HEADERS AND PENETRATIONS IN ACCORDANCE WITH THE RULES OF ASME SECTION III, CLASS 2 AND SEISMIC CLASS 2.
 B. ALL DRY HEADERS SHALL BE 12" DIAMETER OR 8" DIAMETER MINIMUM. ALL DRY HEADERS SHALL BE 1/2" THICK OR 3/4" THICK MINIMUM. ALL DRY HEADERS SHALL BE WELDED TO THE DRYWELL WALL WITH FULL PENETRATION BUTT JOINTS.
 7. THE DRYWELL SHALL BE 12" DIAMETER OR 8" DIAMETER MINIMUM. ALL DRY HEADERS SHALL BE 1/2" THICK OR 3/4" THICK MINIMUM. ALL DRY HEADERS SHALL BE WELDED TO THE DRYWELL WALL WITH FULL PENETRATION BUTT JOINTS.
 8. ALL RADIAL BEAMS BY OTHERS ARE ASTM A-441 STEEL. ALL LOADS CONTRIBUTED BY THE CONTAINMENT ARE TO BE ADDED TO THOSE SHOWN.
 9. CASES (A), (B) AND (C) REFER TO OBE, DBE AND JET LOADS RESPECTIVELY.

REFERENCE DRAWINGS

NO.	TITLE	DATE
1	DRYWELL DETAILS & CRD PENETRATIONS	08/28/80
2	DRYWELL PENETRATIONS	08/28/80
3	DRYWELL PENETRATIONS	08/28/80
4	DRYWELL PENETRATIONS	08/28/80
5	DRYWELL PENETRATIONS	08/28/80
6	DRYWELL PENETRATIONS	08/28/80
7	DRYWELL PENETRATIONS	08/28/80
8	DRYWELL PENETRATIONS	08/28/80
9	DRYWELL PENETRATIONS	08/28/80
10	DRYWELL PENETRATIONS	08/28/80
11	DRYWELL PENETRATIONS	08/28/80
12	DRYWELL PENETRATIONS	08/28/80
13	DRYWELL PENETRATIONS	08/28/80
14	DRYWELL PENETRATIONS	08/28/80
15	DRYWELL PENETRATIONS	08/28/80
16	DRYWELL PENETRATIONS	08/28/80
17	DRYWELL PENETRATIONS	08/28/80
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19	DRYWELL PENETRATIONS	08/28/80
20	DRYWELL PENETRATIONS	08/28/80

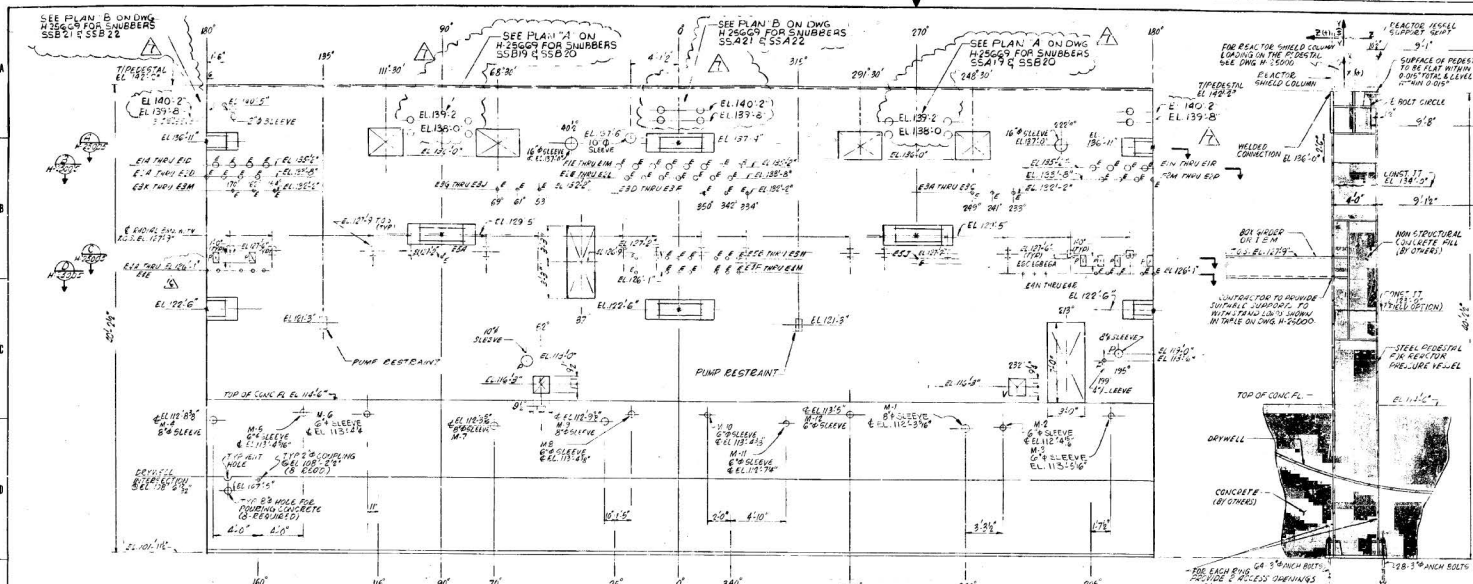
BECKETT ASSOCIATES
 JOB 6511

SOUTHERN SERVICES INC.
 FOR

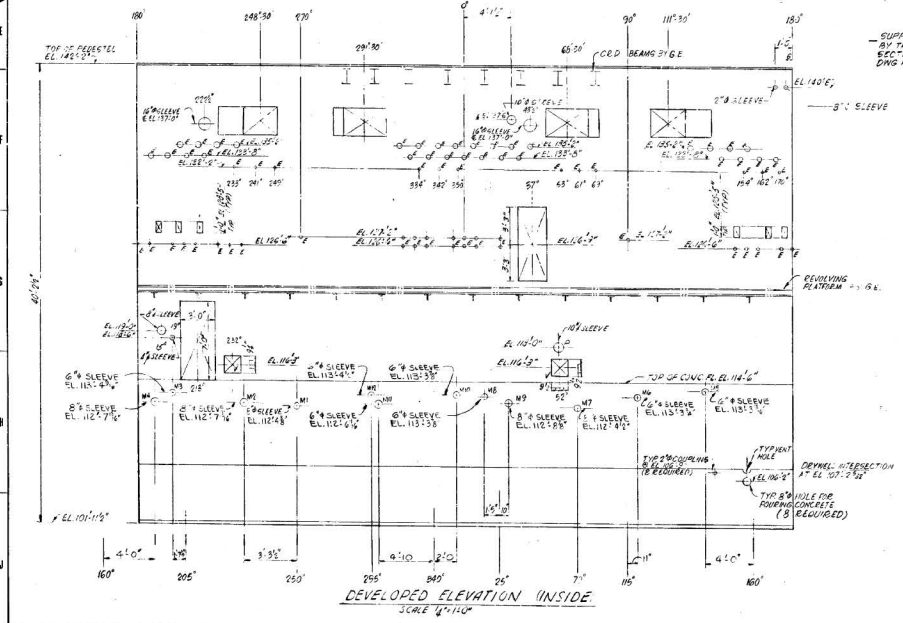
GEORGIA POWER CO., ATLANTA, GA
 GENERAL ENGINEERING DEPARTMENT

DRYWELL REACTOR PEDESTAL REACTOR SHIELD COLUMN CONTAINMENT VESSEL REQUIREMENTS DRYWELL PLANS & SECTIONS

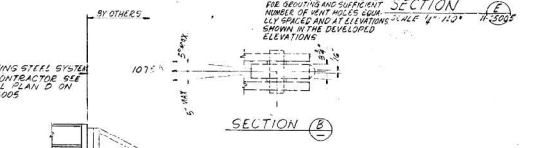
DATE: 10/17/80
 DRAWN BY: J. L. BROWN
 CHECKED BY: J. L. BROWN
 SCALE: AS SHOWN
 SHEET NO: 10-502
 TOTAL SHEETS: 11



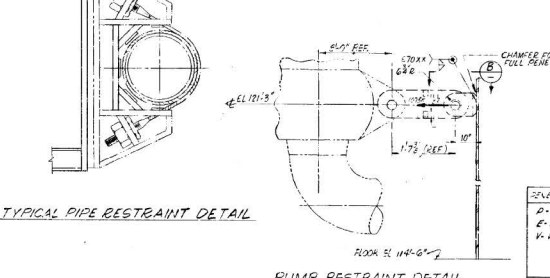
DEVELOPED ELEVATION (OUTSIDE)
SCALE 1/4"=1'-0"



DEVELOPED ELEVATION (INSIDE)
SCALE 1/4"=1'-0"



SECTION B-B



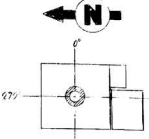
TYPICAL PIPE RESTRAINT DETAIL

PUMP RESTRAINT DETAIL

ELECTRICAL SLEEVES

SYMBOL	QUANTITY	SIZE	REMARKS
EA 10 1/2"	16	6"	CONDUIT INDICATION
EA 11 1/2"	14	6"	POWER RANGE REACTOR SIGNAL CABLE
EA 12 1/2"	12	6"	STRAP ON RANGE MAIN FAN DRIVE
EA 13 1/2"	16	6"	JUNCTION BOX FOR 1/2" (12) 1/2"
EA 14 1/2"	9	6"	ELECTRICAL SERVICE TO INSTRUMENTATION LOWER
EA 15 1/2"	2	6"	ELECTRICAL SERVICE TO COMMUNICATIONS

NOTE: SUFFICE 1/2" OUT USED



KEY PLAN

- NOTES
1. GENERAL E.L. 200 OR EXHAUST IN REACTOR PLANT ORIENTATION EAST
 2. ALL ELECTRICAL PENETRATIONS FROM THE TOP OF E.C. WITH THE EXCEPTION OF ESB THROUGH ANY E.C. BE MADE 3/4" MINIMUM DIA. PENETRATIONS
 3. PENETRATIONS SHALL BE IN ACCORDANCE WITH SECTION 406 OF THE SPECIFICATIONS
 4. E.C. MATERIAL AND WELDING REQUIREMENTS AND ADDITIONAL LOADING CONDITIONS SEE SPECIFICATION SS 5102-5.
 5. CONTRACTOR TO PROVIDE SUITABLE STRUCTURAL MEMBERS TO SUPPORT THE PIPE WHIP RESTRAINT WITH A NOTE LOAD APPLIED IN ANY DIRECTION, BUT AT ONLY ONE LOCATION AT ANY GIVEN TIME. SEE PIPING RESTRAINT DETAIL ON THIS DWG. AND SECTIONAL PLAN D ON DWG. H-25005.

NOTE: CHECK THIS DWG WITH DWG H-25010 & H-25005

GENERAL LEGEND

○	PIPE
○	ELECTRICAL
○	VENTILATION

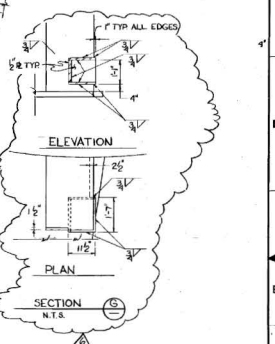
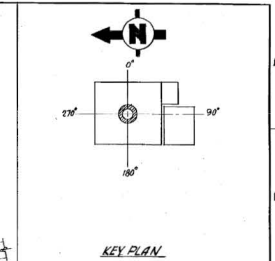
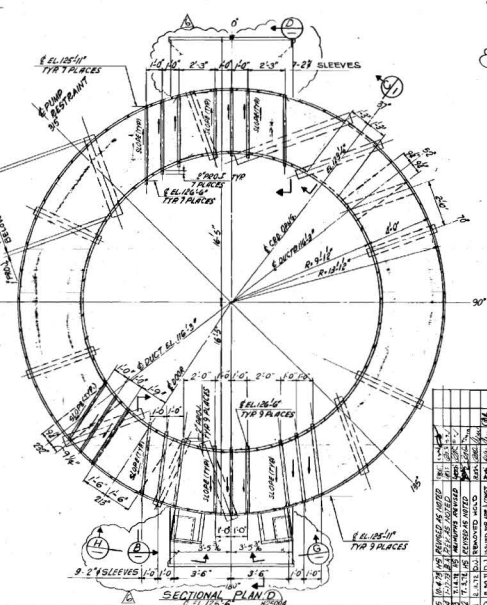
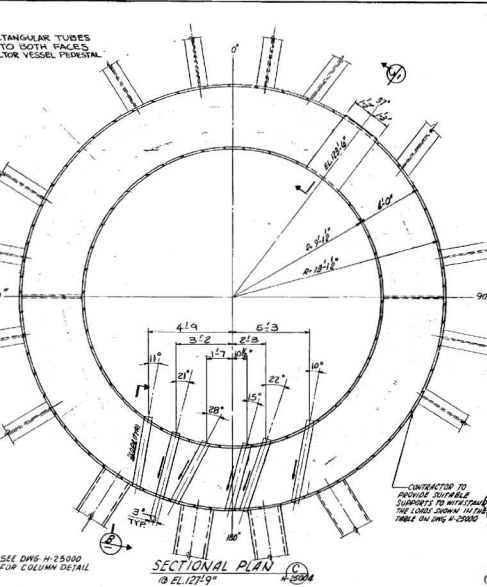
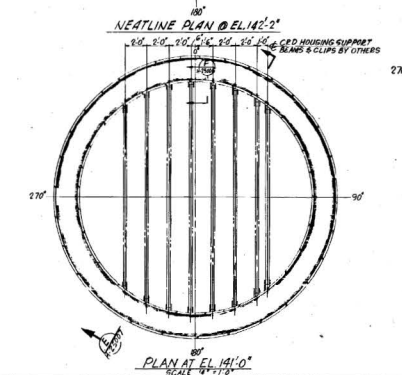
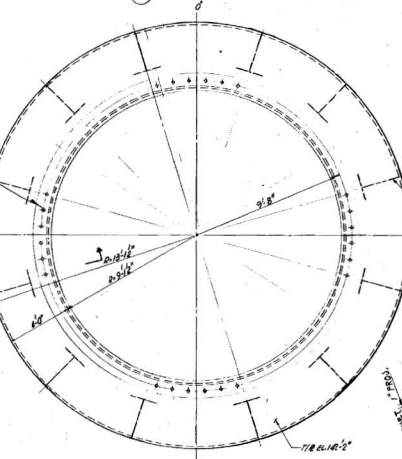
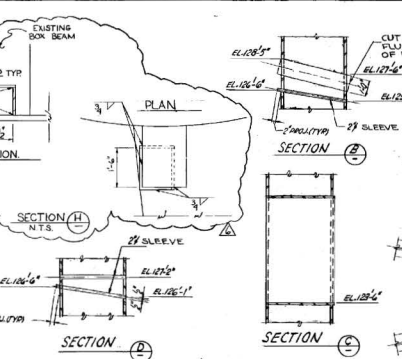
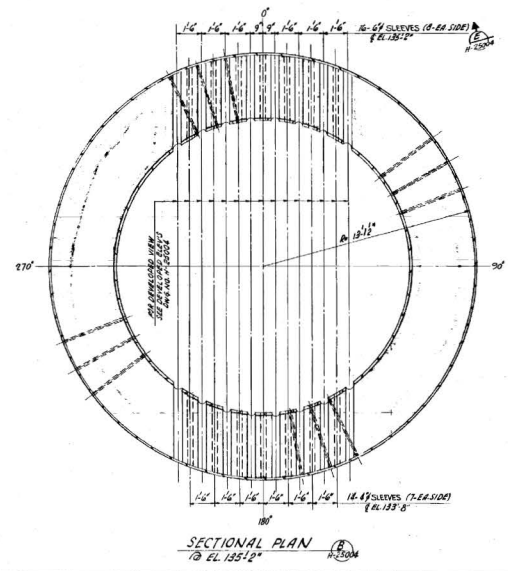
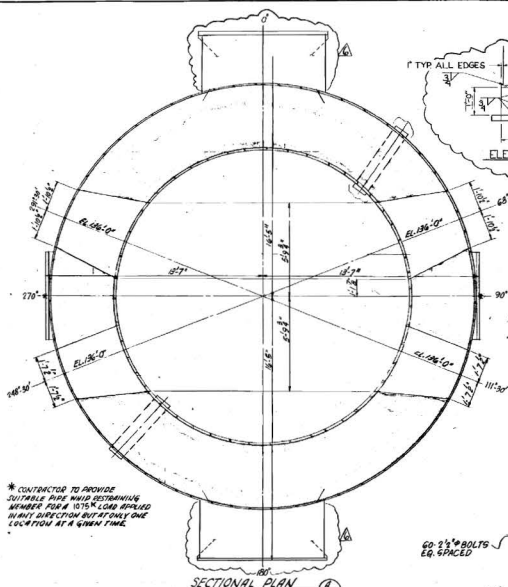
NO.	DATE	BY	DESCRIPTION
1	11/15/78	J.P.	ISSUED FOR CONSTRUCTION
2	11/15/78	J.P.	REVISION
3	11/15/78	J.P.	REVISION
4	11/15/78	J.P.	REVISION
5	11/15/78	J.P.	REVISION
6	11/15/78	J.P.	REVISION
7	11/15/78	J.P.	REVISION
8	11/15/78	J.P.	REVISION
9	11/15/78	J.P.	REVISION
10	11/15/78	J.P.	REVISION
11	11/15/78	J.P.	REVISION
12	11/15/78	J.P.	REVISION

BECKETT ASSOCIATES
JOB 6511

SOUTHERN SERVICES INC.
FOR

GEORGIA POWER CO., ATLANTA, GA
GENERAL ENGINEERING DEPARTMENT
EDWIN HATCH NUCLEAR PLANT UNIT NO 2
REACTOR BUILDING
REACTOR PRESSURE VESSEL PEDESTAL
DEVELOPMENT ELEV. (INSIDE AND OUTSIDE)

SCALE: 1/4"=1'-0"
DATE: 11/15/78
DRAWING NUMBER: H-25005
SHEET NO: 2 OF 2
H-25005



NOTES

- GENERAL ELECTRIC ORIENTATION OF EQUALS PLANT ORIENTATION EAST.
- ALL CONCRETE WORK IS PERFORMED BY OTHERS.
- WORK THIS DWG WITH DWG. H-25004

NO.	DATE	BY	REVISIONS

REVISIONS

REVISIONS

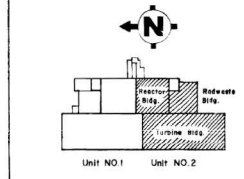
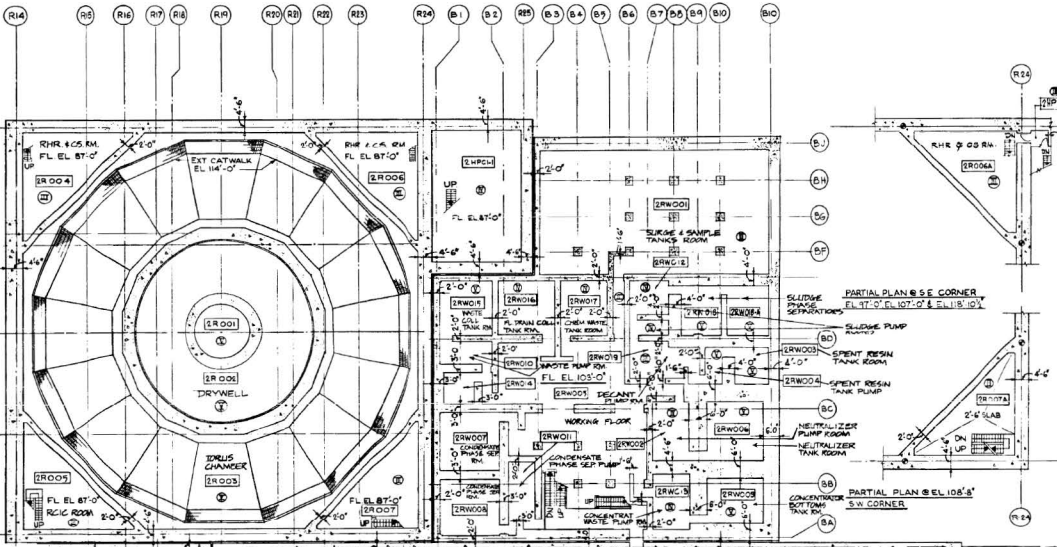
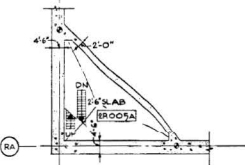
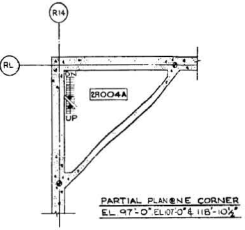
REVISIONS

RECEIVED ASSOCIATES
JOB 6511

SOUTHERN SERVICES INC.
FOR

GEORGIA POWER CO., ATLANTA, GA
GENERAL ENGINEERING DEPARTMENT
EDWIN HATCH NUCLEAR PLANT UNIT NO. 2
REACTOR BUILDING
REACTOR PRESSURE VESSEL PEDESTAL
SECTIONAL PLANS AND SECTIONS

DATE: 10/10/70
DRAWN: J. J. JONES
CHECKED: J. J. JONES
SCALE: AS SHOWN
SHEET NO. 10-507 H25005



NOTES

NO SHIELDING REQUIRED

SPACE NUMBER

RADIATION ZONE (ROWAN NUMERALS INSIDE CIRCLE)

1) 7'-0" OF CONCRETE REQUIRED OVER SJAIE TO RE-COMBINE TUNNEL IN THE TURBINE BUILDING BASE SLAB

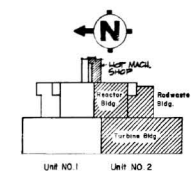
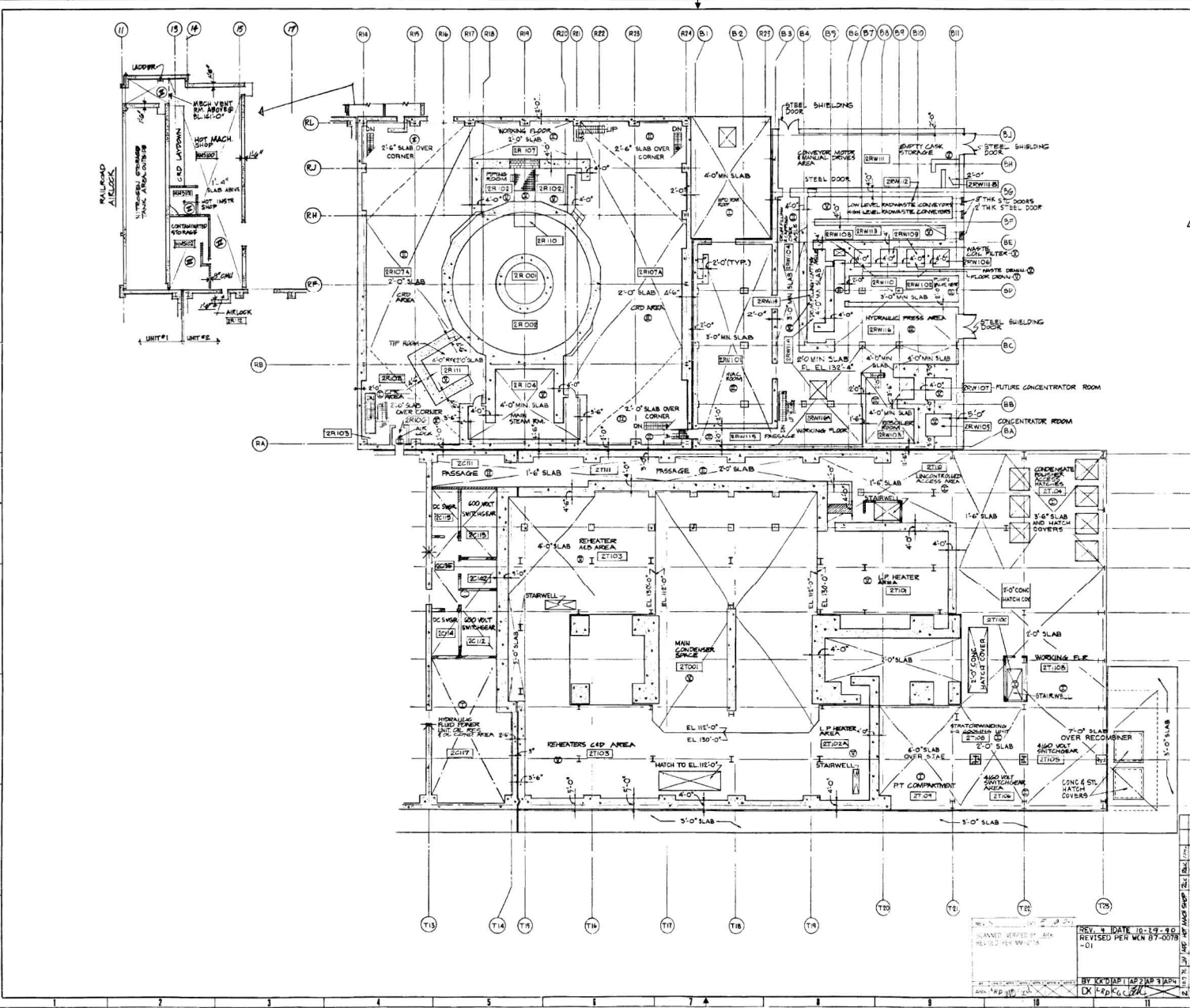
2) WALLS WITHOUT SHIELDING REQUIREMENTS HAVE BEEN OMITTED

3) SEE CIVIL DRAWINGS

ZONE	DESCRIPTION	ACCESS	NOTE
I	≤ 0.5	UNLIMITED	WORK AREAS
II	≤ 2.5	40-45% AS 3.3	PASSAGES AND CONTROL PANELS
III	≤ 15.0	6-8% AS 3.4.5	SHORT TIME LIMITED ACCESS AREAS
IV	≤ 100.0	4-7% AS 3.4.5	RESTRICTED ACCESS AREAS
V	> 100.0	1-2% AS 3.4.5	RESTRICTED ACCESS AREAS

* RADIATION ZONES SHOWN ARE THOSE USED IN PLANT DESIGN FOR ACCESS ONLY. PLANNING AND RADIATION SHIELDING. THEY ARE MAINTAINED FOR HISTORICAL CONTINUITY ONLY. GPC USES CURRENT REGULATORY TECHNOLOGY FOR AREA CLASSIFICATION. ALTHOUGH A ONE-TWO-ONE CORRELATION DOES NOT EXIST, ALARA CONSIDERATIONS ARE NOT DISREGARDED.

BECHTEL ASSOCIATES JOB 8511	
SOUTHERN SERVICES INC. FOR	
GEORGIA POWER CO., ATLANTA, GA. GENERAL ENGINEERING DEPARTMENT	
EDWIN HATCH NUCLEAR PLANT UNIT NO. 2 SHIELDING FLOOR PLAN ELEVATION 87'-0"	
REV. 4 11-21-77 REVISIONS VERIFIED BY: [Signature] REVISIONS PER: M-1016	REV. 3 08-11-76 REVISED NOTE # 1 PER MIM-0024
REV. 2 10-30-75 REV KEY PLAN 4	HATCH
SHEET NO. 10-502 DRAWING NUMBER H-25993	SHEET NO. 10-502 H-25993



NOTES

* NO SHIELDING REQUIRED
 SPACE NUMBER
 RADIATION ZONE (ROW NUMERALS INSIDE CIRCLE)

FOR NOTES SEE DRWG NO. H-3093

RADIATION ZONES **	ZONE DESIGN USE GENERAL	MAXIMUM SIZE	OCCUPANCY NOTES
I	≤ 0.5 OFFICES, LABS	UNLIMITED	
II	≤ 2.5 PASSAGES AND CORRIDORS	40 WS/WS 3.5	
III	≤ 15.0 SHORT TIME ACCESS AREAS	6 WS/WS 7.5	
IV	≤ 100.0 LIMITED ACCESS RESTRICTED AREAS	1 WS/WS 3.5	
V	> 100.0 RESTRICTED ACCESS AREAS	1 WS/WS 3.5	

** RADIATION ZONES SHOWN ARE THOSE USED IN PLANT DESIGN FOR ACCESS CONTROL. PLANNING AND RADIATION SHIELDING - THEY ARE MAINTAINED FOR HISTORICAL CONTINITY ONLY. SEE DESIGN REGULATORY TECHNOLOGY FOR AREA CLASSIFICATIONS. ALTHOUGH A ONE-TO-ONE CORRELATION DOES NOT EXIST, AREA CLASSIFICATIONS ARE NOT COMPARISABLE.

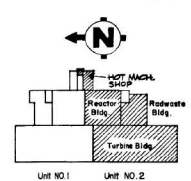
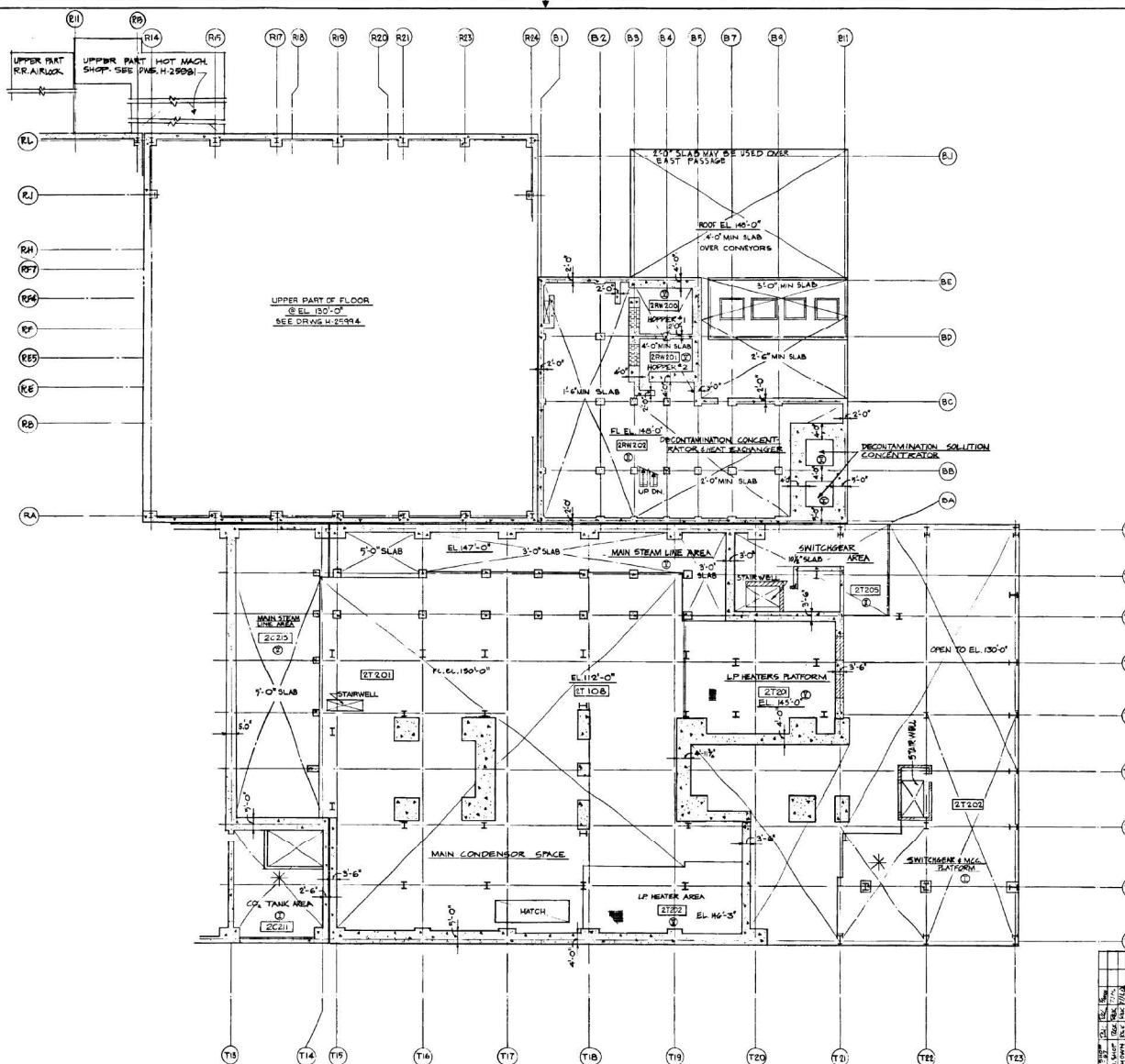
REFERENCES:
 H-25975... ARCH. - DOOR SCHEDULE.

NO.	DATE	BY	CHKD.	REVISIONS
1	10-28-54	W. J. BENTON		REVISED PER W. BENTON
2	11-15-54	W. J. BENTON		REVISED PER W. BENTON
3	12-15-54	W. J. BENTON		REVISED PER W. BENTON
4	1-15-55	W. J. BENTON		REVISED PER W. BENTON
5	2-15-55	W. J. BENTON		REVISED PER W. BENTON
6	3-15-55	W. J. BENTON		REVISED PER W. BENTON
7	4-15-55	W. J. BENTON		REVISED PER W. BENTON
8	5-15-55	W. J. BENTON		REVISED PER W. BENTON
9	6-15-55	W. J. BENTON		REVISED PER W. BENTON
10	7-15-55	W. J. BENTON		REVISED PER W. BENTON
11	8-15-55	W. J. BENTON		REVISED PER W. BENTON
12	9-15-55	W. J. BENTON		REVISED PER W. BENTON
13	10-15-55	W. J. BENTON		REVISED PER W. BENTON

RECHTEL ASSOCIATES
 JOB 6311
SOUTHERN SERVICES INC.
 FOR
GEORGIA POWER CO., ATLANTA, GA.
GENERAL ENGINEERING DEPARTMENT
EDWIN I. HATCH NUCLEAR PLANT NO. 2
SHIELDING
 FLOOR PLAN ELEVATION 130'-0"

NO.	DATE	BY	CHKD.	REVISIONS
1	10-28-54	W. J. BENTON		REVISED PER W. BENTON
2	11-15-54	W. J. BENTON		REVISED PER W. BENTON
3	12-15-54	W. J. BENTON		REVISED PER W. BENTON
4	1-15-55	W. J. BENTON		REVISED PER W. BENTON
5	2-15-55	W. J. BENTON		REVISED PER W. BENTON
6	3-15-55	W. J. BENTON		REVISED PER W. BENTON
7	4-15-55	W. J. BENTON		REVISED PER W. BENTON
8	5-15-55	W. J. BENTON		REVISED PER W. BENTON
9	6-15-55	W. J. BENTON		REVISED PER W. BENTON
10	7-15-55	W. J. BENTON		REVISED PER W. BENTON
11	8-15-55	W. J. BENTON		REVISED PER W. BENTON
12	9-15-55	W. J. BENTON		REVISED PER W. BENTON
13	10-15-55	W. J. BENTON		REVISED PER W. BENTON

710000460000 812283



NOTES
 * NO SHIELDING REQUIRED
 FOR NOTES SEE DWG. NO. H-25995

RADIATION ZONES

ZONE	DESIGN GENERAL STATEMENT	GENERAL OCCUPANCY NOTES
I	≤ 0.5	OFFICES, LARBS, MACHINE SHOPS, PASSAGES AND CONTROL PANELS
II	≤ 2.5	5-10" TIME ACCESS AREAS
III	≤ 15.0	3-5" TIME LIMITED ACCESS AREAS
IV	≤ 100.0	RESTRICTED ACCESS AREAS
V	> 100.0	RESTRICTED ACCESS AREAS

- LEGEND**
- ATD - AIR TIGHT DOOR
 - CAB. - CONTROLLED ACCESS BARRIER
 - - SPACE NUMBER
 - ◇ - DOOR NUMBER
 - - RADIATION ZONE (ROMAN NUMERALS INSIDE CIRCLE)
 - ⊙ - DEVICES FOR SKER LOCATION

* RADIATION ZONES SHOWN ARE THOSE USED IN PLANT DESIGN FOR ACCESS CONTROL, PLANNING AND RADIATION SHIELDING. THEY ARE MAINTAINED FOR HISTORICAL CONTINITY ONLY. GPC USES CURRENT REGULATORY TERMINOLOGY FOR AREA CLASSIFICATIONS. ALTHOUGH A ONE-TO-ONE CORRELATION DOES NOT EXIST, ALARA CONSIDERATIONS ARE NOT COMPROMISED.

