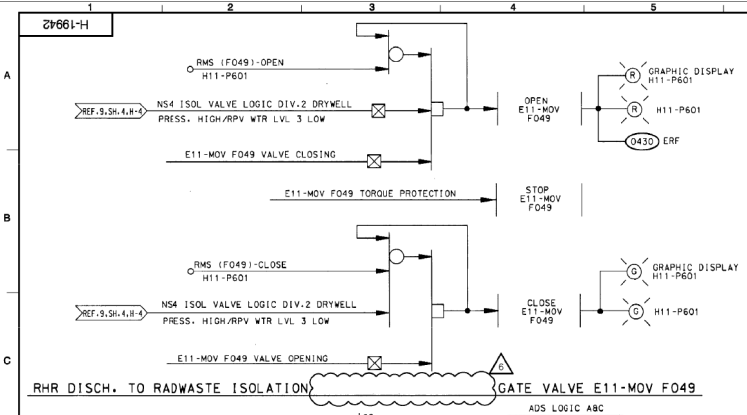
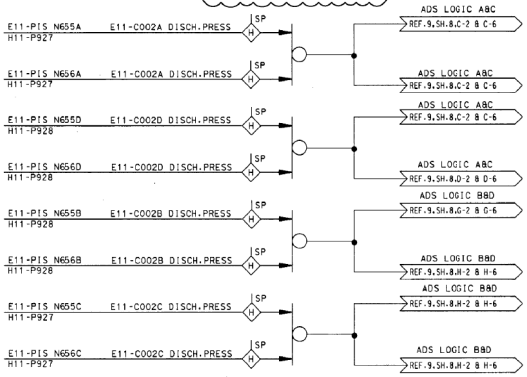
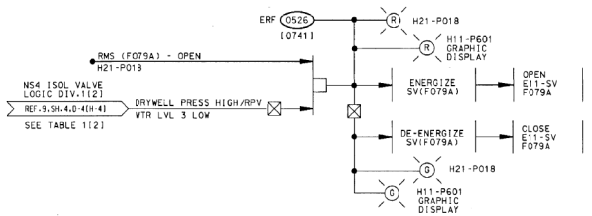
H-19942



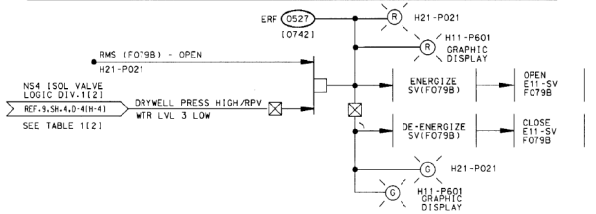
RHR DISCH. TO RADWASTE ISOLATION GATE VALVE E11-MOV F049



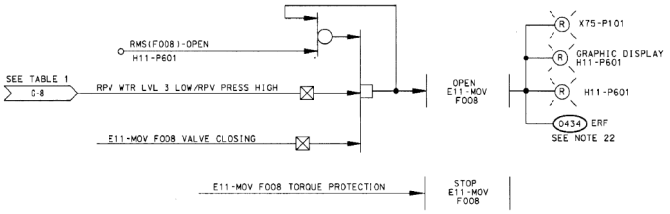
RHR PUMP DISCH. PRESS LOGIC FOR AUTOMATIC DEPRESSURIZATION SYSTEM (ADS)



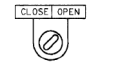
RHR HX B001A DISCH. ISOLATION VALVE E11-SV F079A TYPICAL FOR: [E11-SV F080A]



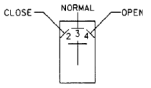
RHR HX B001B DISCH. ISOLATION VALVE E11-SV F079B TYPICAL FOR: [E11-SV F080B]



SWITCH DEVELOPMENTS



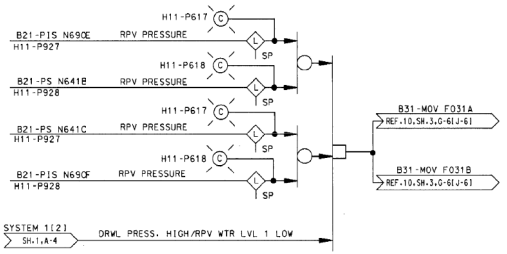
RMS(F079A) H21-P018
RMS(F080A) H21-P018
RMS(F079B) H21-P021
RMS(F080B) H21-P021
MAINTAINED CONTACTS



RMS(F008) H11-P601
RMS(F009) H11-P602

RMS(F040) H11-P602
RMS(F049) H11-P601
MOMENTARY CONTACTS IN "CLOSE" AND "OPEN" SPRING RETURN TO "NORMAL"

RHR SUCTION COOLING OUTBOARD ISOLATION GATE VALVE E11-MOV F008 TYPICAL FOR: SEE TABLE 1



ISOLATION VALVE LOGIC SYSTEM 1 FOR B31-F031A,B TYPICAL FOR: [SYSTEM 2]

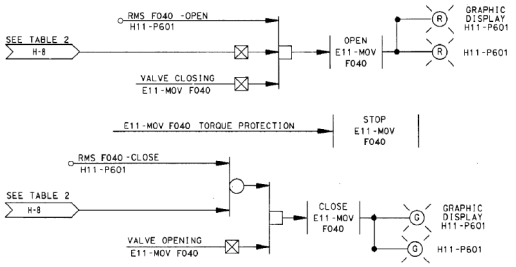


TABLE 1

DESCRIPTION	E11-MOV	RMS	RMS LOCATION	PANEL INDICATION	REF.	SH.	COORD.	PCIS VALVE GROUP
RHR SUCTION COOLING OUTBOARD ISOLATION GATE VALVE	F008	F008	H11-P601	H11-P601	9	5	H-3	6
RHR SUCTION COOLING INBOARD ISOLATION GATE VALVE	F009	F009	H11-P602	H11-P602	9	5	F-3	6

RHR DISCH. TO RADWASTE ISOLATION GLOBE VALVE E11-MOV F040: SEE TABLE 2

TABLE 2

DESCRIPTION	E11-MOV	RMS	RMS LOCATION	PANEL INDICATION	REF.	SH.	COORD.	PCIS VALVE GROUP	INPUT DESCRIPTION
RHR DISCH. TO RADWASTE ISOLATION GLOBE VALVE	F040	F040	H11-P602	H11-P601 H11-P602	9	4	D-4		NS4 ISOL VALVE LOGIC DIV. 1 DRYWELL PRESS HIGH/RPV WTR LVL 3 LOW

FOR NOTES, SEE DWG. H-19937,H-19939
FOR REFERENCES, SEE DWG. H-19938

SUPERSEDING

THIS DRAWING WAS DEVELOPED FROM G.E. DRAWING NO.729E630BA, SHT.1 , REV.4: SHT.2, REV.4: AND SHT.3,REV.4 SCS1 ACCESSION NO. S-15326, S-15327, AND S-15328 RESPECTIVELY.

MPL NO. E11-1030

MPL No. E11-1030 ACADOV(H19942

SOUTHERN COMPANY

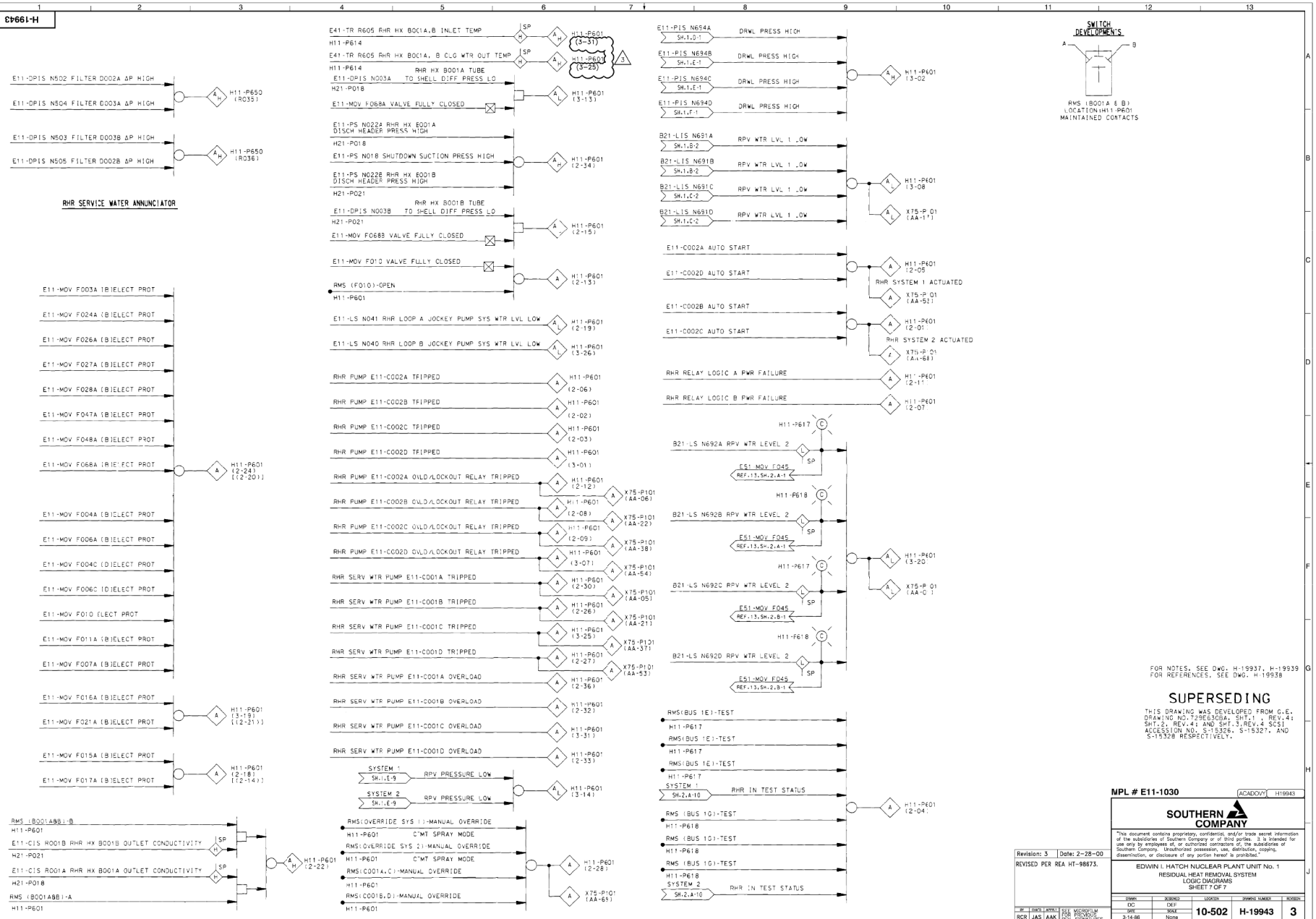
Revisions: 6 | Date: 1-14-98
REVISED PER ABN 97-0302.