DATE	5/19/77	
REV. 4		
SCANNED	VERIFIED BY	REVISED PER
MM-0118		

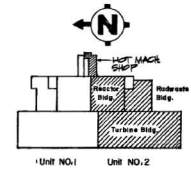
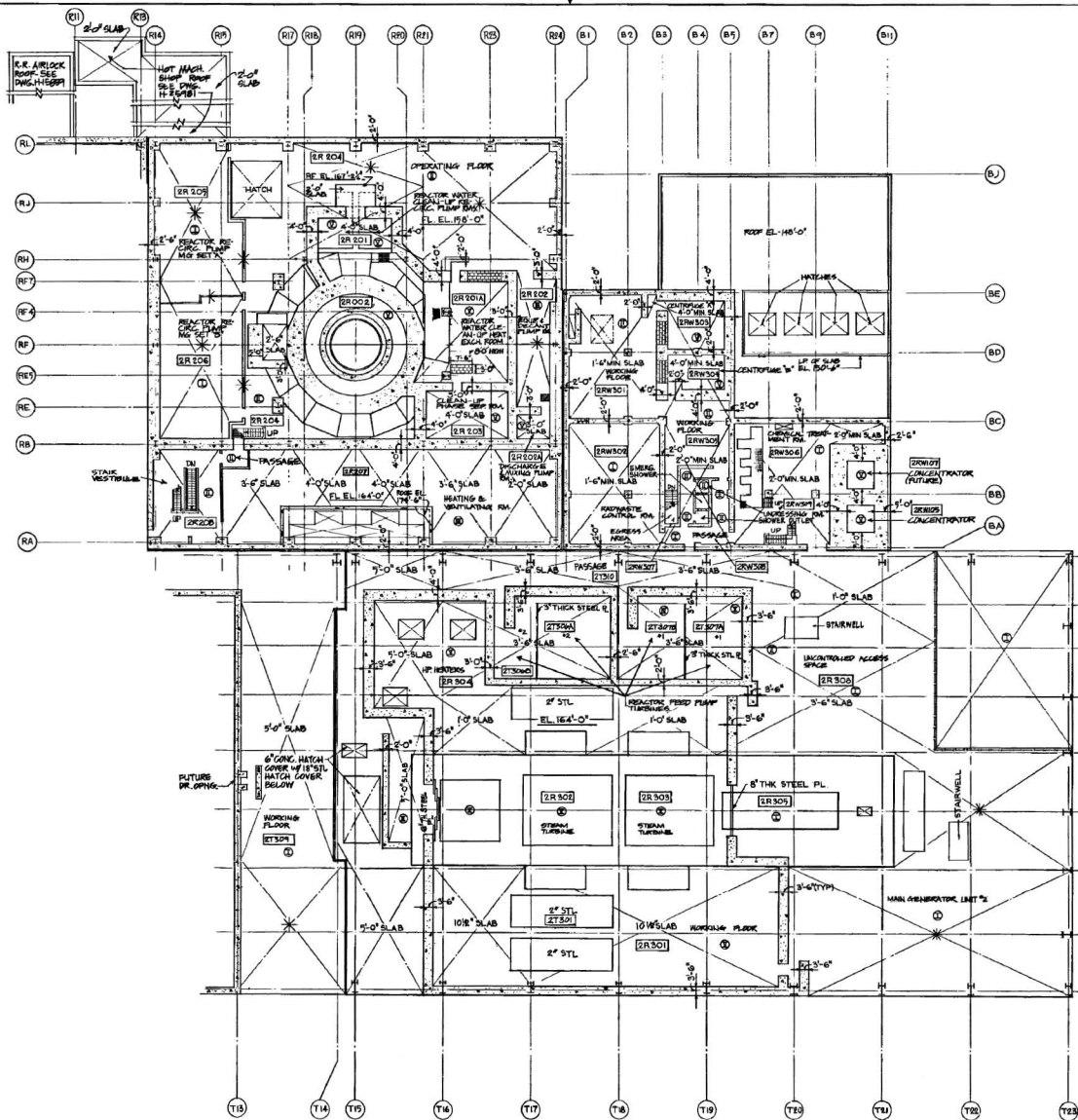
REGTEL ASSOCIATES
 JOB 8511

SOUTHERN SERVICES INC.
 FOR

GEORGIA POWER CO., ATLANTA, GA.
 GENERAL ENGINEERING DEPARTMENT

EDWIN I. HATCH NUCLEAR PLANT UNIT NO. 2
 SHIELDING
 FLOOR PLAN ELEVATION 147'-0"

DATE: 5/19/77
 DRAWING NUMBER: H-25995
 SHEET NO: 10-502



NOTES
 * NO SHIELDING REQUIRED
 FOR NOTES SEE DRAWG NO. H-25993.

LEGEND

- ATD - AIR TIGHT DOOR
- CAB - CONTROLLED ACCESS BARRIER
- - SPACE NUMBER
- ◇ - DOOR NUMBER
- - RADIATION ZONE (ROMAN NUMERALS INSIDE CIRCLES)
- ⊙ - DENOTES FRISKER LOCATION

RADIATION ZONES * *

ZONE	DESIGN DOSE RATE (MR/HR)	GENERAL OCCUPANCY	NOTES
I	≤ 0.5	OFFICES, LABS MACHINE SHOPS	UNLIMITED
II	≤ 2.5	PASSAGES AND CONTROL PANELS	40 HRS/WK 3.5
III	≤ 15.0	SHORT TIME ACCESS AREAS	6 HRS/WK 3.4,5
IV	≤ 100.0	LIMITED ACCESS AREAS	1 HR/WK 3.4,5
V	> 100.0	RESTRICTED ACCESS AREAS	1" MIN/WK 3.4,5

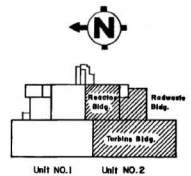
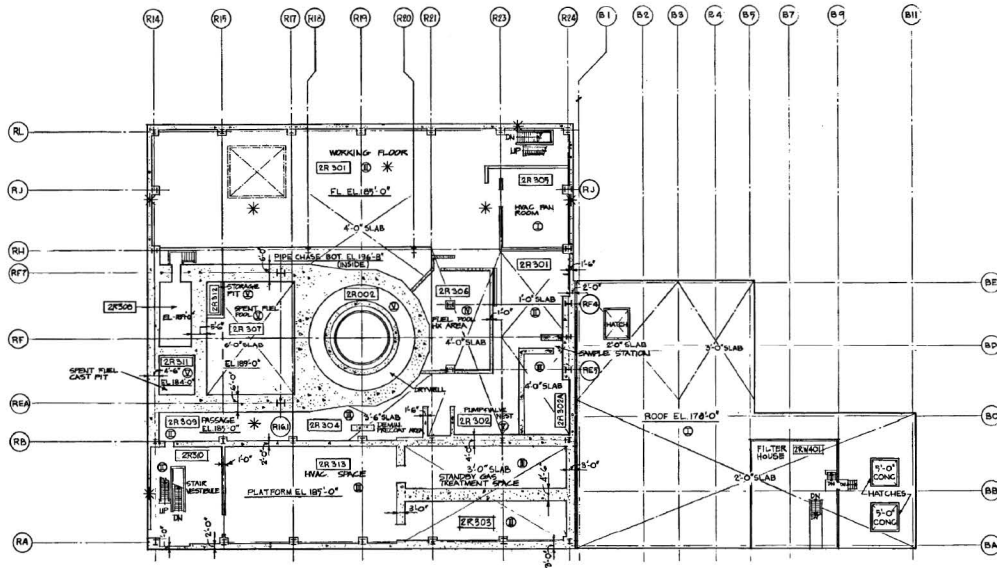
* * RADIATION ZONES SHOWN ARE THOSE USED IN PLANT DESIGN FOR ACCESS CONTROL PLANNING AND RADIATION SHIELDING. THEY ARE MAINTAINED FOR HISTORICAL CONTINUITY ONLY. GPC USES CURRENT REGULATORY TERMINOLOGY FOR AREA CLASSIFICATIONS. ALTHOUGH A ONE-TO-ONE CORRELATION DOES NOT EXIST, ALARA CONSIDERATIONS ARE NOT COMPROMISED.

ACAD H25996

BECHTEL ASSOCIATES
 JOB 6511
SOUTHERN SERVICES INC.
 FOR
 GEORGIA POWER CO., ATLANTA, GA.
 GENERAL ENGINEERING DEPARTMENT
 EDWIN I. HATCH NUCLEAR PLANT UNIT NO. 2
 FLOOR PLAN ELEVATION 108'-0"

REV. 4 DATE 5-19-97
 SCANNED, VERIFIED BY ARK...
 REVISED PER WH-0118.

NO.	DATE	DESCRIPTION	BY	CHECKED
1	5-19-97	SCANNED, VERIFIED BY ARK...	ARK	
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				



NOTES

* NO SHIELDING REQUIRED
 □ SPACE NUMBER

○ RADIATION ZONE (ROMAN NUMERALS INSIDE CIRCLE)

FOR NOTES SEE DRAWG NO. H-25995.

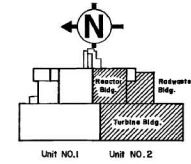
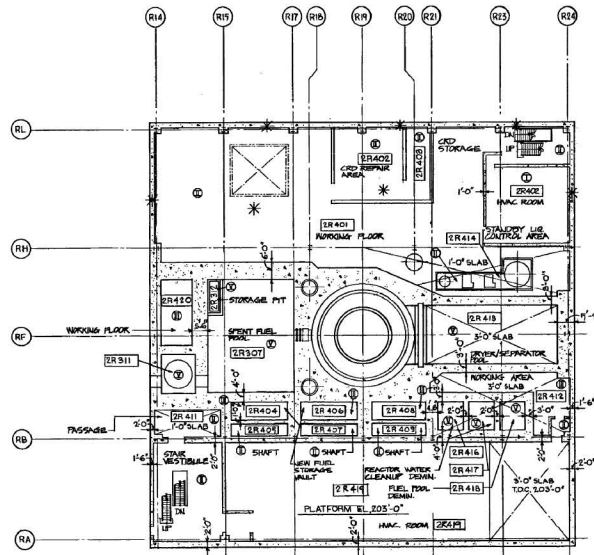
ZONE	DESIGN DOSE RATE (MR/HR)	GENERAL LOCATIONS	OCCUPANCY HOURS	NOTES
I	≤ 0.5	OFFICES, LABS, MACHINE SHOPS	UNLIMITED	
II	≤ 2.5	PASSAGES AND CONTROL PANELS	40 HRS/WK	5.5
III	≤ 15.0	SHORT TIME ACCESS AREAS	6 HRS/WK	3.4.5
IV	≤ 100.0	LIMITED ACCESS AREAS	1 HR/WK	3.4.5
V	> 100.0	RESTRICTED ACCESS AREAS	"X" MIN/WK	3.4.5

* RADIATION ZONES SHOWN ARE THOSE USED IN PLANT DESIGN FOR ACCESS CONTROL, PLANNING AND RADIATION SHIELDING. THEY ARE MAINTAINED FOR HISTORICAL CONTINUITY ONLY. GPC USES CURRENT REGULATORY TERMINOLOGY FOR AREA CLASSIFICATIONS, ALTHOUGH A ONE-TO-ONE CORRELATION DOES NOT EXIST, ALARA CONSIDERATIONS ARE NOT COMPROMISED.

ACAD H25997

RECENT ASSOCIATES JOB 8511
SOUTHERN SERVICES INC. FOR
GEORGIA POWER CO., ATLANTA, GA. GENERAL ENGINEERING DEPARTMENT
EDWIN I. HATCH NUCLEAR PLANT UNIT NO.2 SHIELDING FLOOR PLAN ELEVATION 185'-0"
DATE: 5/19/84 SCALE: 1/8" = 1'-0" DRAWING NUMBER: H-25997

REV. 3 DATE: 5/19/84
 CHECKED BY: [Signature]
 REV. KEY PLAN
 HATCH



NOTES

- * NO SHIELDING REQUIRED.
- SPACE NUMBER

○ RADIATION ZONE (ROMAN NUMERALS INSIDE CIRCLE)
 FOR NOTES SEE DRWG NO. H-25995

RADIATION ZONES **

ZONE	DESIGN DOSE RATE (MREM/HR)	GENERAL LOCATIONS	OCCUPANCY	NOTED DUTYLINES
I	≤ 0.5	OFFICES, LABS MACHINE ROOMS	UNLIMITED	
II	≤ 2.5	PASSAGES AND CONTROL PANELS	40 HRS/WK	3.5
III	≤ 15.0	SHORT TIME ACCESS AREAS	6 HRS/WK	3.4,5
IV	≤ 100.0	LIMITED ACCESS AREAS	1 HR/WK	3.4,5
V	> 100.0	RESTRICTED ACCESS AREAS	"X" MIN/WK	3.4,5

** RADIATION ZONES SHOWN ARE THOSE USED IN PLANT DESIGN FOR ACCESS CONTROL PLANNING AND RADIATION SHIELDING. THEY ARE MAINTAINED FOR HISTORICAL CONTINUITY ONLY. GPC USES CURRENT REGULATORY TERMINOLOGY FOR AREA CLASSIFICATIONS. ALTHOUGH A ONE-TO-ONE CORRELATION DOES NOT EXIST, ALARA CONSIDERATIONS ARE NOT COMPROMISED.

ACAD 1125998

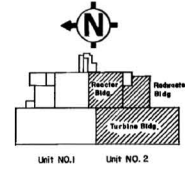
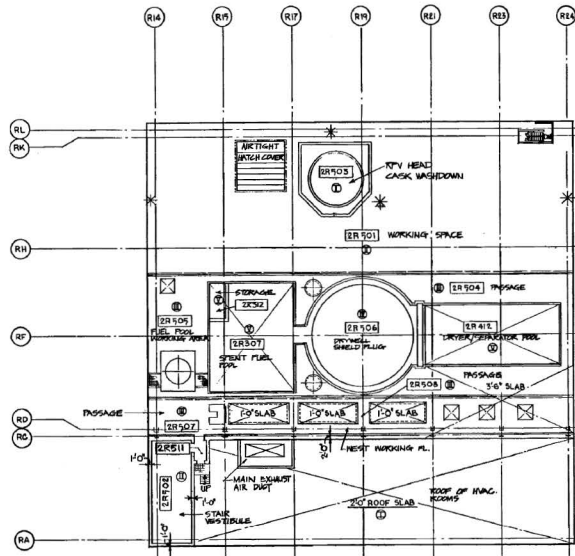
BECHTEL ASSOCIATES
 JOB 6511
SOUTHERN SERVICES INC.
 FOR
 GEORGIA POWER CO., ATLANTA, GA.
 GENERAL ENGINEERING DEPARTMENT
EDWIN I. HATCH NUCLEAR PLANT UNIT NO.2
FLOOR PLAN ELEVATION 203'-0"
SHIELDING

REV. 2 DATE 5/19/94
 SCANNED, VERIFIED BY JAR.
 REVISED PER MM-0118.

REV. KEY PLAN
HATCH

NO.	DATE	BY	CHKD.	APP'D.
1	11/14/88	J. H. HATCH	J. H. HATCH	J. H. HATCH
2	11/14/88	J. H. HATCH	J. H. HATCH	J. H. HATCH
3	11/14/88	J. H. HATCH	J. H. HATCH	J. H. HATCH
4	11/14/88	J. H. HATCH	J. H. HATCH	J. H. HATCH
5	11/14/88	J. H. HATCH	J. H. HATCH	J. H. HATCH
6	11/14/88	J. H. HATCH	J. H. HATCH	J. H. HATCH
7	11/14/88	J. H. HATCH	J. H. HATCH	J. H. HATCH
8	11/14/88	J. H. HATCH	J. H. HATCH	J. H. HATCH
9	11/14/88	J. H. HATCH	J. H. HATCH	J. H. HATCH
10	11/14/88	J. H. HATCH	J. H. HATCH	J. H. HATCH
11	11/14/88	J. H. HATCH	J. H. HATCH	J. H. HATCH
12	11/14/88	J. H. HATCH	J. H. HATCH	J. H. HATCH
13	11/14/88	J. H. HATCH	J. H. HATCH	J. H. HATCH

DRAWING NUMBER
 LOCATION
 10-502
 SHEET NO.
 H-25998



NOTES

* NO SHIELDING REQUIRED.

□ SPACE NUMBER

○ RADIATION ZONE (ROMAN NUMERALS INSIDE CIRCLE)

FOR NOTES SEE DRAW. NO. H-25999.

RADIATION ZONES **

ZONE (DESIGN DOSE RATE/HR/WT) LOCATIONS	GENERAL	OCCUPANCY NOTES
I ≤ 0.5	OFFICES, LABS MACHINE SHOPS PASSAGES AND CONTROL PANELS	UNLIMITED
II ≤ 2.5	SHORT TIME ACCESS AREAS	40 HR/WK 3.5
III ≤ 15.0	LIMITED ACCESS AREAS	6 HR/WK 3.4,5
IV ≤ 100.0	RESTRICTED ACCESS AREAS	1 HR/WK 3.4,5
V > 100.0	RESTRICTED ACCESS AREAS	* MIN/WK 3.4,5

** RADIATION ZONES SHOWN ARE THOSE USED IN PLANT DESIGN FOR ACCESS CONTROL PLANNING AND RADIATION SHIELDING. THEY ARE MAINTAINED FOR HISTORICAL CONTINUITY ONLY. CPC USES CURRENT REGULATORY TERMINOLOGY FOR AREA CLASSIFICATIONS. ALTHOUGH A ONE-TO-ONE CORRELATION DOES NOT EXIST, ALARA CONSIDERATIONS ARE NOT COMPROMISED.

ACAD H25999

DECTEL ASSOCIATES
JOB 6511

SOUTHERN SERVICES INC.
FOR

GEORGIA POWER CO., ATLANTA, GA.
GENERAL ENGINEERING DEPARTMENT

EDWIN I. HATCH NUCLEAR PLANT UNIT NO. 2
SHIELDING

FLOOR PLAN ELEVATION 228'-0"

REV. 3 DATE 5/9/97
SCANNED, VERIFIED BY JAK
REVISED PER MH-0118.

REV. KEY PLAN

HATCH

NO.	DATE	BY	CHKD.	SCALE	DATE
1	5/9/97	JAK	JAK	AS SHOWN	5/9/97
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					

DRAWING NUMBER
10-502
PROJECT NO.
H-29999

TABLE 4 (FOR TYP DETAIL B)

(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(K)	(L)
N127A	B-3	N697A	P927	N697C	P927	N697I	P927	F013A	F013B	F013L
N127B	C-3	N697B	P928	N697E	P928	N697K	P928	F013M	F013N	F013P
N127C	F-2	N697C	P927	N697F	P927	N697H	P927	F013Q	F013R	F013S
N127D	F-12	N697D	P928	N697G	P928	N697J	P928	F013T	F013U	F013V

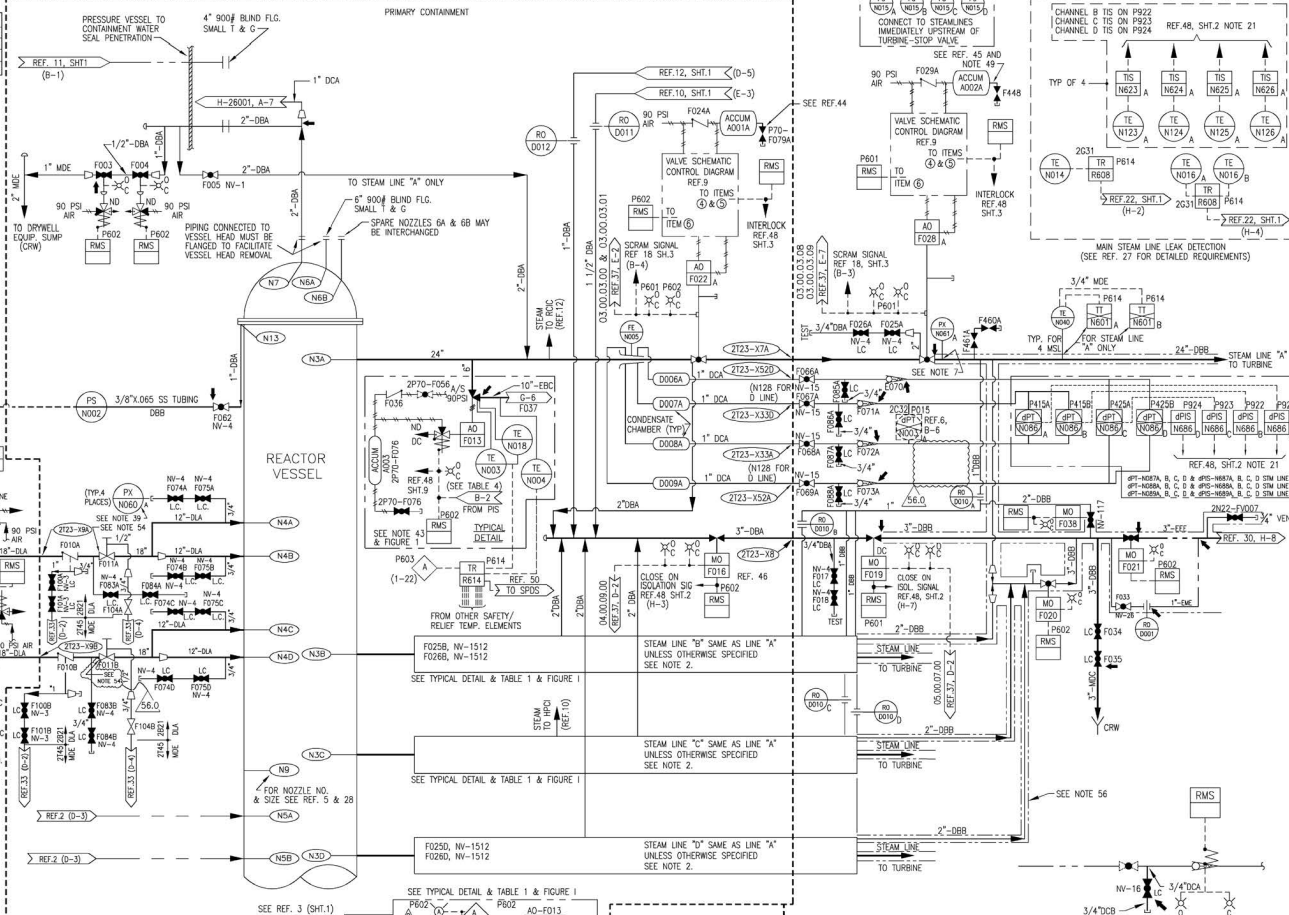
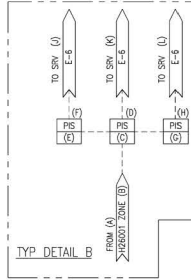


TABLE I
SAFETY/RELIEF VALVE SUFFIX ASSIGNMENT AND ASSOCIATED EQUIPMENT

SAFETY/RELIEF VALVE SUFFIX	A	B	C	D	E	F	G	H	K	L	M
ACTUATOR TYPE	ADS	LLS	ADS	LLS	ADS	LLS	LLS	ADS	ADS	ADS	STG
CONTROL PROVIDED IN REMOTE SHUTDOWN SYSTEM (REF 21)	NO	YES	NO	NO	NO	YES	NO	NO	NO	NO	NO
VALVE PILOT STAGE TEMP. ELEM. (DUPLICATE ELEMENT)	N003	AA	BA	CA	DA	EA	FA	GA	HA	KA	LA
VALVE 2ND STAGE TEMP. ELEM.	N016	A	B	C	D	E	F	G	H	K	L
VACUUM BREAKER	F110	-	B	-	D	-	F	G	-	-	-
COMPUTER INPUT NO. FOR PRESSURE SWITCH	N301	C1580	C1581	C1582	C1583	C1584	C1585	C1586	C1587	C1588	C1589

TABLE III
STEAM ISOLATION VALVE EFCV

STEAM ISOLATION VALVE	EFCV
F066A	F070A
F067A	F071A
F068A	F072A
F069A	F073A
F066B	F070B
F067B	F071B
F068B	F072B
F069B	F073B
F066C	F070C
F067C	F071C
F068C	F072C
F069C	F073C
F066D	F070D
F067D	F071D
F068D	F072D
F069D	F073D

NOTES

1. FOR GENERAL NOTES - SEE DRAWING H-26189

WORK THIS DWG WITH H-26001 & H-26189

REFERENCES

- CONTROL ROD DRIVE HYDRAULIC SYS PAD SHT 1 2C11-1010 H-26006
- CORE SPRAY SYSTEM PAD SHT 2 2E11-1010 H-26007
- REACTOR REDUCULATION SYS PAD SHT 2 2B31-1010 H-26003
- PIPING & INSTRUMENT SYMBOLS A42-1010 H-26004
- REACTOR VESSEL PURCHASE PART DWG. 2C11-1001 S-25020-24
- FEEDWATER CONTROL SYSTEM IED 2C32-1010 H-26991
- NEUTRON MONITORING SYS IED 2C51-1010 H-26992
- STANDY LIQUID CONTROL SYS PAD 2C41-1010 H-26009
- ISOLATION VALVE PURCH PART DWG. 2B21-F028 H-26002
- HPO SYSTEM PAD SHT 1 2E41-1010 H-26000
- RHR SYSTEM PAD SHT 1 2E11-1010 H-26014
- RIC SYSTEM PAD SHT 1 2E51-1010 H-26015
- HPO SYSTEM FCD SHT 2 2E41-1030 H-24742-49
- RIC SYSTEM FCD SHT 1-4 2E51-1030 S-26100, 1-2 & 3
- DELETED 2E21-1030 S-26097
- CORE SPRAY SYSTEM FCD 2C71-1010 H-24728
- REACTOR PROTECTION SYSTEM IED 2C71-1010 H-24728
- PROCESS INSTRUMENT PIPING & TUBING INSTALL SPECIFICATION 2A61-4070 S-25223
- PLANT REQUIREMENTS 2A61-4020 S-25706
- REACTOR REDUCULATION SYSTEM FCD 2B31-1020 H-26036
- REACTOR WATER CLEANUP SYSTEM PAD SHT 2 2E31-1010 H-26037
- PRESSURE INTEGRITY OF PIPING & EQUIPMENT REQUIREMENTS 2A61-4030 S-25112
- NUCLEAR BOILER SYSTEM PROCESS DWG 2B21-1020 S-25068
- NUCLEAR BOILER SYSTEM DESIGN SPEC. 2B21-4020 S-25213
- FEEDWATER CONTROL SYSTEM DESIGN SPEC. 2C32-4010 S-25321
- NUCLEAR BOILER LEAK DETECTION DESIGN SPEC. 2A61-4040 S-25280
- REACTOR SYSTEM OUTLINE 2A61-2050 S-25045
- CNS & F.W. SYSTEM 2B21-1010 H-21028
- TURBINE BELLOWS RFP TURBINE DRAWS PAD 2B22-1010 H-21031
- REMOTE SHUTDOWN SYS. IED SHT 1-5 2B22-1010 S-28846-50
- DELETED 2B22-1010 H-26077
- EQUIP. & VALV DRAINAGE PAD 2145-1030 H-26284
- CLASS E ANALOG SIGNAL CONVERSION/REGULATION SYS. IED 2X75-1010 H-26284
- DELETED
- DELETED
- DIGITAL INPUT SIGNALS TO THE SPOS/ERF COMPUTER SYS. IED SH 1 2X75-1010 H-26163
- NUCLEAR BOILER SYS. PAD SH 2 2B21-1010 H-26001
- NUCLEAR BOILER SYS. PAD SH 3 2B21-1010 H-26188
- POST ACCIDENT REACTOR COOLANT AND CONTAINMENT SYSTEM IED SH 1 2B21-1010 H-26084
- REACTOR ASSEMBLY SHT. 1 2B11-2010 S-28220-25
- CLASS E DIVISION 1 SIGNAL CONVERSION/REGULATION SYS. IED 2X75-1010 H-26285
- CLASS E DIVISION 2 ANALOG SIGNAL CONVERSION/REGULATION SYS. IED 2X75-1010 H-26286
- DRYWELL PNEUMATIC SYS. IED H-28023
- REACTOR BLDG NORTH SIDE NON-INTERRUPTIBLE INSTRUMENT AIR 2E02-0107 H-26070
- PENETRATION X-8 22" NOM. DIA. CLAMHELL BELLOWS - DETAIL H-52394
- SPOS/ERF I/O LIST H-52395
- NUCLEAR BOILER SYSTEM LOGIC DIAGRAM SHT. 1-12 2B21-1030 H-24701-12
- RESIDUAL HEAT REMOVAL SYSTEM LOGIC DIAGRAM SHT. 1-7 2E11-1030 H-24732-38
- ERF/SPOS BLOCK DIAGRAM 2X75-1010 H-26191

THIS DWG. DEVELOPED FROM G.E. DWG. NO. 761E250BA REV. LTR SHT 1

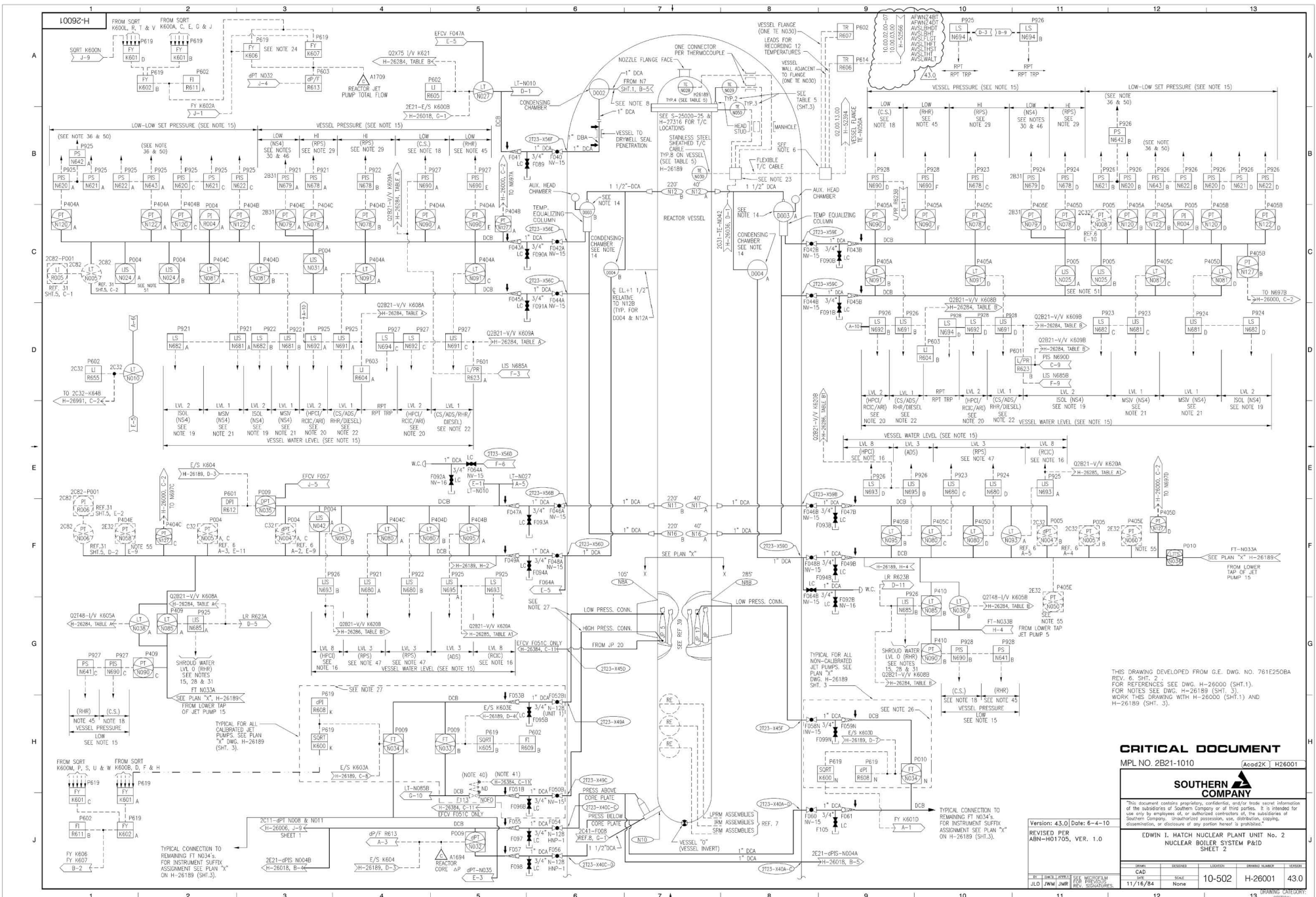
CRITICAL DOCUMENT
MPL NO. 2B21-1010 (ACAD2000) H26000



EDWIN I. HATCH NUCLEAR PLANT UNIT No. 2
NUCLEAR BOILER SYSTEM P&ID
SHEET 1

Version: 56.0 Date: 4/28/20
REVISED PER:
SN1043522001, VER. 1.0
SN1043161002, VER. 1.0

DATE	ISSUED	LOCATION	DRAWING NUMBER	VERSION
W/B	SSG		H-26000	56.0
11-11-72	None			



THIS DRAWING DEVELOPED FROM G.E. DWG. NO. 761E250BA REV. B, SHT. 2.
 FOR REFERENCE SEE DWG. H-26000 (SHT.1).
 FOR NOTES SEE DWG. H-26189 (SHT. 3).
 WORK THIS DRAWING WITH H-26000 (SHT.1) AND H-26189 (SHT. 3).

CRITICAL DOCUMENT
 MPL NO. 2B21-1010 Accad2K H26001

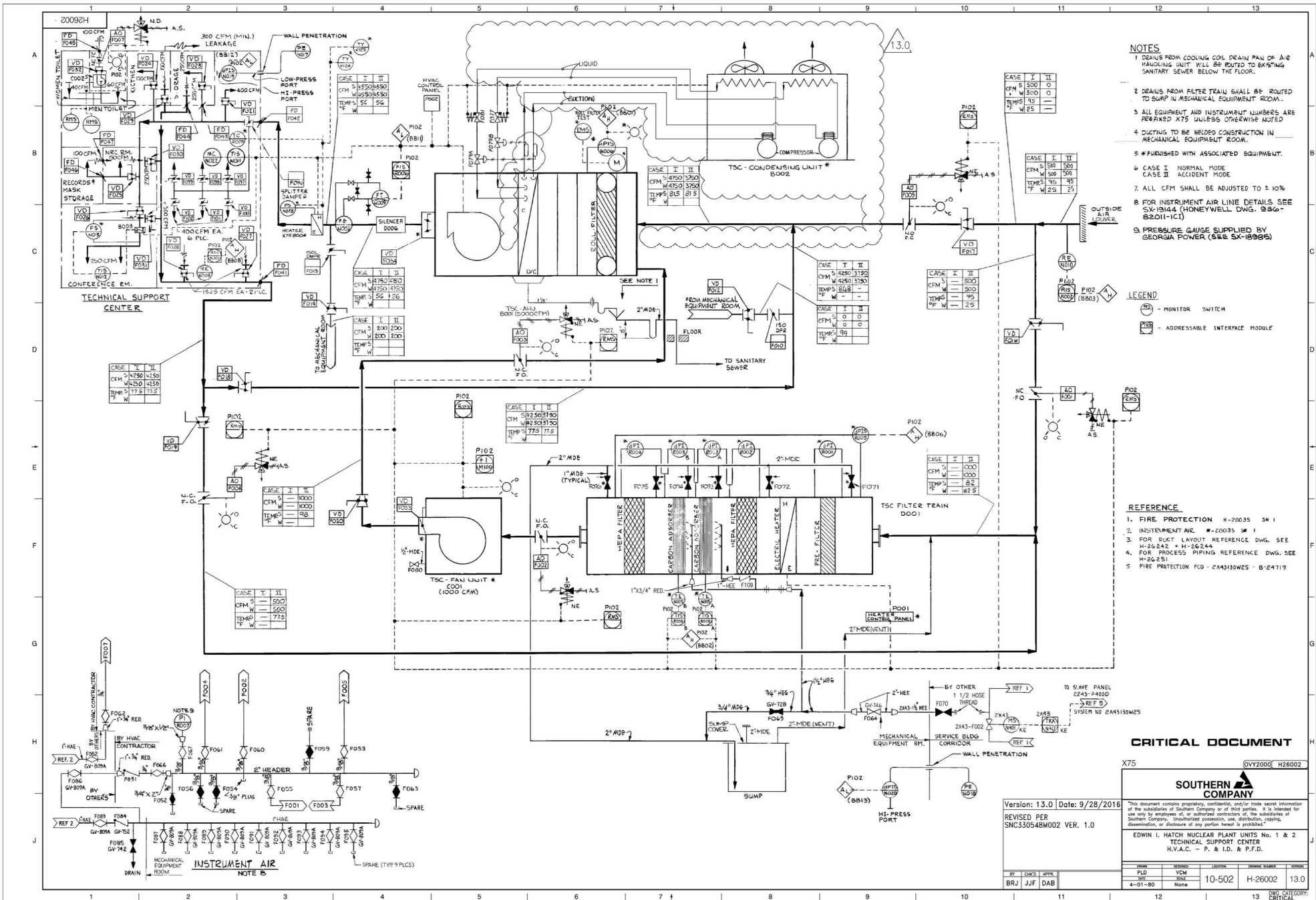


EDWIN I. HATCH NUCLEAR PLANT UNIT No. 2
 NUCLEAR BOILER SYSTEM P&ID
 SHEET 2

Version: 4.3.0 Date: 6-4-10
 REVISED PER AEN-H01705, VER. 1.0

NO.	DATE	BY	CHKD	LOCATED	ISSUED	REVISION
1	11/16/84	JLD	JMW	None	10-502	H-26001 43.0

DRAWING CATEGORY: CRITICAL



- NOTES**
- 1 DRAINS FROM COOLING COIL DRAIN PAN OF A/B HANDLING UNIT WILL BE ROUTED TO EXISTING SANITARY SEWER BELOW THE FLOOR.
 - 2 DRAINS FROM FILTER TRAIN SHALL BE ROUTED TO SUMP IN MECHANICAL EQUIPMENT ROOM.
 - 3 ALL EQUIPMENT AND INSTRUMENT NUMBERS ARE PREFIXED X75 UNLESS OTHERWISE NOTED.
 - 4 DUCTING TO BE WELDED CONSTRUCTION IN MECHANICAL EQUIPMENT ROOM.
 - 5 # FURNISHED WITH ASSOCIATED EQUIPMENT.
 - 6 CASE I NORMAL MODE
CASE II ACCIDENT MODE
 - 7 ALL CFM SHALL BE ADJUSTED TO ± 10%
 - 8 FOR INSTRUMENT AIR LINE DETAILS SEE SX-19144 (HONEYWELL DWG. 986-8201-1G1)
 - 9 PRESSURE GAUGE SUPPLIED BY GEORGIA POWER (SEE SX-19095)

- LEGEND**
- MS - MONITOR SWITCH
 - AIM - ADDRESSABLE INTERFACE MODULE

- REFERENCE**
1. FIRE PROTECTION H-20035 SM 1
 2. INSTRUMENT AIR H-20035 SM 1
 3. FOR DUCT LAYOUT REFERENCE DWG. SEE H-24242 & H-26244
 4. FOR PROCESS PIPING REFERENCE DWG. SEE H-26251
 5. FIRE PROTECTION FCD - 2X4319W25 - B-24719

CRITICAL DOCUMENT

X75		GVY2000 H26002	
SOUTHERN NUCLEAR COMPANY			
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EDWIN I. HATCH NUCLEAR PLANT UNITS No. 1 & 2 H.V.A.C. - P. & I.D. & P.F.D.			
DATE	DESIGNED	ISSUED	ISSUE NUMBER
P.L.D.	YCM		
REV	NO.		
4-01-80	None	10-502	H-26002 13.0
BY	CHKD	APPR.	
BRJ	JJF	DAB	

Version: 13.0 Date: 9/28/2016
 REVISED PER
 SNC330548M002 VER. 1.0

IMP. CATEGORY: CRITICAL

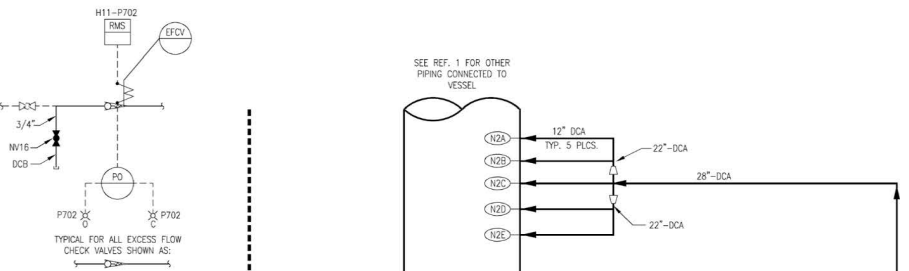


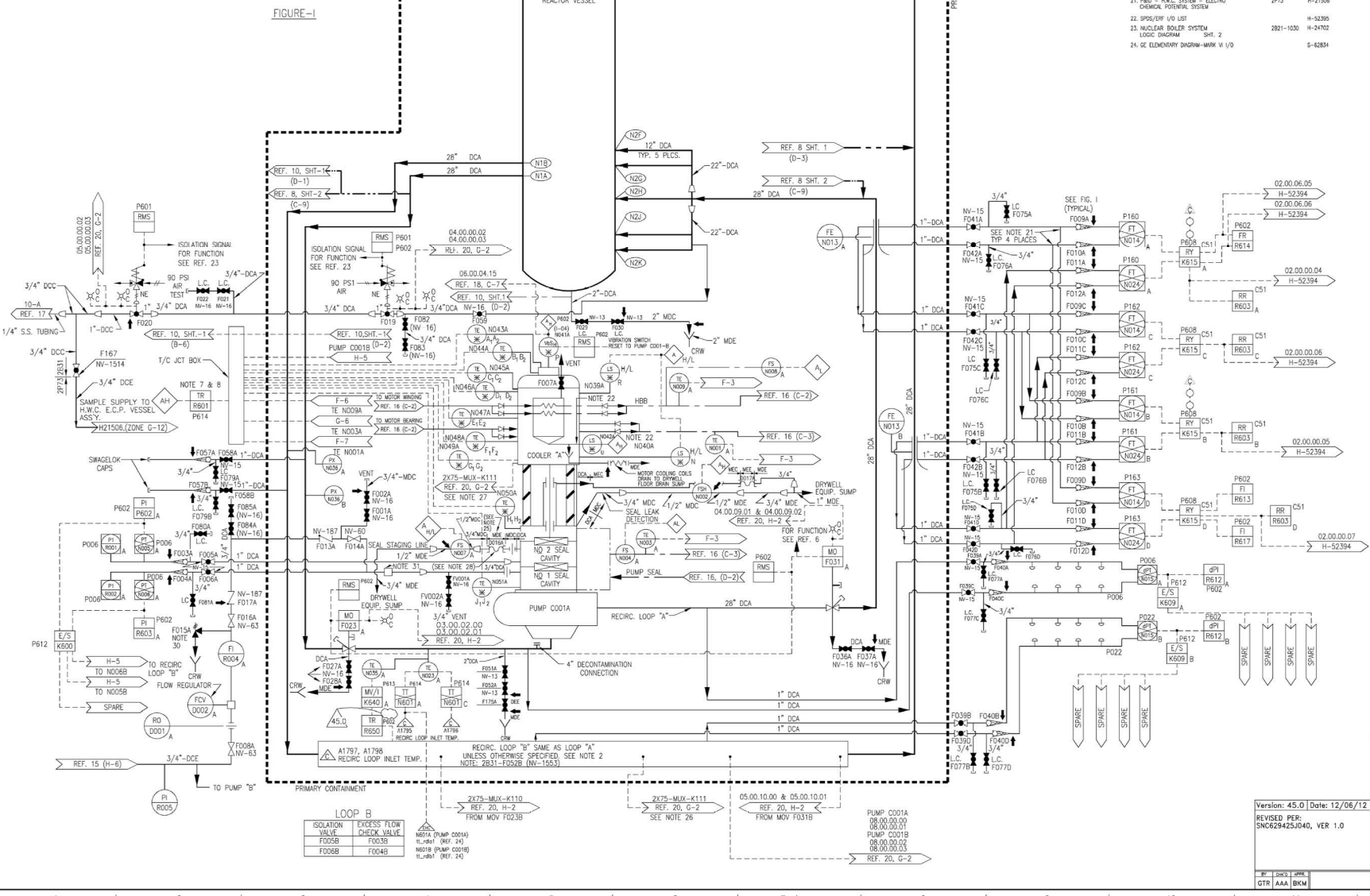
FIGURE-1

REFERENCES:

1. NUCLEAR BOILER SYSTEM P&ID	2821-1010	H-2600	
2. DELETED			
3. DELETED			
4. REHEIMER CONTROL SYSTEM (E)	2232-1010	H-2600	
5. NEUTRON MONITORING SYSTEM (E)	2232-1010	H-2600	
6. REACTOR RECIRCULATION SYSTEM (E)	2831-1010	H-2600	
7. REACTOR RECIRCULATION SYSTEM DES. SPEC.	2831-4010	S25215	
8. RESIDUAL HEAT REMOVAL SYSTEM P&ID	2831-1010	H-2600	
9. REACTOR RECIRCULATION SYSTEM P&ID	2831-1010	H-2600	
10. REACTOR WATER CLEAN-UP SYSTEM P&ID	2831-1010	H-2600	
11. P&ID AND INSTRUMENT SYMBOLS	2481-4030	S25212	
12. PRESSURE AND INSTRUMENT SYMBOLS	2481-4030	S25212	
13. PROCESS INSTRUMENT OF PIPING AND TUBING REGULATION SPECIFICATION	2481-4070	S25233	
14. RADWAST SYSTEM P&ID	SHTS 1-7	H-2600	
15. DCS SYSTEM P&ID	SHTS 1-7	H-2600	
16. REAC. BLOC. C.W. SYS. P&ID	SHTS 2	2942-1010	H-2600
17. SMOGGING SYS. P&ID & P.F.D.	SHTS 2	2942-2010	H-2600
18. ANNUNCIATOR SIGNALS TO I.S.C. (E.D.)	2835-1010	H-26159	
19. DELETED			
20. DIGITAL INPUT SIGNALS TO THE SPOS/REF. COMPUTER SYSTEM (E.D.)	2875-1010	H-26163	
21. P&ID - W.M.C. SYSTEM - ELECTRO-CHEMICAL POTENTIAL SYSTEM	2973	H-21508	
22. SPOS/REF I/O LIST		H-52395	
23. NUCLEAR BOILER SYSTEM P&ID	2821-1010	H-2600	
24. G.E. ELEMENTARY DIAGRAM-MARK V I/O		S-62834	

- NOTES:
1. ALL EQUIPMENT AND INSTRUMENTS ARE PREFIXED BY SYSTEM NO. 2831 UNLESS OTHERWISE NOTED.
 2. RECIRCULATION LOOP ENCLOSED IN BOX SHALL HAVE PART NUMBERS CORRESPONDING TO ITS RESPECTIVE LINE OR LOOP NUMBER UNLESS OTHERWISE NOTED.
EXAMPLE: VALVE IS ON LINE 4.
 3. INSTRUMENT LINE VALVING MUST COMPLY WITH INSTRUMENT PIPING STANDARDS REF. 13.
 4. DELETED.
 5. WHERE O.V.-NUMBERS ARE USED, THE VALVES WILL BE TAGGED WITH THESE NUMBERS; WHERE O.V.-NUMBERS ARE NOT USED, THE VALVES WILL BE TAGGED WITH THE M.F. NUMBERS.
 6. CLOSED COOLING WATER SYSTEM TO AND FROM THE RECIRCULATION PUMP SHALL BE CAPABLE OF CONTINUOUS OPERATION DURING PERIODS OF ORNWELL ISOLATION.
 7. WHERE THERMOCOUPLES FOR PUMP & MOTORS ARE DESIGNATED AT 1, A2, ETC., THIS IS A SPARE ELEMENT; SEE NOTE 32.
 8. LIST OF PUMP & MOTOR AUXILIARY INSTRUMENTATION:

TE/A, A	- THRUST BEARING UPPER FACE
TE/B, B	- THRUST BEARING LOWER FACE
TE/C, C	- UPPER BEARING MIDDLE
TE/D, D	- MOTOR WINDING "A"
TE/E, E	- MOTOR WINDING "B"
TE/F, F	- MOTOR WINDING "C" - SEE NOTE 32
TE/G, G	- LOWER GUIDE BEARING
TE/H, H	- No. 1 SEAL CAVITY
TE/A, A	- No. 2 SEAL CAVITY
TE/I, I	- MOTOR BEARING COOLING WATER DISCHARGE
TE/J, J	- SEAL CHITTY COOLING WATER DISCHARGE
TE/K, K	- MOTOR LOWER BEARING OIL LOW LEVEL SWITCH
TE/L, L	- MOTOR WINDING SWITCH
U/L, U	- MOTOR UPPER BEARING OIL HIGH LEVEL SWITCH
L/L, L	- MOTOR UPPER BEARING OIL LOW LEVEL SWITCH
F3 NOOK	- PUMP SEAL COOLING WATER LOW FLOW SWITCH
F4 NOOK	- MOTOR WINDING COOLING WATER
 9. ALL THERMOCOUPLES ARE TO BE WIRED OUT THROUGH ORNWELL TO T/O JUNCTION BOX.
 10. ALL MOTOR OPERATED AND AIR OPERATED GLOBE VALVES ARE AC UNLESS OTHERWISE NOTED.
 11. DELETED.
 - 11.1. ADD PROTECTIVE RELAYS & METERING SHALL BE MOUNTED ON THE 4KV SWITCHGEAR CUBICLE AND ADD RELAY PANEL.
 12. DELETED.
 - 12.1. THIS TYPE OF BLOCK REPRESENTS A PREFERRED CONDITION WHEN THE CONDITIONS INSIDE THEM ARE SATISFIED.
 13. THIS LAMPER BYPASS IS FOR PUMP NPSH PROTECTION. BOTH OPENING & CLOSING THIS BYPASS SHALL BE TIMED DELAYED 15 SECONDS.
 14. THE WATER CONTROL CAN SYSTEM IS CAPABLE OF AUTO-AUTOMATIC SET POINT ADJUSTMENT FOR SET POINT RESPONSE TO LOAD CHANGE; ALL THERMOCOUPLES ARE TO BE WIRED OUT THROUGH ORNWELL TO T/O JUNCTION BOX.
 - 14.1. DELETED.
 15. THESE SPEED LIMITERS RESTRICT RECIRCULATION FLOW. IF ANY FLOW LIMITER PUMP IS NOT RUNNING AND THE LEVEL IN THE REACTOR VESSEL IS BELOW THE LOW LEVEL ALARM POINT.
 16. THE LOCATION AND IDENTIFICATION OF INSTRUMENTS SEE INSTRUMENT DATA SHEETS IN MFL FOR EACH INSTRUMENT.
 17. THE DESIGN PRESSURE AND TEMPERATURE RATINGS FOR THE DIRECT PIPING AND EQUIP. ARE SHOWN IN APPLICABLE PROCESS DATA OF REF. 9.
 18. DELETED.
 19. LOCATE BRANCH CONNECTION AS CLOSE AS POSSIBLE AFTER THE GLOBE VALVE. THE EXCESS FLOW CHECK VALVES ARE TO BE INSTALLED AS CLOSE AS POSSIBLE AFTER THE BRANCH CONNECTION.
 20. DELETED.
 21. A LEVEL SWITCH IS SUPPLIED WITH EACH COOLER TO DETECT COOLING WATER LEAKAGE OR CONDENSATE BUILD-UP IN THE COOLER HOUSING.
 22. CLOSED COOLING WATER TO MOTOR BEARINGS IS TO SERVE BOTH UPPER MOTOR BEARING AND LOWER MOTOR BEARING. THE RETURN FLOWS ARE ZONED UPSTREAM OF THE TEMPERATURE ELEMENTS.
 23. SPECIFICATION CHANGE AT TOP OF REDUCER (NEW) MUST BE AFFIXED WITH EXCEEDED PIPING.
 24. PER KELLOGG BGG 2821-725 THRU 735 THE "M" CODE PORTION OF SEAL LEAK DETECTOR PIPING WAS CHANGED FROM PANEL 2820-0005 (P. 5) TO 2820-0007 (P. 5).
 25. DELETED.
 26. DELETED.
 27. FOR PUMP CO01A THE DIGITAL "ON-OFF" SIGNAL INPUT TO THE FLOW COMPUTER IS TAKEN FROM RELAY PANEL 2822-0001. FOR PUMP CO01B THE DIGITAL "ON-OFF" SIGNAL INPUT TO THE FLOW COMPUTER IS TAKEN FROM RELAY PANEL 2820-0005 (P. 5).
 28. SEAL STAGING LINE FLEX HOSE ON PUMP "B" CHANGE FROM 3/4" MDE TO 1" MDE.
 29. O DENOTES FIBER OPTIC CONNECTIONS.
 30. DELETED.
 31. RELIEF VALVES 2831-F051A & B ARE INSTALLED WITH PHASE FACE STYLE FLANGES PER TMR 05-0025.
 32. SEE 28-2412 SHEET 146 FOR ORifice COUPLING INFO.
 33. DCE 300-0430 DOCUMENTS THAT THE (T/F) THERMOCOUPLES FOR THE "C" PHASE WINDING WAS FINALLY FOR REACTOR RECIRCULATION PUMP 2831-C001B. SERIAL # K08043A. THE "C" PHASE WINDING (T/F) WILL BE UTILIZED.



CRITICAL DOCUMENT

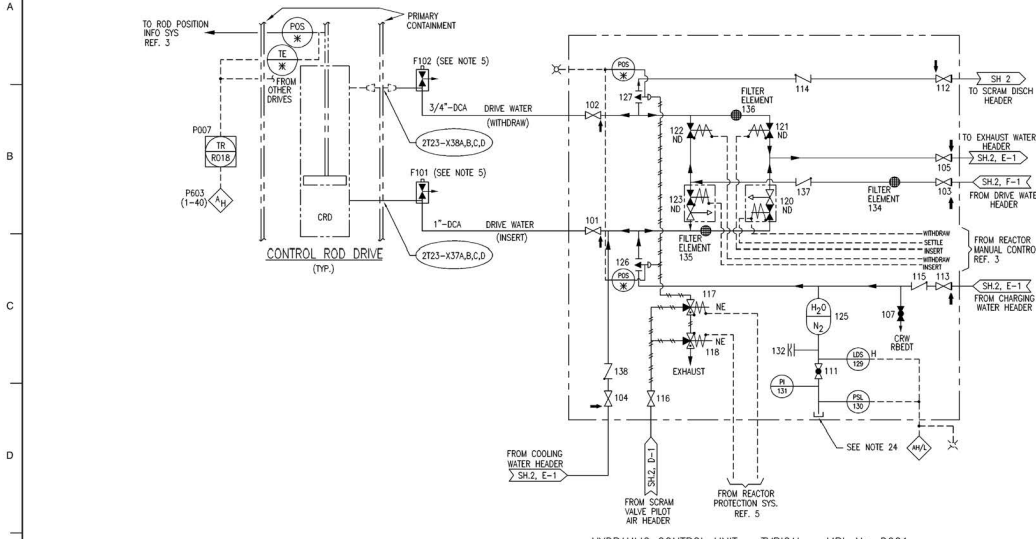
MPL No. 2B31-1010 (ACAD) 2013 H26003



EDWIN I. HATCH NUCLEAR PLANT UNIT No.2 REACTOR RECIRCULATION SYSTEM P&ID SHEET No. 1

Version: 45.0 Date: 12/06/12
REVISD PER: SNC62425040, VER 1.0

ISSUED	REVISION	LOCATION	DATE	BY
WJB	D.d		10-502	H-26003
1-19-72	None			45.0



HYDRAULIC CONTROL UNIT - TYPICAL - MPL No. 0001
(HCU PART NUMBERS FOR INFORMATION ONLY)

REFERENCES

1. NUCLEAR BOILER SYSTEM P&ID	SHT 1	MPL NO.	SSI NO.
2. C.R.D. HD. SYSTEM P.F.D.	SHT 2	2821-1010	H26000
3. C.R.D. HD. SYSTEM F.C.D.		2011-1000	S25311
4. C.R.D. HD. SYS. DESIGN SPEC.		2011-1030	S25288
5. REACTOR PROTECTION SYSTEM IED		SS-2102-129	
6. PIPING & INSTRUMENT SYMBOLS		2071-1010	H24728-B-51
7. PROCESS INSTRUMENT PIPING AND TUBING SPEC.		441-1010	S26270
8. PRESSURE INTEGRITY OF PIPING AND EQUIPMENT PRESSURE PARTS		2461-4070	S25323
9. REACTOR REIRC. SYSTEM P&ID	SHT. 1	2461-4030	S25112
	SHT. 2	2831-1010	H-26003
	SHT. 3	H-26004	H-26005
	SHT. 4	H-26006	H-26046
11. REACTOR & RADWASTE BLDG. COND. STORAGE & TRANSFER SYS. DIA.		2P42-1010	H-26055
12. REACTOR BLDG. CLOSED COOLING WATER		2P21-1010	H-26047
13. DEMIN. WATER SYS P&ID		2011-1010	H-26026
14. RADWASTE SYS. P&ID		2E41-1010	H-26020
15. HPCI SYS. P&ID	SHT. 1	H-26021	
	SHT. 2	H-27499	
16. REACTOR MANUAL CONTROL SYSTEM P&ID	SHT. 1	2011-1040	H-26021
17. REACTOR WATER CLEAN-UP SYSTEM P&ID	SHT. 1	2631-1010	H-26036
18. CONDENSATE & F.W. SYSTEM	SHT. 1	2N21-1010	H-21037
19. DIGITAL INPUT SIGNALS TO THE SPDS/ERF COMPUTER SYSTEM I.E.D.		2X75-1010	H-26163
20. DIGITAL INPUT SIGNALS TO THE SPDS/ERF COMPUTER SYSTEM I.E.D. SHEET 2 OF 15		2X75-1010	H-26164
21. REACTOR BUILDING SOUTH SIDE INTERRUPTIBLE INST. P&ID	SHT. 1	H-26060	

LEGEND

	CHECK VALVE W/ORIFICE
	SOLENOID OPERATED VALVE WITH BUILT-IN FLOW CONTROL
	BLOCK TYPE NEEDLE VENT VALVE (ANGLE PATTERN)
C/A	CONTROL AMPLIFIER
CON	CONTROLLER
LES	LEAKAGE DETECTOR SWITCH
PR	REACTOR PRESSURE
RWM	ROD WORTH MINIMIZER

- NOTES:
- ALL EQUIPMENT AND INSTRUMENTS ARE PREFIXED BY SYSTEM NUMBER UNLESS OTHERWISE NOTED.
 - VALVE F007A-A CLOSED ON DRIVE INSERT SIGNAL. VALVE F007A-B CLOSURES ON DRIVE WITHDRAW SIGNAL, BUT DOES NOT STAY CLOSED DURING SETTLING (F-5).
 - REACTOR PRESSURE SENSING LINE SENSES PR (A-2) & (J-4).
 - STAB. VALVE F007B IS AN ALTERNATE FOR STAB. VALVE F007A (G-5).
 - PROVIDE VENT VALVES WITH CAP ON DISCHARGE SIDE AT ALL SYSTEM HIGH POINTS.
 - PROVIDE DRAIN VALVES WITH CAP ON DISCHARGE SIDE AT ALL SYSTEM LOW POINTS.
 - PROVIDED FOR SYSTEM FLUSHING (F&G-5).
 - AVAILABLE FOR TEMPORARY CONNECTION FOR INSTRUMENT FLUSHING NO PERMANENT PIPING CONNECTIONS TO BE MADE TO THIS VALVE (G-2).
 - C & D NITROGEN AND AIR LINES SHALL BE OF A NON-CORRODING MATERIAL.
 - SCRAM DISCHARGE VOLUME SHOWN FOR REFERENCE ONLY. SEE CRD DESIGN SPEC. (REF. 4) FOR REQUIREMENT.
 - SYSTEM DESIGN IS SHOWN FOR 137 CONTROL ROD DRIVES.
 - EXCEPT AT POINTS OF CONNECTION WITH APED SUPPLIED EQUIPMENT, THE PIPING SUPPLIED BY OTHERS SHALL BE RESIZED BY OTHERS IF NECESSARY, DUE TO THE PIPING ARRANGEMENT BY OTHERS, TO COMPLY WITH THE APED SYSTEM PROCESS DIAGRAM AND SYSTEM DESIGN SPECIFICATION.
 - FOR LOCATION AND IDENTIFICATION OF INSTRUMENTS SEE THE INSTRUMENT DATA SHEETS LISTED IN THE MPL FOR EACH INSTRUMENT.
 - DELETED.
 - MULTIPLE ORIFICES CONNECTED IN SERIES: SEE MPL FOR QUANTITY OF ORIFICES REQUIRED. VALVE F034 SUPPLEMENTS THE ORIFICES FOR THE REQUIRED PRESSURE DROP FOR FLOW.
 - OPERATION OF SYSTEM WITH VALVE F117 OPEN MAY DEFEAT CRDHS LOW SUCTION PRESSURE TRIP PROTECTION. SPECIAL OPERATOR ATTENTION IS REQUIRED WHEN EITHER PUMP IS OPERATED IN COMBINATION WITH OTHER PUMP SUCTION FILTER.
 - ALL INSTRUMENTATION WILL BE SUPPLIED BY SYSTEM AND EQUIPMENT VENDORS.
 - FOR PIPE SPECIFICATIONS OF CLASS JDD PIPING, SEE A-21000.
 - INSTALL VALVE 2C11-F147 AND THE FLUSH CONNECTION AS CLOSE TO TEE AS POSSIBLE.
 - SOLENOID VALVE F040 COILS HAVE TIME DELAY RELAY SO THAT THE OUTBOARD VENT AND DRAIN VALVES (F035 A+B, F037) FULLY CLOSE AT LEAST FIVE (5) SECONDS AFTER EACH RESPECTIVE INBOARD VENT AND DRAIN VALVE (F010 A+B, F011) FULLY CLOSE DURING A FULL CORE SCRAM. ALL VALVES MUST BE FULLY CLOSED IN LESS THAN SIXTY (60) SECONDS.
 - SOLENOID VALVE F009 COILS HAVE TIME DELAY RELAY SO THAT THE INBOARD VENT AND DRAIN VALVES (F010 A+B, F011) START TO OPEN AT LEAST FIVE (5) SECONDS AFTER EACH RESPECTIVE OUTBOARD VENT AND DRAIN VALVE (F035 A+B, F037) UPON RESET OF A FULL CORE SCRAM.
 - VALVES F009 AND F040 ARE DUAL COIL SOLENOID OPERATED QUICK EXHAUST VALVES. EACH VALVE CONSISTS OF A DUAL COIL 3-WAY SOLENOID OPERATED VALVE AND A 3-WAY QUICK EXHAUST VALVE. WHEN BOTH COILS FOR A GIVEN SOLENOID VALVE ARE DEENERGIZED, AIR IS SUPPLIED FROM THE INLET PORT OF THE QUICK EXHAUST VALVE. THIS CAUSES THE QUICK EXHAUST VALVE TO SHUT, THEREBY VENTING AIR VIA LARGE PORTS FROM THE ASSOCIATED VENT AND DRAIN VALVES (F010 A+B, F011, F035 A+B, F037). WHEN EITHER COIL IS ENERGIZED, AIR IS SUPPLIED TO THE VENT AND DRAIN VALVES VIA THE SOLENOID VALVE AND A BLEED HOLE IN THE QUICK EXHAUST VALVE DIAPHRAGM.
 - THESE SWITCHES SERVE AS POWER DISCONNECT SWITCHES AND ARE LOCATED IN THE M&S SET ROOM. THIS PROVIDES OPERATOR CAPABILITY TO DEENERGIZE F040 COILS IN CASE OF FIRE.
 - ACCUMULATORS CHARGED WITH NITROGEN FROM PORTABLE N₂ CHARGING CART.
 - DELETED.
 - VALVE F005 IS NORMALLY CLOSED. THIS VALVE IS OPENED ONLY WHEN OPERATIONS WANTS TO DIRECT FLOW TO THE REACTOR VIA THE RWCU SYSTEM.
 - WHEN SCRAM DISCHARGE VOLUME (SDV) VENT & DRAIN TEST VALVE (2C11-F050) IS USED FOR TESTING, THE SDV VENT & DRAIN VALVES (2C11-F010 A+B, F011, F035 A+B, & F037) WILL NOT CLOSE AND OPEN IN SEQUENCE SPECIFIED IN NOTES 20 AND 21.

THIS DWG. DEVELOPED FROM G.E. DWG. NO. 197R5888A (S-25313) SH. NO. 1 REV.2

CRITICAL DOCUMENT

MPL NO. 2C11-1010 Acad2K H26006



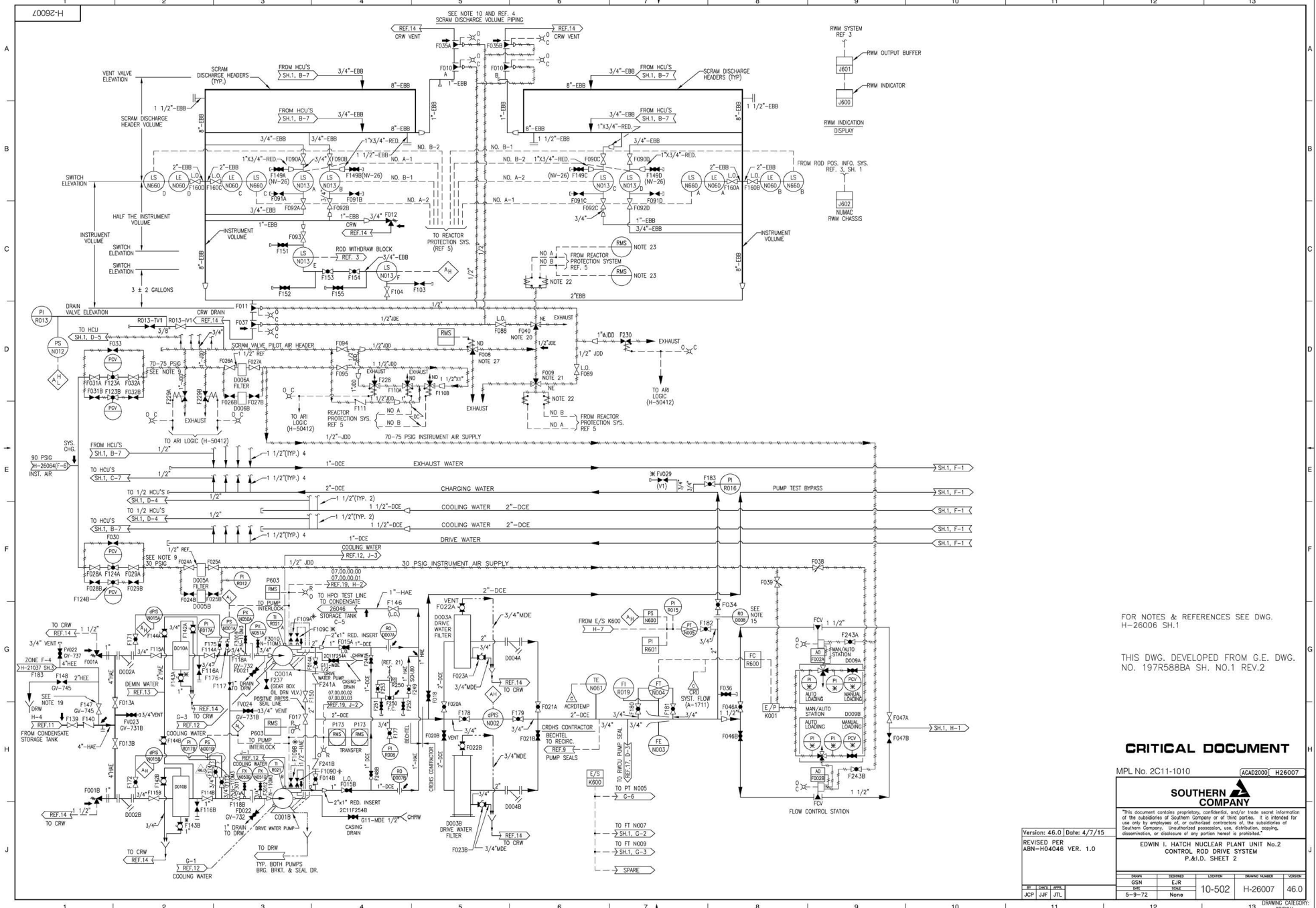
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Version: 30.0 Date: 7-27-10
REVISED PER ABN-H01731.
VERSION 1.0

EDWIN I. HATCH NUCLEAR PLANT UNIT No. 2
CONTROL ROD DRIVE SYSTEM
P. & I. D. SHEET 4-1

REV.	DATE	BY	CHKD.	APP'D.	LOCATION	ISSUE NUMBER	QTY.
1	10-05-02	...	...	...	H-26006	30.0	

0092-H



FOR NOTES & REFERENCES SEE DWG. H-26006 SH.1

THIS DWG. DEVELOPED FROM G.E. DWG. NO. 197R588BA SH. NO.1 REV.2

CRITICAL DOCUMENT

MPL No. 2C11-1010 ACAD2000 H26007



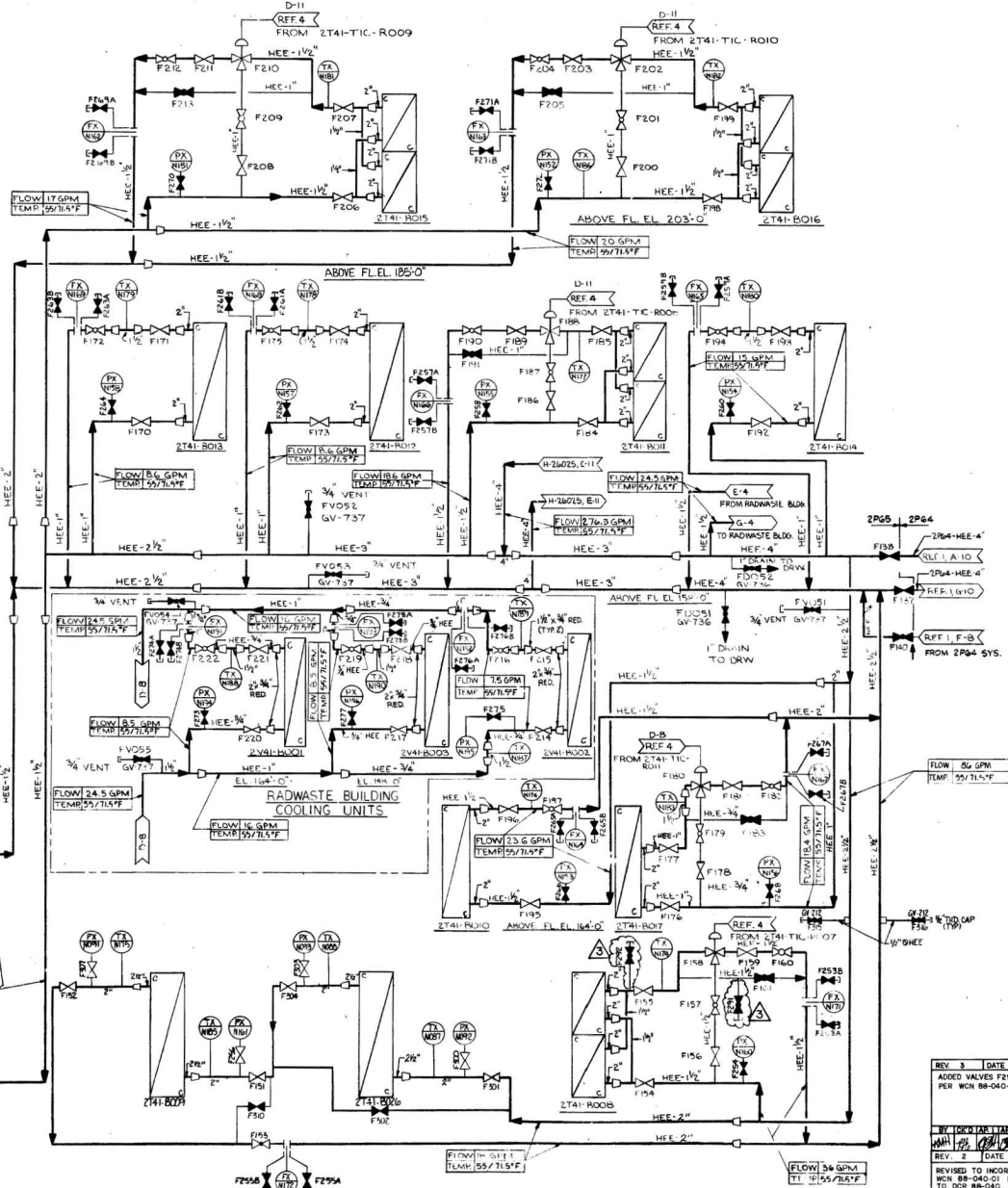
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EDWIN I. HATCH NUCLEAR PLANT UNIT No.2
CONTROL ROD DRIVE SYSTEM
P&I.D. SHEET 2

Version: 46.0 Date: 4/7/15
REVISED PER ABN-H04046 VER. 1.0

DATE	ISSUED	LOCATION	ISSUED NUMBER	VERSION
02/01/72	JCP	JAF	JTL	None

DRAWING CATEGORY: CRITICAL



REACTOR BUILDING COOLING UNITS

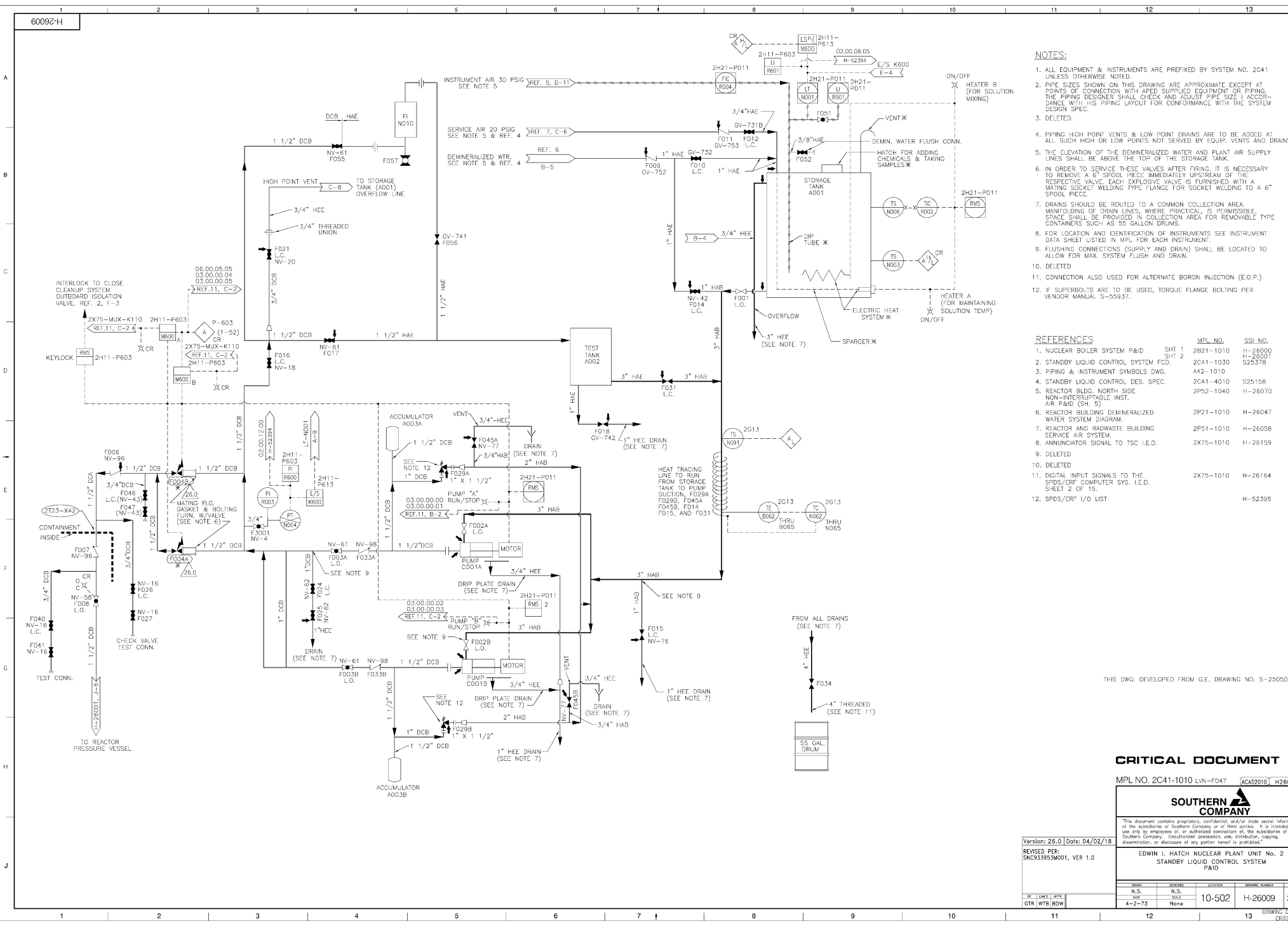
NOTES

- 1. FOR NOTES AND REFERENCES REFER TO SHT. 1 DWG. H-26025.
 - 2. VALVES ON THIS DRAWING ARE NUMBERED: FV051, FV052, THRU FV099 FOR DRAIN VALVE. FV051 THRU FV055 FOR VENT VALVE.
- SEE NOTE 3 ON DWG. 26025

LVN: F222
LVN: FV055
LVN: FV052

CRITICAL DOCUMENT
MPL NO. 2P65-1010

BECHTEL	
JOB 6511 GAINESBURG, MARYLAND	
SOUTHERN SERVICES INC. FOR	
GEORGIA POWER CO., ATLANTA, GA. GENERAL ENGINEERING DEPARTMENT	
EDWIN L HATCH NUCLEAR PLANT UNIT NO. 2 REACTOR & RADWASTE BUILDING CHILLED WATER SYSTEM P&ID & PFD SHT 2	
REV. 3	DATE 6/1/91
ADDED VALVES F291 AND F292 PER WCN 88-040-03	
REV. 2	DATE 5/31/91
REVISED TO INCORPORATE WCN 88-040-01 IN RESPONSE TO DOE 88-040	
REV. 1	DATE 5/31/91
ADDED VALVES PER ABB 8724 SUP 0 NO DCR	
SCALE	DATE
DRAWING NUMBER	SHEET NO.
10-502	H-26006



- NOTES:**
1. ALL EQUIPMENT & INSTRUMENTS ARE PREFIXED BY SYSTEM NO. 2C41 UNLESS OTHERWISE NOTED.
 2. PIPE SIZES SHOWN ON THIS DRAWING ARE APPROXIMATE EXCEPT AT POINTS OF CONNECTION WITH APPLIED EQUIPMENT OR PIPING. THE PIPING DESIGNER SHALL CHECK AND ADJUST PIPE SIZE ACCORDANCE WITH THIS PIPING LAYOUT FOR CONFORMANCE WITH THE SYSTEM DESIGN SPEC.
 3. DELETED.
 4. PIPING HIGH POINT VENTS & LOW POINT DRAINS ARE TO BE ADDED AT ALL SUCH HIGH OR LOW POINTS NOT SERVED BY EQUIP. VENTS AND DRAINS.
 5. THE ELEVATION OF THE DEMINERALIZED WATER AND PLANT AIR SUPPLY LINES SHALL BE ABOVE THE TOP OF THE STORAGE TANK.
 6. IN ORDER TO SERVICE THESE VALVES AFTER FIRING, IT IS NECESSARY TO REMOVE A 6" SPOOL PIECE IMMEDIATELY UPSTREAM OF THE RESPECTIVE VALVE. EACH EXPLOSIVE VALVE IS FURNISHED WITH A MATING SOCKET WELDING TYPE FLANGE FOR SOCKET WELDING TO A 6" SPOOL PIECE.
 7. DRAINS SHOULD BE ROUTED TO A COMMON COLLECTION AREA. MONITORING OF DRAIN LINES, WHERE PRACTICAL, IS PERMISSIBLE. SPACE SHALL BE PROVIDED IN COLLECTION AREA FOR REMOVABLE TYPE CONTAINERS SUCH AS 55 GALLON DRUMS.
 8. FOR LOCATION AND IDENTIFICATION OF INSTRUMENTS SEE INSTRUMENT DATA SHEET LISTED IN MPL FOR EACH INSTRUMENT.
 9. FLUSHING CONNECTIONS (SUPPLY AND DRAIN) SHALL BE LOCATED TO ALLOW FOR MAX. SYSTEM FLUSH AND DRAIN.
 10. DELETED.
 11. CONNECTION ALSO USED FOR ALTERNATE BORON INJECTION (E.O.P.)
 12. IF SUPERBOLTS ARE TO BE USED, TORQUE FLANGE BOLTING PER VENDOR MANUAL S-55937.