EDWIN I. HATCH NUCLEAR PLANT UNIT No.1
RESIDUAL HEAT REMOVAL SYSTEM
LOGIC DIAGRAMS
SHEET 6 of 7

BY	DATE	APPR.	SEE MICROFILM FOR PREVIOUS REV. SIGNATURES.
BgT	RLP	PRK	

DRAWN	DESIGNED	LOCATION	DRAWING NUMBER	REVISION
CADD/DC	DEF			
DATE	SCALE	10-502	H-19942	6
3-14-88	No Scale			

H-19943


E11-DPIS N502 FILTER D002A ΔP HIGH
E11-DPIS N504 FILTER D003A ΔP HIGH
H11-P650 (R035)
E11-DPIS N503 FILTER D003B ΔP HIGH
E11-DPIS N505 FILTER D002B ΔP HIGH
H11-P650 (R036)
RHR SERVICE WATER ANNUNCIATOR
E11-MOV F003A (B)ELECT PROT
E11-MOV F024A (B)ELECT PROT
E11-MOV F026A (B)ELECT PROT
E11-MOV F027A (B)ELECT PROT
E11-MOV F028A (B)ELECT PROT
E11-MOV F047A (B)ELECT PROT
E11-MOV F048A (B)ELECT PROT
E11-MOV F068A (B)ELECT PROT
H11-P601 (2-24) ((2-20))
E11-MOV F004A (B)ELECT PROT
E11-MOV F006A (B)ELECT PROT
E11-MOV F004C (D)ELECT PROT
E11-MOV F006C (D)ELECT PROT
E11-MOV F010 ELECT PROT
E11-MOV F011A (B)ELECT PROT
E11-MOV F007A (B)ELECT PROT
E11-MOV F016A (B)ELECT PROT
E11-MOV F021A (B)ELECT PROT
H11-P601 (3-19) ((2-21))
E11-MOV F015A (B)ELECT PROT
E11-MOV F017A (B)ELECT PROT
H11-P601 (2-18) ((2-14))
RMS (B001A&B)-B
H11-P601
E11-CIS R001B RHR HX B001B OUTLET CONDUCTIVITY
H21-P021
E11-CIS R001A RHR HX B001A OUTLET CONDUCTIVITY
H21-P018
RMS (B001A&B)-A
H11-P601
H11-P601 (2-22)
E41-TR R605 RHR HX B001A,B INLET TEMP
H11-P614
H11-P601 (3-31)
E41-TR R605 RHR HX B001A, B CLG WTR OUT TEMP
H11-P614
H11-P601 (3-25)
3
RHR HX B001A TUBE
E11-DPIS N003A TO SHELL DIFF PRESS LO
H21-P018
H11-P601 (3-13)
E11-MOV F068A VALVE FULLY CLOSED
E11-PS N022A RHR HX E001A DISCH HEADER PRESS HIGH
H21-P018
E11-PS N018 SHUTDOWN SUCTION PRESS HIGH
H11-P601 (2-34)
E11-PS N022B RHR HX E001B DISCH HEADER PRESS HIGH
H21-P021
RHR HX B001B TUBE
E11-DPIS N003B TO SHELL DIFF PRESS LO
H21-P021
H11-P601 (2-15)
E11-MOV F068B VALVE FULLY CLOSED
E11-MOV F010 VALVE FULLY CLOSED
RMS (F010)-OPEN
H11-P601
H11-P601 (2-13)
E11-LS N041 RHR LOOP A JOCKEY PUMP SYS WTR LVL LOW
H11-P601 (2-19)
E11-LS N040 RHR LOOP B JOCKEY PUMP SYS WTR LVL LOW
H11-P601 (3-26)
RHR PUMP E11-C002A TRIPPED
H11-P601 (2-06)
RHR PUMP E11-C002B TRIPPED
H11-P601 (2-02)
RHR PUMP E11-C002C TRIPPED
H11-P601 (2-03)
RHR PUMP E11-C002D TRIPPED
H11-P601 (3-01)
RHR PUMP E11-C002A OVLD/LOCKOUT RELAY TRIPPED
H11-P601 (2-12)
X75-P101 (AA-06)
RHR PUMP E11-C002B OVLD/LOCKOUT RELAY TRIPPED
H11-P601 (2-08)
X75-P101 (AA-22)
RHR PUMP E11-C002C OVLD/LOCKOUT RELAY TRIPPED
H11-P601 (2-09)
X75-P101 (AA-38)
RHR PUMP E11-C002D OVLD/LOCKOUT RELAY TRIPPED
H11-P601 (3-07)
X75-P101 (AA-54)
RHR SERV WTR PUMP E11-C001A TRIPPED
H11-P601 (2-30)
X75-P101 (AA-05)
RHR SERV WTR PUMP E11-C001B TRIPPED
H11-P601 (2-26)
X75-P101 (AA-21)
RHR SERV WTR PUMP E11-C001C TRIPPED
H11-P601 (3-25)
X75-P101 (AA-37)
RHR SERV WTR PUMP E11-C001D TRIPPED
H11-P601 (2-27)
X75-P101 (AA-53)
RHR SERV WTR PUMP E11-C001A OVERLOAD
H11-P601 (2-36)
RHR SERV WTR PUMP E11-C001B OVERLOAD
H11-P601 (2-32)
RHR SERV WTR PUMP E11-C001C OVERLOAD
H11-P601 (3-31)
RHR SERV WTR PUMP E11-C001D OVERLOAD
H11-P601 (2-33)
SYSTEM 1
SH.1,E-9
RPV PRESSURE LOW
SYSTEM 2
SH.1,E-9
RPV PRESSURE LOW
H11-P601 (3-14)
RMS(OVERRIDE SYS 1)-MANUAL OVERRIDE
H11-P601
C'MT SPRAY MODE
RMS(OVERRIDE SYS 2)-MANUAL OVERRIDE
H11-P601
C'MT SPRAY MODE
RMS(C001A,C)-MANUAL OVERRIDE
H11-P601
RMS(C001B,D)-MANUAL OVERRIDE
H11-P601
H11-P601 (2-28)
X75-P101 (AA-69)
E11-PIS N654A
SH.1,D-1
E11-PIS N694B
SH.1,E-1
E11-PIS N694C
SH.1,E-1
E11-PIS N694D
SH.1,F-1
DRWL PRESS HIGH
H11-P601 (3-02)
B21-LIS N691A
SH.1,B-2
B21-LIS N691B
SH.1,B-2
B21-LIS N691C
SH.1,C-2
B21-LIS N691D
SH.1,C-2
RPV WTR LVL 1 LOW
H11-P601 (3-08)
X75-P101 (AA-17)
E11-C002A AUTO START
E11-C002D AUTO START
H11-P601 (2-05)
RHR SYSTEM 1 ACTUATED
X75-P101 (AA-52)
E11-C002B AUTO START
E11-C002C AUTO START
H11-P601 (2-01)
RHR SYSTEM 2 ACTUATED
X75-P101 (AA-68)
RHR RELAY LOGIC A PWR FAILURE
H11-P601 (2-11)
RHR RELAY LOGIC B PWR FAILURE
H11-P601 (2-07)
H11-P617
B21-LS N692A RPV WTR LEVEL 2
E51-MOV F045
REF.13,SH.2,A-1
H11-P618
B21-LS N692B RPV WTR LEVEL 2
E51-MOV F045
REF.13,SH.2,A-1
H11-P617
B21-LS N692C RPV WTR LEVEL 2
E51-MOV F045
REF.13,SH.2,B-1
H11-P618
B21-LS N692D RPV WTR LEVEL 2
E51-MOV F045
REF.13,SH.2,B-1
H11-P601 (3-20)
X75-P101 (AA-70)
RMS(BUS 1E)-TEST
H11-P617
RMS(BUS 1E)-TEST
H11-P617
RMS(BUS 1E)-TEST
H11-P617
SYSTEM 1
SH.2,A-10
RHR IN TEST STATUS
RMS (BUS 1G)-TEST
H11-P618
RMS (BUS 1G)-TEST
H11-P618
RMS (BUS 1G)-TEST
H11-P618
SYSTEM 2
SH.2,A-10
RHR IN TEST STATUS
H11-P601 (2-04)
SWITCH DEVELOPMENTS
A
B
RMS (B001A & B) LOCATION:H11-P601 MAINTAINED CONTACTS
FOR NOTES, SEE DWG. H-19937, H-19939
FOR REFERENCES, SEE DWG. H-19938
SUPERSEDING
THIS DRAWING WAS DEVELOPED FROM G.E. DRAWING NO. 729E635BA, SHT.1 , REV.4; SHT.2, REV.4; AND SHT.3,REV.4 SCSI ACCESSION NO. S-15326, S-15327, AND S-15328 RESPECTIVELY.
MPL # E11-1030
ACADCWY H19943
SOUTHERN COMPANY
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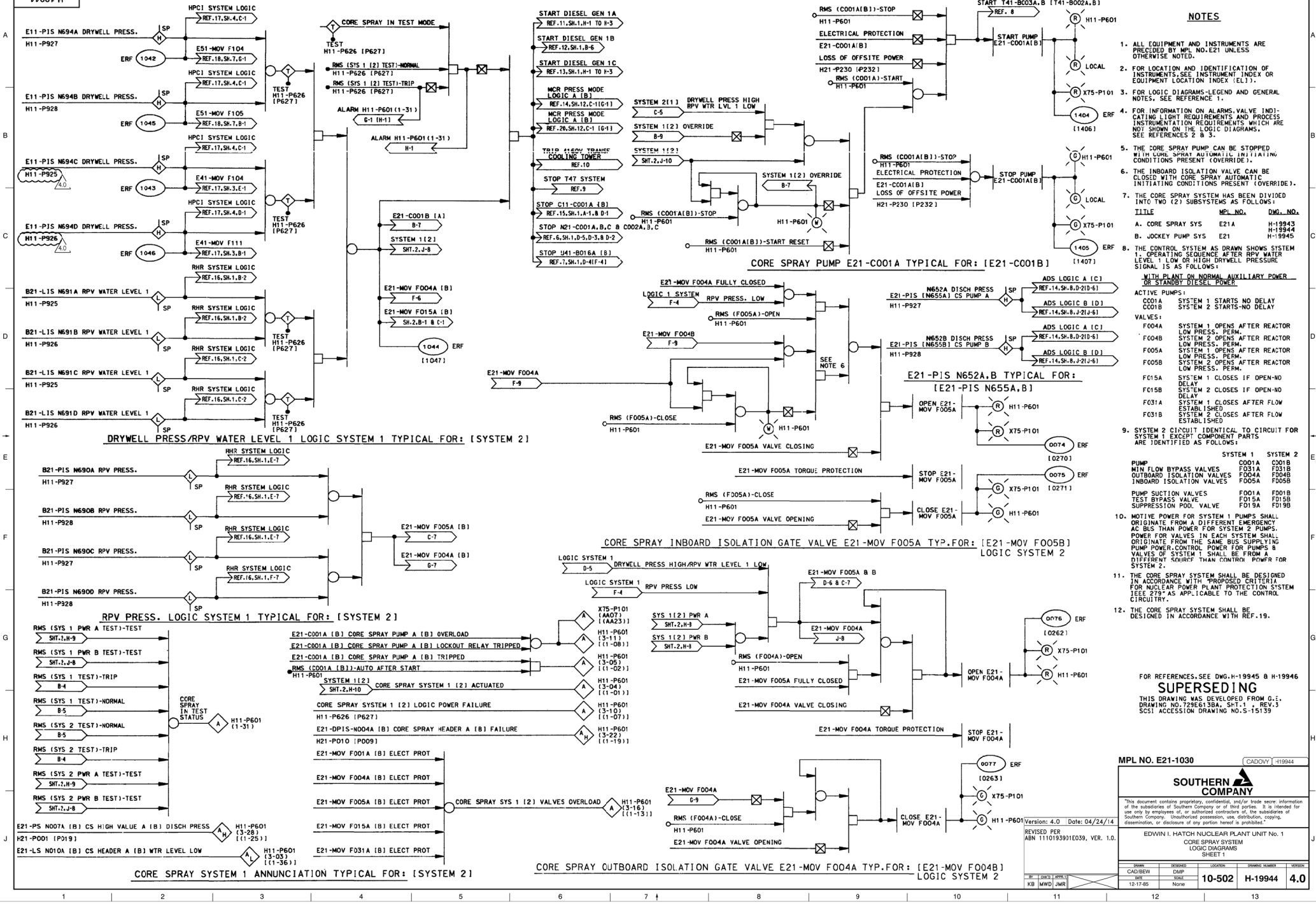
EDWIN I. HATCH NUCLEAR PLANT UNIT No. 1
RESIDUAL HEAT REMOVAL SYSTEM
LOGIC DIAGRAMS
SHEET 7 OF 7
DRAWN DC
DESIGNED DEF
LOCATION 10-502
DRAWING NUMBER H-19943
REVISION 3
DATE 3-14-86
SCALE None
Revision: 3 Date: 2-28-00
REVISED PER REA HT-98673.
BY RCR DATE JAS APP'D AAK
SEE MICROFILM FOR PREVIOUS REV. SIGNATURES.
T:\WORK DOCUMENTS\REA\H196673\DRAWINGS\CALS\H19943.CAL 2/28/00 8:08:16 AM

H-19944



NOTES

1. ALL EQUIPMENT AND INSTRUMENTS ARE PRECEDED BY MPL NO.E21 UNLESS OTHERWISE NOTED.
2. FOR LOCATION AND IDENTIFICATION OF INSTRUMENTS,SEE INSTRUMENT INDEX OR EQUIPMENT LOCATION INDEX (EL).
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 REFERENCES 2 & 3.
5. THE CORE SPRAY PUMP CAN BE STOPPED WITH LOWS SPRAY AUTOMATIC INITIATING CONDITIONS PRESENT (OVERRIDE).
6. THE INBOARD ISOLATION VALVE CAN BE CLOSED WITH CORE SPRAY AUTOMATIC INITIATING CONDITIONS PRESENT (OVERRIDE).
7. THE CORE SPRAY SYSTEM HAS BEEN DIVIDED INTO TWO (2) SUBSYSTEMS AS FOLLOWS:

TITLE	MPL NO.	DWG. NO.
A. CORE SPRAY SYS	E21A	H-19943 H-19944
B. JOCKEY PUMP SYS	E21	H-19945

8. THE CONTROL SYSTEM AS DRAWN SHOWS SYSTEM 1. OPERATING SEQUENCE AFTER RPV WATER LEVEL 1 LOW OR HIGH DRYWELL PRESSURE SIGNAL IS AS FOLLOWS:

WITH PLANT ON NORMAL AUXILIARY POWER OR STANDBY DIESEL POWER

ACTIVE PUMPS:
C001A SYSTEM 1 STARTS NO DELAY
C001B SYSTEM 2 STARTS-NO DELAY

VALVES:
F004A SYSTEM 1 OPENS AFTER REACTOR LOW PRESS. PERM.
F004B SYSTEM 2 OPENS AFTER REACTOR LOW PRESS. PERM.
F005A SYSTEM 1 OPENS AFTER REACTOR LOW PRESS. PERM.
F005B SYSTEM 2 OPENS AFTER REACTOR LOW PRESS. PERM.
F015A SYSTEM 1 CLOSES IF OPEN-NO DELAY
F015B SYSTEM 2 CLOSES IF OPEN-NO DELAY
F031A SYSTEM 1 CLOSES AFTER FLOW ESTABLISHED
F031B SYSTEM 2 CLOSES AFTER FLOW ESTABLISHED

9. SYSTEM 2 CIRCUIT IDENTICAL TO CIRCUIT FOR SYSTEM 1 EXCEPT COMPONENT PARTS ARE IDENTIFIED AS FOLLOWS:

	SYSTEM 1	SYSTEM 2
PUMP	C001A	C001B
MIN FLOW BYPASS VALVES	F031A	F031B
OUTBOARD ISOLATION VALVES	F004A	F004B
INBOARD ISOLATION VALVES	F005A	F005B
PUMP SUCTION VALVES	F001A	F001B
TEST BYPASS VALVE	F015A	F015B
SUPPRESSION POOL VALVE	F019A	F019B

10. MOTIVE POWER FOR SYSTEM 1 PUMPS SHALL ORIGINATE FROM A DIFFERENT EMERGENCY AC BUS THAN FOR SYSTEM 2 PUMPS. POWER FOR VALVES IN EACH SYSTEM SHALL ORIGINATE FROM THE SAME BUS SUPPLYING PUMP POWER.CONTROL POWER FOR PUMPS & VALVES OF SYSTEM 1 SHALL BE FROM A DIFFERENT SOURCE THAN CONTROL POWER FOR SYSTEM 2.
11. THE CORE SPRAY SYSTEM SHALL BE DESIGNED IN ACCORDANCE WITH "PROPOSED CRITERIA FOR NUCLEAR POWER PLANT PROTECTION SYSTEM IEEE 279" AS APPLICABLE TO THE CONTROL CIRCUITRY.
12. THE CORE SPRAY SYSTEM SHALL BE DESIGNED IN ACCORDANCE WITH REF.19.

FOR REFERENCES,SEE DWG.H-19945 & H-19946

SUPERSEDING

THIS DRAWING WAS DEVELOPED FROM G.E. DRAWING NO.729E613BA, SH.1 , REV.3 SCSI ACCESSION DRAWING NO.S-15139

MPL NO. E21-1030 CADOVY -19944

SOUTHERN COMPANY

Version: 4.0 Date: 04/24/14

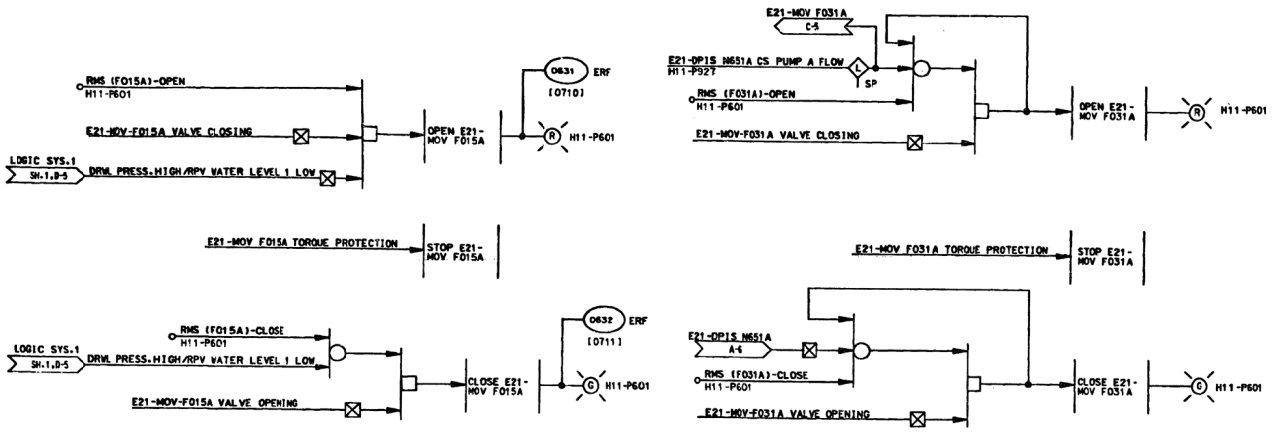
REVISED PER ABN 1110193901E039, VER. 1.0.

EDWIN I. HATCH NUCLEAR PLANT UNIT No. 1
CORE SPRAY SYSTEM
LOGIC DIAGRAMS
SHEET 1

DRAWN	DESIGNED	LOCATION	DRAWING NUMBER	VERSION
CAD/BEW	DMP	10-502	H-19944	4.0
DATE 12-17-85	SCALE None			

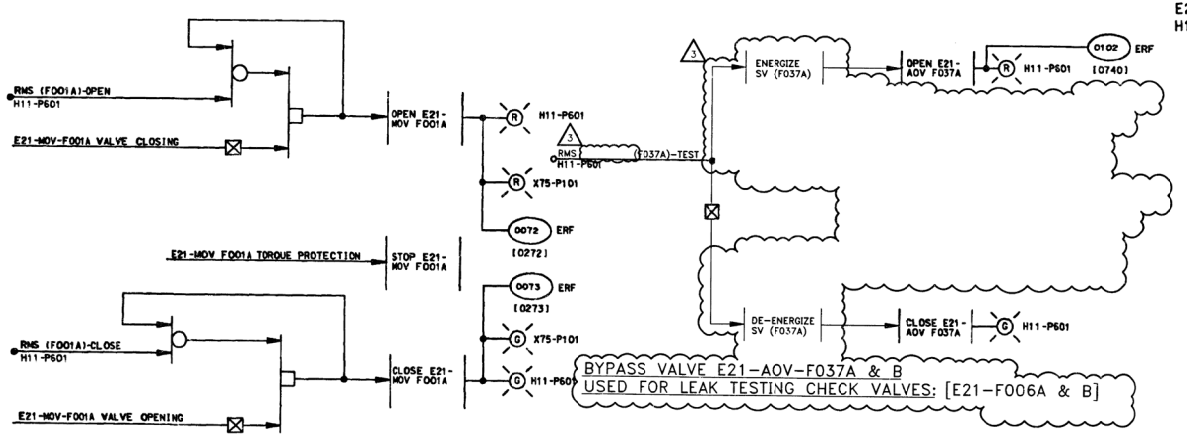
BY	CHK'D	APPR'D
KB	MWD	JMR

H-19945



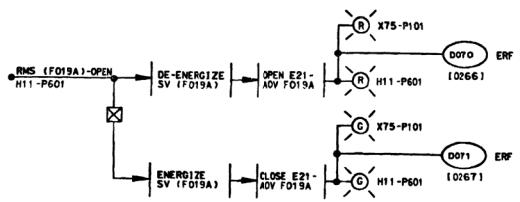
CORE SPRAY TEST BYPASS GLOBE VALVE E21-MOV F015A TYP.FOR:[E21-MOV F015B]
LOGIC SYSTEM 2

CORE SPRAY PUMP MINIMUM FLOW BYPASS GATE VALVE E21-MOV F031A TYP.FOR:
E21-MOV F031B
H11-P928

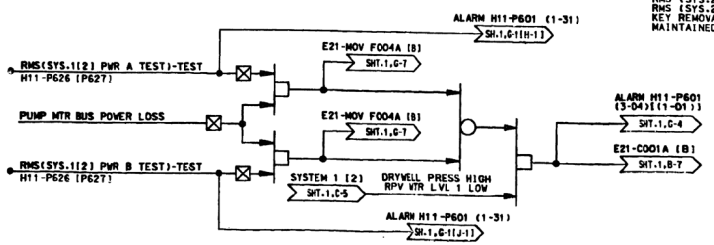


CORE SPRAY SUCTION GATE VALVE E21-MOV F001A TYP.FOR:[E21-MOV F001B]

MANUAL INJECTION VALVE E21-F007A TYPICAL FOR:E21-F007B

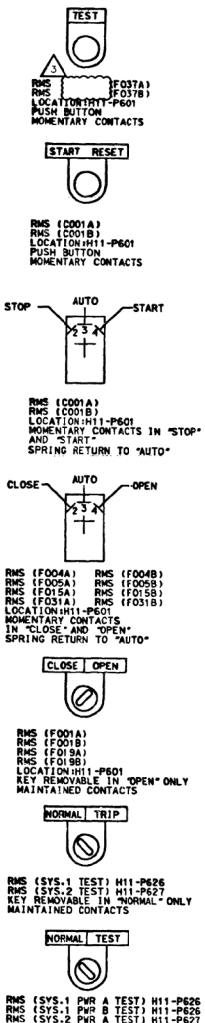


CORE SPRAY SUPPRESSION POOL VALVE E21-AOV F019A TYPICAL FOR:[E21-AOV F019B]



SYSTEM 1 PUMP BUS POWER TEST TYPICAL FOR: [SYSTEM 2]

SWITCH DEVELOPMENTS



REFERENCES

CONT. ON H-19946

	TITLE	MPL NO.	DWG.NO.
1.	LOGIC DIAGRAMS-LEGEND AND GENERAL NOTES	A21-1030	H-19900
2.	CORE SPRAY SYSTEM P&ID	E21-1010	H-16331
3.	JOCKEY PUMP SYSTEM P&ID AND PROCESS FLOW DIAGRAM	E21-1050	H-16328
4.	NUCLEAR BOILER SYSTEM P&ID SHEET 1	B21-1010	H-16062
	NUCLEAR BOILER SYSTEM P&ID SHEET 2	B21-1010	H-16063
	NUCLEAR BOILER SYSTEM P&ID SHEET 3	B21-1010	H-16145
5.	RHR SYSTEM P&ID SHEET 1	E11-1010	H-16329
	RHR SYSTEM P&ID SHEET 2	E11-1010	H-16330
6.	CONDENSATE & F.W. SYS P&ID SHEETS 1-4	N21-1010	H-11019 THRU H-11605
7.	TURBINE BUILDING CHILLED WATER SYSTEM P&ID SHEET 1	P63-1010	H-16326
	TURBINE BUILDING CHILLED WATER SYSTEM P&ID SHEET 2	P63-1010	H-16327
8.	SAFEGUARD EQUIPMENT COOLING SYSTEM P&ID	T41-1030	H-16023
9.	PRIMARY CONTAINMENT COOLING SYSTEM P&ID & PFD	T47-1010	H-16007
10.	ELEMENTARY DIAGRAM-600V STATION SERVICE SUPPLY ACB5	R25	H-13385
11.	ELEMENTARY DIAGRAM-DIESEL GENERATOR 1A	R43	H-13412
12.	ELEMENTARY DIAGRAM-DIESEL GENERATOR 1B	R43	H-13413
13.	ELEMENTARY DIAGRAM-DIESEL GENERATOR 1C	R43	H-13414
14.	NUCLEAR BOILER SYSTEM LOGIC DIAGRAMS SHEETS 1-12	B21-1030	H-19901 THRU H-19912
15.	CONTROL ROD DRIVE HYDRAULIC SYSTEM LOGIC DIAGRAMS SHEETS 1-9	C11-1030	H-19918 THRU H-19925 H-19967
16.	RESIDUAL HEAT REMOVAL SYSTEM LOGIC DIAGRAMS SHEETS 1-7	E11-1030	H-19937 THRU H-19943
17.	HIGH PRESSURE COOLANT INJECTION SYSTEM LOGIC DIAGRAMS SHEETS 1-8	E41-1030	H-19947 THRU H-19954
18.	REACTOR CORE ISOLATION COOLING SYSTEM LOGIC DIAGRAMS SHEETS 1-8	E51-1030	H-19955 THRU H-19962
19.	GE 22A2989 ELECTRICAL EQUIPMENT SEPARATION FOR SAFEGUARD SYSTEMS	A70	S-17108
20.	NUCLEAR BOILER SYSTEM LOGIC DIAGRAMS SHEETS 1-12	2B21-1030	H-24701 THRU H-24712

FOR NOTES, SEE DWG. H-19944.