- REFERENCES**
- | | MPL NO. | SSI NO. |
|---|-----------------|---------|
| 1. NUCLEAR BOILER SYSTEM P&ID | SHT 1 2B21-1010 | H-26000 |
| 2. STANDBY LIQUID CONTROL SYSTEM F&D | SHT 2 2C41-1030 | H-26001 |
| 3. PIPING & INSTRUMENT SYMBOLS DWG. | A42-1010 | S25378 |
| 4. STANDBY LIQUID CONTROL DES. SPEC. | 2C41-4010 | S25158 |
| 5. REACTOR BLDG. NORTH SIDE NON-INTERRUPTIBLE INST. AIR P&ID (SH. 5) | 2P52-1040 | H-26070 |
| 6. REACTOR BUILDING DEMINERALIZED WATER SYSTEM DIAGRAM. | 2P21-1010 | H-26047 |
| 7. REACTOR AND RADIOACTIVE BUILDING SERVICE AIR SYSTEM. | 2P51-1010 | H-26058 |
| 8. ANNUNCIATOR SIGNAL TO TSC I.E.D. | 2X75-1010 | H-26159 |
| 9. DELETED | | |
| 10. DELETED | | |
| 11. DIGITAL INPUT SIGNALS TO THE SPDS/ERF COMPUTER SYS. I.E.D. SHEET 2 OF 15. | 2X75-1010 | H-26164 |
| 12. SPDS/ERF I/O LIST | | H-52395 |

THIS DWG. DEVELOPED FROM G.E. DRAWING NO. S-25050

CRITICAL DOCUMENT

MPL NO. 2C41-1010 LWN-F047 (AC422010) H26009

SOUTHERN COMPANY

EDWIN L. HATCH NUCLEAR PLANT UNIT No. 2
STANDBY LIQUID CONTROL SYSTEM
P&ID

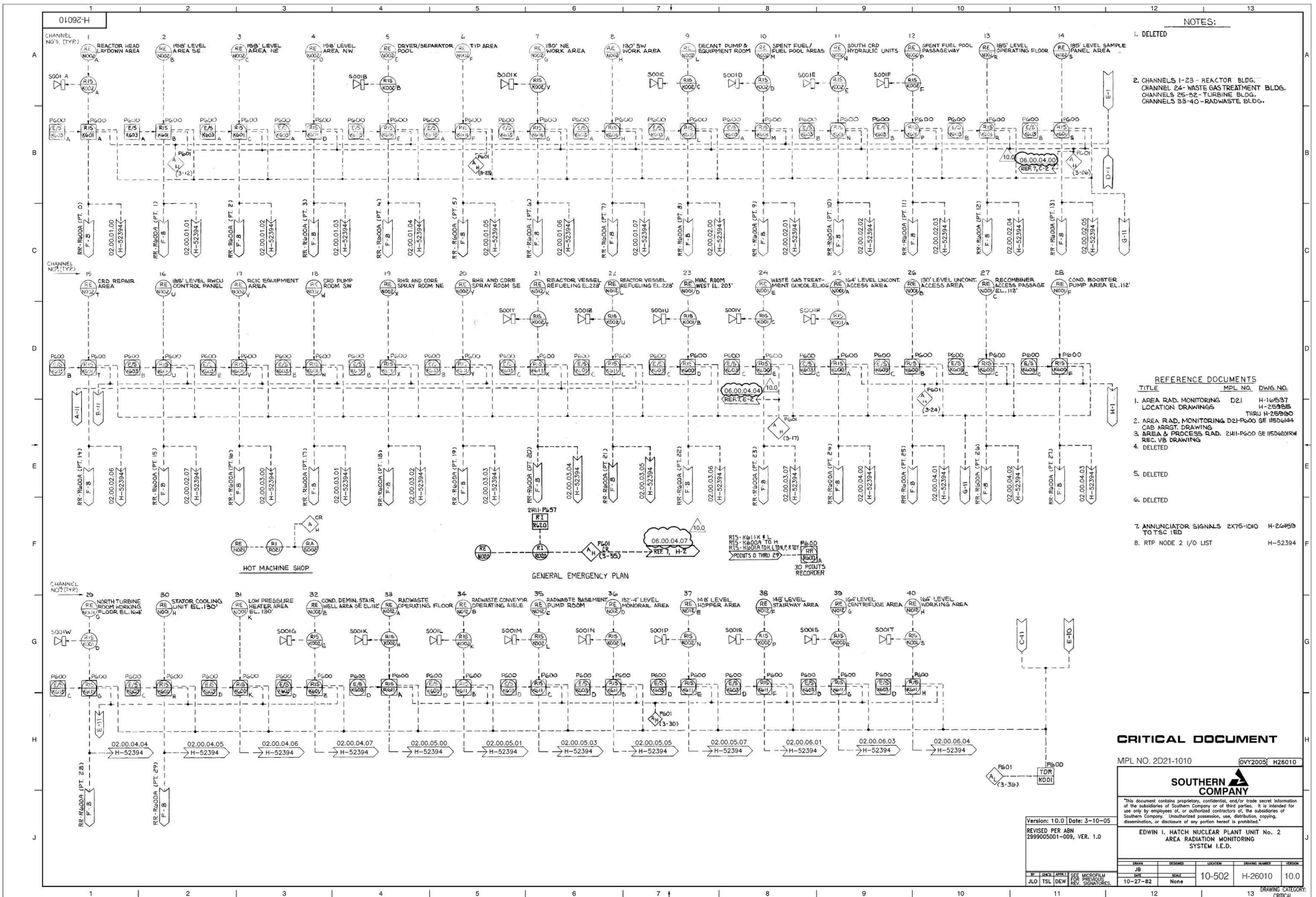
Version: 26.0 Date: 04/02/18

REVISED PER:
SNC933953M001, VER 1.0

NO.	DATE	BY	REASON
1	4-2-73	None	

GTR WTB (BW)

NO.	DATE	BY	REASON
1	4-2-73	None	



NOTES:

- 1. DELETED
- 2. CHANNELS 1-23 - REACTOR BLDG. CHANNEL 24 - WASTE GAS TREATMENT BLDG. CHANNELS 25-32 - TURBINE BLDG. CHANNELS 33-40 - RAD-WASTE BLDG.

REFERENCE DOCUMENTS

- | TITLE | MPL NO. | DWG. NO. |
|---|-----------|-----------------------|
| 1. AREA RAD. MONITORING LOCATION DRAWINGS | D21 | H-16537 H-25985 |
| 2. AREA RAD. MONITORING CAB ASSET DRAWING | D21-P600 | THRU H-25990 H-195044 |
| 3. AREA & PROCESS RAD. REC. V8 DRAWING | 24H-P600 | GE H50401RM |
| 4. DELETED | | |
| 5. DELETED | | |
| 6. DELETED | | |
| 7. ANNUNCIATOR SIGNALS TO TSC IED | 2X75-1010 | H-26459 |
| 8. RTP NODE 2 I/O LIST | | H-52394 |

CRITICAL DOCUMENT

MPL NO. 2D21-1010 GVV2008 H26010



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EDWIN I. HATCH NUCLEAR PLANT UNIT No. 2
AREA RADIATION MONITORING SYSTEM I.E.D.

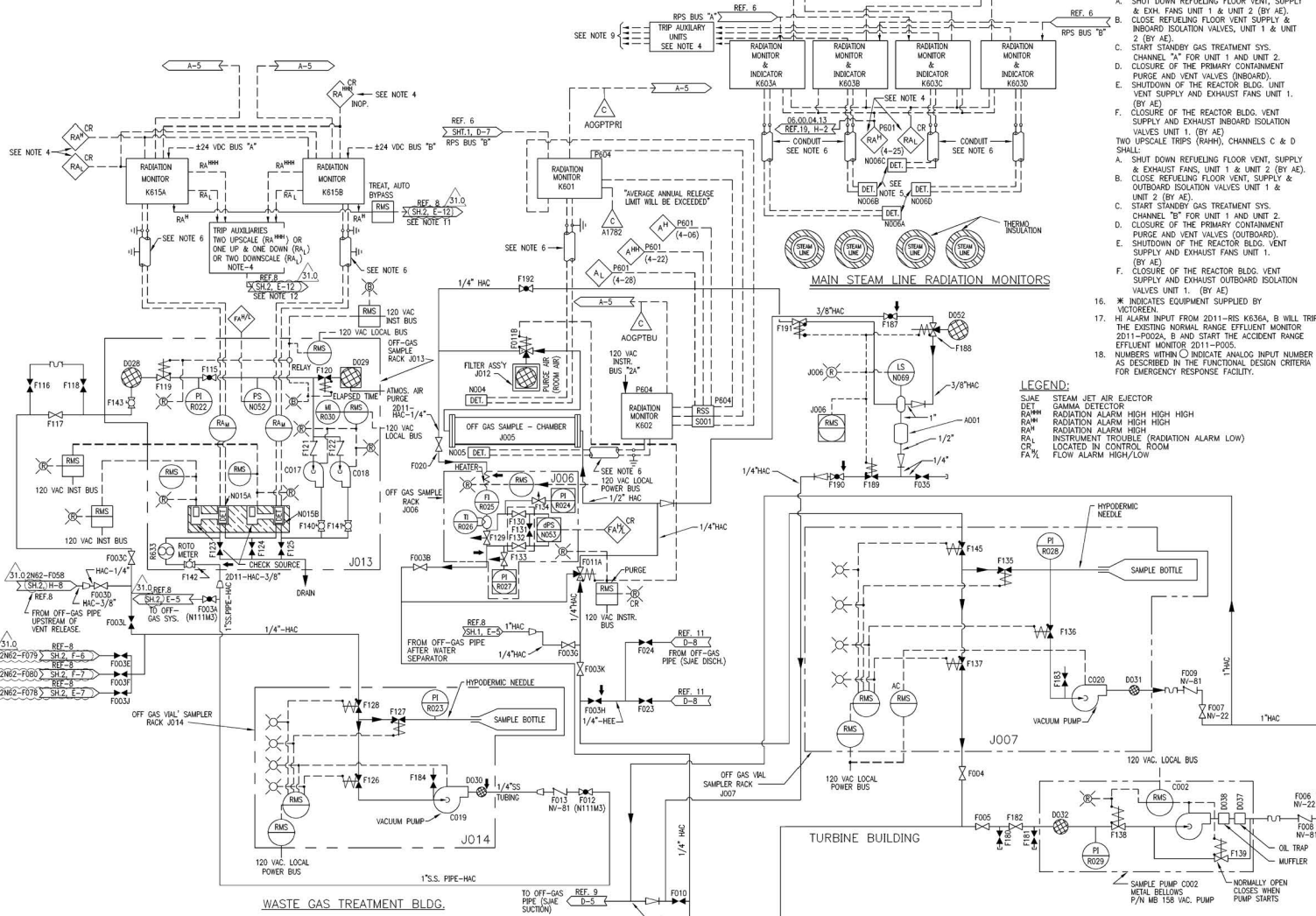
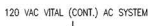
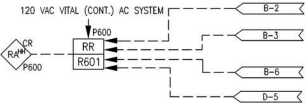
Version: 10.0 | Date: 3-10-05
REVISED PER ABN 2999005001-009, VER. 1.0

DATE	ISSUED	ISSUED BY	ISSUED NUMBER	ISSUED FOR
10-27-82	None	JLD	10-502	H-26010

10.0

DRAWING CATEGORY: CRITICAL

11092-H
A
B
C
D
E
F
G
H
I
J



11. ANY ONE UPSCALE TRIP (RAH) SHALL CLOSE BYPASS LINE VALVE, OPEN TREATMENT LINE VALVE & ALARM (REF. 7).
 12. FOR LOCATION & IDENTIFICATION OF INSTRUMENTS SEE INSTRUMENT DATA SHEET LISTED IN MPL FOR EACH INSTRUMENT.
 13. ALL EQUIPMENT & INSTRUMENTS ARE PREFIXED BY SYSTEM NO. 2D11 UNLESS OTHERWISE SPECIFIED.
 14. TWO UPSCALE TRIPS (RAHH), CHANNELS A & B, SHALL:
 A. SHUT DOWN REFUELING FLOOR VENT, SUPPLY & EXH. FANS UNIT 1 & UNIT 2 (BY AE).
 B. CLOSE REFUELING FLOOR VENT SUPPLY & INBOARD ISOLATION VALVES, UNIT 1 & UNIT 2 (BY AE).
 C. START STANDBY GAS TREATMENT SYS. CHANNEL "A" FOR UNIT 1 & UNIT 2.
 D. CLOSURE OF THE PRIMARY CONTAINMENT PURGE AND VENT VALVES (INBOARD).
 E. SHUTDOWN OF THE REACTOR BLDG. UNIT VENT SUPPLY AND EXHAUST FANS UNIT 1. (BY AE)
 F. CLOSURE OF THE REACTOR BLDG. VENT SUPPLY AND EXHAUST INBOARD ISOLATION VALVES UNIT 1. (BY AE)
 G. SHUTDOWN OF THE REACTOR BLDG. VENT SUPPLY AND EXHAUST ISOLATION VALVES UNIT 1. (BY AE).
 H. CLOSURE OF THE REACTOR BLDG. VENT SUPPLY AND EXHAUST ISOLATION VALVES UNIT 2. (BY AE)
 I. SHUTDOWN OF THE REACTOR BLDG. VENT SUPPLY AND EXHAUST ISOLATION VALVES UNIT 2. (BY AE).
 16. * INDICATES EQUIPMENT SUPPLIED BY VICTOREN.
 17. HI ALARM INPUT FROM 2D11-RIS K635A, B WILL TRIP THE EXISTING NORMAL RANGE EFFLUENT MONITOR 2D11-PO22A, B AND START THE ACCIDENT RANGE EFFLUENT MONITOR 2D11-PO025.
 18. NUMBERS WITHIN \square INDICATE ANALOG INPUT NUMBER AS DESCRIBED IN THE FUNCTIONAL DESIGN CIRCUIT FOR EMERGENCY RESPONSE FACILITY.

LEGEND:
 S/JAE STEAM JET AIR EJECTOR
 DE/AM GAMMA DETECTOR
 RA** RADIATION ALARM HIGH HIGH HIGH
 RA*** RADIATION ALARM HIGH HIGH HIGH
 RA RADIATION ALARM HIGH
 RA# RADIATION ALARM HIGH/LOW
 RA# RADIATION ALARM HIGH/LOW
 CR FA#

- NOTES:**
 1. THE OFF GAS VENT PIPE GAS SAMPLE LINE SHALL BE 1" X 0.058" WALL THICKNESS SEAMLESS STAINLESS STEEL TUBING. THE TUBING MIN. BEND RADIUS SHALL BE 20" THE TUBING LENGTH SHALL BE JOINED WITH SWAGELOK TYPE 1510-6-316 UNIONS. THE TUBING SHALL SLOPE SO THAT THE CONDENSATE WILL RUN TO DRAIN TEE.
 2. REMOVED SECTION SHALL BE PROVIDED NEAR THE ISOKINETIC PROBE FOR THE INSERTION OF A CHARCOAL FILTER HOLDER. THE FITTINGS ETC. SHALL PROVIDE SMOOTH TRANSITIONS WITHOUT DISCONTINUITIES OR REDUCING THE CROSS-SECTIONAL AREA OF THE FLOW STREAM.
 3. TEE SHALL BE UNION TEE SWAGELOK TYPE 1610-3-316.
 4. ALARMS ARE ACTUATED BY RELAYS IN TRIP AUX. UNIT. TRIP AUX. UNITS TO BE SUPPLIED AS REQUIRED. DOWNSCALE ALARMS FOR LIQUID RADIATION MONITORS ARE ANNOUNCED ON A SINGLE COMMON ANNUNCIATOR.
 5. THE DETECTORS NO06A-D SHALL BE LOCATED WITHIN THE STEAM LINE TUNNEL AS CLOSE AS PRACTICAL TO THE PRIMARY CONTAINMENT, THE DETECTORS SHALL BE ARRANGED SUCH THAT EACH DETECTOR WILL VIEW ALL STEAM LINES WITH APPROXIMATELY THE SAME RESPONSE. IT IS RECOMMENDED THAT THE DETECTOR OR DETECTOR ASSEMBLY BE FASTENED TO A ROD OR A PIPE AND INSERTED INTO SEALED INTO PIPE WALLS FROM OUTSIDE THE STEAM TUNNEL. CAREFULLY ROUTE CABLES TO MINIMIZE HEAT EXPOSURE. NO LEAD SHIELDING IS REQUIRED.
 6. ALL CABLES SHALL COMPLY WITH GE ENGR. SPEC. REF. 2.
 7. ADDITIONAL ALARM IN RADWASTE BLDG. (RAH) RADWASTE MONITOR ONLY.
 8. DRAIN AT THE LOWER POINT OF OFF GAS SAMPLE LINE.
 9. ONE HIGH-HIGH RADIATION TRIP (RAHH) OR INOPERATIVE TRIP OUT OF TWO IN TRIP SYSTEM "A" AND ONE HIGH-HIGH RADIATION TRIP (RAHH) OR INOPERATIVE TRIP OUT OF TWO IN TRIP SYSTEM "B" SHALL:
 TURN OFF MECHANICAL VACUUM PUMP & CLOSE MECHANICAL LINE VALVE. (REF. 3) ANY ONE HIGH-HIGH RADIATION SHALL ALARM (RAHH).
 10. TWO UPSCALE TRIPS (RAHH), CHANNELS A & B SHALL:
 A. SHUT DOWN REACTOR BLDG. VENT SUPPLY & EXHAUST FANS FOR UNIT 2.
 B. CLOSE REACTOR BLDG. VENT SUPPLY & EXHAUST INBOARD ISOLATION VALVES FOR UNIT 2.
 C. START STANDBY GAS TREATMENT SYSTEM CHANNEL "A" FOR UNIT 2.
 D. CLOSURE OF THE PRIMARY CONTAINMENT PURGE & VENT VALVE (INBOARD) FOR UNIT 2.
 TWO UPSCALE TRIPS (RAHH), CHANNELS C & D SHALL:
 A. SHUT DOWN REACTOR BLDG. VENT SUPPLY & EXHAUST FANS FOR UNIT 2.
 B. CLOSE REACTOR BLDG. VENT SUPPLY & EXHAUST OUTBOARD ISOLATION VALVES FOR UNIT 2.
 C. START STANDBY GAS TREATMENT SYSTEM CHANNEL "B" FOR UNIT 2.
 D. CLOSURE OF THE PRIMARY CONTAINMENT PURGE & VENT VALVE (OUTBOARD) FOR UNIT 2.

REFERENCES

NO.	REFERENCE	MPL NO.	SSL NO.
1.	RADIATION MONITORING OF PROCESS FLUIDS AND GASES DES. SPEC.	2D11-4010	S-25281
2.	SPECIAL WIRE AND CABLE	2A61-4010	S-25042
3.	PLANT REQUIREMENTS	2A61-4020	S-25042
4.	SEPARATION & INST. OF ELEC. EQUIP FOR ENGR'D SAFEGUARDS	2A61-4050	S-25373
5.	PIPING & INST. SYMBOLS	A61	S-15051
6.	REACTOR PROTECTION SYS. IED	2D11-1010	H-21055
7.	OFF GAS SYS. FCD	2N62-1030	S-25333
8.	OFF GAS SYS. P&ID	2N62-1010	H-26045
9.	TURBINE BLDG. CONDENSER VACUUM AND GLAND SEAL SYS.	2N62-1010	H-21030
10.	PROCESS MONITORING ELEMENTARY DIAGRAM	2D11-1020	H-27620
11.	STEAM JET AIR EJECTOR P&ID	NRH-27634	H-21056
12.	P&ID DIAGRAM RMG-HR-H	2N22-1010	H-21056
13.	TURB. BLDG. INST. AIR SYS. P&ID SH. 6	H-21011	H-21011
14.	RADWASTE SYSTEM P&ID	2G11-1010	H-26026
15.	DELETED		
16.	CLASS IE ANALOG SIGNAL CONVERSION ISOL. SYS. IED	2X75-1010	H-26284
17.	DELETED		
18.	DELETED		
19.	ANNUNCIATOR SIGNALS TO TSC I.E.D.	2X75-1010	H-26158
20.	WIDE RANGE EFFLUENT MONITORING SYSTEM P&ID	2D11	
21.	NOT USED		
22.	RADWASTE SYSTEM P&ID SHT. 3	2G11-1010	H-26028
23.	RTP NODE 2 I/O LIST		H-52394

THIS DWG. DEVELOPED FROM G.E. DWG. NO. 761E531 REV. 4

CRITICAL DOCUMENT

MPL NO. 2D11-1010 (ACAD2K) H26011



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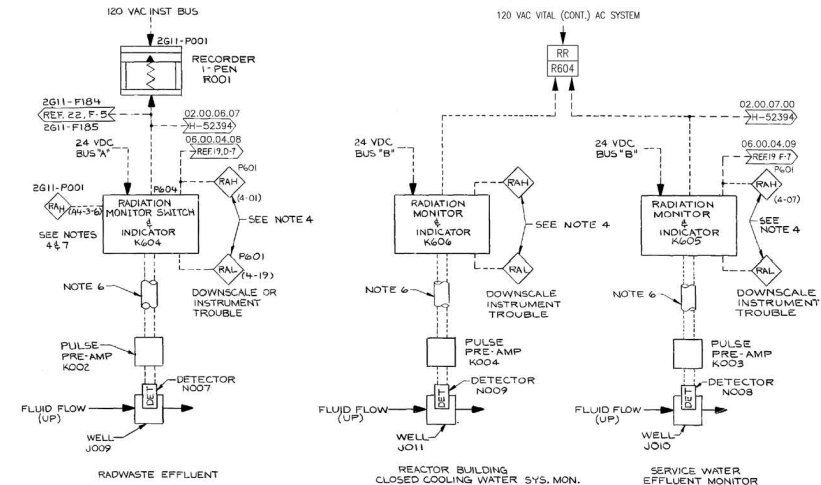
EDWIN I. HATCH NUCLEAR PLANT UNIT No. 2
 PROCESS RADIATION MONITORING
 SYSTEM P&ID DIAGRAM
 SHEET 1

Version: 31.0 Date: 6/12/13
 REVISED PER ABN-H05228, VER.1.0

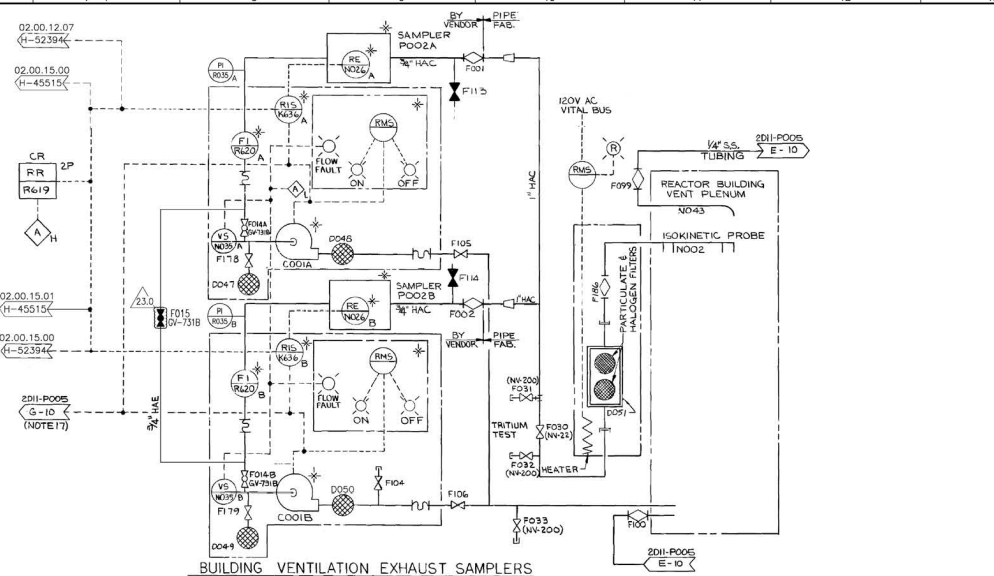
REV.	DATE	BY	CHKD.	LOC.	REASON
1					
2	2/9/73				

DRAWING CATEGORY: CRITICAL

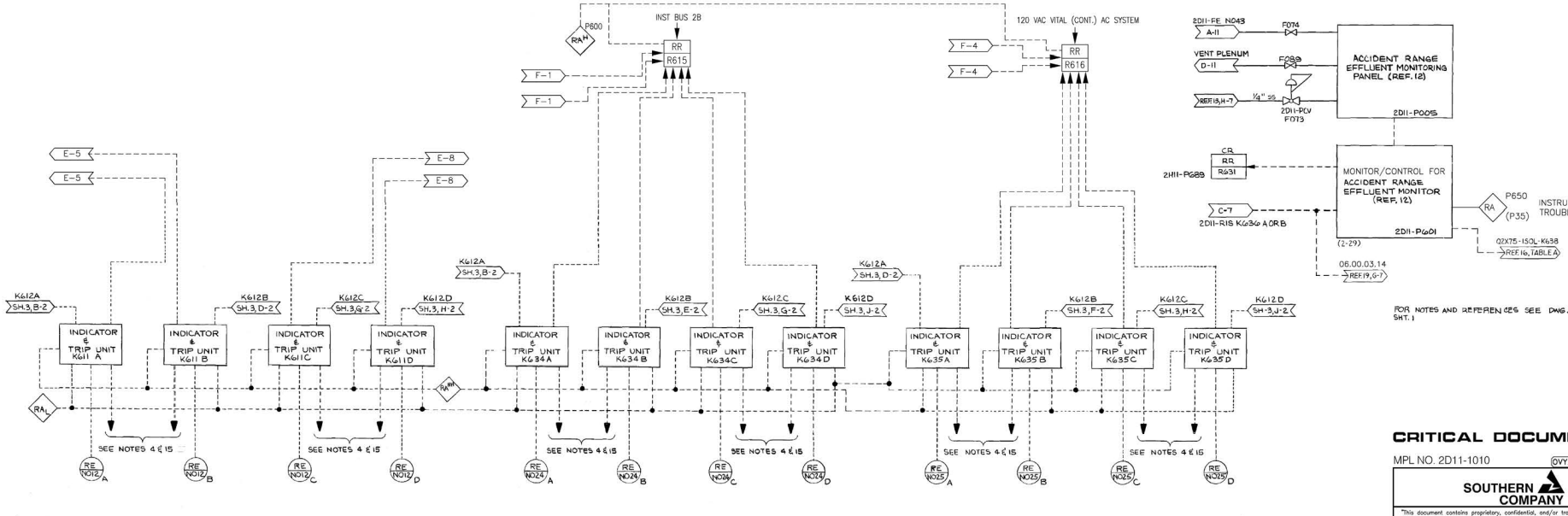
Z1092-H



LIQUID PROCESS RADIATION MONITORS



BUILDING VENTILATION EXHAUST SAMPLERS



REFUELING FLOOR VENTILATION EXHAUST RADIATION MONITORS

CRITICAL DOCUMENT

MPL NO. 2D11-1010 02/2005 H26012



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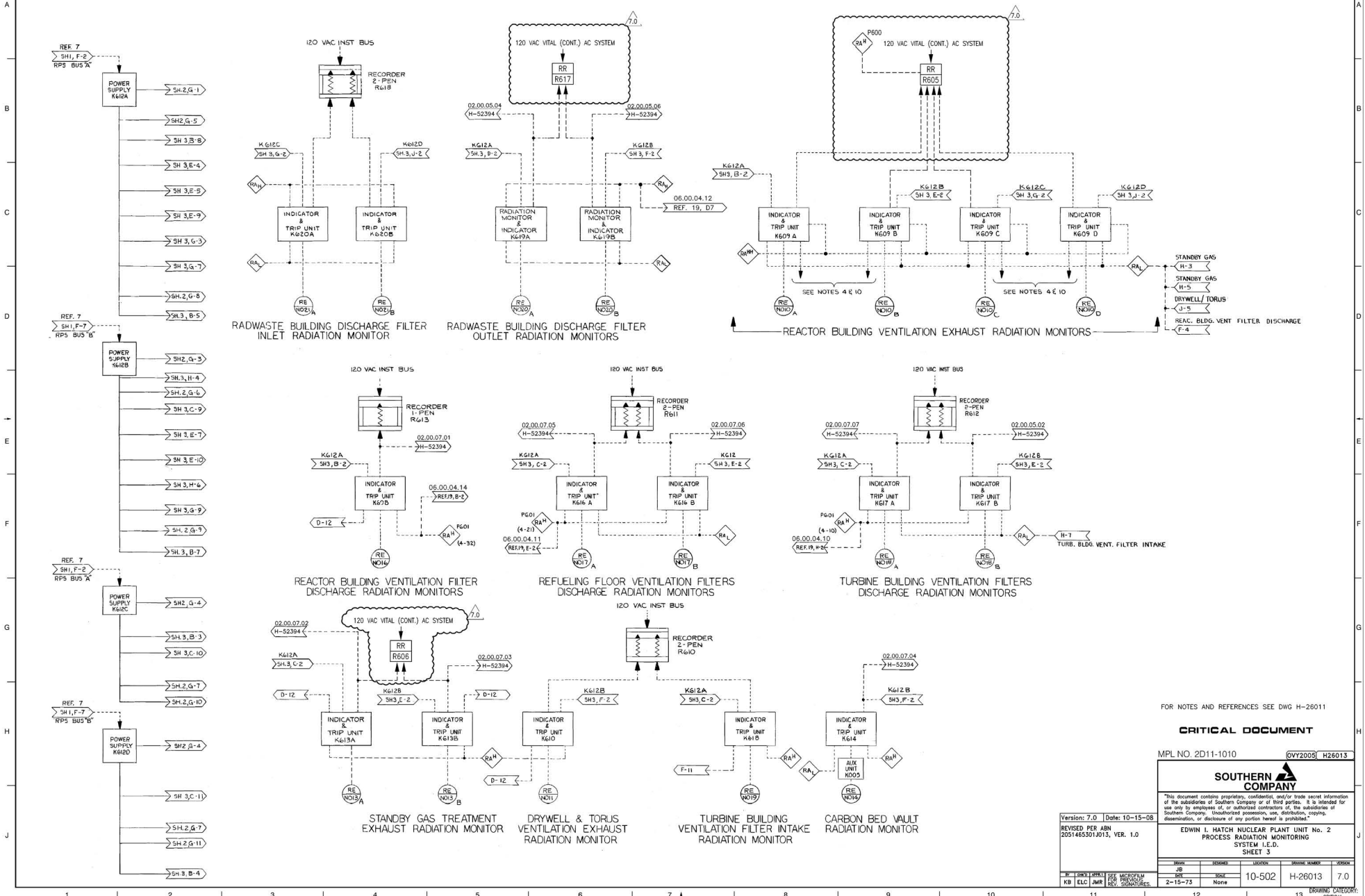
EDWIN I. HATCH NUCLEAR PLANT UNIT No.2
PROCESS RADIATION MONITORING
SYSTEM I.E.D.
SHEET 2

DATE	ISSUED	LOCATION	ISSUED NUMBER	VERSION
02/2005	02/2005	None	10-502	H-26012
02-06-73	None	None	None	23.0

Version: 23.0 Date: 06/03/14
REVISED PER ABN-H03645, VER. 1.0.

REV#	DATE	BY	CHKD	APP'D
001	02-06-73	None	None	None
002	02-06-73	None	None	None

DRAWING CATEGORY: CRITICAL



FOR NOTES AND REFERENCES SEE DWG H-26011

CRITICAL DOCUMENT

MPL No. 2D11-1010 0VY2005 H26013



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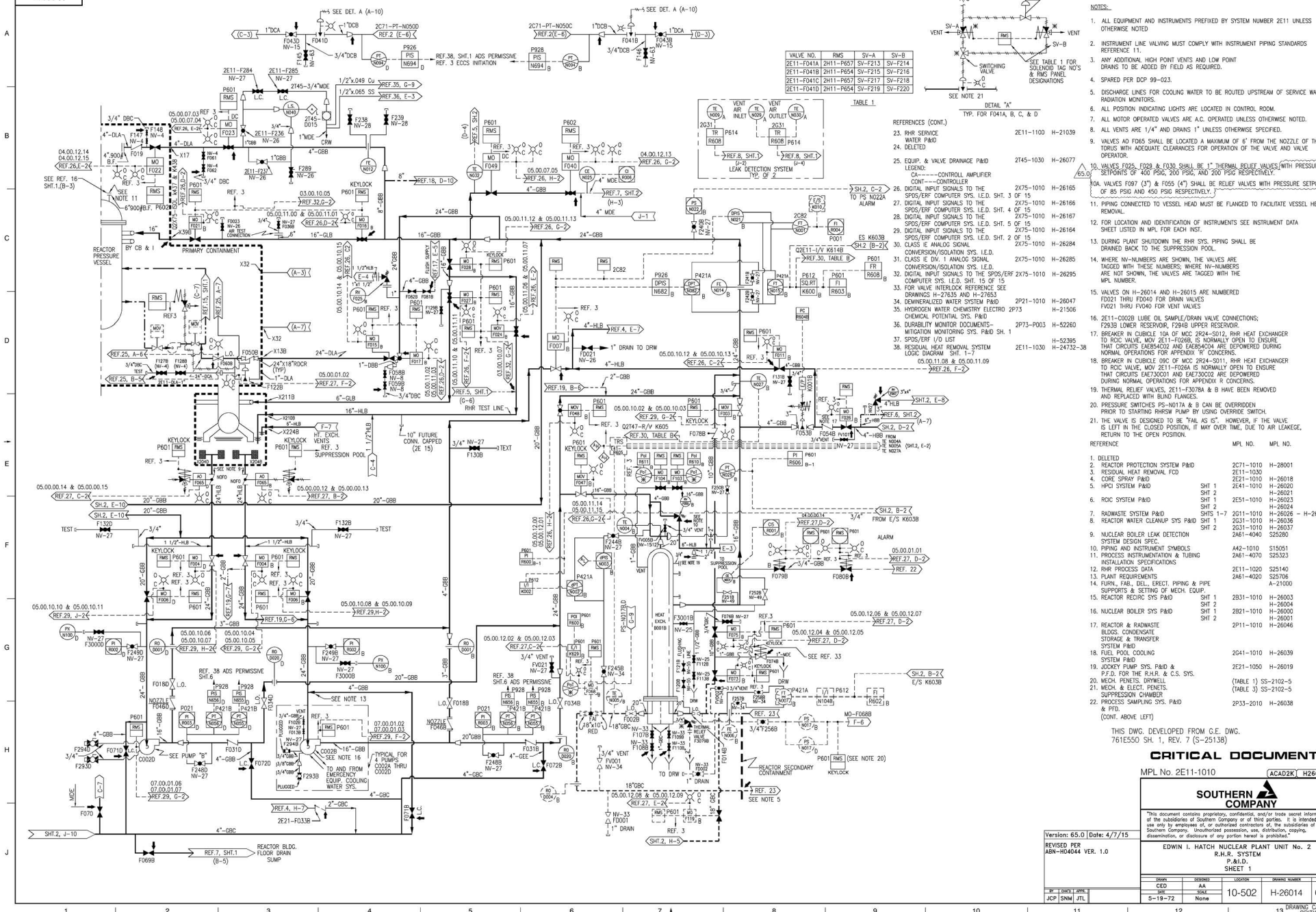
EDWIN I. HATCH NUCLEAR PLANT UNIT No. 2
PROCESS RADIATION MONITORING SYSTEM I.E.D.
SHEET 3

Version: 7.0 Date: 10-15-08
REVISED PER AEN 2001453501013, VER. 1.0

NO.	DATE	BY	CHKD	REVISED	REASON
1	10-15-08	JMR	JMR	None	Initial Issue

10-502	H-26013	7.0
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ISSUING CATEGORY: CRITICAL



VALVE NO. RNS SV-A SV-B

2111-F041A	ZH11-P657	SV-F213	SV-F214
2111-F041B	ZH11-P654	SV-F215	SV-F216
2111-F041C	ZH11-P657	SV-F217	SV-F218
2111-F041D	ZH11-P654	SV-F219	SV-F220

TABLE 1
TYP. FOR F041A, B, C, & D

REFERENCES (CONT.)

23. RHR SERVICE WATER P&ID 2E11-1100 H-21039
24. DELETED
25. EQUIP. & VALVE DRAINAGE P&ID LEGEND: CA - CONTROLL AMPLIFIER CONT - CONTROLLER 2X75-1010 H-26166
26. DIGITAL INPUT SIGNALS TO THE SPOS/ERF COMPUTER SYS. I.E.D. SHT. 3 OF 15 2X75-1010 H-26166
27. DIGITAL INPUT SIGNALS TO THE SPOS/ERF COMPUTER SYS. I.E.D. SHT. 4 OF 15 2X75-1010 H-26167
28. DIGITAL INPUT SIGNALS TO THE SPOS/ERF COMPUTER SYS. I.E.D. SHT. 5 OF 15 2X75-1010 H-26164
29. DIGITAL INPUT SIGNALS TO THE SPOS/ERF COMPUTER SYS. I.E.D. SHT. 2 OF 15 2X75-1010 H-26284
30. CLASS IE ANALOG SIGNAL CONVERSION/ISOLATION SYS. I.E.D. 2X75-1010 H-26285
31. CLASS IE DIV. 1 ANALOG SIGNAL CONVERSION/ISOLATION SYS. I.E.D. 2X75-1010 H-26295
32. DIGITAL INPUT SIGNALS TO THE SPOS/ERF COMPUTER SYS. I.E.D. SHT. 15 OF 15 2X75-1010 H-26295
33. FOR VALVE INTERLOCK REFERENCE SEE DRAWINGS H-2755 AND H-2753
34. DEMINERALIZED WATER SYSTEM P&ID 2P21-1010 H-26047
35. HYDROGEN WATER CHEMISTRY ELECTRO 2P73 H-21506
36. CHEMICAL POTENTIAL SYS. P&ID 2P73-PO03 H-52265
37. DURABILITY MONITOR DOCUMENTS - MITIGATION MONITORING SYS. P&ID SH. 1 H-52395
38. SPOS/ERF I/O LIST 2E11-1030 H-24732-38
39. RESIDUAL HEAT REMOVAL SYSTEM LOGIC DIAGRAM SHT. 1-7 05.00.11.08 & 05.00.11.09 REF. 26, F-2

- NOTES:
1. ALL EQUIPMENT AND INSTRUMENTS PREFIXED BY NUMBER 2E11 UNLESS OTHERWISE NOTED.
 2. INSTRUMENT LINE VALVING MUST COMPLY WITH INSTRUMENT PIPING STANDARDS REFERENCE 11.
 3. ANY ADDITIONAL HIGH POINT VENTS AND LOW POINT DRAINS TO BE ADDED BY FIELD AS REQUIRED.
 4. SPARED PER DCP 99-023.
 5. DISCHARGE LINES FOR COOLING WATER TO BE ROUTED UPSTREAM OF SERVICE WATER RADIATION MONITORS.
 6. ALL POSITION INDICATING LIGHTS ARE LOCATED IN CONTROL ROOM.
 7. ALL MOTOR OPERATED VALVES ARE A.C. OPERATED UNLESS OTHERWISE NOTED.
 8. ALL VENTS ARE 1/4" AND DRAINS 1" UNLESS OTHERWISE SPECIFIED.
 9. VALVES AND FDS SHALL BE LOCATED A MAXIMUM OF 6" FROM THE NOZZLE OF THE TUBES WITH ADEQUATE CLEARANCES FOR OPERATION OF THE VALVE AND VALVE OPERATOR.
 10. VALVES F029, F028 & F030 SHALL BE 1" THERMAL RELIEF VALVES (WITH PRESSURE SETPOINTS OF 450 PSIG, 200 PSIG, AND 200 PSIG RESPECTIVELY).
 11. VALVES F097 (3") & F055 (4") SHALL BE RELIEF VALVES WITH PRESSURE SETPOINTS OF 85 PSIG AND 450 PSIG RESPECTIVELY.
 12. PIPING CONNECTED TO VESSEL HEAD MUST BE FLANGED TO FACILITATE VESSEL HEAD REMOVAL.
 13. FOR LOCATION AND IDENTIFICATION OF INSTRUMENTS SEE INSTRUMENT DATA SHEET LISTED IN MPL FOR EACH INST.
 14. DURING PLANT SHUTDOWN THE RHR SYS. PIPING SHALL BE DRAINED BACK TO THE SUPPRESSION POOL.
 15. WHERE NV-NUMBERS ARE SHOWN, THE VALVES ARE TAGGED WITH THESE NUMBERS; WHERE NV-NUMBERS ARE NOT SHOWN, THE VALVES ARE TAGGED WITH THE MPL NUMBER.
 16. VALVES ON H-26014 AND H-26015 ARE NUMBERED F021 THRU F040 FOR DRAIN VALVES F021 THRU F040 FOR VENT VALVES.
 17. 2E11-C002B LOBE OIL SAMPLE/DRAIN VALVE CONNECTIONS; F233B LOWER RESERVOIR, F248B UPPER RESERVOIR.
 18. BREAKER IN CUBICLE 10A OF MCC 2P24-S012, RHR HEAT EXCHANGER TO RCV VALVE, MOV 2E11-F026B, IS NORMALLY OPEN TO ENSURE THAT CIRCULAR BREAKER AND CIRCULAR BREAKER ARE NORMALLY OPERATIONS FOR APPROX. 8" CONCERN.
 19. BREAKER IN CUBICLE 09C OF MCC 2P24-S011, RHR HEAT EXCHANGER TO RCV VALVE, MOV 2E11-F026A IS NORMALLY OPEN TO ENSURE THAT CIRCUITS 4E730001 AND 4E730002 ARE DEPOWERED DURING NORMAL OPERATIONS FOR APPROX. 8" CONCERN.
 20. THERMAL RELIEF VALVES, 2E11-F0378A & B HAVE BEEN REMOVED AND REPLACED WITH BLIND FLANGES.
 21. PRESSURE SWITCHES PS-18077A & B CAN BE OVERRIDDEN PRIOR TO STARTING RHRW PUMP BY USING OVERRIDE SWITCH.
 22. THE VALVE IS DESIGNED TO BE "FAIL AS IS". HOWEVER, IF THE VALVE IS LEFT IN THE CLOSED POSITION, IT MAY OVER TIME, DUE TO AIR LEAKAGE, RETURN TO THE OPEN POSITION.

REFERENCE

REF. NO.	MPL NO.	MPL NO.
1. DELETED		
2. REACTOR PROTECTION SYSTEM P&ID	2C71-1010	H-28001
3. RESIDUAL HEAT REMOVAL FCD	2E11-1030	H-26018
4. CORE SPRAY P&ID	2E21-1010	H-26018
5. HPCI SYSTEM P&ID	2E41-1010	H-26020
	SHT 1	H-26021
6. RCV SYSTEM P&ID	2E51-1010	H-26023
	SHT 1	H-26024
	SHT 2	H-26026
7. RADWASTE SYSTEM P&ID	2011-1010	H-26038
8. REACTOR WATER CLEANUP SYS P&ID	2031-1010	H-26038
	SHT 1	H-26037
	SHT 2	24E1-4046
9. NUCLEAR BOILER LEAK DETECTION SYSTEM DESIGN SPEC.	2E11-1020	S15051
	24E1-4020	S23030
10. PIPING AND INSTRUMENT SCHEDULES	2E11-1020	S25043
11. PROCESS INSTRUMENTATION & TUBING INSTALLATION SPECIFICATIONS	2E11-1020	S25043
12. RHR PROCESS DATA	24E1-4020	S25076
13. PLANT REQUIREMENTS	2E11-1020	S25076
14. FURN, FAB, DEL, ERECT, PIPING & PIPE SUPPORTS & SETTING OF MECH. EQUIP.	A-21000	
15. REACTOR RECIRC SYS P&ID	SHT 1	H-26003
	SHT 2	H-26004
16. NUCLEAR BOILER SYS P&ID	SHT 1	H-26000
	SHT 2	H-26001
	SHT 2	H-26046
17. REACTOR RADWASTE BLDGS: CONDENSATE STORAGE & TRANSFER SYSTEM P&ID	2041-1010	H-26039
18. FUEL POOL COOLING SYSTEM P&ID	2E21-1050	H-26019
19. JOCKEY PUMP SYS. P&ID & P.F.D. FOR THE R.H.R. & C.S. SYS.	(TABLE 1) SS-2102-5	
20. MECH. PENETS, DRYWELL	(TABLE 3) SS-2102-5	
21. MECH. & ELECT. PENETS SUPPRESSION CHAMBER	(TABLE 3) SS-2102-5	
22. PROCESS SAMPLING SYS. P&ID & PFD (CONT. ABOVE LEFT)	2P33-2010	H-26038

THIS DWG. DEVELOPED FROM G.E. DWG. 7H1E550 SH. 1, REV. 7 (S-25138)

CRITICAL DOCUMENT

MPL No. 2E11-1010 ACAD2K H26014

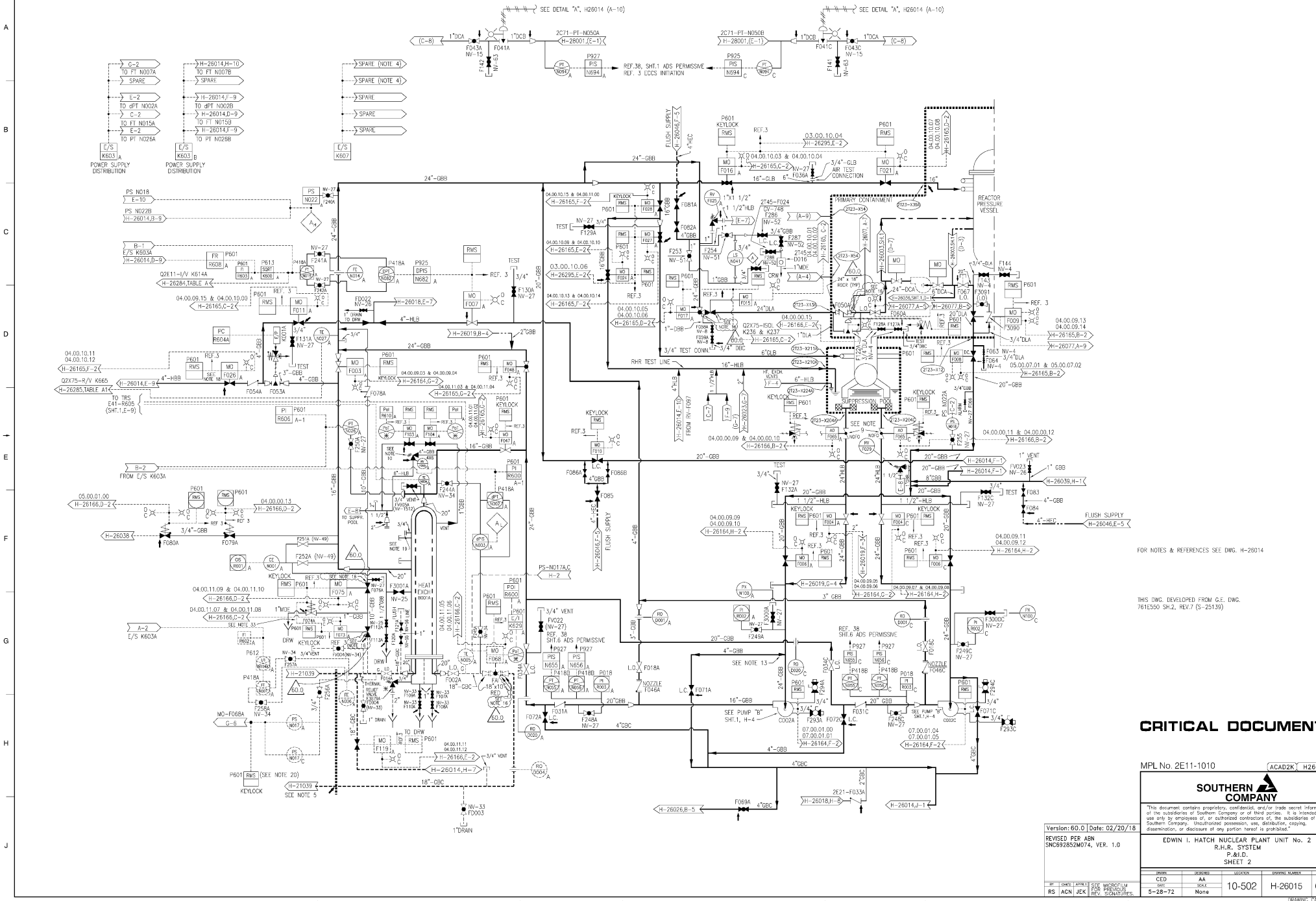


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Version: 65.0 Date: 4/7/15
 REVISED PER 65N-104044 VER. 1.0

EDWIN I. HATCH NUCLEAR PLANT No. 2
 R.H.R. SYSTEM
 P&ID
 SHEET 1

NO.	DATE	BY	CHKD	LOCATOR	REVISION NUMBER	DESCRIPTION
1	5-19-72	JCP	SNM	JTL	None	



FOR NOTES & REFERENCES SEE DWG. H-26014

THIS DWG DEVELOPED FROM G.E. DWG. 761E550 SH.2, REV.7 (S-25134)

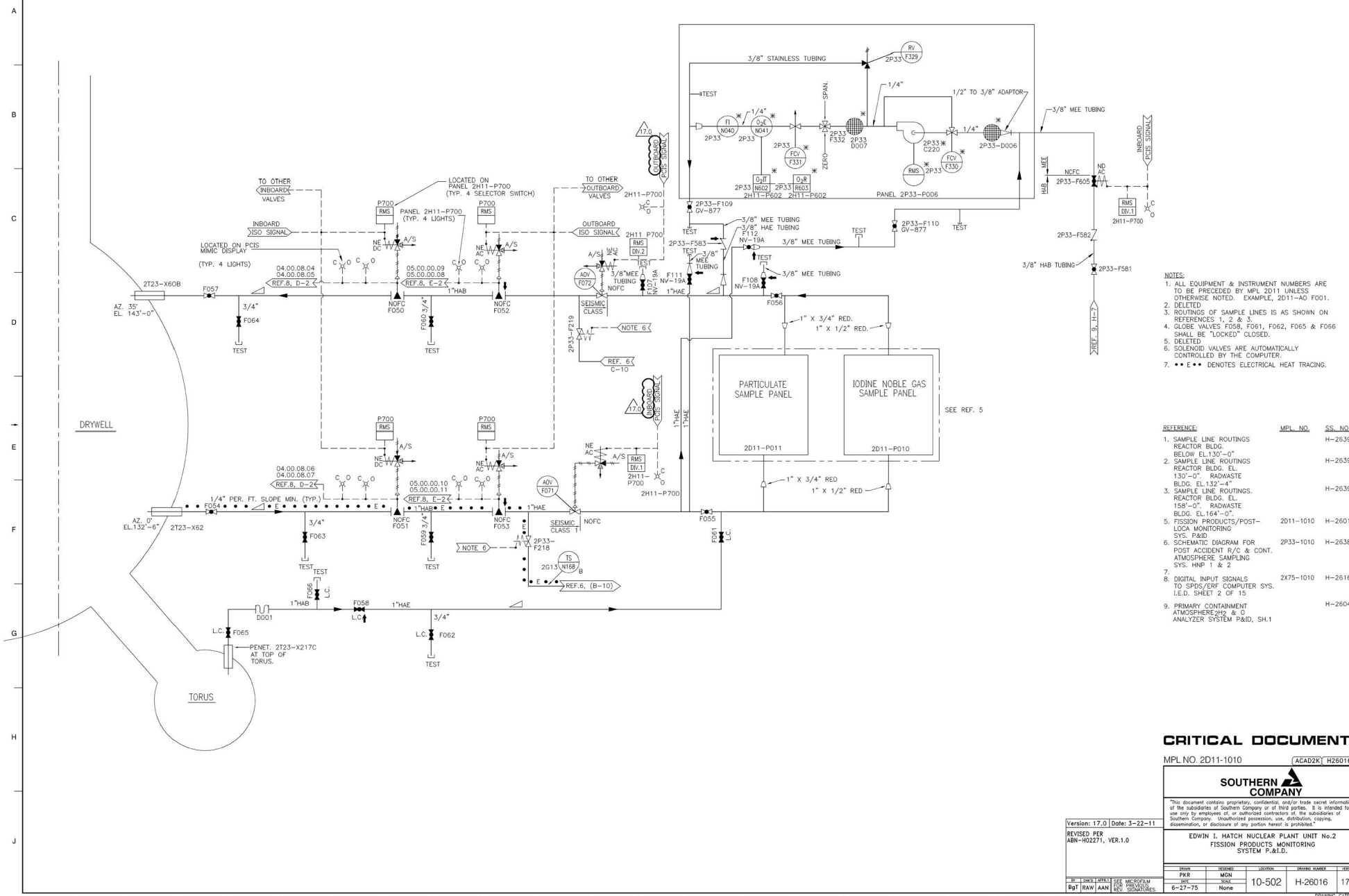
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MPL No. 2E11-1010 (ACAD2K) H26015

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		EDWIN I. HATCH NUCLEAR PLANT UNIT No. 2 R.H.R. SYSTEM P.&I.D. SHEET 2	
<small>NO. 10-502</small> <small>REV. 10-502</small> <small>DATE 02/20/78</small>	<small>NO. 10-502</small> <small>REV. 10-502</small> <small>DATE 02/20/78</small>	<small>NO. 10-502</small> <small>REV. 10-502</small> <small>DATE 02/20/78</small>	<small>NO. 10-502</small> <small>REV. 10-502</small> <small>DATE 02/20/78</small>

Version: 60.0 | Date: 02/20/78
REVISED PER AEN
SNC692852M074, VER. 1.0

91092-H



- NOTES:
1. ALL EQUIPMENT & INSTRUMENT NUMBERS ARE TO BE PRECEDED BY MPL 2D11 UNLESS OTHERWISE NOTED. EXAMPLE, 2D11-AD F001.
 2. DELETED.
 3. ROUTINGS OF SAMPLE LINES IS AS SHOWN ON REFERENCES 1, 2 & 3.
 4. GLOBE VALVES F058, F061, F062, F065 & F066 SHALL BE "LOCKED" CLOSED.
 5. DELETED.
 6. SOLENOID VALVES ARE AUTOMATICALLY CONTROLLED BY THE COMPUTER.
 7. ●●●● DENOTES ELECTRICAL HEAT TRACING.

REFERENCE:

MPL NO.	SS. NO.
1. SAMPLE LINE ROUTINGS REACTOR BLDG. BELOW EL 130'-0"	H-26392
2. SAMPLE LINE ROUTINGS REACTOR BLDG. EL 130'-0" - RADWASTE BLDG. EL 132'-4"	H-26394
3. SAMPLE LINE ROUTINGS REACTOR BLDG. EL 158'-0" - RADWASTE BLDG. EL 164'-0"	H-26396
5. FISSION PRODUCTS/POST-LOCA MONITORING SYS. P&ID	2D11-1010 H-26017
6. SCHEMATIC DIAGRAM FOR POST ACCIDENT R/C & CONT. ATMOSPHERE SAMPLING SYS. HNP 1 & 2	2P33-1010 H-26384
7.	2X75-1010 H-26164
8. DIGITAL INPUT SIGNALS TO SFPS/ERP COMPUTER SYS. I.E.D. SHEET 2 OF 15	H-26048
9. PRIMARY CONTAINMENT ATMOSPHERE 2H2 & O ANALYZER SYSTEM P&ID, SH.1	

CRITICAL DOCUMENT

MPL NO. 2D11-1010 (ACAD2K) H26016

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EDWIN I. HATCH NUCLEAR PLANT UNIT No.2
FISSION PRODUCTS MONITORING SYSTEM P&ID.

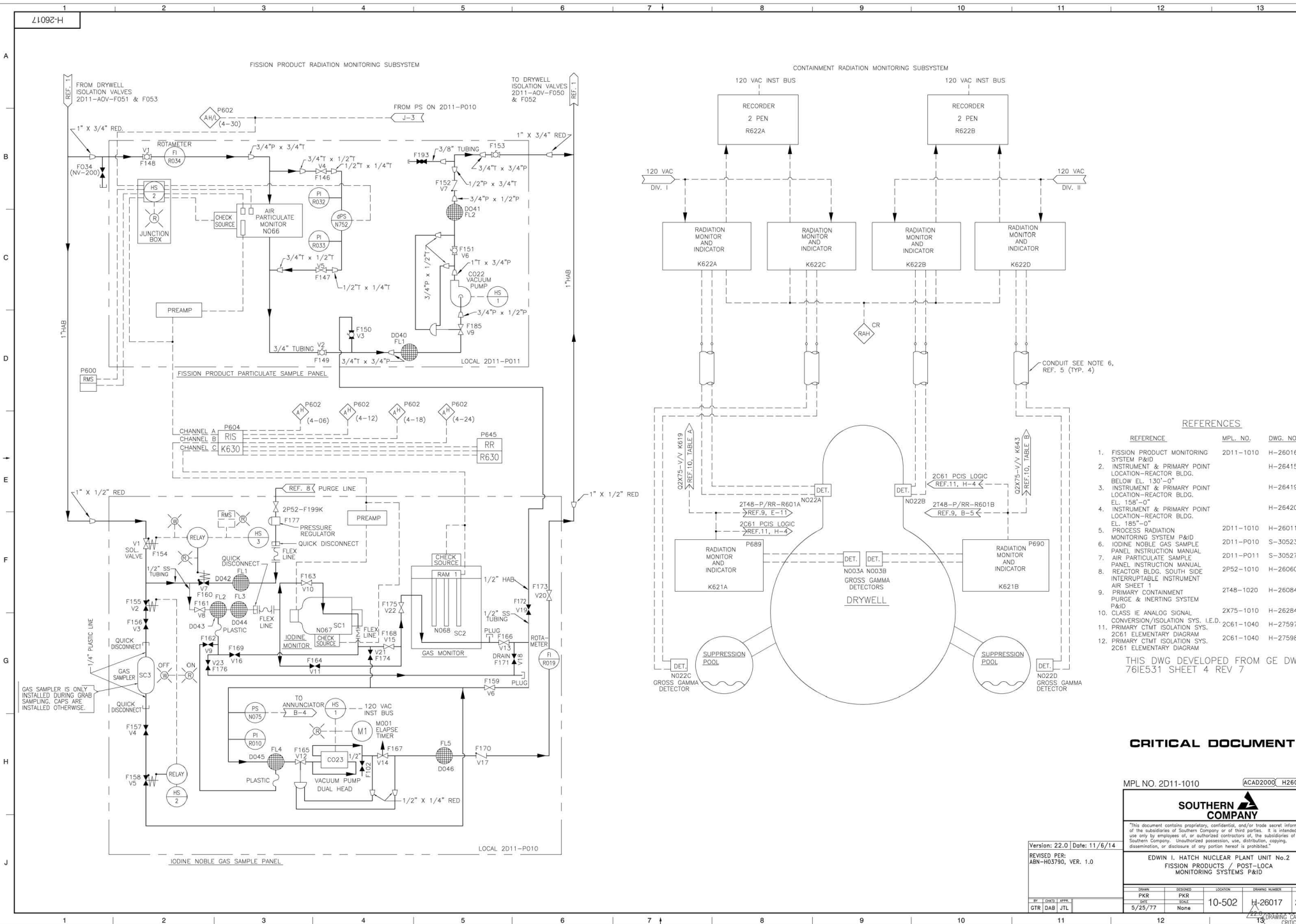
Version: 17.0 Date: 3-22-11

REVISED PER: HNP-102271, VER.1.0

REV	DATE	BY	CHKD	APPD	REASON
17	03/22/11	AW	AW	AW	REV. SIGNATURES

DATE	ISSUED	LOCATION	ISSUED NUMBER	VERSION
6-27-75	None	10-502	H-26016	17.0

DRAWING CATEGORY: CRITICAL



- REFERENCES**
- | REFERENCE | MPL. NO. | DWG. NO. |
|--|-----------|----------|
| 1. FISSION PRODUCT MONITORING SYSTEM P&ID | 2D11-1010 | H-26016 |
| 2. INSTRUMENT & PRIMARY POINT LOCATION-REACTOR BLDG. BELOW EL. 130'-0" | 2D11-1010 | H-26415 |
| 3. INSTRUMENT & PRIMARY POINT LOCATION-REACTOR BLDG. EL. 158'-0" | 2D11-1010 | H-26419 |
| 4. INSTRUMENT & PRIMARY POINT LOCATION-REACTOR BLDG. EL. 185'-0" | 2D11-1010 | H-26420 |
| 5. PROCESS RADIATION MONITORING SYSTEM P&ID | 2D11-1010 | H-26011 |
| 6. IODINE NOBLE GAS SAMPLE PANEL INSTRUCTION MANUAL | 2D11-P010 | S-30523 |
| 7. AIR PARTICULATE SAMPLE PANEL INSTRUCTION MANUAL | 2D11-P011 | S-30527 |
| 8. REACTOR BLDG. SOUTH SIDE INTERRUPTIBLE INSTRUMENT AIR SHEET 11 | 2P52-1010 | H-26060 |
| 9. PRIMARY CONTAINMENT PURGE & INERTING SYSTEM P&ID | 2T48-1020 | H-26084 |
| 10. CLASS IIE ANALOG SIGNAL CONVERSION/ISOLATION SYS. I.E.D. | 2X75-1010 | H-26284 |
| 11. PRIMARY CTMT ISOLATION SYS. 2C61 ELEMENTARY DIAGRAM | 2C61-1040 | H-27597 |
| 12. PRIMARY CTMT ISOLATION SYS. 2C61 ELEMENTARY DIAGRAM | 2C61-1040 | H-27598 |

THIS DWG DEVELOPED FROM GE DWG 761E531 SHEET 4 REV 7

CRITICAL DOCUMENT

MPL. NO. 2D11-1010 ACAD2000 H26017



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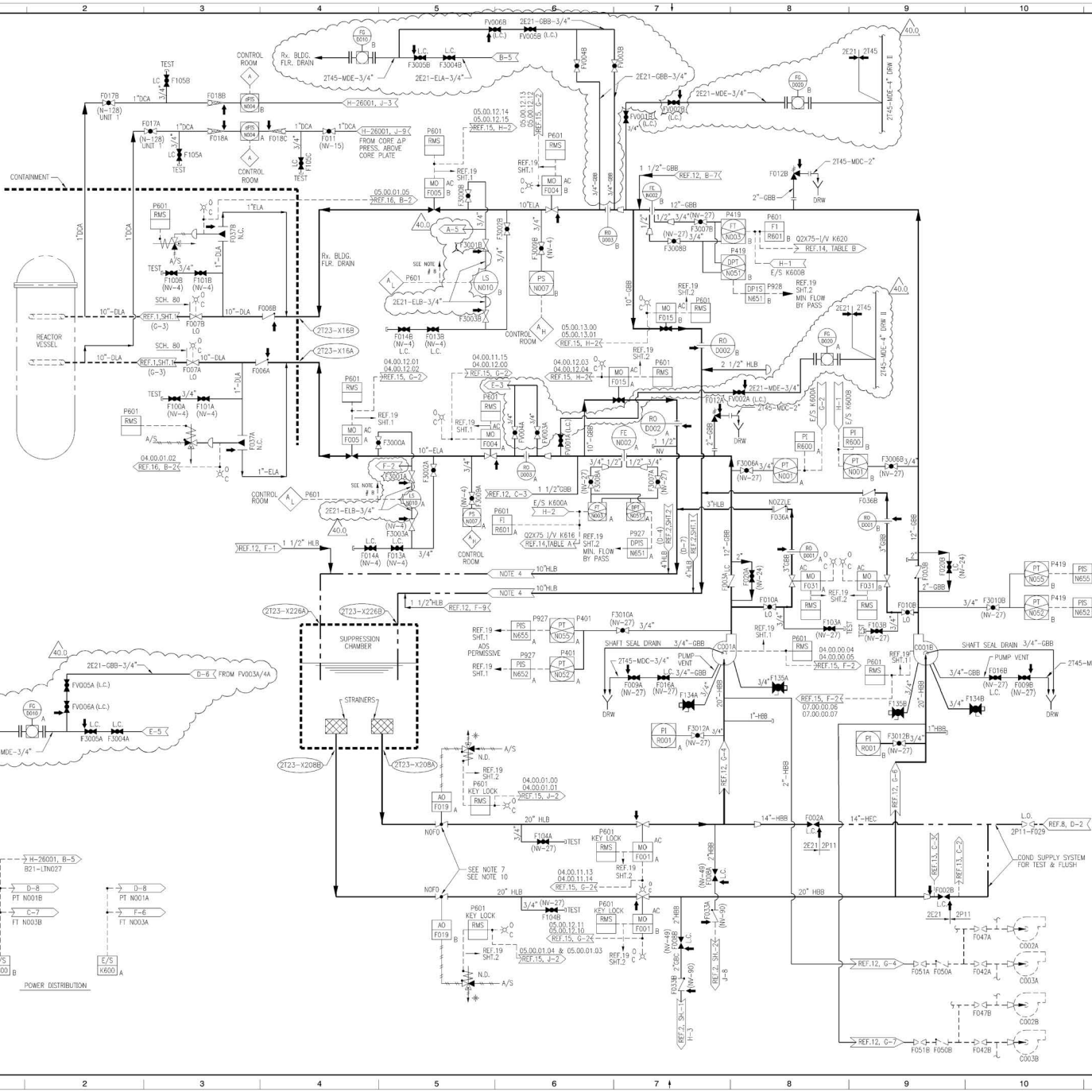
EDWIN I. HATCH NUCLEAR PLANT UNIT No.2
FISSION PRODUCTS / POST-LOCA
MONITORING SYSTEM P&ID

Version: 22.0 Date: 11/6/14
REVISED PER: 48N-H03790, VER. 1.0

REV.	DATE	APP.	BY	DESCRIPTION
1	5/25/77	JTL	DAB	None

Sheet	Revised	Location	Drawing Number	Revision
10-502	None		H-26017	22.0

DRAWING CATEGORY: P&ID



- NOTES:
1. ALL EQUIPMENT & INSTRUMENTS ARE PREFIXED BY MPL NO. 2E21 UNLESS OTHERWISE NOTED.
 2. FOR LOCATION AND IDENTIFICATION OF INSTRUMENTS SEE INSTRUMENT DATA SHEET LISTED IN MPL FOR EACH INSTR.
 3. INSTRUMENT LINE VALVING MUST COMPLY WITH INSTRUMENT PIPING STANDARD SPEC. RETURNED IN REFERENCE 9.
 4. THESE LINES MAY BE RETURNED TO SUPPRESSION CHAMBER THROUGH SEPARATE LINES OR ATTACHED TO RHR SYSTEM TEST RETURN LINES. (SEE REF. 2)
 5. ALL POSITION INDICATING LIGHTS ARE LOCATED IN CONTROL ROOM.
 6. DELETED
 7. VALVES F019A & B SHALL BE LOCATED A MAXIMUM OF SIX FEET FROM THE NOZZLE OF THE TORUS WITH ADEQUATE CLEARANCE FOR OPERATION OF THE VALVE AND VALVE OPERATOR.
 8. L.S. N010 INDICATES THE PROPER FUNCTION OF THE JOCKEY PUMP SYSTEM.
 9. WHERE NV-NUMBERS ARE SHOWN THE VALVES WILL BE TAGGED WITH THESE NUMBERS; WHERE NV NUMBERS ARE NOT SHOWN THE VALVES WILL BE TAGGED WITH THE MPL NUMBER.
 10. AIR ACCUMULATOR FOR F019A IS SHOWN ON H-26070 (C-8). AIR ACCUMULATOR FOR F019B IS SHOWN ON H-26064 (D-9).

REFERENCES

	MPL NO.	SSI NO.
1. NUCLEAR BOILER P&ID	SHT 1 SHT 2 SHT 3	2E21-1010 H-26000 H-26189
2. RHR SYSTEM P&ID	SHT 1 SHT 2	2E11-1010 H-26014 H-26015
3. DELETED		
4. PLANT REQUIREMENTS	2A61-4020	S25706
5. CORE SPRAY PROCESS DIAGRAM	2E21-1020	S25178
6. PIPING & INSTRUMENT SYMBOLS DWG.	442-1010	S-15051
7. FURN. FAB. DEL. & ERECT. OF PIPING & SETTING OF MECH. EQUIPMENT.	2A61-4030	SS-2109-1
8. CONDENSATE STORAGE & TRANSFER SYSTEM	2P11-1010	H-26046
9. PROCESS INST. PIPING & TUBING INSTALL. SPEC	2A61-4070	S25323
10. DELETED		
11. RADWASTE SYS. PAID SHT. 1	2011-1010	H-26026
12. JOCKEY PUMP SYS. PAID	2E21-1050	H-26019
13. TORUS DRAINAGE AND PURIFICATION SYSTEM PAID. AND P.F.D.	2051-1010/1020	H-26042
14. CLASS IIE ANALOG SIGNAL CONVECTION/ISOLATION SYS. L.E.D.	2X75-1010	H-26284
15. DIGITAL INPUT SIGNALS TO SPDS/ERF COMPUTER SHT. 4 OF 5	2X75-1010	H-26166
16. DIGITAL INPUT SIGNALS TO THE SPDS/ERF COMPUTER SHT. 5 OF 5	2X75-1010	H-26167
17. DRIV. PNEUMATIC SYSTEM PAID SHEET 2	H-28023	S-23617
18. INSTRUCTION MANUAL FOR 10" TILTING DISK CHECK VALVE	2E21-1030	H-24739 H-24740
19. CORE SPRAY SYSTEM LOGIC DIAGRAM SHT.1-2		

THIS DWG. DEVELOPED FROM G.E. DWG. NO. 161F-3308A REV.1

CRITICAL DOCUMENT

MPL No. 2E21-1010 ACAD2K H26018

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EDWIN I. HATCH NUCLEAR PLANT UNIT No. 2
CORE SPRAY SYSTEM
P & ID

DATE	ISSUED	LOCATION	DRAWING NUMBER	VERSION
05N	AA			
JUL 20 1978	JMP		10-502	H-26018
			5-15-72	40.0

Version: 40.0 Date: 5/9/11
 REVISED PER AEN 2081711101M553, VER. 2.0

Version: 40.0 Date: 5/9/11
 REVISED PER AEN 2081711101M553, VER. 2.0

MODES

MODE A - FULL FLOW FOR EXCESS AMOUNT OF LEAKAGE AT CHECK VALVE SEATS 2E11-F031A OR C (REF 1, SH. 1 & 2).
MODE B - FULL FLOW FOR EXCESS AMOUNT OF LEAKAGE AT CHECK VALVE SEATS 2E21-F003A (REF. 2).
MODE C - NORMAL OPERATION SYSTEM PRESSURIZED. MIN. FLOW RECIRCULATION.