SUPERSEDING

THIS DRAWING WAS DEVELOPED FROM G.E. DRAWING NO.729E613BA, SHT.1, REV.3 SCSI ACCESSION DRAWING NO.S-15139

Revision: 3 Date: 7/9/81
SCANNED. VERIFIED BY LCF
REVISED PER ABN 95-0021-002 AND ABN 95-0021-003.

BY	CHK'D	APPR'D	SEE MICROFILM FOR PREVIOUS REV. SIGNATURES
Vep	CDA	HE BW	

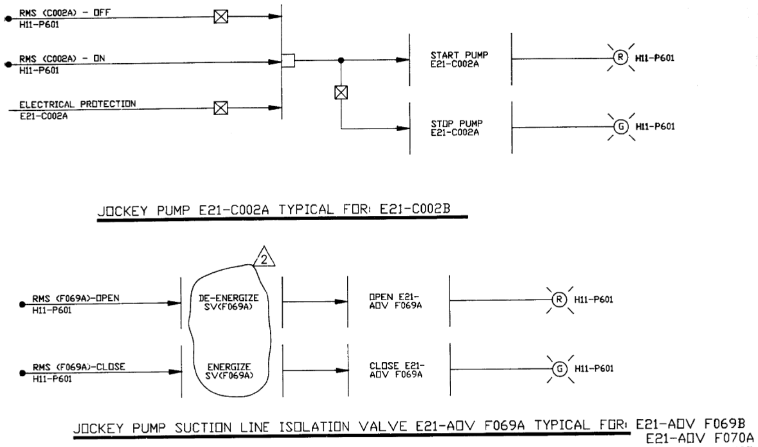
MPL NO. E21-1030 ACADCWV H19945

Southern Company Services, Inc. for
Georgia Power Company, Atlanta, GA
General Engineering Department

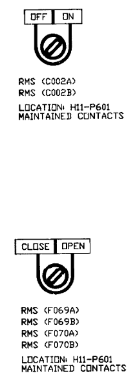
EDWIN I. HATCH NUCLEAR PLANT UNIT No. 1
CORE SPRAY SYSTEM
LOGIC DIAGRAMS
SHEET 2 OF 3

DRAWN	DETAILED	LOCATION	DRAWING NUMBER	REVISION
CADD/BEW	DMP			
DATE	SCALE	10-502	H-19945	3
12-19-75	None			

H-19946



SWITCH DEVELOPMENTS



REFERENCES

CONT. FROM H-19945

21. ERF MULTIPLEXER SYSTEM I.E.D.	X75-1010	H-16401
22. ANNUNCIATOR SIGNALS TO TSC I.E.D.	X75-1010	H-16402
23. DIGITAL INPUT SIGNALS TO THE ERF COMPUTER SYSTEM I.E.D.	X75-1010	
SHEET 4		H-16406
SHEET 5		H-16407
SHEET 13		H-16415

FOR NOTES, SEE DWG. H-19944.

MPL NO. E21-1030

REV. 2 DATE 8-31-90
REVISED IN RESPONSE TO WCN 89-279-03.
BY MMH CK'D KH AP 1 AC AP 2 DER

NO.	DATE	BY	REVISIONS		
0	3/12/86	BEV	ISSUED PER REA HT-4674	MEG	JVV / RHB	GAK	DMP
1	2/20/87	AGW	REVISED PER ABN 84-503,S0,FOR DCR 80-157,R2, ABN 84-528,S1, S2,FOR DCR 80-157,R1,ABN 85-615,S1,FOR DCR 80-157,R1.	GM	LLR / RHB	KEM	MEY

BECHTEL
JOB 6511 GAITHERSBURG, MARYLAND

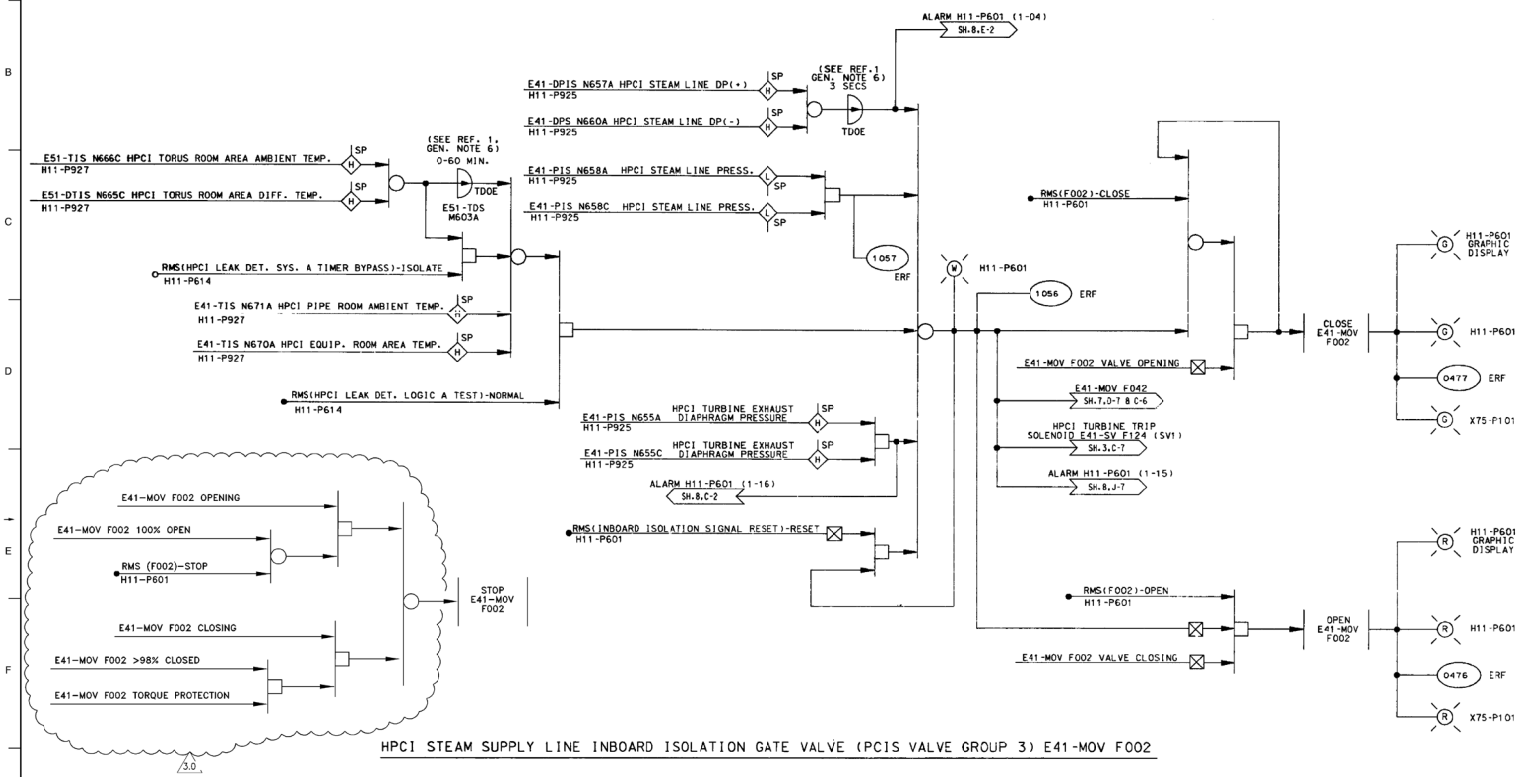
SOUTHERN SERVICES INC.
FOR

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

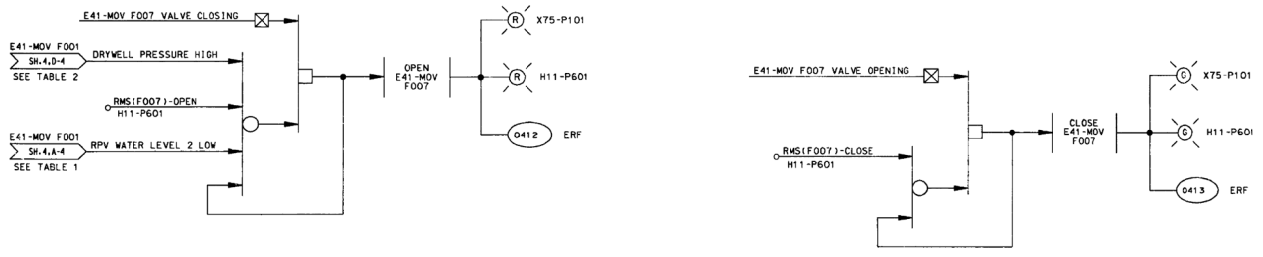
EDWIN I.HATCH NUCLEAR PLANT UNIT NO.1
CORE SPRAY SYSTEM
LOGIC DIAGRAMS
SHEET 3 OF 3

APPROVALS: G.A.KOSI 3-12-86
DSGN. DMP | DR. CADD/BEV | CHK
SCALE NONE | DATE 12-17-85
DRAWING NUMBER
LOCATION 10-502 | SHEET NO. H-19946

H-19947

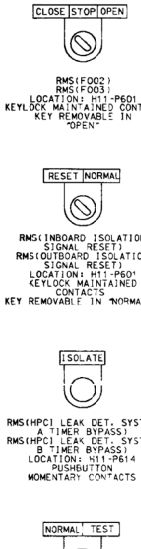


HPCI STEAM SUPPLY LINE INBOARD ISOLATION GATE VALVE (PCIS VALVE GROUP 3) E41-MOV F002



HPCI PUMP DISCHARGE ISOLATION GATE VALVE E41-MOV F007

SWITCH DEVELOPMENTS



NOTES

1. ALL EQUIPMENT AND INSTRUMENTS ARE PRECEDED BY MPL NO. E41 UNLESS OTHERWISE NOTED.
2. FOR LOCATION AND IDENTIFICATION OF INSTRUMENTS, SEE INSTRUMENT INDEX OR EQUIPMENT LOCATION INDEX (ELI).
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. THE HPCI SYS IS ARRANGED FOR TEST OF PUMP AT FULL FLOW & ALL VALVES FOR OPEN AND CLOSE CAPACITY AT ANY TIME EXCEPT WHEN INITIATION SIGNAL OR AUTO ISOLATION SIGNAL IS ACTIVATED. IN THE EVENT THE INITIATION SIGNAL OCCURS WHILE TEST IS UNDERWAY THE SYS. AUTOMATICALLY RETURNS TO START-UP MODE.
6. DELETED
7. ISOLATION SIGNAL SWITCHES SHALL BE OF THE TYPE THAT CLOSE CONTACTS FOR THE SPECIFIED ISOLATION EVENT. WHERE AUX. RELAYS ARE USED IN THE ISOLATION CHANNELS, THEY SHALL BE POWERED FROM THE STATION BATTERIES.
8. DELETED
9. THE HPCI SYSTEM SHALL BE DESIGNED IN ACCORDANCE WITH REFERENCE 8 AND WITH "PROPOSED CRITERIA FOR NUCLEAR POWER PLANT PROTECTION SYSTEMS IEEE-279" AS APPLICABLE TO THE CONTROL CIRCUITRY.

REFERENCES

	TITLE	MPL NO.	DWG. NO.
1.	LOGIC DIAGRAMS-LEGEND AND GENERAL NOTES	A21-1033C	H-19900
2.	HPCI SYSTEM P&ID	E41-1010	
	SHEET 1		H-16332
	SHEET 2		H-16333
3.	NUCLEAR BOILER SYSTEM P&ID	B21-1010	
	SHEET 1		H-16062
	SHEET 2		H-16063
	SHEET 3		H-16145
4.	RHR SYSTEM P&ID	E11-1010	
	SHEET 1		H-16329
	SHEET 2		H-16330
5.	RCIC SYSTEM P&ID	E51-1010	
	SHEET 1		H-16334
	SHEET 2		H-16335
6.	SAFEGUARD EQUIP. COOLING SYSTEM P&ID	T41-1033C	H-16023
7.	CORE SPRAY SYSTEM LOGIC DIAGRAMS	E21-1033C	
	SHEET 1		H-19944
	SHEET 2		H-19945
	SHEET 3		H-19946

(CONT. ON H-19949)

SUPERSEDING

THIS DRAWING WAS DEVELOPED FROM G.E. DRAWING NO.729E6278A, SHT.1 , REV.7, SHT.2, REV.7, AND SHT.3, REV.7 SCSI ACCESSION DRAWING NO.S-16153, S-16154, AND S-17137 RESPECTIVELY.

Version: 3.0 | Date: 5/7/12

REVISED PER ABN 1082072201J002, VER. 1.0

BY	CHK'D	APPR'D
JLO	MWD	JMR

SEE MICROFILM FOR PREVIOUS REV. SIGNATURES.