GENERAL NOTES

1. ALL EQUIPMENT AND INSTRUMENT NUMBERS ARE TO BE PRECEDED BY MPL-2E21 UNLESS OTHERWISE NOTED. EX. 2E21-C002A.
2. FOR WEIGHT AND MATERIAL OF PIPE, VALVES AND FITTINGS, SEE REF. 6.
3. ALL CHECK AND GLOBE VALVES MUST BE LOCATED CLOSE TO CROSS CONNECT HEADER.
4. JOCKEY PUMP DRAINS AND VENTS TO DRW.
5. PUMP C002A AND C002B ARE OPERATING AND PUMPS C003A AND C003B ARE ON STANDBY.
6. PIPING HIGH POINT VENTS AND LOW POINT DRAINS ARE TO BE ADDED AT ALL SUCH POINTS NOT SERVED BY EQUIPMENT VENT AND DRAINS.
7. JOCKEY PUMPS OPERATE ON EMERGENCY AC POWER.
8. PS N011 STARTS THE JOCKEY PUMP
9. 2E21-PI-R005A, B AND R006A, B ARE ASHROFT TYPE 1379A GAUGES; PURCHASE ORDER S-8937.

PROCESS FLOW NOTES

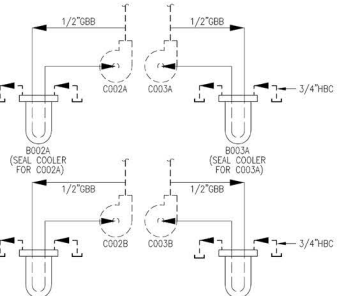
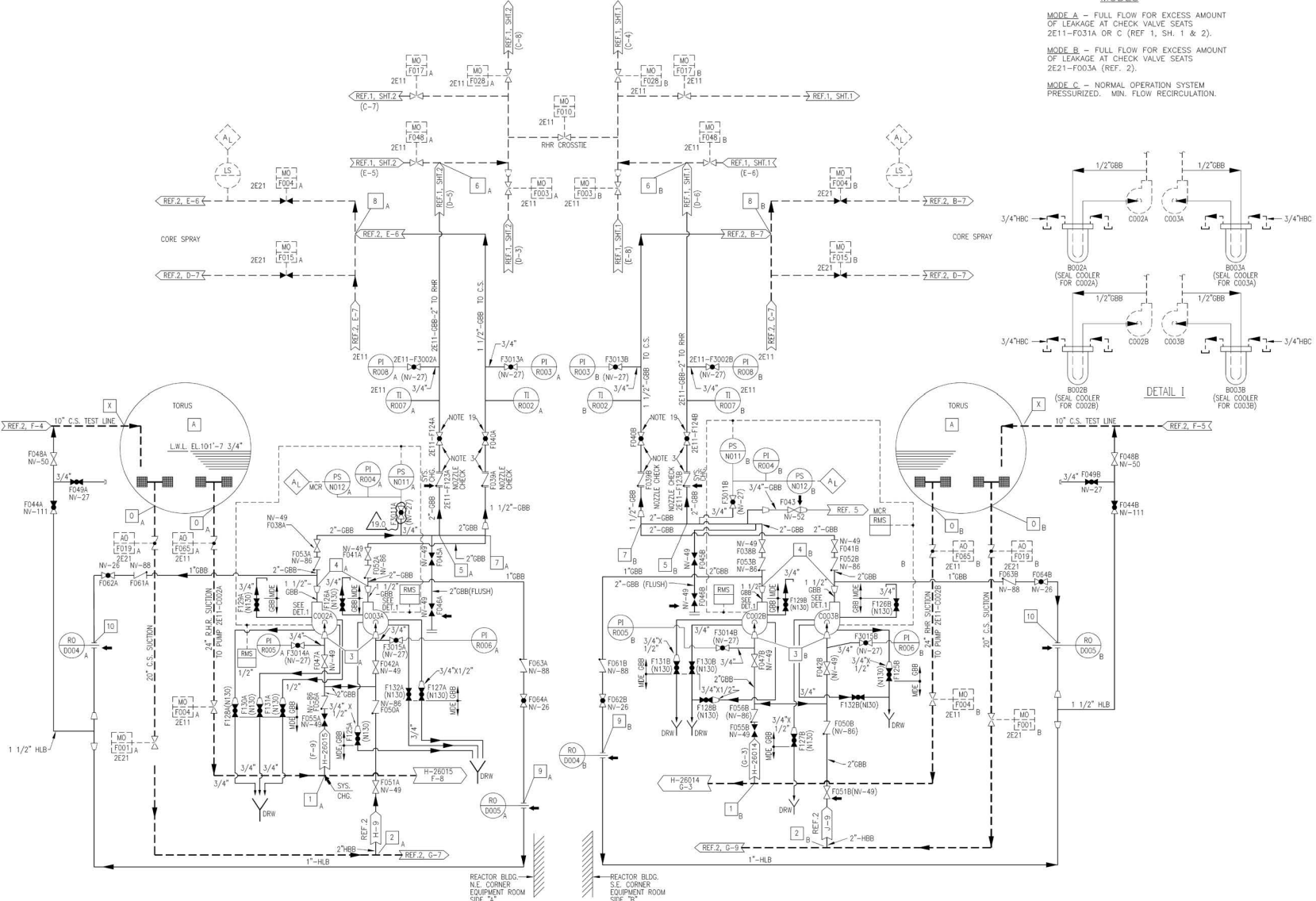
11. FOR PUMP NPSH AVAIL. CALCULATIONS: MAX. TORUS WATER TEMP. = 200°F TORUS PRESSURE = 14.7 PSIA.
12. MIN. NPSH AVAIL. CALCULATED = 18 FEET.
13. DESIGN OF THE PUMPS BASED ON NPSH AVAIL. = 4 FT.
14. WHEN THE CORE SPRAY SYSTEM IS AT TEST MODE, THEN SUCTION TO JOCKEY PUMPS WILL BE THROUGH [0] [1] [3] [4] A
16. THE JOCKEY PUMPS ARE TO PROVIDE A MINIMUM OF 10 PSIG PRESSURE IN THE MAIN PUMP DISCH. LEGS IN ADDITION TO HEAD PRESSURE FROM WATER COLUMN.
17. THE RESTRICTING ORIFICES ARE DESIGNED TO DROP THE DISCH. HEAD TO A LOW TORUS PRESSURE. (~15.7 P.S.I.A.)
18. CALCULATIONS SHOWN ARE FOR SIDE "A", SIDE "A" AND SIDE "B" ARE IDENTICAL.
19. THROTTLE DISCHARGE VALVES TO MAINTAIN 0 PSIG AT PUMP SUCTION AT RUNOUT.

REFERENCES

REFERENCE	MPL. NO.	S.S.I. NO.
1. R.H.R. SYS. P&ID	2E11-1010 SH. 1 SH. 2	H-26014 H-26015
2. CORE SPRAY SYS. P&ID	2E21-1010	H-26018
3. R.H.R. SYS. P.F.D.	2E11-1020	S-25140 S-25141
4. CORE SPRAY SYS. P.F.D.	2E21-1020	S-25178
5. SAMPLING SYS. P.F.D.	2P33-1010	H-26038
6. FURN., TAB., DEL., & ERECT. PIPING & SETTING OF MECH. EQUIPMENT		SS-21091-1
7. PIPING & INSTRUMENT SYMBOLS.	A42-1010	S-15051
8. REACTOR BUILDING-PLANT 2P41-1010 SH. 1 SERVICE WATER P&ID	H-26050 SH. 2	H-26051

LEGEND

--- EXISTING PIPING FOR 2E11-1010 AND/OR 2E21-1010.
 --- PIPING FOR JOCKEY PUMP SYSTEM.



MODE A - FULL FLOW TO R.H.R. PUMPS DISCHARGE LEG SIDE "A"

POSITION	A	0A	1A	0A	2A	3A	4A	5A	6A	7A	8A	9A	10A	X
FLOW-GPM	-	40	40	0	40	40	40	40	30	30	0	10	0	10
PRESSURE-PSIA	14.7													
TEMP.-°F (MAX)	200													
MAX. PRESSURE DROP-FOOT														REQ'D TDH=135 FT.

MODE B - FULL FLOW TO C.S. PUMPS DISCHARGE LEG SIDE "A"

POSITION	A	0A	1A	0A	2A	3A	4A	5A	7A	8A	9A	10A	X
FLOW-GPM	-	40	40	0	40	40	40	40	30	30	10	0	10
PRESSURE-PSIA	14.7												
TEMP.-°F (MAX)	200												
MAX. PRESSURE DROP-FOOT													REQ'D TDH=120 FT.

MODE C - RECIRC. TO TORUS (NO FLOW TO PUMP DISCH. LEGS)

POSITION	A	0A	1A	0A	2A	3A	4A	5A	7A	8A	9A	10A	X
FLOW-GPM	-	10	10	0	10	10	10	10	0	0	10	0	10
PRESSURE-PSIA	14.7												15.7
TEMP.-°F (MAX)	200												
MAX. PRESSURE DROP-FOOT													TDH=200 FT.

CRITICAL DOCUMENT

MPL NO. 2E21-1050 [ACAD2K] H26019



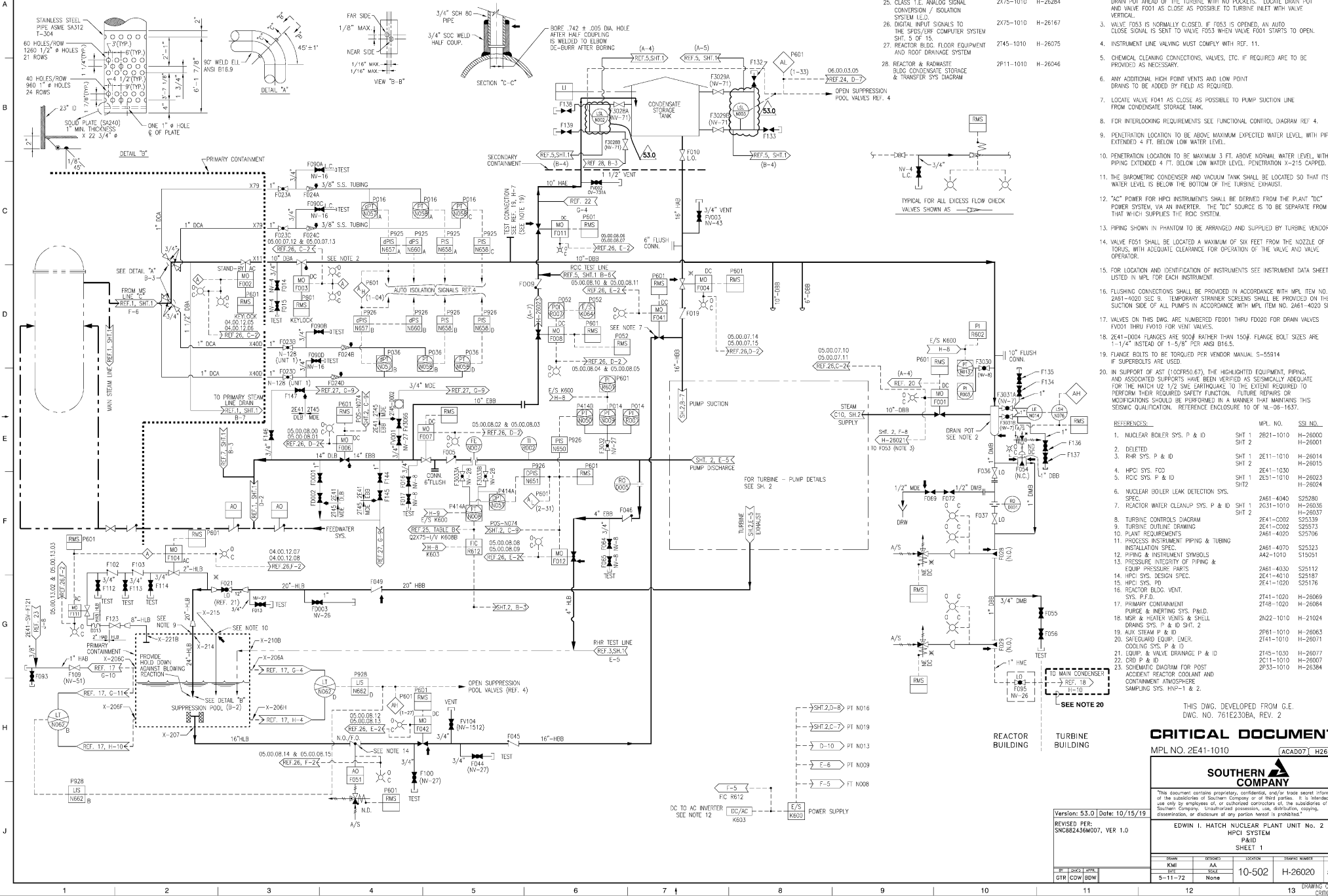
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REVISED PER ABN 04-0226, VERSION 1.0.

EDWIN I. HATCH NUCLEAR PLANT UNIT No. 2
 JOCKEY PUMP SYSTEM P & ID AND
 PROCESS FLOW DIAGRAM FOR THE
 R.H.R. AND CORE SPRAY SYSTEMS

ISSUED	REVISED	REASON	ISSUED	ISSUED NUMBER	REVISION
JDA	AA				
DFV	MMW	DLI	4-27-72	None	

10-502 H-26019 19.0



REFERENCES (CONT.):

- 24. ANNUNCIATOR SIGNALS TO TSC I.E.D. 2X75-1010 H-26159
- 25. CLASS I.E. ANALOG SIGNAL CONVERSION / ISOLATION SYSTEM I.E.D. 2X75-1010 H-26284
- 26. DIGITAL INPUT SIGNALS TO THE SPIES/OPC COMPUTER SYSTEM SHT. 5 OF 15. 2X75-1010 H-26167
- 27. REACTOR BLDG. FLOOR EQUIPMENT AND ROOF DRAINAGE SYSTEM 2745-1010 H-26075
- 28. REACTOR & RADWASTE BLDG. CONDENSATE STORAGE & TRANSFER SYS DIAGRAM 2F11-1010 H-26046

NOTES:

1. EQUIPMENT & INSTRUMENTS ARE PREFIXED BY MPL NO. 2E41 UNLESS OTHERWISE NOTED.
2. LINE TO SLOPE DOWN FROM POINT OF CONNECTION TO MAIN STEAM LINE TO THE DRAIN POT AHEAD OF THE TURBINE WITH NO POCKETS. LOCATE DRAIN POT AND VALVE FOOT AS CLOSE AS POSSIBLE TO TURBINE INLET WITH VALVE VERTICAL.
3. VALVE FO53 IS NORMALLY CLOSED. IF FO53 IS OPENED, AN AUTO CLOSE SIGNAL IS SENT TO VALVE FO53 WHEN VALVE FOOT STARTS TO OPEN.
4. INSTRUMENT LINE VALVING MUST COMPLY WITH REF. 11.
5. CHEMICAL CLEANING CONNECTIONS, VALVES, ETC. IF REQUIRED ARE TO BE PROVIDED AS NECESSARY.
6. ANY ADDITIONAL HIGH POINT VENTS AND LOW POINT DRAINS TO BE ADDED BY FIELD AS POSSIBLE.
7. LOCATE VALVE FO41 AS CLOSE AS POSSIBLE TO PUMP SUCTION LINE FROM CONDENSATE STORAGE TANK.
8. FOR INTERLOCKING REQUIREMENTS SEE FUNCTIONAL CONTROL DIAGRAM REF. 4.
9. PENETRATION LOCATION TO BE ABOVE MAXIMUM EXPECTED WATER LEVEL, WITH PIPING EXTENDED 4 FT. BELOW LOW WATER LEVEL.
10. PENETRATION LOCATION TO BE MAXIMUM 3 FT. ABOVE NORMAL WATER LEVEL, WITH PIPING EXTENDED 4 FT. BELOW LOW WATER LEVEL. PENETRATION X-215 CAPPED.
11. THE BAROMETRIC CONDENSER AND VACUUM TANK SHALL BE LOCATED SO THAT ITS WATER LEVEL IS BELOW THE BOTTOM OF THE TURBINE EXHAUST.
12. "AC" POWER FOR HPCI INSTRUMENTS SHALL BE DERIVED FROM THE PLANT "DC" POWER SYSTEM, VIA AN INVERTER. THE "DC" SOURCE IS TO BE SEPARATE FROM THAT WHICH SUPPLIES THE ROIC SYSTEM.
13. PIPING SHOWN IN PHANTOM TO BE ARRANGED AND SUPPLIED BY TURBINE VENDOR.
14. VALVE FO51 SHALL BE LOCATED A MAXIMUM OF SIX FEET FROM THE NOZZLE OF THE TORUS, WITH ADEQUATE CLEARANCE FOR OPERATION OF THE VALVE AND VALVE OPERATOR.
15. FOR LOCATION AND IDENTIFICATION OF INSTRUMENTS SEE INSTRUMENT DATA SHEET LISTED IN MPL FOR EACH INSTRUMENT.
16. FLUSHING CONNECTIONS SHALL BE PROVIDED IN ACCORDANCE WITH MPL ITEM NO. 2A81-4020 SEC. 9. TEMPORARY STRAINER SCREENS SHALL BE PROVIDED ON THE SUCTION SIDE OF ALL PUMPS IN ACCORDANCE WITH MPL ITEM NO. 2A61-4020 SEC. 9.
17. VALVES ON THIS DWG. ARE NUMBERED F0001 THRU F0020 FOR DRAIN VALVES F0001 THRU F0010 FOR VENT VALVES. FLANGE BOLT SIZES ARE 1-1/4" INSTEAD OF 1-5/8" PER ANSI B16.5.
18. 2E41-0004 FLANGES ARE 600# RATHER THAN 150#. FLANGE BOLT SIZES ARE 1-1/4" INSTEAD OF 1-5/8" PER ANSI B16.5.
19. FLANGE BOLTS TO BE TORQUED PER VENDOR MANUAL S-55814 IF SUPERBOLTS ARE USED.
20. IN SUPPORT OF AST (10CR260.67), THE HIGHLIGHTED EQUIPMENT, PIPING, AND ASSOCIATED SUPPORT HAVE BEEN VERIFIED AS SEISMICALLY ADEQUATE FOR THE HATCH U2 1/2 SVE EARTHQUAKE TO THE EXTENT REQUIRED TO PERFORM THEIR REQUIRED SAFETY FUNCTION. FUTURE REPAIRS OR MODIFICATIONS SHOULD BE PERFORMED IN A MANNER THAT MAINTAINS THIS SEISMIC QUALIFICATION. REFERENCE ENCLOSURE 10 OF N1-06-1637.

REFERENCES:

- | | MPL NO. | SSI NO. |
|---|-----------|-------------------|
| 1. NUCLEAR BOILER SYS. P & ID | SHT 2 | 2E21-1010 H-26000 |
| 2. DELETED | SHT 2 | H-26001 |
| 3. RHR SYS. P & ID | SHT 1 | 2E11-1010 H-26014 |
| 4. HPCI SYS. FOD | SHT 2 | 2E41-1030 H-26015 |
| 5. ROIC SYS. P & ID | SHT 1 | 2E51-1010 H-26023 |
| 6. NUCLEAR BOILER LEAK DETECTION SYS. SPEC. | 2A61-4040 | S25280 |
| 7. REACTOR WATER CLEANUP SYS. P & ID | SHT 1 | 2E31-1010 H-26035 |
| 8. TURBINE CONTROLS DIAGRAM | 2E41-0002 | S25339 |
| 9. TURBINE CUTLINE DRAWING | 2E41-0002 | S25373 |
| 10. PLANT REQUIREMENTS | 2A61-4000 | S25796 |
| 11. PROCESS INSTRUMENT PIPING & TUBING INSTALLATION SPEC. | 2A61-4070 | S35323 |
| 12. PIPING & INSTRUMENT SYMBOLS | 2A61-4030 | S35112 |
| 13. PRESSURE INTEGRITY OF PIPING & EQUIP. PRESSURE PAPER | 2E41-4010 | S25187 |
| 14. HPCI SYS. DESIGN SPEC. | 2E41-1020 | S25176 |
| 15. HPCI SYS. PD | 2E41-1020 | S25176 |
| 16. REACTOR BLDG. VENT. SYS. P & ID | 2741-1020 | H-26069 |
| 17. PRIMARY CONTAINMENT PURGE & HEATING SYS. PS&ID | 2142-1020 | H-26084 |
| 18. NSP & HEATER VENTS & SHELL DRAINS SYS. P & ID SHT. 2 | 2022-1010 | H-21024 |
| 19. A/JX STEAM P & ID | 2761-1010 | H-26063 |
| 20. SHELTERWARD EQUIP. EMER. COOLING SYS. P & ID | 2741-1010 | H-26071 |
| 21. EQUIP. & VALVE DRAINAGE P & ID | 2745-1030 | H-26077 |
| 22. CRD P & ID | 2C11-1010 | H-26007 |
| 23. SCHEMATIC DIAGRAM FOR POST ACCIDENT REACTOR COOLANT AND CONTAINMENT ATMOSPHERE SAMPLING SYS. HNP-1 & 2. | 2P33-1010 | H-26384 |

THIS DWG. DEVELOPED FROM G.E. DWG. NO. 761E2308A, REV. 2

CRITICAL DOCUMENT

MPL NO. 2E41-1010 (ACAD07) H26020

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EDWIN I. HATCH NUCLEAR PLANT Unit No. 2
HPCI SYSTEM
P&ID
SHEET 1

ISSUED	REVISED	ISSUED	ISSUED NUMBER	ISSUED
KMI	AA	10-502	H-26020	52.0
5-11-72	None			

Version: 53.0 Date: 10/15/19
REVISED PER: SNC882458007, VER 1.0

REACTOR BUILDING
TURBINE BUILDING
DC TO AC INVERTER SEE NOTE 12
FC R612
DC/AC
E/S K603
POWER SUPPLY

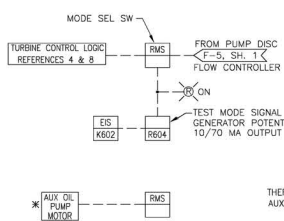
- SHT.2,0-B--- PI N016
- SHT.2,0-C--- PI N019
- D-10--- PI N013
- E-6--- PI N009
- F-5--- FT N008

- SHT.2,0-B--- PI N016
- SHT.2,0-C--- PI N019
- D-10--- PI N013
- E-6--- PI N009
- F-5--- FT N008

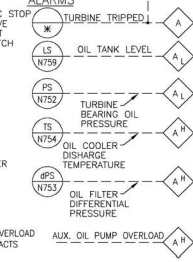
DC TO AC INVERTER SEE NOTE 12
FC R612
DC/AC
E/S K603
POWER SUPPLY

TURBINE SUPERVISORY INSTRUMENTATION

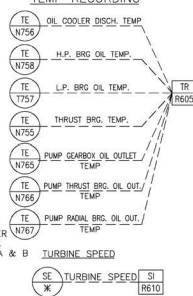
TURBINE HYDRAULIC CONTROL SYSTEM



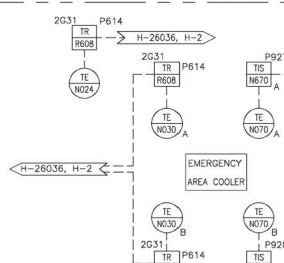
ALARMS



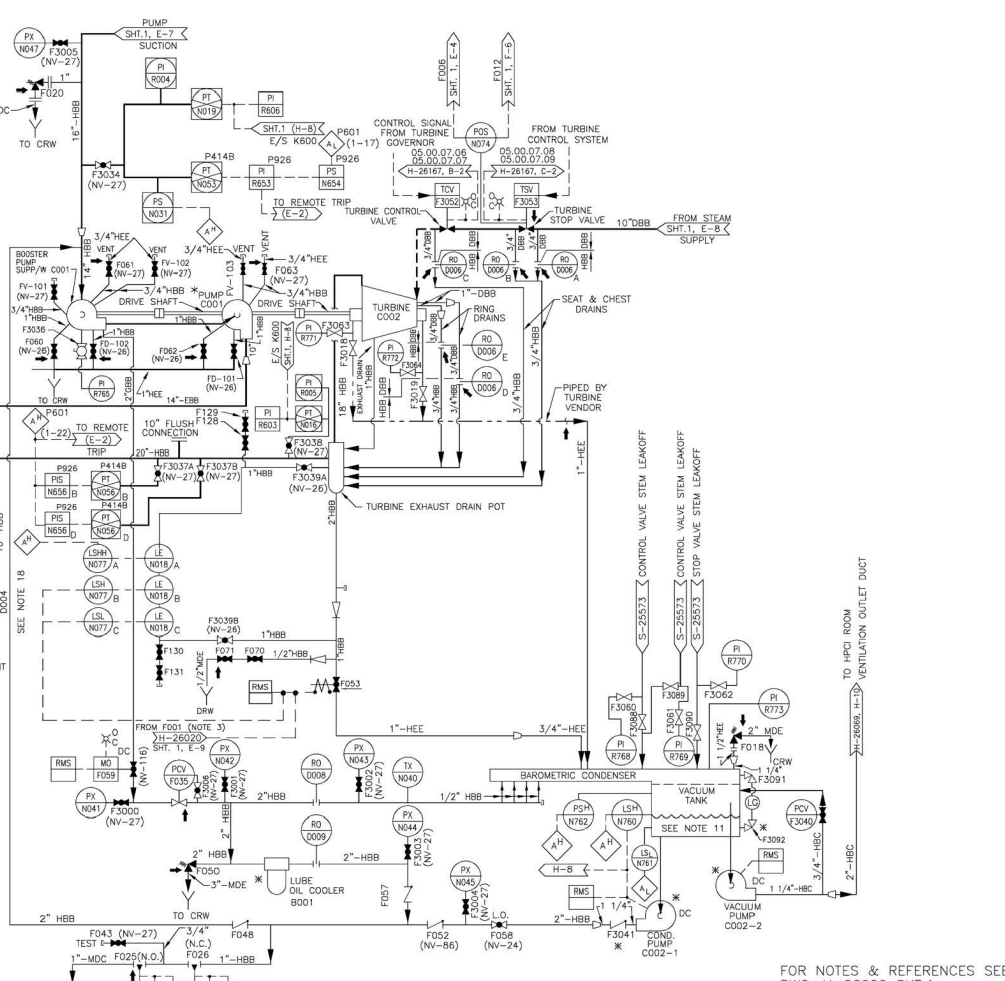
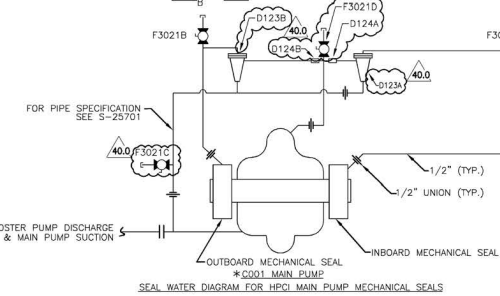
TEMP RECORDING



HPCI EQUIP. AREA LEAK DETECTION SYS.



FOR PIPE SPECIFICATION SEE S-



FOR NOTES & REFERENCES SEE DWG. H-26020 SHT.1

THIS DWG. DEVELOPED FROM G.E. DWG. NO. 761E230BA REV.2

CRITICAL DOCUMENT

MPL NO. 2E41-1010 ACAD2000/H26021



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Version: 40.0 Date: 03/24/15
REVISED PER SNC360302M002 VER 2.0

EDWIN I. HATCH NUCLEAR PLANT UNIT No. 2
HPCI SYSTEM
P&ID
SHEET 2

NO.	DATE	BY	CHKD.	APPV.
1	08/11/72	JLF	JTL	

10-502 H-26021 40.0

DRAWING CATEGORY: CRITICAL

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C

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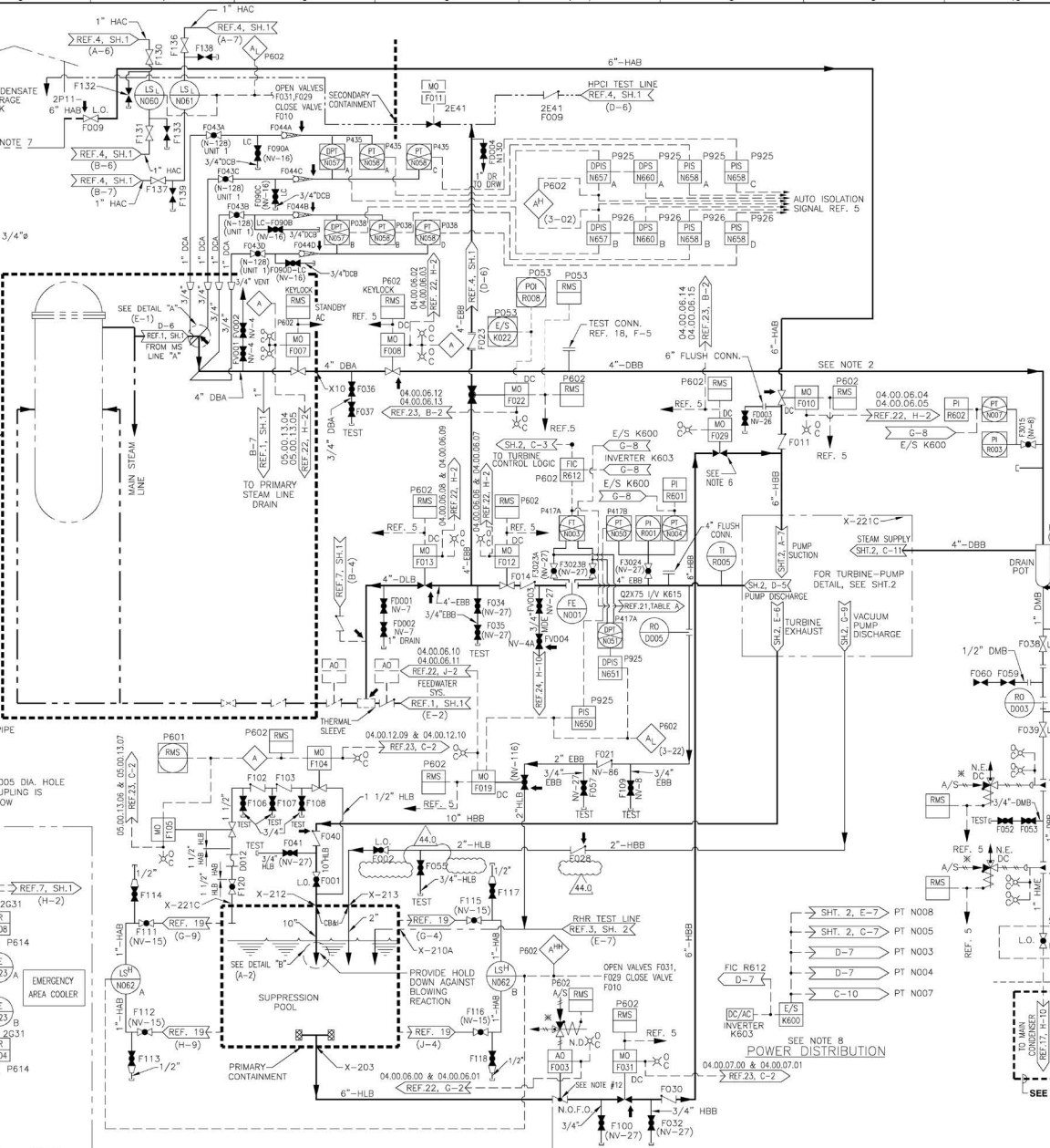
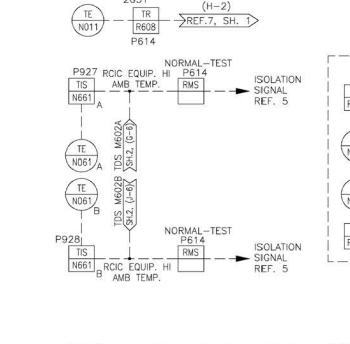
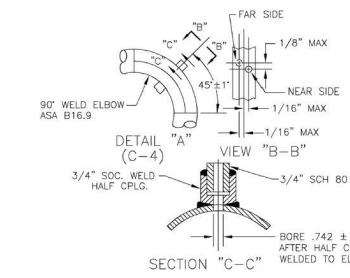
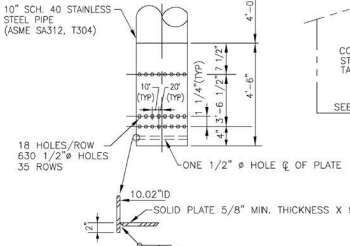
E

F

G

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J



- NOTES:**
- EQUIPMENT AND INSTRUMENTS ARE PREFIXED BY MPL NO. 2E51 UNLESS OTHERWISE NOTED.
 - SLOPE STEAM LINE DOWN ALL THE WAY FROM MAIN STEAM LINE TO DRAIN POT JUST AHEAD OF TURBINE.
 - WHERE GV NUMBERS ARE SHOWN, THE VALVES ARE TAGGED WITH THESE NUMBERS. WHERE GV NUMBERS ARE NOT SHOWN, THE VALVES ARE TAGGED WITH MPL NO. 1.
 - INSTRUMENT LINE VALVING MUST COMPLY WITH INSTRUMENT PIPING STANDARDS, REF. 9.
 - DELETED
 - LOCATE VALVE F029 (ZONE) AS CLOSE AS POSSIBLE TO PUMP SUCTION LINE FROM CONDENSATE STORAGE.
 - REQUIRED TOTAL RESERVE STORAGE FOR RCC SYSTEM AND HPCI SYSTEM, 100,000 GALLONS. THIS AMOUNT OF STORAGE SHALL BE CAPABLE OF BEING ISOLATED FROM SERVING OTHER SYSTEMS.
 - "A-C" POWER FOR RCC INSTRUMENTS SHALL BE DERIVED FROM A "D" SOURCE SEPARATE FROM THAT WHICH SUPPLIES THE HPCI SYSTEM, VIA THE UNINTERRUPTIBLE "A-C" OR COMPARABLE "D-C" TO "A-C" CONVERSION SYSTEM.
 - FOR INTERLOCKING REQUIREMENTS AND AUTO VALVE ACTUATION SEE LOGIC DIAGRAM, REF. 27.
 - PIPING SHOWN IN PHANTOM LEADING TO TURBINE COO2 TO BE ARRANGED AND SUPPLIED BY TURBINE VENDOR.
 - THE BAROMETRIC CONDENSER AND VACUUM TANK SHALL BE LOCATED SUCH THAT IT'S WATER LEVEL IS BELOW THE BOTTOM OF THE TURBINE EXHAUST FLANGE.
 - VALVE AD-F003 SHALL BE LOCATED A MAXIMUM OF SIX FEET FROM THE NOZZLE OF THE TORUS, WITH ADEQUATE CLEARANCES FOR OPERATION OF THE VALVE AND VALVE OPERATOR.
 - FOR LOCATION AND IDENTIFICATION OF INSTRUMENTS SEE INSTRUMENT DATA SHEET LISTED IN MPL FOR EACH INSTRUMENT.
 - FLUSHING CONNECTIONS SHALL BE PROVIDED IN ACCORDANCE WITH MPL ITEM NO. 2A61-4020 SEC 9. TEMPORARY STRAINER SCREENS SHALL BE PROVIDED ON THE SUCTION SIDE OF ALL PUMPS IN ACCORDANCE WITH MPL ITEM NO. 2A61-4020 SEC 9.
 - VALVES ON THIS DWG ARE NUMBERED F001 THRU F020 FOR DRAIN VALVES FV001 THRU FV020 FOR VENT VALVES
 - THIS VALVE IS TO BE INSTALLED AFTER COMPLETION OF START-UP.
 - IN SUPPORT OF AST (10CFR50.67), THE HIGHLIGHTED EQUIPMENT, PIPING, AND ASSOCIATED SUPPORTS HAVE BEEN VERIFIED AS SEISMICALLY ADEQUATE FOR THE HATCH U2 1/2 SME EARTHQUAKE TO THE EXTENT REQUIRED TO PERFORM THEIR REQUIRED SAFETY FUNCTION. FUTURE REPAIRS OR MODIFICATIONS SHOULD BE PERFORMED IN A MANNER THAT MAINTAINS THIS SEISMIC QUALIFICATION. REFERENCE ENCLOSURE 10 OF ML-06-1E37.

REFERENCES

	MPL NO.	SSI NO.
1. NUCLEAR BOILER SYS P&ID	SHT 1 2E21-1010	H-2E000
2. DELETED	SHT 1 2E11-1010	H-2E014
3. RHR SYS P&ID	SHT 1 2E41-1010	H-2E020
4. HPCI SYS P&ID	SHT 1 2E41-1010	H-2E020
5. ROIC SYS FCD	SHT 2 2E51-1030	S-2E100
		S-2E101
		S-2E102
		S-2E103
		S-2E104
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		S-2E198
		S-2E199
		S-2E200

THIS DWG. DEVELOPED FROM G.E. DWG. NO. 761F2349, REV. 2, 5-25-78

CRITICAL DOCUMENT

MPL NO. 2E51-1010 [ACAD2000] H26023



Version: 44.0 Date: 03/25/15

REVISED PER: SNCS31469M002, VER 1.0

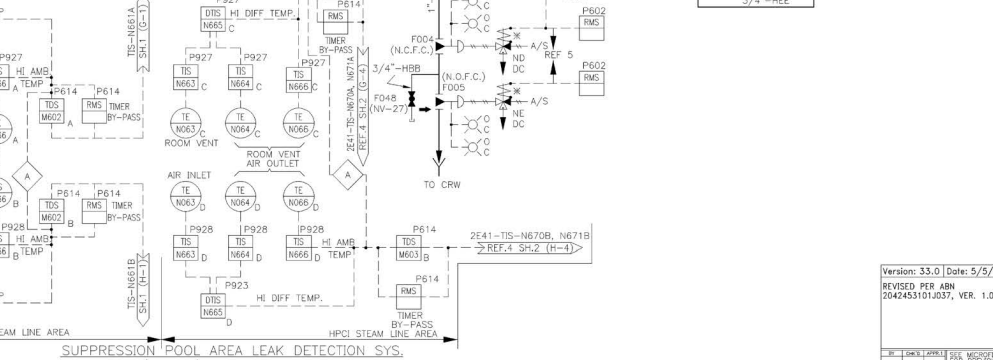
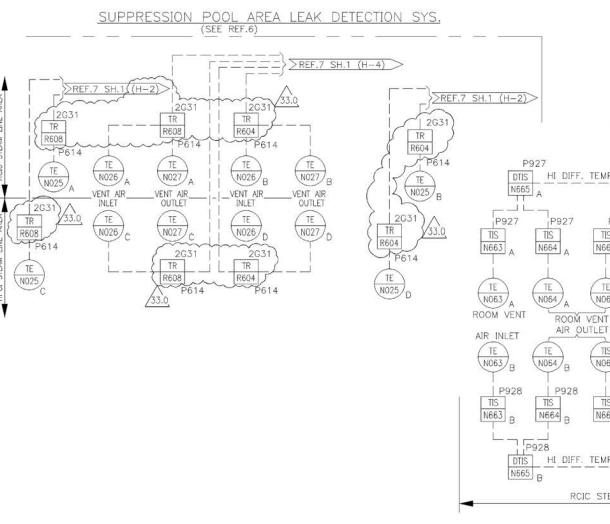
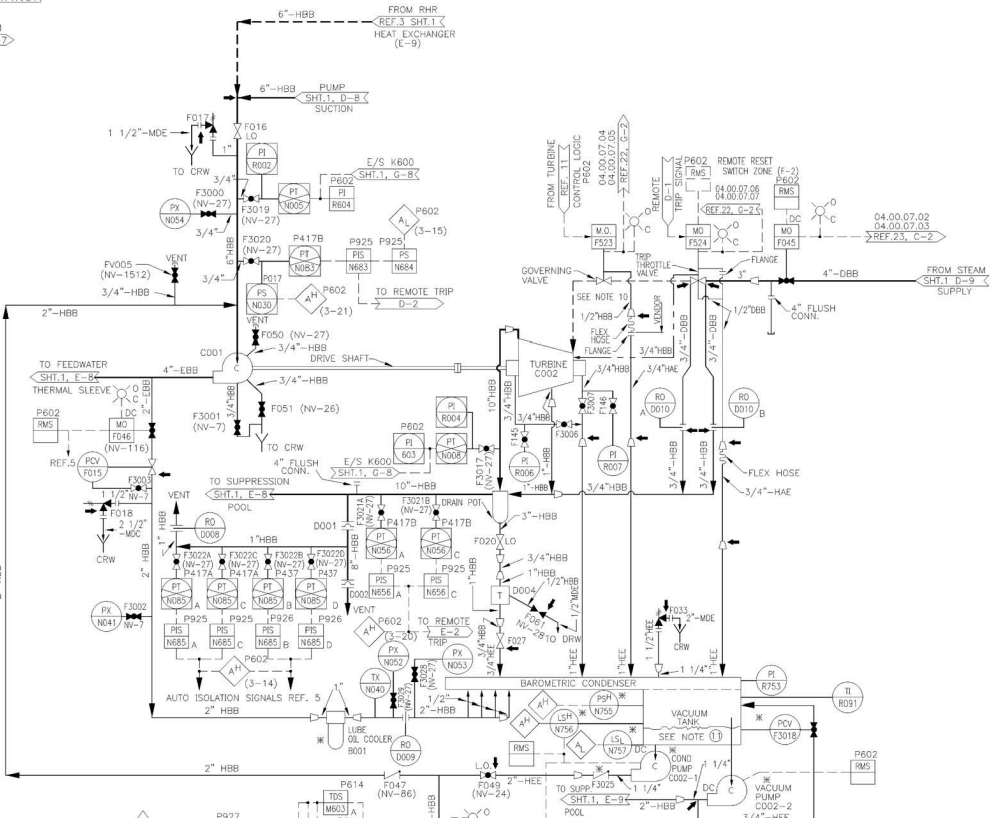
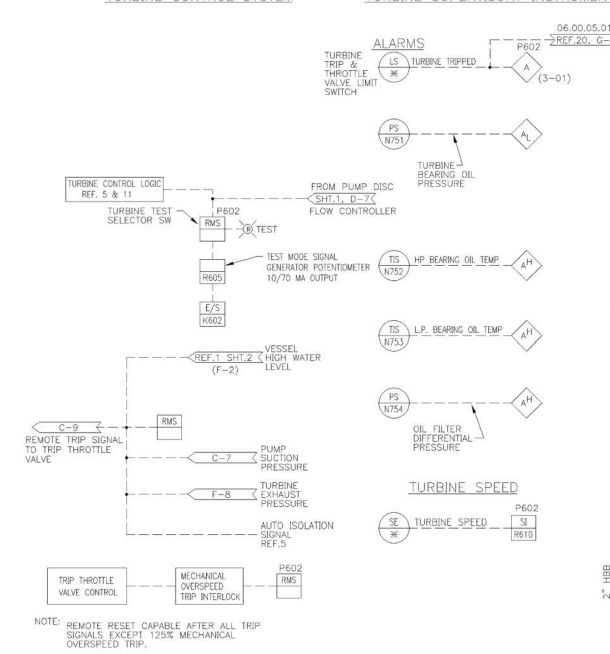
EDWIN I. HATCH NUCLEAR PLANT UNIT NO. 2
RCIC SYSTEM
P & ID SHEET 1

ISSUED	REVISION	LOCATION	DRAWING NUMBER	SCALE
6/5/72	None	10-502	H-26023	44.0

11 12 13 DRAWING CATEGORY: CRITICAL

TURBINE CONTROL SYSTEM

TURBINE SUPERVISORY INSTRUMENTATION



FOR NOTES AND REFERENCES SEE DWG. H-26023 SH.1

THIS DWG. DEVELOPED FROM G.E. DWG. NO. 761E234BA, REV.2 (S-25174/S-25175)

CRITICAL DOCUMENT

MPL NO. 2E51-1010 ACAD2K1 H26024

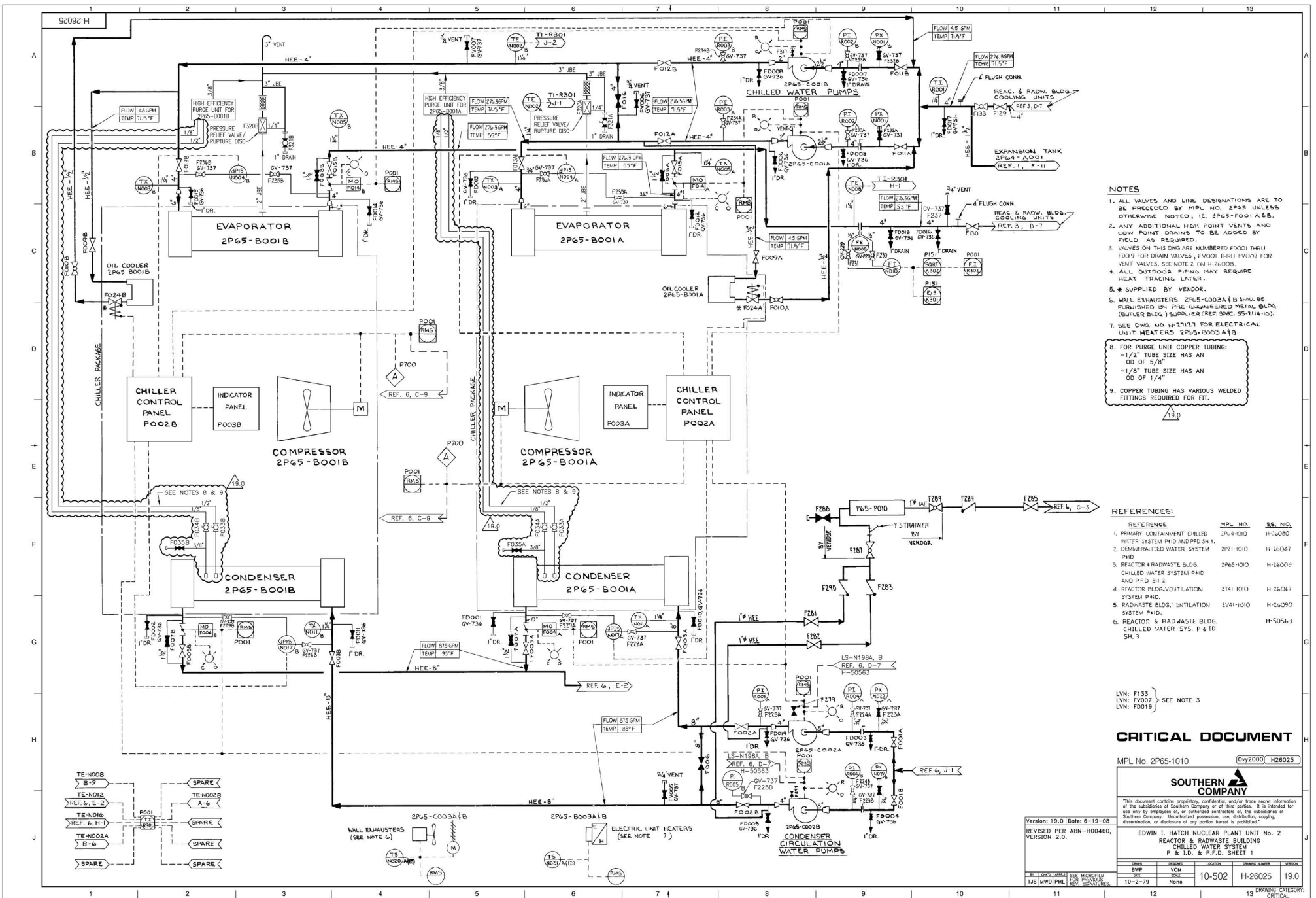


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EDWIN I. HATCH NUCLEAR PLANT No. 2
RCIC SYSTEM
P&ID
SHEET 2

Version: 33.0 Date: 5/5/11
REVISED PER AHN
2042453101.037, VER. 1.0

Sheet	Revised	Location	Revised Number	Version
10-502	AA		H-26024	33.0
6/5/12	None			



- NOTES**
1. ALL VALVES AND LINE DESIGNATIONS ARE TO BE PRECEDED BY MPL NO. 2P65 UNLESS OTHERWISE NOTED, IE. 2P65-FO01A,B,C.
 2. ANY ADDITIONAL HIGH POINT VENTS AND LOW POINT DRAINS TO BE ADDED BY FIELD AS REQUIRED.
 3. VALVES ON THIS DWG ARE NUMBERED F000 THRU F009 FOR DRAIN VALVES, F000 THRU F0007 FOR VENT VALVES. SEE NOTE 2 ON H-26008.
 4. ALL OUTDOOR PIPING MAY REQUIRE HEAT TRACING LATER.
 5. * SUPPLIED BY VENDOR.
 6. WALL EXHAUSTERS 2P65-C003A,B SHALL BE FURNISHED SH. PRE-EXHAUSTED METAL BLDG. (OUTLET BLDG.) SUPPLY SH. REF. DWG. 2P65-114-100.
 7. SEE DWG. NO. W-21717 FOR ELECTRICAL UNIT HEATERS 2P65-B003A,B.
 8. FOR PURGE UNIT COPPER TUBING:
 -1/2" TUBE SIZE HAS AN OD OF 5/8"
 -1/8" TUBE SIZE HAS AN OD OF 1/4"
 9. COPPER TUBING HAS VARIOUS WELDED FITTINGS REQUIRED FOR FIT.

- REFERENCES:**
- | REFERENCE | MPL NO. | SS. NO. |
|---|-----------|---------|
| 1. PRIMARY CONTAINMENT CHILLED WATER SYSTEM PAID AND PFD SH. 1. | 2P64-1010 | H-26000 |
| 2. DEMINERALIZED WATER SYSTEM | 2P21-1010 | H-26007 |
| 3. REACTOR 4 RADWASTE BLDGS. CHILLED WATER SYSTEM P410 AND PFD SH. 2. | 2P65-1010 | H-26008 |
| 4. REACTOR BLDG. VENTILATION SYSTEM PAID. | 2T41-1010 | H-26047 |
| 5. RADWASTE BLDG. VENTILATION SYSTEM PAID. | 2V41-1010 | H-26090 |
| 6. REACTOR 4 RADWASTE BLDG. CHILLED WATER SYS. P. 6 10 SH. 3. | H-50563 | |

LIN: F133
 LVN: FV007 SEE NOTE 3
 LVN: FD019

CRITICAL DOCUMENT

MPL No. 2P65-1010 (0y2000) H26025

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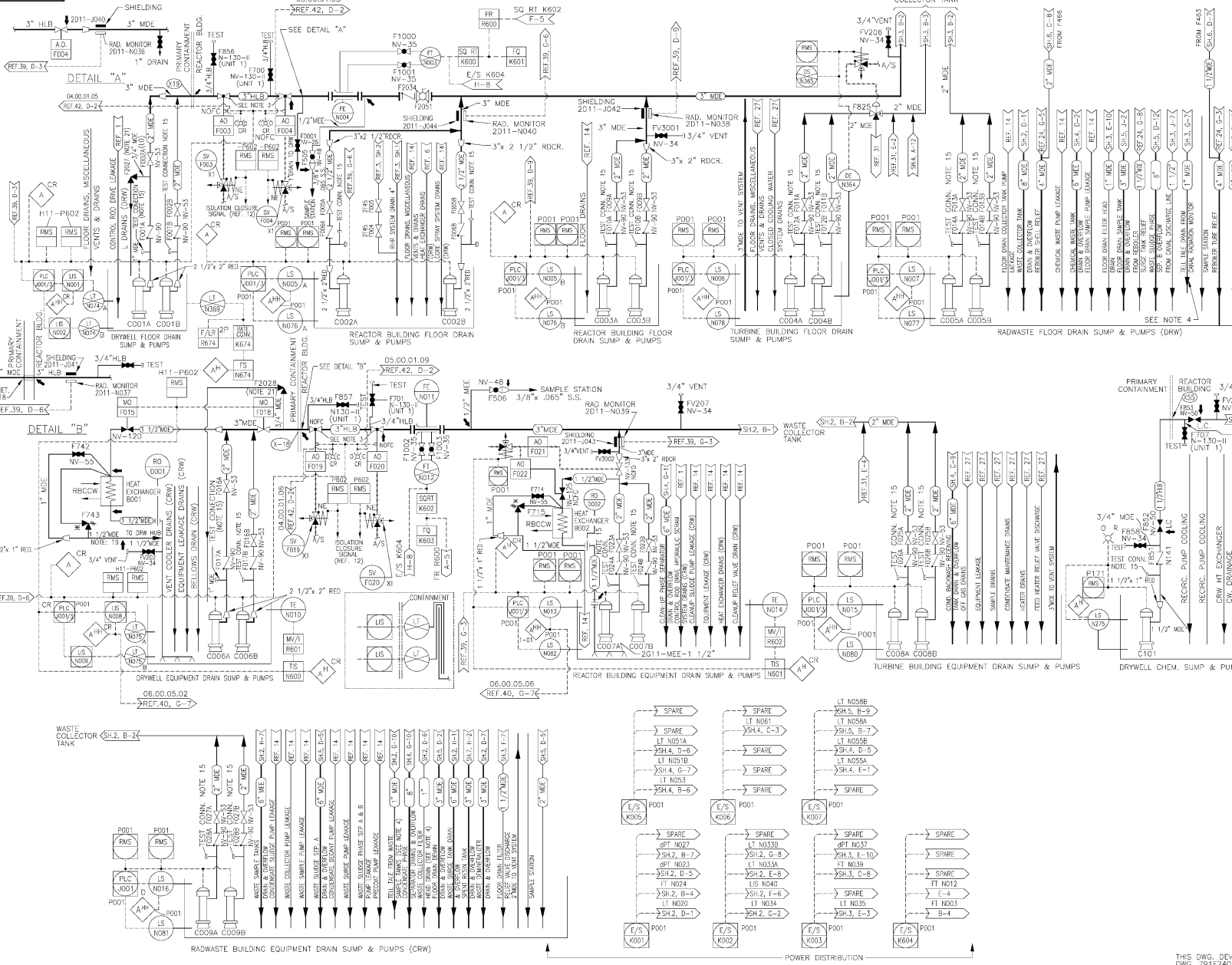
EDWIN I. HATCH NUCLEAR PLANT UNIT No. 2
 REACTOR & RADWASTE BUILDING
 CHILLED WATER SYSTEM
 P & I.D. & P.F.D. SHEET 1

DATE	ISSUED	LOCATION	ISSUED NUMBER	VERSION
10-2-78	None	10-502	H-26025	19.0

Version: 19.0 Date: 6-19-08
 REVISED PER ABN-H00460, VERSION 2.0.

NO.	DATE	BY	CHKD.	REVISED	REVISION
1	10-2-78	None	None	None	None

T.J.S. MWD/PML SEE MICROFILM FOR SIGNATURES



- NOTES :**
1. ALL EQUIPMENT & INSTRUMENTS ARE PREFIXED BY SYSTEM NO. 2G11 UNLESS OTHERWISE NOTED.
 2. VALVES F184 & F185 WILL CLOSE AUTOMATICALLY ON LOW DILUTION FLOOR OR HIGH-HIGH RADIATION SIGNAL IF OTHER SIGNAL EXISTS WHILE THE VALVES ARE CLOSED, THEY CANNOT BE OPENED.
 3. ALL AIR OPERATED VALVES ARE FAIL CLOSED UNLESS SHOWN OTHERWISE.
 4. RADIATION PIPING TO SUMPS SHALL TERMINATE BELOW LOW WATER LEVEL TO PROVIDE A WATER SEAL UNLESS OTHERWISE SHOWN. OFF GAS LINE DRAINS SHALL BE SEALED AS ABOVE OR WITH LOOP SEALS SUFFICIENT TO PREVENT OFF GASES FROM ENTERING SUMP.
 5. ALL MOTOR AND SOLENOID OPERATED VALVES, CENTRIFUGES AND PUMPS SHALL BE PROVIDED WITH ONE SET OF STATUS INDICATING LIGHTS ADJACENT TO THE REMOTE VALVE. STATUS ADDITIONAL LIGHTS ARE NOTED.
 6. INTERLOCK SYSTEM PREVENTING BOTH VALVES AT THE SAME TIME.
 7. USED DURING PRESTARTUP ONLY TO BE REMOVED AFTER STARTUP.
 8. EXCEPT AT POINTS OF CONNECTION WITH APED SUPPLIED EQUIPMENT, THE PIPING SHALL BE COMPLY WITH THE APED SYSTEM PROCESS DIAGRAM AND SYSTEM DESIGN SPECIFICATION.
 9. FLOOR DRAIN SUMP & SEALS SHALL BE ROUTED TO EQUIPMENT DRAIN OR FLOOR DRAIN SYSTEM IN ACCORDANCE WITH DESIGN SPEC. FOR RADIATION DRAIN SYSTEM AND WILL NOT FLOW FREELY FROM THE FLOOR.
 10. ONE SUMP PUMP WILL START AUTOMATICALLY ON HIGH LEVEL, THE SECOND PUMP WILL START AUTOMATICALLY ON HIGH-HIGH LEVEL AND BOTH WILL STOP AUTOMATICALLY ON LOW LEVEL.
 11. FRESH DILUTION WATER TO BE FLUSH ON HIGH-HIGH TORQUE & HIGH HOPPER LEVEL.
 12. OVERFLOW LINES FROM CLOSED TOP TANKS WILL HAVE A TWO FOOT WATER SEAL PROVIDED BY A CONDENSATE LINE OR WILL BE SUBMERGED IN THE COLLECTING SUMP TO PREVENT VENTING THROUGH THE OVERFLOW.
 13. SINGLE ALARMS AND INDICATING LIGHTS ARE LOCATED IN THE RADWASTE CONTROL ROOM UNLESS OTHERWISE INDICATED.
 14. FOR SAMPLING LINES SEE REF. 7.
 15. TEST CONNECTIONS TO SEE REF. 3/4" SIZE.
 16. DLETED.
 17. ANY ADDITIONAL HIGH POINT VENTS AND LOW POINT DRAINS TO BE ADDED BY FIELDS AS REQUIRED.
 18. VALVES ON THIS DWG. ARE NUMBERED: F2001 THRU F2020 FOR DRAIN VALVES F2001 THRU F2020 FOR VENT VALVES.
 19. SPECIFICATION CHANGE AT TOP OF HUB TO AGREE WITH EMBEDDED PIPE.
 20. 2G11/2G12 CONNECTION CODE IS CHANGED FROM ASME SECTION III, CLASS 3 TO ASME SECTION I, EXCEPT FOR INSTRUMENTS REQUIRED FOR CONTAINMENT ISOLATION AND EFFLUENT CONTROL (ISOLATION VALVES 2G11-F184 & F185).
 21. VALVES 2G11-F2027 AND 2G11-F2028 ARE STAINLESS STEEL, ASME III CLASS 3.
 22. WAITING FLANGES ON RELIEF VALVE ARE ISO/S.W.R.F., WITH GO STYLE FLEXITAC GASKET.

- REFERENCES:**
- | REF. | DESCRIPTION | SHT. | MPL NO. | SSI NO. |
|------|---|--------|-----------|---------|
| 1. | CONTROL ROOM DRIVE HYDRAULIC SYSTEM P&ID | SHT. 2 | 2C11-1010 | H-26006 |
| 2. | PROCESS RADIATION MON. RED | SHT. 2 | 2D11-1010 | H-26011 |
| 3. | RESIDUAL HEAT REMOVAL SYSTEM | SHT. 1 | 2E11-1010 | H-26012 |
| | | SHT. 2 | 2E11-1010 | H-26015 |
| 4. | RADWASTE SYSTEM FGD | SHT. 1 | 2C11-1030 | H-26036 |
| 5. | REACTOR WATER CLEANUP SYS. P&ID | SHT. 2 | 2C31-1010 | H-26037 |
| | | SHT. 2 | 2C31-1010 | S-25112 |
| 6. | PRESSURE INTEGRITY SPECIFICATION | | 2A61-4030 | |
| 7. | PLANT REQUIREMENTS | | 2A61-4020 | |
| 8. | PIPING AND INSTRUMENT SYMBOLS | | 2A2-1010 | S-15051 |
| 9. | RADWASTE SYSTEM P&ID | | 2G11-1020 | S-25384 |
| 10. | RADWASTE SYSTEM DES. SPEC. | | 2G11-6010 | S-25126 |
| 11. | CORE SPRAY SYSTEM P&ID | | 2G21-1010 | H-26018 |
| 12. | NUCLEAR BOILER SYSTEM FGD | | 2G21-1030 | S-25154 |
| 13. | FUEL POOL SYSTEM | | 2G41-1010 | H-26039 |
| 14. | REACTOR & RADWASTE DRAINAGE DIAGRAM | | 2A45-1010 | H-26075 |
| 15. | REACTOR & RADWASTE BLDGS. COND. STORAGE & TRANSFER SYS. DIAGRAM | | 2P11-1010 | H-26016 |
| 16. | REACTOR & RADWASTE BLDGS. COND. AUX. SYSTEM SYS. P&ID | | 2P61-1010 | H-26063 |
| 17. | CONDENSATE POLISHING DEMIN. SYS. P&ID | | 2N21-1010 | H-26118 |
| 18. | TURBINE BLDG. INSTR. AIR SYS. P&ID | | 2P52-1010 | H-26177 |
| 19. | RADWASTE BLDG. INSTR. AIR SYS. P&ID | | 2P52-1010 | H-26059 |
| 20. | TURBINE BLDG. SERVICE AIR SYS. P&ID | | 2P51-1010 | H-21029 |
| 21. | REACTOR & RADWASTE BLDG. SERVICE AIR SYS. P&ID | | 2P51-1020 | H-26058 |
| 22. | RADWASTE BUILDING-STEEL SUPPORTS FOR SHIELDED DETECTOR WELL-NEAT LINE AND SERVICE FOR CONCRETE PADS AT 10'-0" | | 2D11-1009 | H-25705 |
| 23. | DEMINERALIZED WATER SYS. P&ID | | 2P21-1010 | H-26047 |
| 24. | RADWASTE SYS. SUPPORT SYS. P&ID & PFD | | 2D11-1011 | H-26035 |
| 25. | SAMPLING SYS. P&ID & PFD | | 2P33-2010 | H-21082 |
| 26. | TURBINE BLDG. DRAINAGE DIAGRAM | | 2U45-1010 | H-21061 |
| 27. | WASTE GAS TREATMENT BLDG. SUPPORT SYS. P&ID | | 2N62-1015 | H-26043 |
| 28. | TURBINE BLDG. CONDENSATE & FEEDWATER SYS. P&ID | | 2N21-1010 | H-21037 |
| 29. | FUEL POOL FILTER/DEMIN SYS. P&ID | | 2C41-1010 | H-26040 |
| 30. | FLOOR AND EQUIPMENT DRAINS CONTROL P&ID | | 2Z45-1010 | H-21063 |
| 31. | RADWASTE SOLIDIFICATION SYSTEM P&ID | | 2D12-1010 | H-26033 |
| 32. | RADWASTE SOLIDIFICATION SYSTEM P&ID | | 2D12-1010 | H-26033 |
| 33. | TURBINE BLDG. CIRCULATING WATER SYSTEM | | 2N71-1010 | H-21026 |
| 34. | TURBINE BLDG. CONDENSATE & FEEDWATER P&ID | | 2N21-1010 | H-21037 |
| 35. | REACTOR BLDG. SOLID-STATE INTERRUPTIBLE INSTR. AIR P&ID SH. 1 | | 2P52-1010 | H-26060 |
| 36. | RADWASTE BLDG. FLOOR AND EQUIPMENT DRAINAGE DIAGRAM | | 2V45-1010 | H-26092 |
| 37. | REACTOR BLDG. CLOSED COOLING WATER SYS. P&ID | | 2P42-1010 | H-26055 |
| 38. | ROT. MACHINE SHOP SUPPORT SYS. P&ID | | 2P42-1010 | H-26055 |
| 39. | PROCESS RADIATION MONITORING SYS. I.E.D. SHT. 4 | | 2X75-1010 | H-26159 |
| 40. | ANNUNCIATOR SIGNALS TO TSC, I.E.D. | | 2X75-1010 | H-26159 |
| 41. | DLETED | | | |
| 42. | CENTRAL INPUT SIGNALS TO THE SPDS/ERF COMPUTER SYSTEM I.E.D. SHEET 6 OF 15 | | 2X75-F601 | H-26175 |

CRITICAL DOCUMENT

MPL NO. 2G11-1010 (ACAD2010) H26026

NO.	REVISED	DATE	BY	DESCRIPTION	ISSUED
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SOUTHERN COMPANY

EDWIN I. HATCH NUCLEAR PLANT UNIT NO. 2
RADWASTE SYSTEM P&ID
SHEET NO.

THIS DWG. DEVELOPED FROM G.E. DWG. 791E2408A SHEET 1 REV. 3

REVISIONS:

NO.	DATE	DESCRIPTION
1	5/10/72	None

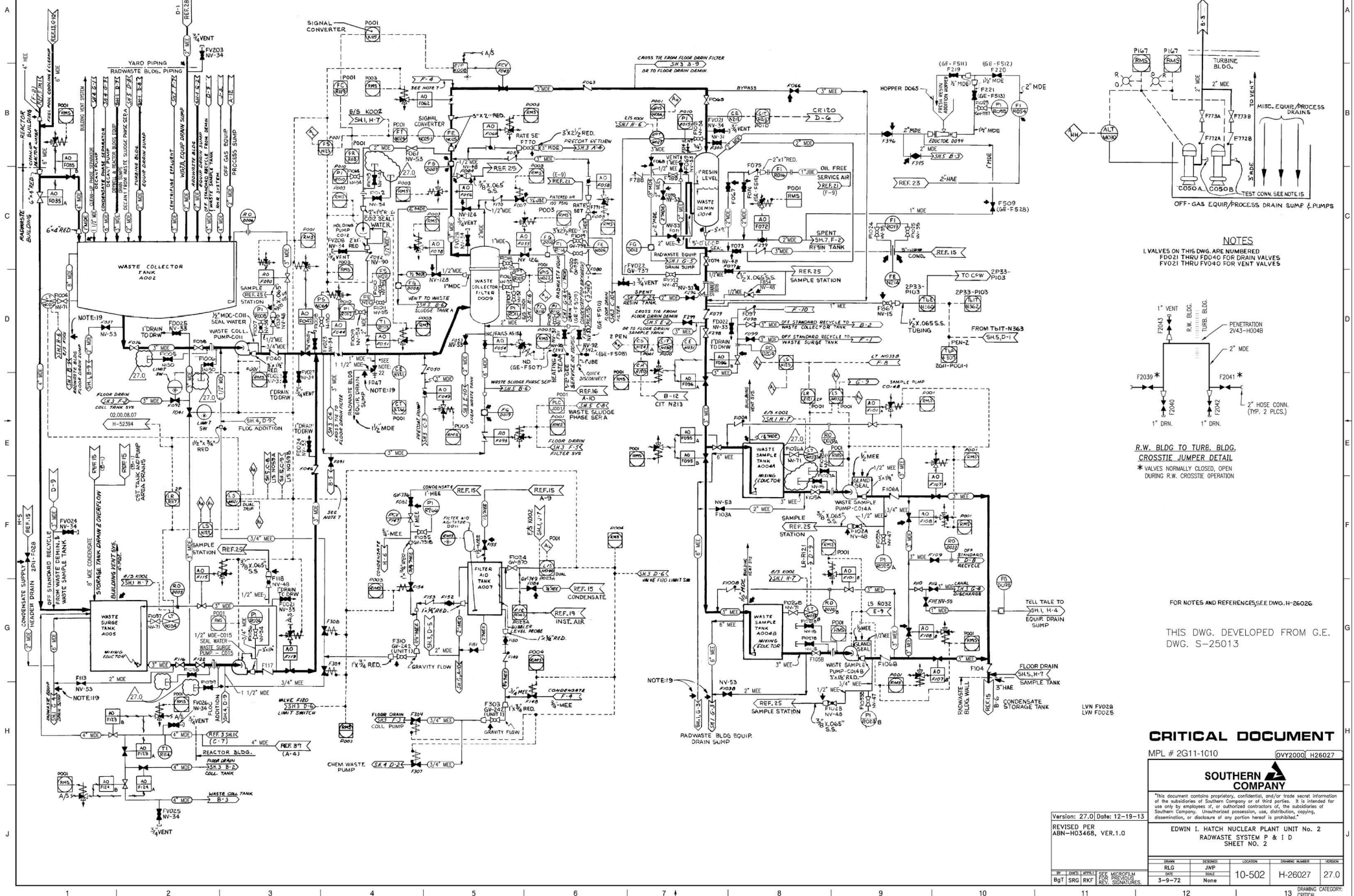
VERIFIED BY: SNC685734W005, VER 1.0

DATE: 01/24/18

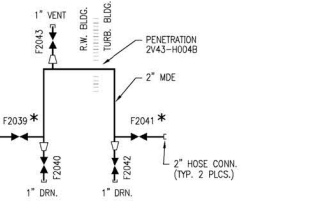
REVISIONS:

NO.	DATE	DESCRIPTION
1	5/10/72	None

EDWIN I. HATCH NUCLEAR PLANT UNIT NO. 2
RADWASTE SYSTEM P&ID
SHEET NO.



NOTES
 1. VALVES ON THIS DWG ARE NUMBERED FV021 THRU FV040 FOR DRAIN VALVES FV021 THRU FV040 FOR VENT VALVES



R.W. BLDG TO TUBE BLDG. CROSSIE JUMPER DETAIL
 * VALVES NORMALLY CLOSED, OPEN DURING R.W. CROSSIE OPERATION

FOR NOTES AND REFERENCES, SEE DWG. H-26026

THIS DWG. DEVELOPED FROM G.E. DWG. S-25013

CRITICAL DOCUMENT

MPL # 2G11-1010 09V2000, H26027

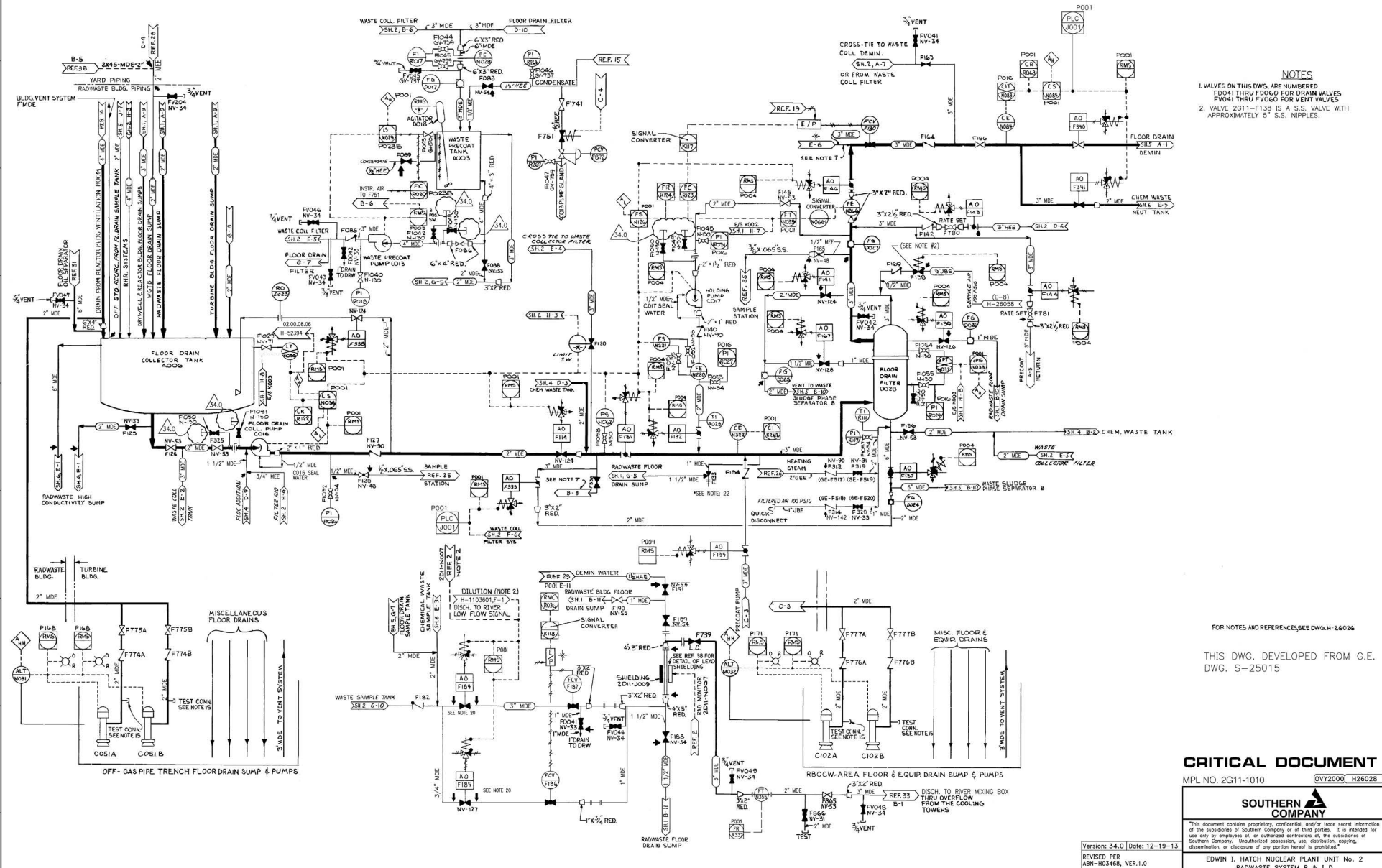
SOUTHERN COMPANY			
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EDWIN I. HATCH NUCLEAR PLANT UNIT No. 2 RADWASTE SYSTEM P & I D SHEET NO. 2			
DATE	ISSUED	LOCATION	ISSUED BY
10-502	H-26027	27.0	

Version: 27.0 Date: 12-19-13
 REVISED PER ABN-H03468, VER.1.0

BY	CHKD	APPROV	SEE MICROFILM
Bgt	SRO	RNF	SEE SIGNATURES

A
B
C
D
E
F
G
H
J

A
B
C
D
E
F
G
H
J



NOTES

1. VALVES ON THIS DWG. ARE NUMBERED F0041 THRU F0060 FOR DRAIN VALVES FV041 THRU FV060 FOR VENT VALVES

2. VALVE 2011-F138 IS A S.S. VALVE WITH APPROXIMATELY 5" S.S. NIPPLES.

FOR NOTES AND REFERENCES, SEE DWG. H-26026

THIS DWG. DEVELOPED FROM G.E. DWG. S-25015

CRITICAL DOCUMENT

MPL NO. 2G11-1010 0YV2000 H26028

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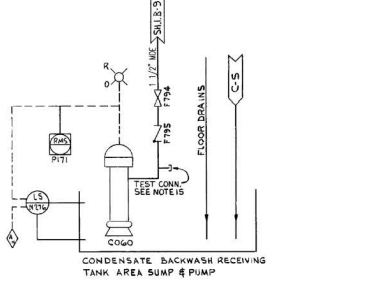
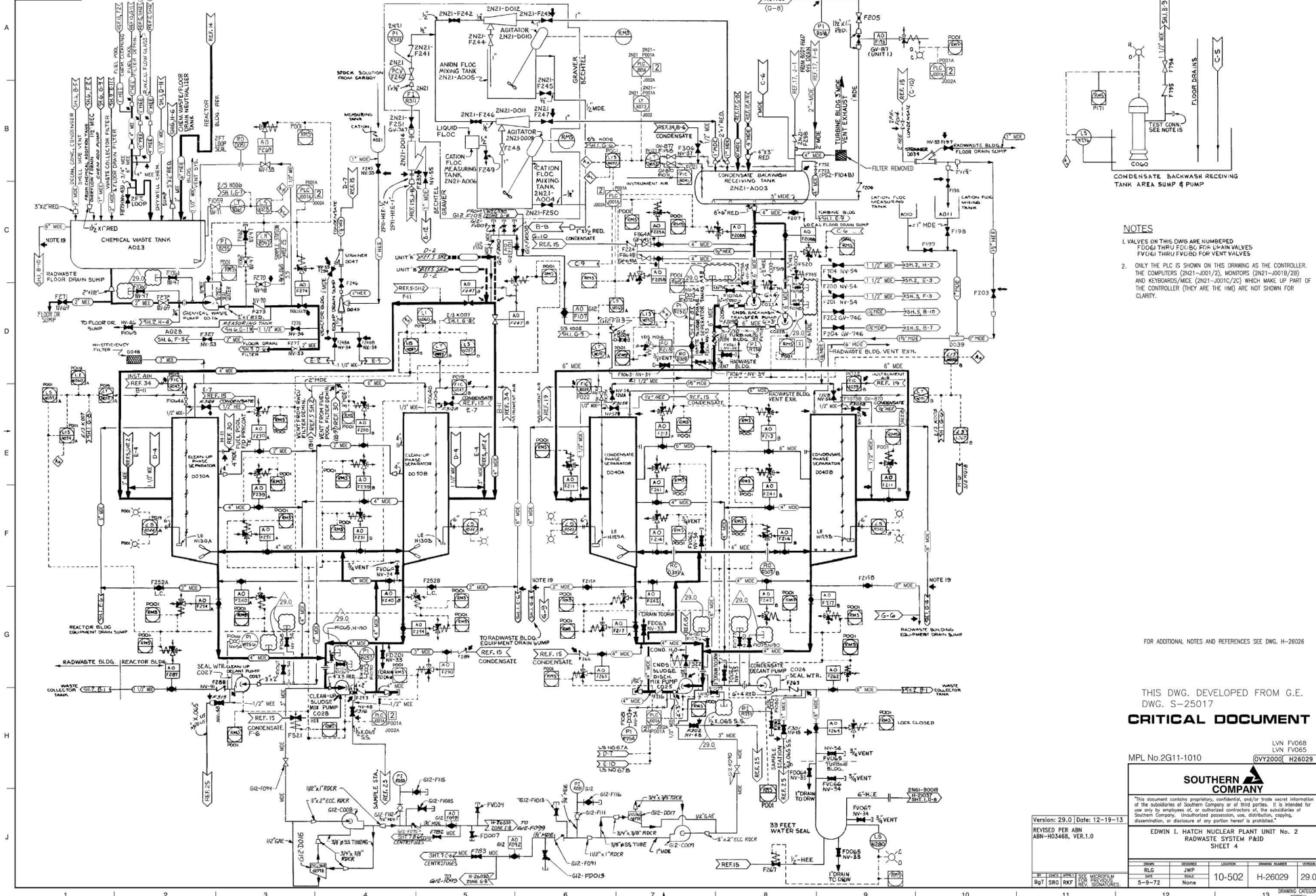
**EDWIN I. HATCH NUCLEAR PLANT UNIT No. 2
RADWASTE SYSTEM P & I D
SHEET NO. 3**

Version: 34.0 Date: 12-19-13
REVISED PER 48N-103468, VER.1.0

NO.	DATE	BY	CHKD	REV.	DESCRIPTION
B-1	08/11/88	PKK	PKK	1	ISSUE FOR PRODUCTION
B-2	05/09/92	PKK	PKK	2	REV. SIGNATURES

DRAWING CATEGORY: CRITICAL

62092-H



NOTES

1. VALVES ON THIS DWG ARE NUMBERED FV061 THRU FV069 FOR URN-VALVES FV070 THRU FV076 FOR VENT VALVES.
2. ONLY THE P&ID IS SHOWN ON THIS DRAWING AS THE CONTROLLER. THE COMPUTERS (2N21-0011/2), MONITORS (2N21-0018/28) AND KEYBOARDS/MICE (2N21-0011C/20) WHICH MAKE UP PART OF THE CONTROLLER (THEY ARE THE HW) ARE NOT SHOWN FOR CLARITY.