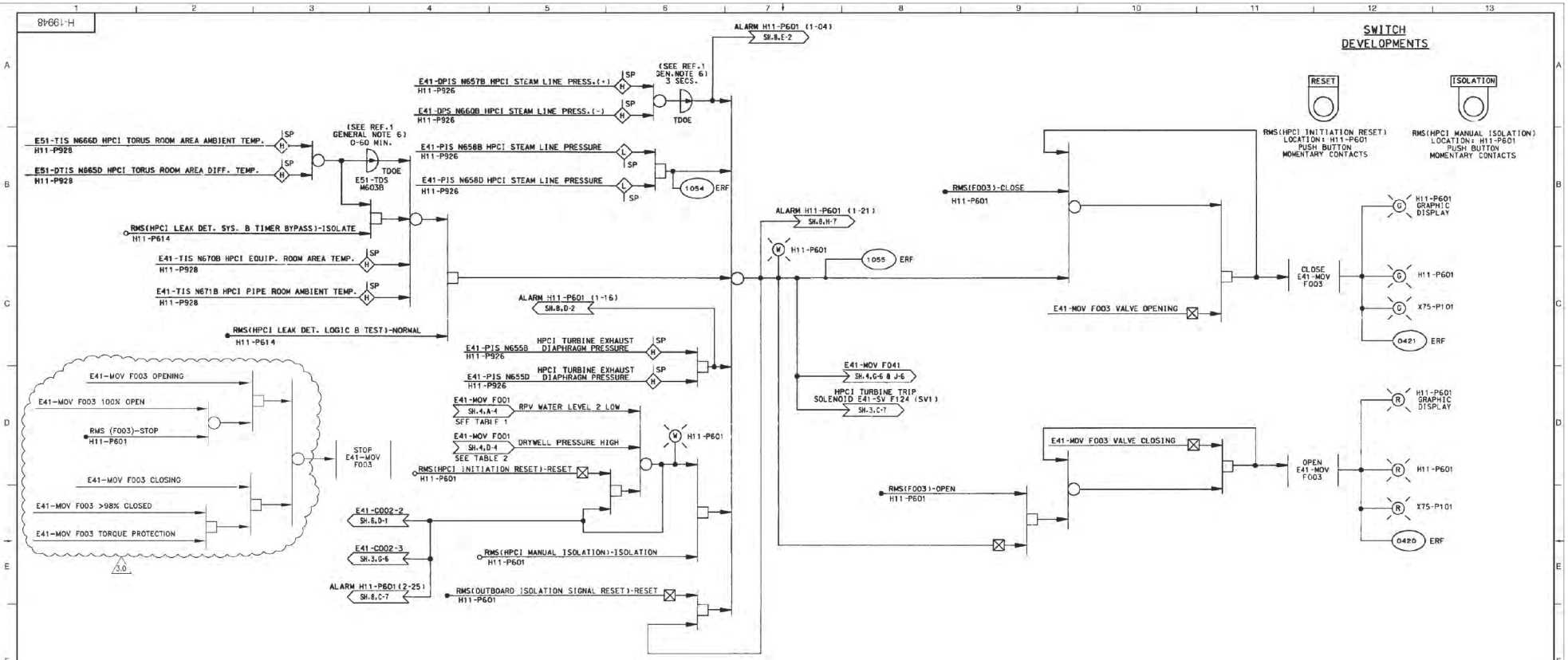
MPL No. E41-1030 | OVY2007 | H19947

SOUTHERN COMPANY

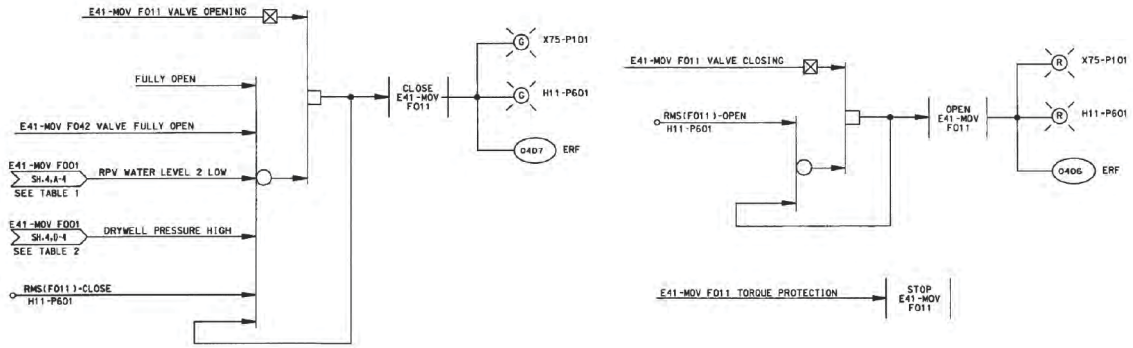
EDWIN I. HATCH NUCLEAR PLANT UNIT No. 1
HIGH PRESSURE COOLANT INJECTION SYSTEM
LOGIC DIAGRAMS
SHEET 1 OF 8

DRAWN	DESIGNED	LOCATION	DRAWING NUMBER	VERSION
CADD				
DATE	SCALE	10-502	H-19947	3.0
12-16-85	None			

H-19948



HPCI STEAM SUPPLY LINE OUTBOARD ISOLATION GATE VALVE (PCIS VALVE GROUP 3) E41-MOV F003



REDUNDANT ISOLATION GATE VALVE E41-MOV F011 FOR TEST BYPASS VALVE TO CONDENSATE STORAGE TANK

FOR NOTES AND REFERENCES, SEE DWG. H-19947.

SUPERSEDING

THIS DRAWING WAS DEVELOPED FROM G.E. DRAWING NO.729E6278A, SHT.1, REV.7, SHT.2, REV.7, AND SHT.3, REV.7 SCSI ACCESSION DRAWING NO.S-16153, S-16154, AND S-17137 RESPECTIVELY.

Version: 3.0 | Date: 5/7/12

REVISED PER ABN 1082070201J003, VER. 1.0

BY	CHK'D	APPR'D
JLO	MWD	JMR

SEE MICROFILM FOR PREVIOUS REV. SIGNATURES.

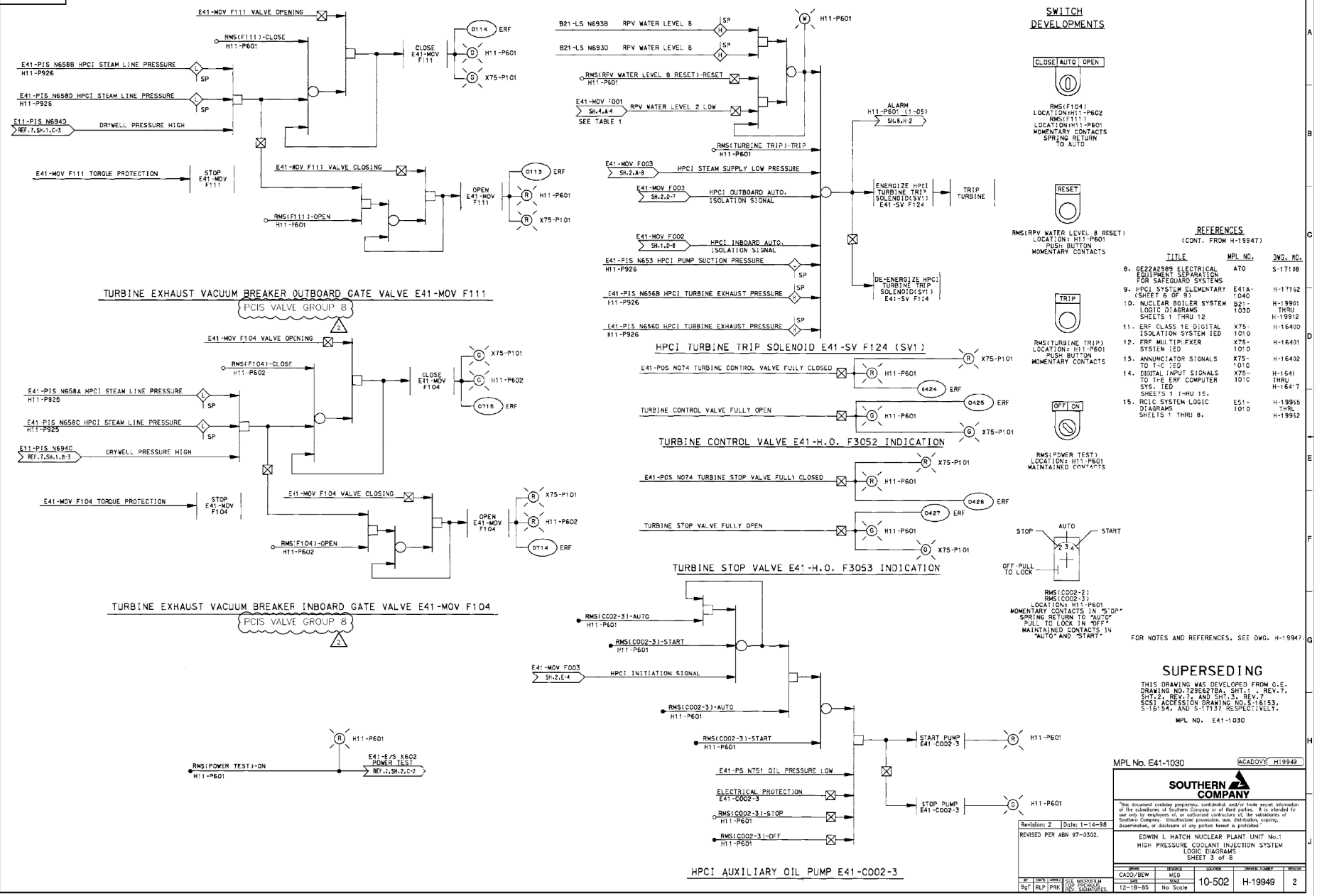
MPL NO. E41-1030 | OVY2007 | H19948

SOUTHERN COMPANY

EDWIN I. HATCH NUCLEAR PLANT UNIT No. 1
HIGH PRESSURE COOLANT INJECTION SYSTEM
LOGIC DIAGRAMS
SHEET 2 OF 8

DRAWN	DESIGNED	LOCATION	DRAWING NUMBER	VERSION
BEW	MEG	10-502	H-19948	3.0
DATE	SCALE			
12-18-85	None			

H-19949


E41-MOV F111 VALVE OPENING
RMS(F111)-CLOSE
H11-P601
E41-PIS N658B HPCI STEAM LINE PRESSURE
H11-P926
E41-PIS N658D HPCI STEAM LINE PRESSURE
H11-P926
E11-PIS N694D
REF.7,SH.1,C-3
DRYWELL PRESSURE HIGH
CLOSE E41-MOV F111
D114 ERF
H11-P601
X75-P101
E41-MOV F111 TORQUE PROTECTION
STOP E41-MOV F111
E41-MOV F111 VALVE CLOSING
RMS(F111)-OPEN
H11-P601
OPEN E41-MOV F111
D113 ERF
TURBINE EXHAUST VACUUM BREAKER OUTBOARD GATE VALVE E41-MOV F111
PCIS VALVE GROUP 8
2
E41-MOV F104 VALVE OPENING
RMS(F104)-CLOSE
H11-P602
E41-PIS N658A HPCI STEAM LINE PRESSURE
H11-P925
E41-PIS N658C HPCI STEAM LINE PRESSURE
H11-P925
E11-PIS N694C
REF.7,SH.1,B-3
DRYWELL PRESSURE HIGH
CLOSE E41-MOV F104
D715 ERF
E41-MOV F104 TORQUE PROTECTION
STOP E41-MOV F104
E41-MOV F104 VALVE CLOSING
RMS(F104)-OPEN
H11-P602
OPEN E41-MOV F104
D714 ERF
TURBINE EXHAUST VACUUM BREAKER INBOARD GATE VALVE E41-MOV F104
PCIS VALVE GROUP 8
2
RMS(POWER TEST)-ON
H11-P601
E41-F/S K602
POWER TEST
REF.7,SH.2,C-2
B21-LS N693B RPV WATER LEVEL 8
B21-LS N693D RPV WATER LEVEL 8
RMS(RPV WATER LEVEL 8 RESET)-RESET
H11-P601
E41-MOV F001
SH.4,A-4
SEE TABLE 1
RPV WATER LEVEL 2 LOW
ALARM
H11-P601 (11-09)
SH.8,H-2
RMS(TURBINE TRIP)-TRIP
H11-P601
E41-MOV F003
SH.2,A-8
HPCI STEAM SUPPLY LOW PRESSURE
E41-MOV F003
SH.2,D-7
HPCI OUTBOARD AUTO. ISOLATION SIGNAL
E41-MOV F002
SH.1,D-8
HPCI INBOARD AUTO. ISOLATION SIGNAL
E41-PIS N653 HPCI PUMP SUCTION PRESSURE
H11-P926
E41-PIS N656B HPCI TURBINE EXHAUST PRESSURE
H11-P926
E41-PIS N656D HPCI TURBINE EXHAUST PRESSURE
H11-P926
ENERGIZE HPCI TURBINE TRIP SOLENOID(SY1) E41-SV F124
TRIP TURBINE
DE-ENERGIZE HPCI TURBINE TRIP SOLENOID(SY1) E41-SV F124
HPCI TURBINE TRIP SOLENOID E41-SV F124 (SV1)
E41-PDS N074 TURBINE CONTROL VALVE FULLY CLOSED
0424 ERF
TURBINE CONTROL VALVE FULLY OPEN
0425 ERF
TURBINE CONTROL VALVE E41-H.O. F3052 INDICATION
E41-PDS N074 TURBINE STOP VALVE FULLY CLOSED
0426 ERF
TURBINE STOP VALVE FULLY OPEN
0427 ERF
TURBINE STOP VALVE E41-H.O. F3053 INDICATION
RMS(C002-3)-AUTO
H11-P601
RMS(C002-3)-START
H11-P601
E41-MOV F003
SH.2,E-4
HPCI INITIATION SIGNAL
RMS(C002-3)-AUTO
H11-P601
RMS(C002-3)-START
H11-P601
START PUMP E41-C002-3
E41-PS N751 OIL PRESSURE LOW
ELECTRICAL PROTECTION E41-C002-3
RMS(C002-3)-STOP
H11-P601
RMS(C002-3)-OFF
H11-P601
STOP PUMP E41-C002-3
HPCI AUXILIARY OIL PUMP E41-C002-3
SWITCH DEVELOPMENTS
CLOSE AUTO OPEN
RMS(F104) LOCATION:H11-P602 RMS(F111) LOCATION:H11-P601 MOMENTARY CONTACTS SPRING RETURN TO AUTO
RESET
RMS(RPV WATER LEVEL 8 RESET) LOCATION: H11-P601 PUSH BUTTON MOMENTARY CONTACTS
TRIP
RMS(TURBINE TRIP) LOCATION: H11-P601 PUSH BUTTON MOMENTARY CONTACTS
OFF ON
RMS(POWER TEST) LOCATION: H11-P601 MAINTAINED CONTACTS
STOP AUTO START
OFF-PULL TO LOCK
RMS(C002-2) RMS(C002-3) LOCATION: H11-P601 MOMENTARY CONTACTS IN "STOP" SPRING RETURN TO "AUTO" PULL TO LOCK IN "OFF" MAINTAINED CONTACTS IN "AUTO" AND "START"
REFERENCES
(CONT. FROM H-19947)
8. GE22A2589 ELECTRICAL EQUIPMENT SEPARATION FOR SAFEGUARD SYSTEMS — A70 — S-17108
9. HPCI SYSTEM ELEMENTARY (SHEET 6 OF 9) — E41A-1040 — H-17162
10. NUCLEAR BOILER SYSTEM LOGIC DIAGRAMS SHEETS 1 THRU 12 — B21-1030 — H-19901 THRU H-19912
11. ERF CLASS 1E DIGITAL ISOLATION SYSTEM IED — X75-1010 — H-16400
12. ERF MULTIPLEXER SYSTEM IED — X75-1010 — H-16401
13. ANNUNCIATOR SIGNALS TO TSC IED — X75-1010 — H-16402
14. DIGITAL INPUT SIGNALS TO THE ERF COMPUTER SYS. IED SHEETS 1 THRU 15. — X75-1010 — H-164(THRU) H-164:7
15. RCIC SYSTEM LOGIC DIAGRAMS SHEETS 1 THRU 8. — E51-1010 — H-19955 THRU H-19962
FOR NOTES AND REFERENCES, SEE DWG. H-19947.
SUPERSEDING
THIS DRAWING WAS DEVELOPED FROM G.E. DRAWING NO.729E627BA, SHT.1, REV.7, SHT.2, REV.7, AND SHT.3, REV.7 SCSI ACCESSION DRAWING NO.S-16153, S-16154, AND S-17137 RESPECTIVELY.
MPL NO. E41-1030
MPL No. E41-1030
ACADOVY H19949
SOUTHERN COMPANY
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Revision: 2 Date: 1-14-98
REVISED PER ABN 97-0302.
EDWIN I. HATCH NUCLEAR PLANT UNIT No.1
HIGH PRESSURE COOLANT INJECTION SYSTEM
LOGIC DIAGRAMS
SHEET 3 of 8
BY DATE APPR. SCE, MICROFILM DOT PURPOSES REV. SIGNATURES
BgT RLP PRK
DRAWN CADD/BEW
DESIGNED MEG
DATE 12-18-85
SCALE No Scale
LOCATION 10-502
DRAWING NUMBER H-19949
REVISION 2

OS661-H

B21-LS N692A REF.4,SH.7,E-8 — RPV WATER LEVEL 2
B21-LS N692B REF.4,SH.7,F-8 — RPV WATER LEVEL 2
B21-LS N692C REF.4,SH.7,F-8 — RPV WATER LEVEL 2
B21-LS N692D REF.4,SH.7,G-8 — RPV WATER LEVEL 2
E11-PIS N694A REF.7,SH.1,A-3 — DRYWELL PRESSURE HIGH
E11-PIS N694B REF.7,SH.1,A-3 — DRYWELL PRESSURE HIGH
E11-PIS N694C REF.7,SH.1,B-3 — DRYWELL PRESSURE HIGH
E11-PIS N694D REF.7,SH.1,C-3 — DRYWELL PRESSURE HIGH
1 TEST H11-P620

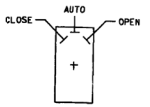
SEE TABLE 1 B-2
SEE TABLE 2 E-7
RMS(F001)-OPEN H11-P601

E41-MOV F001 VALVE CLOSING
OPEN E41-MOV F001
G X75-P101
G H11-P601
0416 ERF
T41-B005A,B REF.6,A-4

E41-MOV F001 TORQUE PROTECTION — STOP E41-MOV F001

E41-MOV F001 VALVE OPENING
RMS(F001)-CLOSE H11-P601
CLOSE E41-MOV F001
G X75-P101
G H11-P601
0417 ERF

SWITCH DEVELOPMENTS



RMS(F001)
RMS(F004)
RMS(F006)
RMS(F007)
RMS(F008)
RMS(F011)
RMS(F012)
RMS(F041)
RMS(F042)
RMS(F059)
LOCATION: H11-P601
MOMENTARY CONTACTS IN "OPEN" AND "CLOSE"
SPRING RETURN TO "AUTO"

HPCI TURBINE STEAM SUPPLY GATE VALVE E41-MOV F001

TABLE 1

TAG NUMBER	FUNCTION	SHT. NO.	COORD.
HPCI TURBINE TRIP SOLENCID SV1	RESET PERM	3	B-6
E41-MOV F059	OPEN VALVE	4	G-1
E41-MOV F004	OPEN PERM	7	B-1
E41-MOV F008	CLOSE VALVE	5	C-7
E41-MOV F006	OPEN PERM	5	E-6
E41-MOV F007	OPEN VALVE	1	H-2
E41-MOV F003	CLOSE PERM	2	D-4
E41-MOV F011	CLOSE VALVE	2	H-2

TABLE 2

TAG NUMBER	FUNCTION	SHT. NO.	COORD.
E41-MOV F006	OPEN PERM	5	E-6
E41-MOV F007	OPEN VALVE	1	G-2
E41-MOV F059	OPEN VALVE	4	G-1
E41-MOV F003	CLOSE PERM	2	D-4
E41-MOV F008	CLOSE VALVE	5	C-7
E41-MOV F011	CLOSE VALVE	2	H-2
E41-MOV F004	OPEN PERM	7	B-1

E41-F001 OPEN
HPCI STOP VALVE OPEN
2
E41-MOV F001 A-4 SEE TABLE 1
E41-MOV F001 B-4 SEE TABLE 2
RMS(F059)-OPEN H11-P601

E41-MOV F059 VALVE CLOSING
OPEN E41-MOV F059
R H11-P601

E41-MOV F059 TORQUE PROTECTION — STOP E41-MOV F059

E41-MOV F059 VALVE OPENING
RMS(F059)-CLOSE H11-P601
CLOSE E41-MOV F059
G H11-P601

HPCI TURBINE LUBE OIL COOLING WATER SUPPLY GLOBE VALVE E41-MOV F059

E41-MOV F041 VALVE CLOSING
E41-LS N002 CONDENSATE STORAGE TANK LEVEL LOW
E41-LS N003 CONDENSATE STORAGE TANK LEVEL LOW
E41-LIS N662B TORUS WATER LEVEL H11-P926 SP H
E41-LIS N662D TORUS WATER LEVEL H11-P926 SP H
RMS(F041)-OPEN H11-P601
E41-MOV F003 SH.2,D-7 — HPCI OUTBOARD AUTO ISOLATION SIGNAL
OPEN E41-MOV F041
R X75-P101
R H11-P601
0404 ERF

E41-MOV F041 TORQUE PROTECTION — STOP E41-MOV F041

E41-MOV F041 VALVE OPENING
RMS(F041)-CLOSE H11-P601
E41-MOV F003 SH.2,D-7 — HPCI OUTBOARD AUTO ISOLATION SIGNAL
CLOSE E41-MOV F041
G X75-P101
G H11-P601
0405 ERF

PUMP SUCTION FROM TORUS ISOLATION GATE VALVE E41-MOV F041

REV. 2 DATE 7-5-95
SCANNED, VERIFIED BY CYN
REVISED PER ABN 93-0034-003

FOR NOTES AND REFERENCES, SEE DWG. H-19947.

SUPERSEDING

THIS DRAWING WAS DEVELOPED FROM G.E. DRAWING NO. 729E627BA, SHT.1, REV.2, SHT.2, REV.7, AND SHT.3, REV.7 SCSI ACCESSION DRAWING NO. S-16153, S-16154, AND S-17137 RESPECTIVELY.

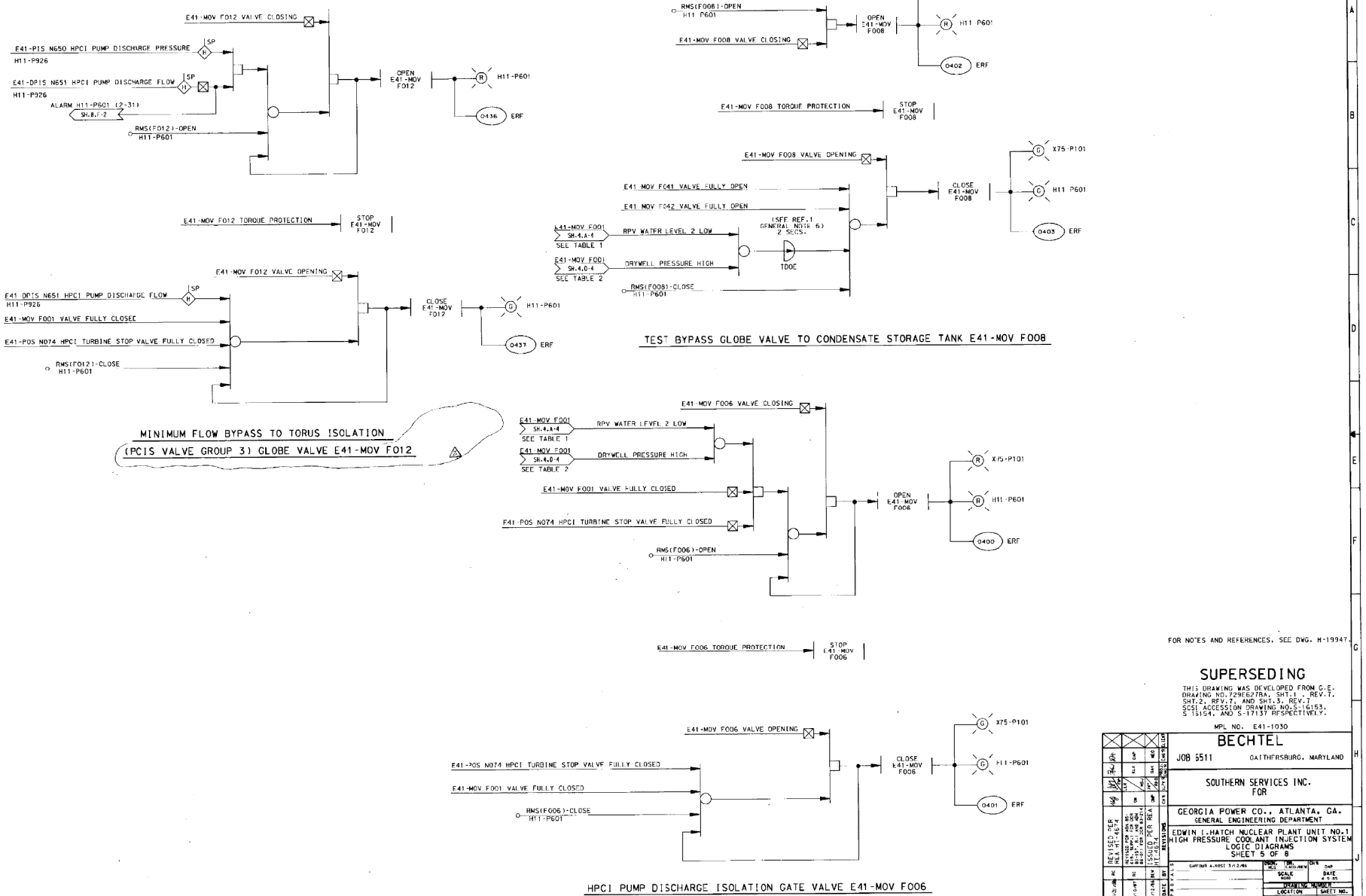
MPL NO. E41-1030 ACAD H19950

BECHTEL
JOB 6511 GAITHERSBURG, MARYLAND
SOUTHERN SERVICES INC. FOR
GEORGIA POWER CO., ATLANTA, GA.
GENERAL ENGINEERING DEPARTMENT
EDWIN I. HATCH NUCLEAR PLANT UNIT NO.1
HIGH PRESSURE COOLANT INJECTION SYSTEM
LOGIC DIAGRAMS
SHEET 4 OF 8

DRAFTSMAN A.KOSI 3/12/96
DRAWING NUMBER 10-502 H-19950
SCALE NONE
DATE 12-15-95
LOCATION
SHEET NO.