FOR ADDITIONAL NOTES AND REFERENCES SEE DWG. H-26026

THIS DWG. DEVELOPED FROM G.E. DWG. S-25017
CRITICAL DOCUMENT

MPL No. 2G11-1010 LWN FV068
LWN FV065

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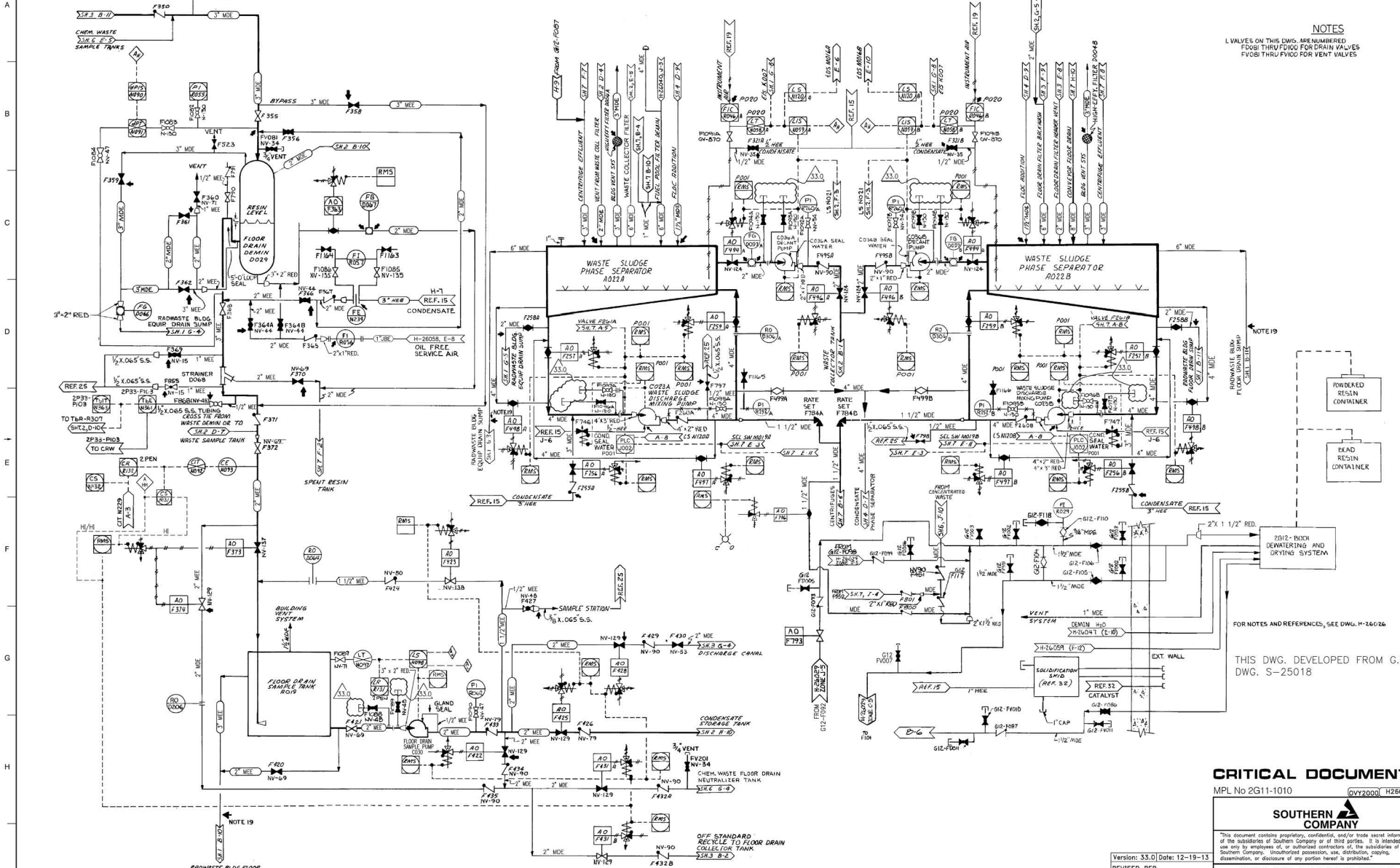
EDWIN I. HATCH NUCLEAR PLANT UNIT No. 2
RADWASTE SYSTEM P&ID
SHEET #

Version: 29.0 | Date: 12-19-13
 REVISED PER ABN
 ABN-H03468, VER. 1.0

NO.	DATE	BY	CHKD	REASON
1		SRG	RMP	ISS
2		SRG	RMP	REV. SIGNATURES

DRAWN	DESIGNED	LOCATED	DRAWING NUMBER	VERSION
SRG	RMP		10-502	29.0
			S-8-72	None

DRAWING CATEGORY: CRITICAL



NOTES
 L VALVES ON THIS DWG. ARE ENLARGED
 FV03 THRU FV04 FOR DRAIN VALVES
 FV03 THRU FV02 FOR VENT VALVES

FOR NOTES AND REFERENCES, SEE DWG. H-26026
 THIS DWG. DEVELOPED FROM G.E.
 DWG. S-25018

CRITICAL DOCUMENT

MPL No 2G11-1010 GY2000 H26030



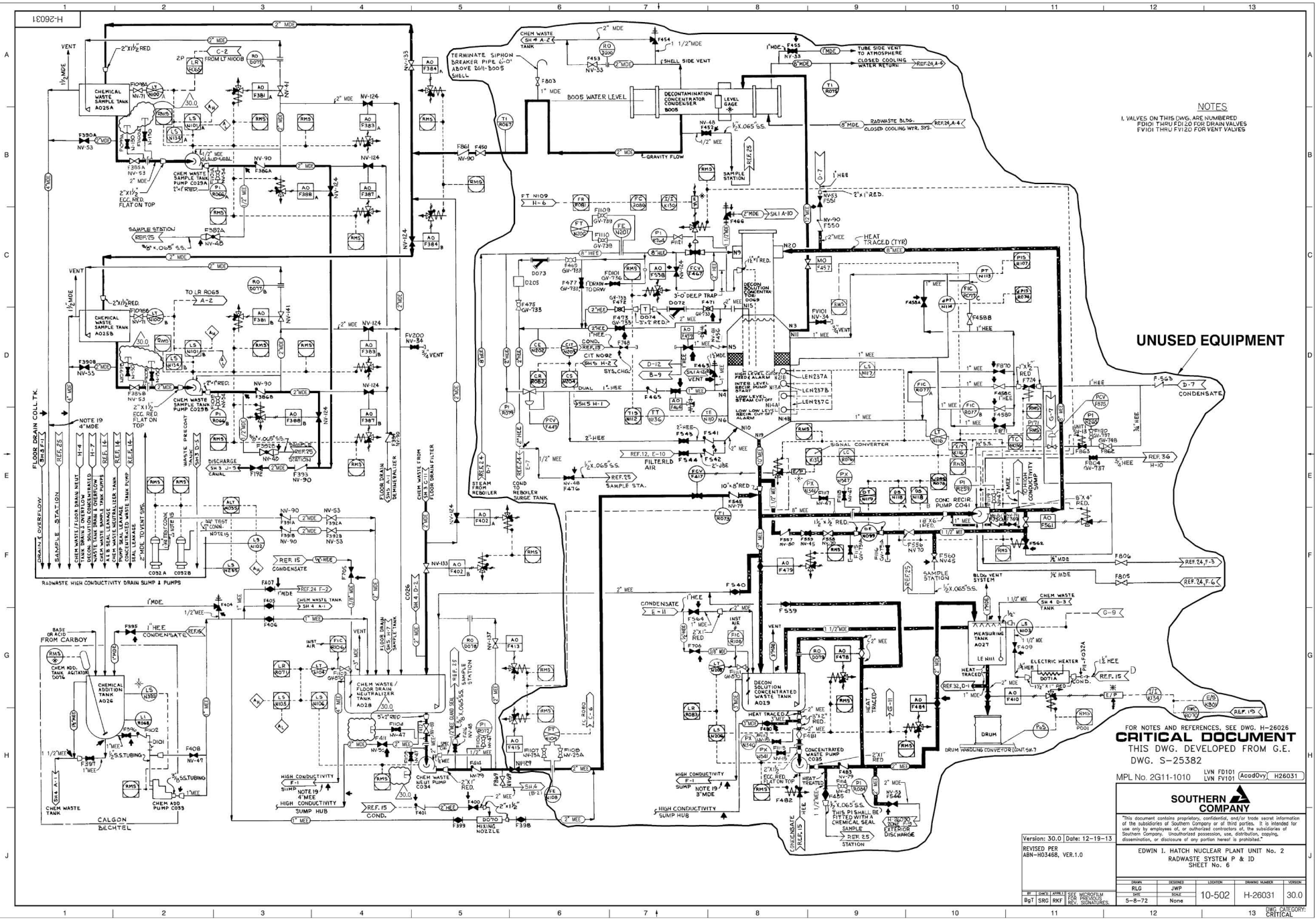
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EDWIN I. HATCH NUCLEAR PLANT UNIT No.2
 RADWASTE SYSTEM P&ID
 SHEET No. 5

Version: 33.0 Date: 12-19-13
 REVISED PER ABN-H03468, VER.1.0

DATE	BY	REVISION	LOCATION	DRAWING NUMBER	VERSION
10-5-02	WJP	ISS	10-502	H-26030	33.0
5-8-72	SRG	NONE			

SEE MICROFILM REV. SIGNATURES



NOTES
 1. VALVES ON THIS DWG. ARE NUMBERED
 FVDI THRU FV120 FOR DRAIN VALVES
 FV101 THRU FV120 FOR VENT VALVES

UNUSED EQUIPMENT

FOR NOTES AND REFERENCES, SEE DWG. H-26026
CRITICAL DOCUMENT
 THIS DWG. DEVELOPED FROM G.E.
 DWG. S-25382

MPL No. 2G11-1010 LWN F010 (AcadDvy) H26031

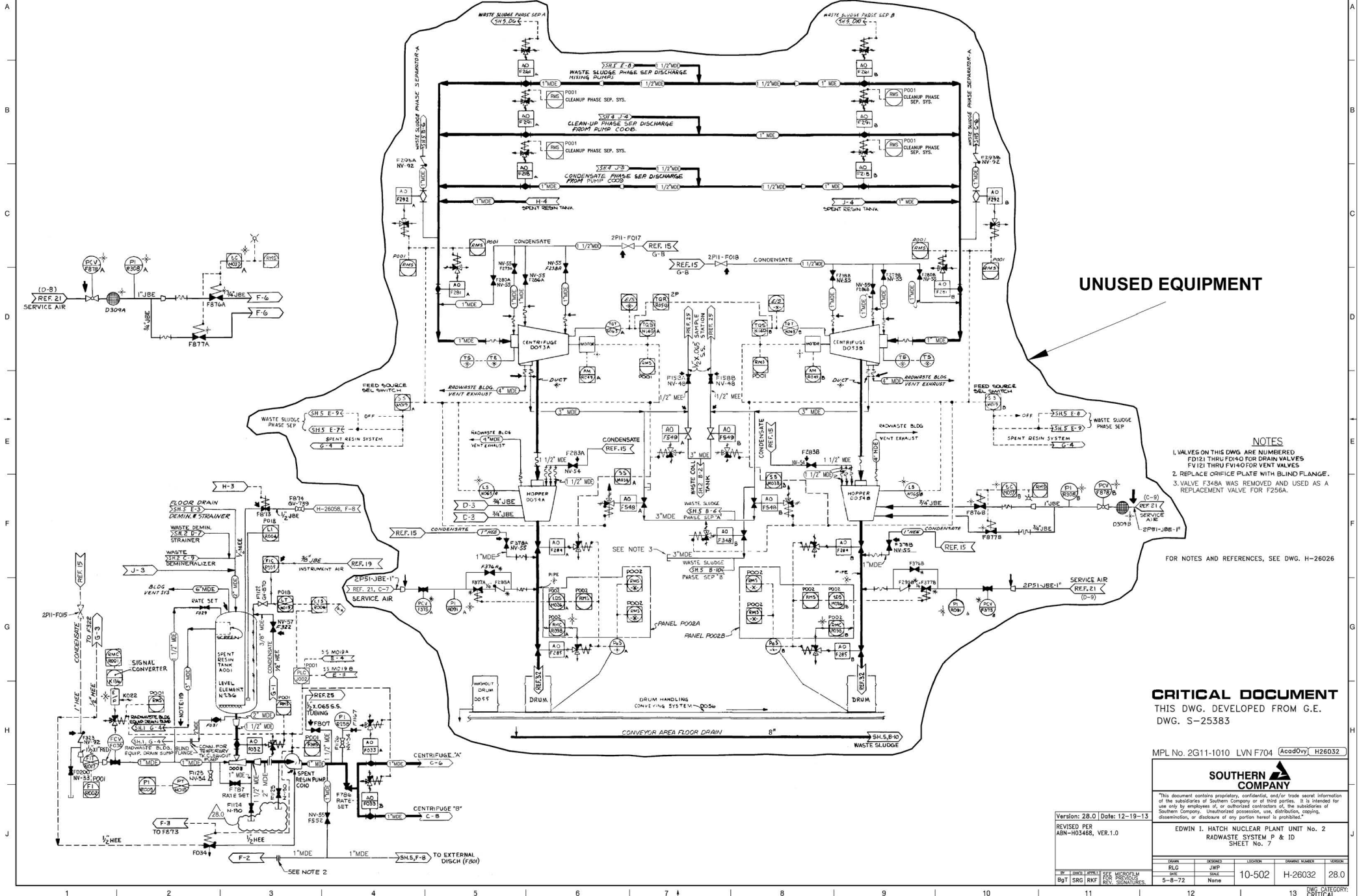
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EDWIN I. HATCH NUCLEAR PLANT UNIT No. 2
 RADWASTE SYSTEM P & ID
 SHEET No. 6

Version: 30.0 Date: 12-19-13
 REVISED PER
 #EN-1034668, VER.1.0

DRWN	DESIGNED	LOCATED	ISSUED NUMBER	VERSION
RLG	LWP			
10-502	SKL		H-26031	30.0
Bgt	SRC	REV.	SIGNATURES	5-8-72
				None



UNUSED EQUIPMENT

NOTES

1. VALVES ON THIS DWG ARE NUMBERED FD121 THRU FD140 FOR DRAIN VALVES, FV101 THRU FV400 FOR VENT VALVES.
2. REPLACE ORIFICE PLATE WITH BLIND FLANGE.
3. VALVE F348A WAS REMOVED AND USED AS A REPLACEMENT VALVE FOR F256A.

FOR NOTES AND REFERENCES, SEE DWG. H-26026

CRITICAL DOCUMENT
THIS DWG. DEVELOPED FROM G.E. DWG. S-25383

MPL No. 2G11-1010 LVN F704 (AcadOxy) H26032

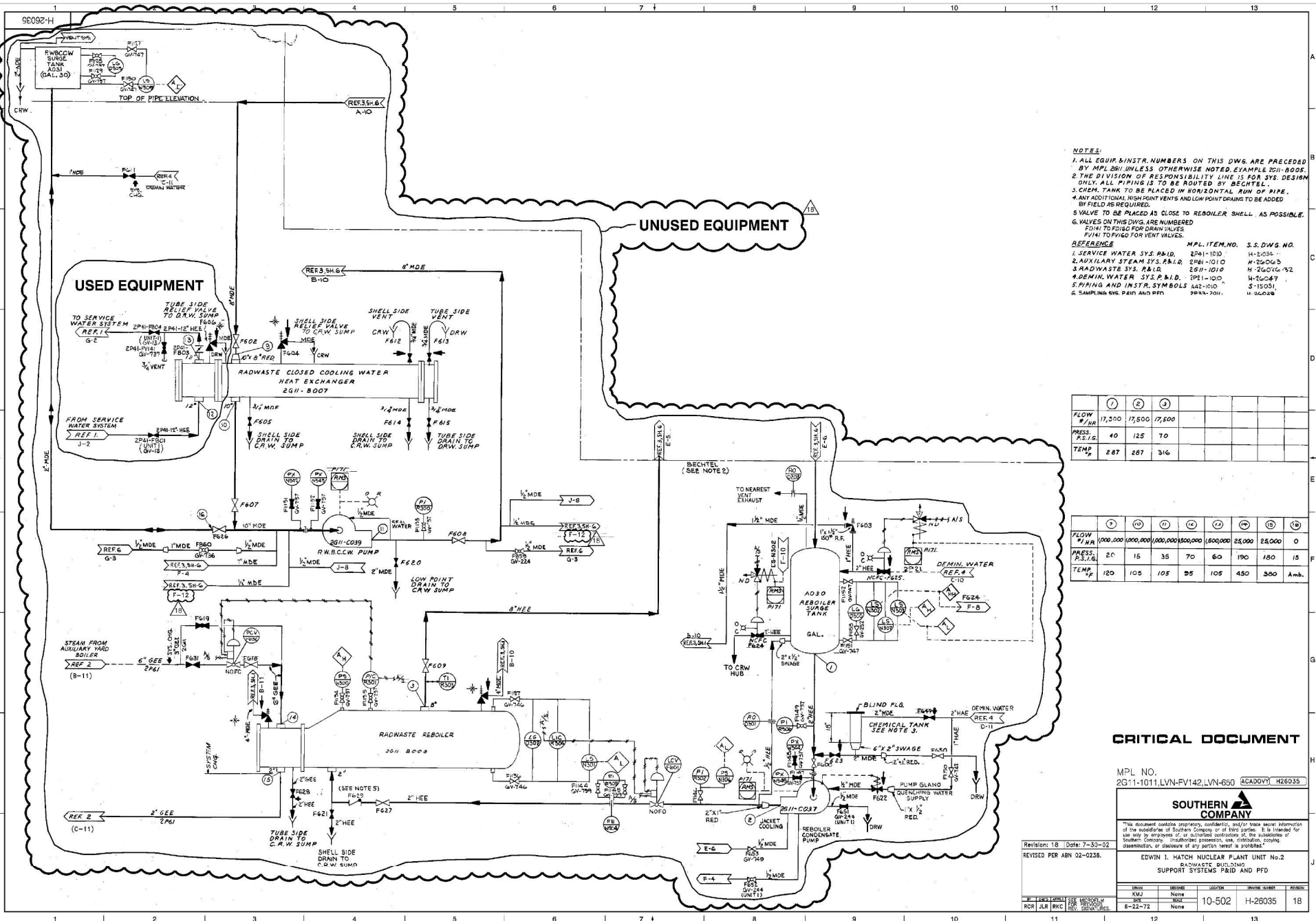


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EDWIN I. HATCH NUCLEAR PLANT UNIT No. 2
RADWASTE SYSTEM P & ID
SHEET No. 7

Version: 28.0	Date: 12-19-13
REVISED PER ABN-H03488, VER.1.0	
BY: [Signature]	DATE: [Signature]
CHKD: [Signature]	DATE: [Signature]
APPD: [Signature]	DATE: [Signature]
DRG. CATEGORY: CRITICAL	

DATE	DESCRIPTION	LOCATION	ISSUED BY	VERSION
10-502	H-26032			28.0



- NOTES:**
1. ALL EQUIP. INSTR. NUMBERS ON THIS DWG. ARE PRECEDED BY MPL 286 UNLESS OTHERWISE NOTED. EXAMPLE 2011-9005.
 2. THE DIVISION OF RESPONSIBILITY LINE IS FOR SYS. DESIGN ONLY. ALL PIPING IS TO BE ROUTED BY BECHTEL.
 3. CHEM. TANK TO BE PLACED IN HORIZONTAL ALIGN OF PIPE.
 4. ANY ADDITIONAL HIGH POINT VENTS AND LOW POINT DRAINS TO BE ADDED BY FIELD AS REQUIRED.
 5. VALVE TO BE PLACED AS CLOSE TO REBOILER SHELL AS POSSIBLE.
 6. VALVES ON THIS DWG. ARE NUMBERED F601 TO F616 FOR DRAIN VALVES F617 TO F640 FOR VENT VALVES.
- REFERENCE**
- | REFERENCE | MPL ITEM NO. | S.S. DWG. NO. |
|------------------------------|--------------|---------------|
| 1. SERVICE WATER SYS. P&ID | 2241-1010 | H-1036 |
| 2. AUXILIARY STEAM SYS. P&ID | 2241-1010 | H-2406B |
| 3. RADWASTE SYS. P&ID | 2011-1010 | H-2406G-92 |
| 4. DEMIN. WATER SYS. P&ID | 2241-1010 | H-2406G-97 |
| 5. PIPING AND INSTR. SYMBOLS | 2241-1010 | 3-15051 |
| 6. SAMPLING EYE P&ID AND PFD | 2241-1010 | H-2406B |

	(1)	(2)	(3)
FLOW #/HR	17,500	17,500	17,500
PRESS. P.S.I.G.	40	125	70
TEMP. °F	287	287	316

	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
FLOW #/HR	1000	1000	1000	1000	1000	1500	2000	25000
PRESS. P.S.I.G.	20	15	35	70	60	190	180	15
TEMP. °F	120	105	105	95	105	450	550	Amb.

CRITICAL DOCUMENT

MPL NO. 2G11-1011, LVN-FV142, LVN-650 ACAD00Y H26035



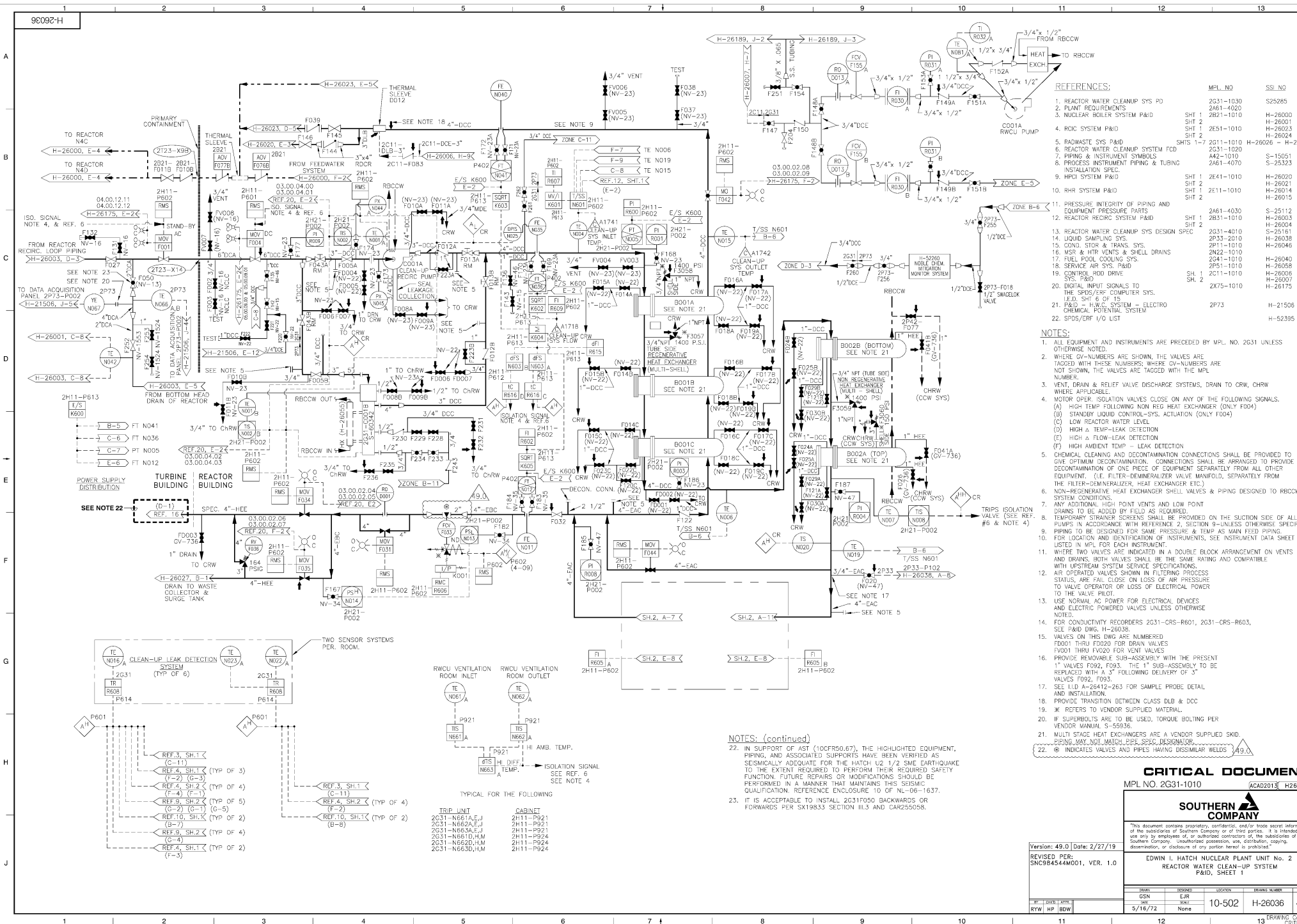
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Revision: 18 Date: 7-30-02
 REVISED PER ABN 02-0236.

EDWIN I. HATCH NUCLEAR PLANT UNIT No. 2
 RADWASTE BUILDING
 SUPPORT SYSTEMS P&ID AND PFD

DATE	REVISION	LOCATION	APPROVED	REASON
8-22-72	1	10-502	H-26035	18

T:\WORK DOCUMENTS\NEW\020236\DRAWINGS\CAS\020236.CAL 7/30/02 2:18:51 PM



- REFERENCES:**
- | REF. NO. | DESCRIPTION | MPL. NO. | SSI. NO. |
|----------|---|--------------|-------------------|
| 1. | REACTOR WATER CLEANUP SYS PD | 2031-1030 | S25285 |
| 2. | PLANT REQUIREMENTS | 2461-4020 | H-26000 |
| 3. | NUCLEAR ROLES SYSTEM P&ID | 2821-1010 | H-26001 |
| 4. | RCR SYSTEM P&ID | 2511-1010 | H-26003 |
| 5. | RAWASTE SYS P&ID | 2011-1010 | H-26026 = H-26032 |
| 6. | REACTOR WATER CLEANUP SYSTEM F&D | 2031-1020 | |
| 7. | PIPING & INSTRUMENT SYMBOLS | 042-1010 | S-15051 |
| 8. | PROCESS INSTRUMENT PIPING & TUBING INSTALLATION SPEC. | 2461-4070 | S-25323 |
| 9. | HRCR SYSTEM P&ID | 2411-1010 | H-26020 |
| 10. | RHR SYSTEM P&ID | 2511-1010 | H-26021 |
| 11. | PRESSURE INTEGRITY OF PIPING AND EQUIPMENT PRESSURE PARTS | 2461-4030 | S-20112 |
| 12. | REACTOR RECIRC SYSTEM P&ID | 2821-1010 | H-26004 |
| 13. | REACTOR WATER CLEANUP SYS DESIGN SPEC | 2031-4010 | S-25181 |
| 14. | LIQUID SAMPLING SYS | 2933-2010 | H-26038 |
| 15. | COND. STOR & TRANS. SYS | 2P11-1010 | H-26046 |
| 16. | MSR & HTR VENTS & SHELL DRAINS | 2N22-1010 | H-26040 |
| 17. | FUEL POOL COOLING SYS | 2441-1010 | H-26058 |
| 18. | SERVICE AIR SYS. P&ID | 2P51-1010 | H-26005 |
| 19. | CONTROL ROD DRIVE | 2C11-1010 | H-26007 |
| 20. | DIGITAL INPUT SIGNALS TO THE SPDS/CRF COMPUTER SYS. | 2P73-6 OF 13 | H-21506 |
| 21. | PAID = H.W.C. SYSTEM - ELECTRO HYDRAULIC CONTROL SYSTEM | 2P73 | H-52395 |
| 22. | SPDS/CRF I/O LIST | | |

- NOTES:**
- ALL EQUIPMENT AND INSTRUMENTS ARE PRECEDED BY MPL. NO. 2031 UNLESS OTHERWISE NOTED.
 - WHERE GV-NUMBERS ARE SHOWN, THE VALVES ARE TAGGED WITH THESE NUMBERS, WHERE GV-NUMBERS ARE NOT SHOWN, THE VALVES ARE TAGGED WITH THE MPL. NUMBER.
 - VENT, DRAIN & RELIEF VALVE DISCHARGE SYSTEMS, DRAIN TO CRW, CHRW WHERE APPLICABLE.
 - MOTOR OPER. ISOLATION VALVES CLOSE ON ANY OF THE FOLLOWING SIGNALS. (A) HIGH TEMP FOLLOWING NON REG HEAT EXCHANGER (ONLY F004) (B) STANDBY LIQUID CONTROL-SYS. ACTUATION (ONLY F004) (C) LOW REACTOR WATER LEVEL (D) HIGH A TEMP-LEAK DETECTION (E) HIGH A FLOW-LEAK DETECTION (F) HIGH AMBIENT TEMP - LEAK DETECTION
 - CHEMICAL CLEANING AND DECONTAMINATION CONNECTIONS SHALL BE PROVIDED TO GIVE OPTIMUM DECONTAMINATION. CONNECTIONS SHALL BE ARRANGED TO PROVIDE DECONTAMINATION OF ONE PIECE OF EQUIPMENT SEPARATELY FROM ALL OTHER EQUIPMENT. (IE. FILTER-DEMINERALIZER VALVE MANIFOLD, SEPARATING FROM THE FILTER-PREHEATERS, HEAT EXCHANGER ETC.)
 - NON-REGENERATIVE HEAT EXCHANGER SHELL VALVES, SPECIALLY DESIGNED TO RBCCW SYSTEM CONDITIONS.
 - ANY ADDITIONAL HIGH POINT VENTS AND LOW POINT DRAINS TO BE ADDED BY FIELD AS REQUIRED.
 - TEMPORARY STRAINER SCREENS SHALL BE PROVIDED ON THE SUCTION SIDE OF ALL PUMPS IN ACCORDANCE WITH REFERENCING 2, SECTION 9 UNLESS OTHERWISE SPECIFIED.
 - FOR LOCATION AND IDENTIFICATION OF INSTRUMENTS, SEE INSTRUMENT DATA SHEET LISTED IN MPL FOR EACH INSTRUMENT.
 - WHERE TWO VALVES ARE INDICATED IN A DOUBLE BLOCK ARRANGEMENT ON VENTS AND DRAINS, BOTH VALVES SHALL BE THE SAME RATING AND COMPATIBLE WITH UPSTREAM SYSTEM SERVICE SPECIFICATIONS.
 - AIR OPERATED VALVES IN FILTERING PROCESS STATUS, ARE FAIL CLOSE ON LOSS OF AIR PRESSURE TO VALVE OPERATOR OR LOSS OF ELECTRICAL POWER TO THE VALVE PILOT.
 - USE NORMAL AC POWER FOR ELECTRICAL DEVICES AND ELECTRIC POWERED VALVES UNLESS OTHERWISE NOTED.
 - FOR CONDUCTIVITY RECORDERS 2031-CRS-R601, 2031-CRS-R603, SEE P&ID DWS, H-26038.
 - VALVES ON THIS DWG ARE NUMBERED F001 THRU F0020 FOR DRAIN VALVES F001 THRU F0020 FOR VENT VALVES
 - PROVIDE REMOVABLE SUB-ASSEMBLY WITH THE PRESENT 1" VALVES F092, F093. THE 1" SUB-ASSEMBLY TO BE REPLACED WITH A 3" FOLLOWING DELIVERY OF 3" VALVES F092, F093.
 - SEE I.I.D A-26412-263 FOR SAMPLE PROBE DETAIL AND INSTALLATION.
 - PROVIDE TRANSITION BETWEEN CLASS D/B & D/C
 - * REFERS TO VENDOR SUPPLIED MATERIAL.
 - IF SUPERHEATS ARE TO BE USED, TORQUE BOLTING PER VENDOR MANUAL S-55936.
 - MULTI STAGE HEAT EXCHANGERS ARE A VENDOR SUPPLIED SKID. DESIGN NOT SUBJECT TO THIS SPECIFICATION.
 - * INDICATES VALVES AND PIPES HAVING DISSEMBLY WELLS

- NOTES: (continued)**
- IN SUPPORT OF AST (10CRF50.67), THE HIGHLIGHTED EQUIPMENT, PIPING, AND ASSOCIATED SUPPORTS HAVE BEEN VERIFIED AS SEISMICALLY ADEQUATE FOR THE HATCH U2 1/2 SMC EARTHQUAKE TO THE EXTENT REQUIRED TO PERFORM THEIR REQUIRED SAFETY FUNCTION. FUTURE REPAIRS OR MODIFICATIONS SHOULD BE PERFORMED IN A MANNER THAT MAINTAINS THIS SEISMIC QUALIFICATION. REFERENCE ENCLOSURE 10 OF NL-06-1637.
 - IT IS ACCEPTABLE TO INSTALL 2031F050 BACKWARDS OR FORWARDS PER SX19833 SECTION III.3 AND CAR255058.

CRITICAL DOCUMENT
MPL NO. 2031-1010 ACAD2013 H26036



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Version: 49.0 Date: 2/27/19
 Revised Per: SNC584544M001, VER. 1.0

REV.	DATE	BY	CHKD	APP'D	REVISION	DESIGN NUMBER	ISSUED
1	5/16/72	None			10-502	H-26036	49.0

EDWIN L. HATCH NUCLEAR PLANT UNIT No. 2
 REACTOR WATER CLEANUP SYSTEM
 P&ID, SHEET 1