REVISIONS: 0 3/12/96 REV ISSUED PER REA

H-19951



FOR NOTES AND REFERENCES, SEE DWG. H-19947.

SUPERSEDING

THIS DRAWING WAS DEVELOPED FROM G.E. DRAWING NO.729E627BA, SHT.1 , REV.7, SHT.2, REV.7, AND SHT.3, REV.7 SCSI ACCESSION DRAWING NO.S-16153, S-16154, AND S-17137 RESPECTIVELY.

MPL NO. E41-1030

BECHTEL

JOB 5511 GAITHERSBURG, MARYLAND

SOUTHERN SERVICES INC.
FOR

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

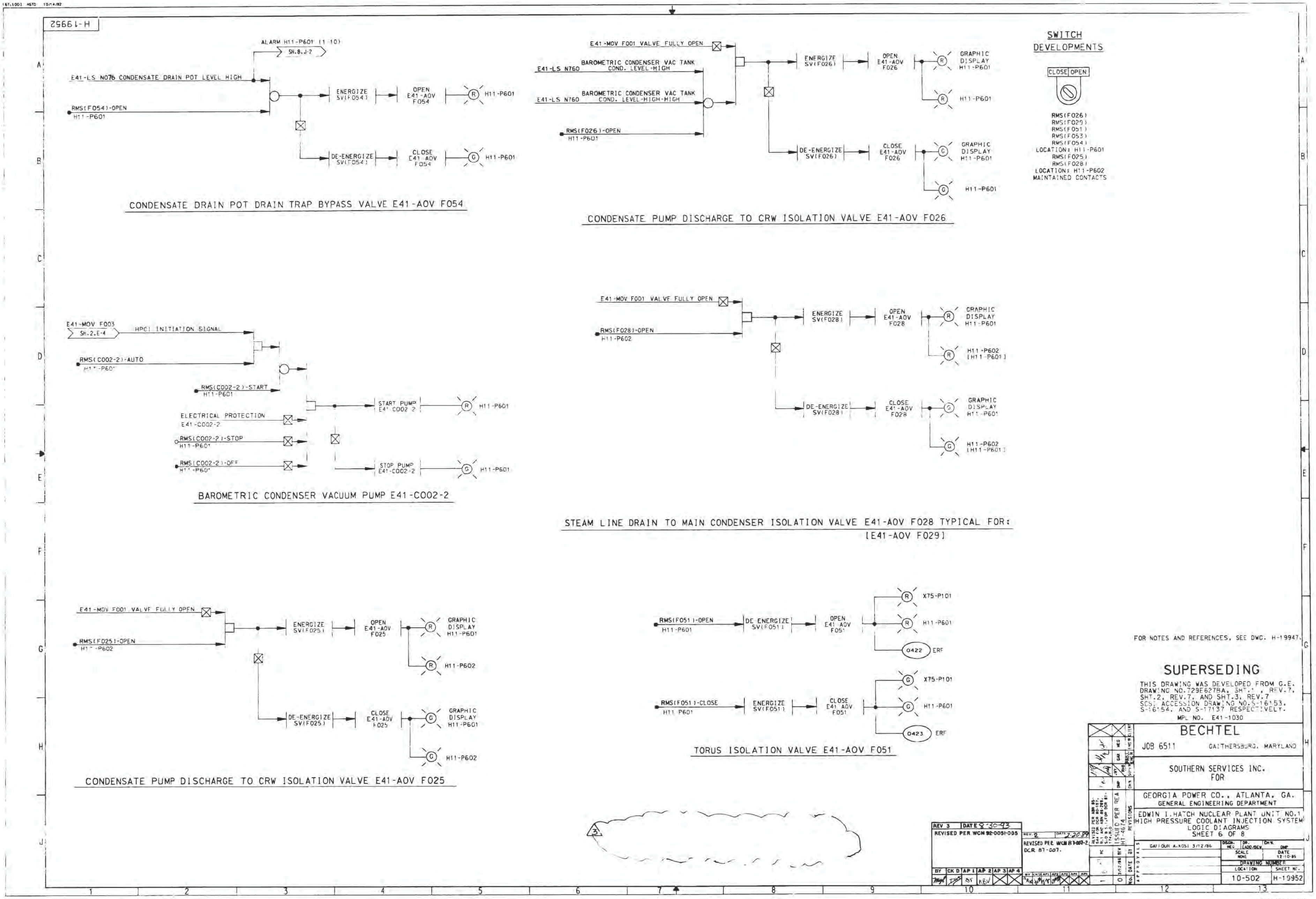
EDWIN I. HATCH NUCLEAR PLANT UNIT NO.1
HIGH PRESSURE COOLANT INJECTION SYSTEM
LOGIC DIAGRAMS
SHEET 5 OF 8

DRAWING NO.	REV.
10-502	H-19951

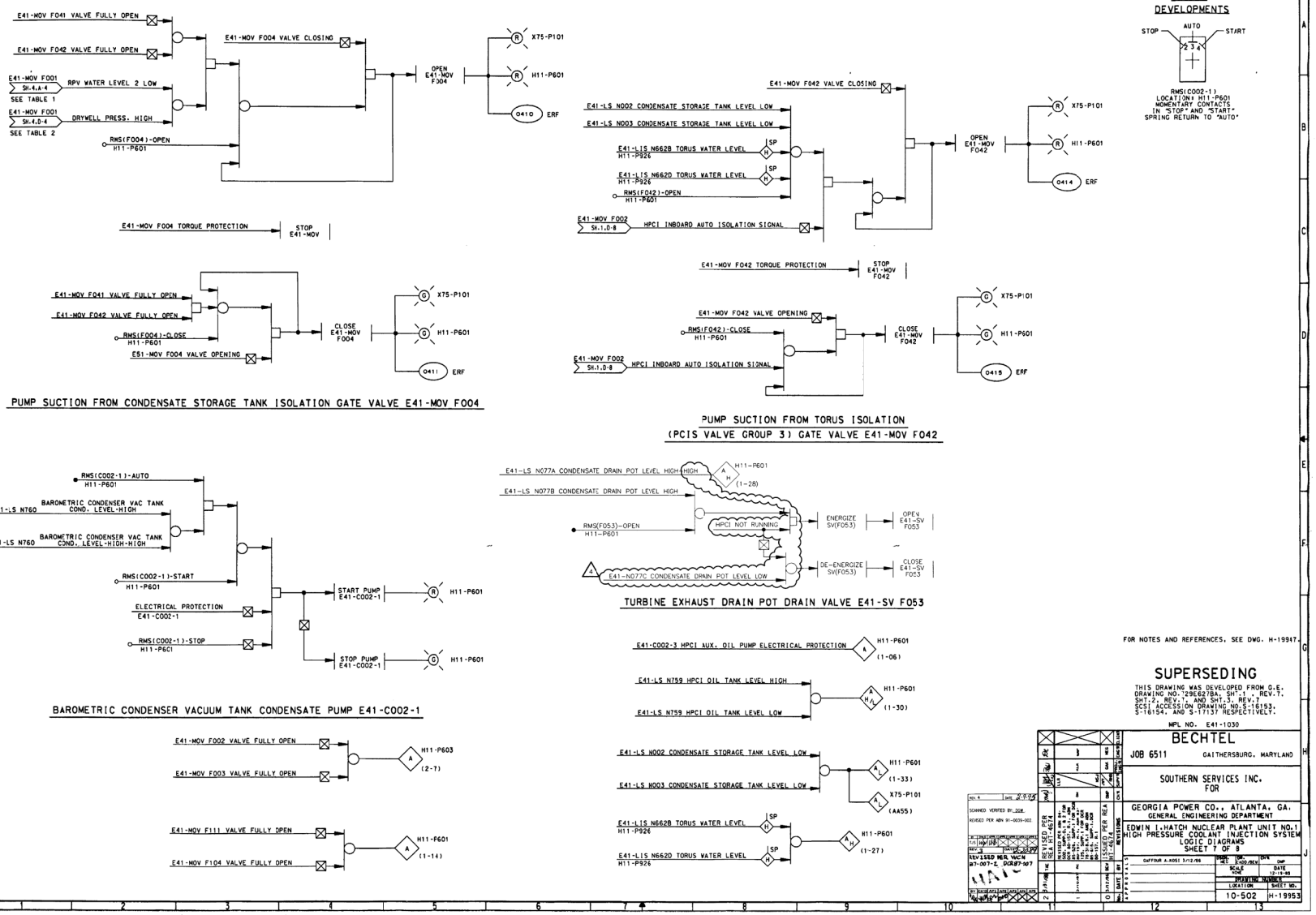
SCALE NONE

DATE 4-5-85

LAST WORKED 2-13-87


H-19952
ALARM H11-P601 (1-10)
SH.8,J-2
E41-LS N076 CONDENSATE DRAIN POT LEVEL HIGH
RMS(F054)-OPEN
H11-P601
ENERGIZE SV(F054)
OPEN E41-AOV F054
H11-P601
DE-ENERGIZE SV(F054)
CLOSE E41-AOV F054
H11-P601
CONDENSATE DRAIN POT DRAIN TRAP BYPASS VALVE E41-AOV F054
E41-MOV F001 VALVE FULLY OPEN
BAROMETRIC CONDENSER VAC TANK COND. LEVEL-HIGH
E41-LS N760
BAROMETRIC CONDENSER VAC TANK COND. LEVEL-HIGH-HIGH
E41-LS N760
RMS(F026)-OPEN
H11-P601
ENERGIZE SV(F026)
OPEN E41-AOV F026
GRAPHIC DISPLAY H11-P601
H11-P601
DE-ENERGIZE SV(F026)
CLOSE E41-AOV F026
GRAPHIC DISPLAY H11-P601
H11-P601
CONDENSATE PUMP DISCHARGE TO CRW ISOLATION VALVE E41-AOV F026
SWITCH DEVELOPMENTS
CLOSE OPEN
RMS(F026)
RMS(F029)
RMS(F051)
RMS(F053)
RMS(F054)
LOCATION: H11-P601
RMS(F025)
RMS(F028)
LOCATION: H11-P602
MAINTAINED CONTACTS
E41-MOV F003
SH.2,E-4
HPCI INITIATION SIGNAL
RMS(C002-2)-AUTO
H11-P601
RMS(C002-2)-START
H11-P601
ELECTRICAL PROTECTION E41-C002-2
RMS(C002-2)-STOP
H11-P601
RMS(C002-2)-OFF
H11-P601
START PUMP E41-C002-2
H11-P601
STOP PUMP E41-C002-2
H11-P601
BAROMETRIC CONDENSER VACUUM PUMP E41-C002-2
E41-MOV F001 VALVE FULLY OPEN
RMS(F028)-OPEN
H11-P602
ENERGIZE SV(F028)
OPEN E41-AOV F028
GRAPHIC DISPLAY H11-P601
H11-P602 [H11-P601]
DE-ENERGIZE SV(F028)
CLOSE E41-AOV F028
GRAPHIC DISPLAY H11-P601
H11-P602 [H11-P601]
STEAM LINE DRAIN TO MAIN CONDENSER ISOLATION VALVE E41-AOV F028 TYPICAL FOR:
[E41-AOV F029]
E41-MOV F001 VALVE FULLY OPEN
RMS(F025)-OPEN
H11-P602
ENERGIZE SV(F025)
OPEN E41-AOV F025
GRAPHIC DISPLAY H11-P601
H11-P602
DE-ENERGIZE SV(F025)
CLOSE E41-AOV F025
GRAPHIC DISPLAY H11-P601
H11-P602
CONDENSATE PUMP DISCHARGE TO CRW ISOLATION VALVE E41-AOV F025
RMS(F051)-OPEN
H11-P601
DE ENERGIZE SV(F051)
OPEN E41-AOV F051
X75-P101
H11-P601
0422 ERF
RMS(F051)-CLOSE
H11-P601
ENERGIZE SV(F051)
CLOSE E41-AOV F051
X75-P101
H11-P601
0423 ERF
TORUS ISOLATION VALVE E41-AOV F051
FOR NOTES AND REFERENCES, SEE DWG. H-19947.
SUPERSEDING
THIS DRAWING WAS DEVELOPED FROM G.E. DRAWING NO.729E627BA, SHT.1, REV.7, SHT.2, REV.7, AND SHT.3, REV.7
SCS ACCESSION DRAWING NO.S-16153, S-16154, AND S-17137 RESPECTIVELY.
MPL NO. E41-1030
BECHTEL
JOB 6511
GAITHERSBURG, MARYLAND
SOUTHERN SERVICES INC. FOR
GEORGIA POWER CO., ATLANTA, GA.
GENERAL ENGINEERING DEPARTMENT
EDWIN I. HATCH NUCLEAR PLANT UNIT NO.1
HIGH PRESSURE COOLANT INJECTION SYSTEM
LOGIC DIAGRAMS
SHEET 6 OF 8
REV 3 DATE 8-30-93
REVISED PER WCM 92-0051-005
REVISED PER WCM 87-007
DCR 87-007
ISSUED PER REA HT-4674
10-502
H-19952
FSAR FIGURE NO. 7.4-12 (SHEET 6 OF 8)

E51-H-19953



FOR NOTES AND REFERENCES, SEE DWG. H-19947.

SUPERSEDING

THIS DRAWING WAS DEVELOPED FROM G.E. DRAWING NO. 729627BA, SH. 1, REV. 7, SH. 2, REV. 1, AND SH. 3, REV. 7 SCS ACCESSION DRAWING NO. S-16153, S-16154, AND S-17137 RESPECTIVELY.

MPL NO. E41-1030

BECHTEL
JOB 6511 GAITHERSBURG, MARYLAND

SOUTHERN SERVICES INC.
FOR
GEORGIA POWER CO., ATLANTA, GA.
GENERAL ENGINEERING DEPARTMENT

EDWIN I. HATCH NUCLEAR PLANT UNIT NO. 1
HIGH PRESSURE COOLANT INJECTION SYSTEM
LOGIC DIAGRAMS
SHEET 7 OF 8

SCALE NONE	DATE 12-15-88
DRAWING NUMBER	
LOCATION 10-502	SHEET NO. H-19953

REVISED PER REA H11-4674
REVISED PER WCN 87-007-Z DCR87-107

H-19954

E41-MOV F008 ELECTRICAL PROTECTION
E41-MOV F003 ELECTRICAL PROTECTION
E41-MOV F001 ELECTRICAL PROTECTION
E41-MOV F011 ELECTRICAL PROTECTION
E41-MOV F004 ELECTRICAL PROTECTION
E41-MOV F012 ELECTRICAL PROTECTION
E41-MOV F041 ELECTRICAL PROTECTION
E41-MOV F042 ELECTRICAL PROTECTION
E41-MOV F002 ELECTRICAL PROTECTION
→ H11-P601 (1-11)

E41-MOV F002 SH.1,E-5 HPCI TURBINE EXHAUST DIAPHRAGM PRESS.
E41-MOV F003 SH.2,C-5 HPCI TURBINE EXHAUST DIAPHRAGM PRESS.
→ H11-P601 (1-16)

E41-MOV F002 SH.1,B-7 HPCI STEAM LINE DIFF PRESS. HIGH
E41-MOV F003 SH.2,A-7 HPCI STEAM LINE DIFF PRESS. HIGH
→ H11-P601 (1-04)

(SEE REF.1 GENERAL NOTE 6) 15 SECS
E41-MOV F001 VALVE FULLY CLOSED
E41-MOV F012 SH.5,B-2 HPCI PUMP DISCHARGE FLOW
TODE
→ H11-P601 (2-31)

E41-DPS N753 HPCI TURBINE OIL FILTER DIFF. PRESS. HIGH → H11-P601 (1-24)

E41-TS N754 HPCI TURBINE OIL COOLER DISCHARGE TEMP. HIGH → H11-P601 (1-18)

E41-PS N654 HPCI PUMP SUCTION PRESSURE 2H11-P926 SP → H11-P601 (1-17)

HPCI TURBINE TRIP SOLENOID E41-SV F124 SH.3,B-9 (SV1) ENERGIZED → H11-P601 (1-09)

E41-MOV F006 ELECTRICAL PROTECTION
E41-MOV F007 ELECTRICAL PROTECTION
→ H11-P601 (1-05)

E41-AOV F054 SH.6,I-5 CONDENSATE DRAIN POT LEVEL → H11-P601 (1-10)

E41-DCAC N603 HPCI INVERTER LOSS OF POWER H11-P612 → H11-P601 (1-20)

E41-PS N031 HPCI PUMP SUCTION PRESSURE HIGH H21-P014 → H11-P601 (1-23)

E41-P1S N656B HPCI TURBINE EXHAUST PRESS. H11-P926 SP
E41-P1S N656D HPCI TURBINE EXHAUST PRESS. H11-P926 SP
→ H11-P601 (1-22)

RMS(HPCI TURBINE SPEED TEST)-TURBINE TEST H11-P601
→ HPCI SYSTEM FLOW CONTROLLER IN TEST MODE REF.9
→ H11-P601 (2-25)
E41-MOV F003 SH.2,E-4 HPCI INITIATION SIGNAL
TEST H11-P620
RMS(HPCI TURBINE SPEED TEST)-NORMAL H11-P601
→ HPCI SYSTEM FLOW CONTROLLER IN OPERATIONAL MODE. REF.9

HPCI TURBINE SPEED CONTROL E41-FIC-R612 (3)

HPCI LOGIC BUS A LOSS OF POWER H11-P622
HPCI LOGIC BUS B LOSS OF POWER H11-P620
LOGIC BUS LOSS OF POWER FOR RPV LEVEL 2 H11-P617
→ H11-P601 (1-26)

HPCI TURBINE STOP VALVE FULLY CLOSED
→ X75-P10 (AA39)
→ H11-P601 (1-03) HPCI TURBINE TRIPPED
E41-F001 FULLY CLOSED
→ HPCI TURBINE GOVERNOR RAMP GENERATOR INITIATED. REF. 9

E41-PS N762 BAROMETRIC CONDENSER PRESS. HIGH → H11-P601 (1-34)

E41-LS N761 BAROMETRIC CONDENSER LEVEL LOW → H11-P601 (1-35)

E41-LS N760 BAROMETRIC CONDENSER LEVEL HIGH
E41-LS N760 BAROMETRIC CONDENSER LEVEL HIGH-HIGH
→ H11-P601 (1-29)

E41-PS N752 HPCI TURBINE BEARING OIL PRESS. LOW → H11-P601 (1-12)

E41-MOV F003 SH.2,B-7 HPCI ISOLATION SIGNAL LOGIC B → H11-P601 (1-21)

E41-MOV F002 SH.1,E-8 HPCI ISOLATION SIGNAL LOGIC A → H11-P601 (1-15)

SWITCH DEVELOPMENTS

NORMAL / TURBINE TEST

RMS(HPCI TURBINE SPEED TEST) LOCATION: H11-P601 MAINTAINED CONTACTS

FOR NOTES AND REFERENCES, SEE DWG. H-19947.

SUPERSEDING

THIS DRAWING WAS DEVELOPED FROM G.E. DRAWING NO. 729E627BA, SHT. 1, REV. 7, SHT. 2, REV. 7, AND SHT. 3, REV. 7. SCSI ACCESSION DRAWING NO. S-16153, S-16154, AND S-17137 RESPECTIVELY.

MPL # E41-1030 ACADOWV H19954

Southern Company Services, Inc. for
Georgia Power Company, Atlanta, GA
General Engineering Department

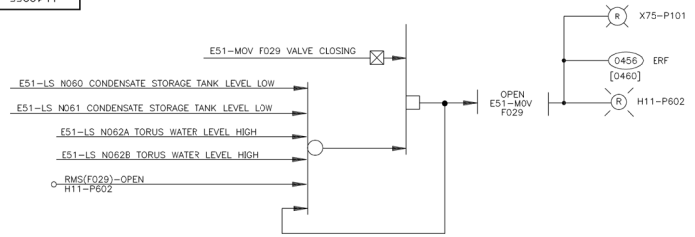
EDWIN I. HATCH NUCLEAR PLANT UNIT No. 1
HIGH PRESSURE COOLANT INJECTION SYSTEM
LOGIC DIAGRAMS SHEET 8 OF 8

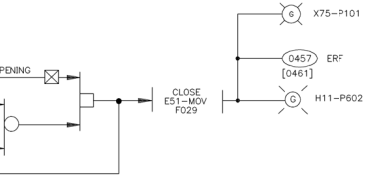
DRAWN	DESIGNED	UNIT	DRAWING NUMBER	REVISION
CADD/REV	MEG			
DATE	SCALE			
12-19-86	None	10-502	H-19954	3

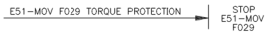
Revision: 3 Date: 5-14-96
REVISED PER ABN 92-0090-002.

BY | DATE | CHKD | SEE MICROFILM FOR PRIOR REV. SIGNATURES
ARK 5/14/96

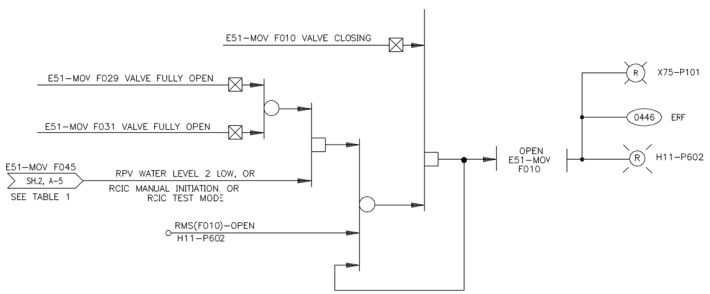
H-19955

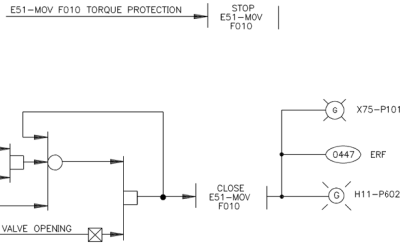






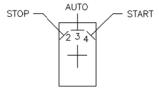
PUMP SUCTION FROM TORUS ISOLATION GATE VALVE E51-MOV F029 TYPICAL FOR:[E51-MOV F031]



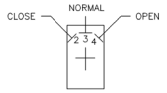


PUMP SUCTION FROM CONDENSATE STORAGE TANK ISOLATION GATE VALVE E51-MOV F010

SWITCH DEVELOPMENTS



RMS(C002-1)
LOCATION: H11-P602
MOMENTARY CONTACTS
IN "STOP" AND "START"
SPRING RETURN TO "AUTO"



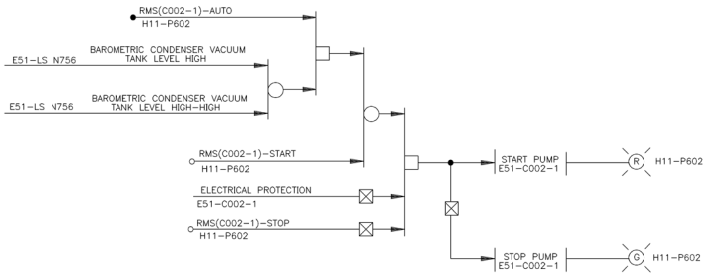
RMS(F029)
RMS(F031)
RMS(RCIC TURBINE
TRIP AND THROTTLING VALVE)
LOCATION: H11-P602
MOMENTARY CONTACTS
IN "OPEN" AND "CLOSE"
SPRING RETURN TO "NORMAL"

RMS(POWER TEST)
LOCATION: H11-P602
MAINTAINED CONTACTS

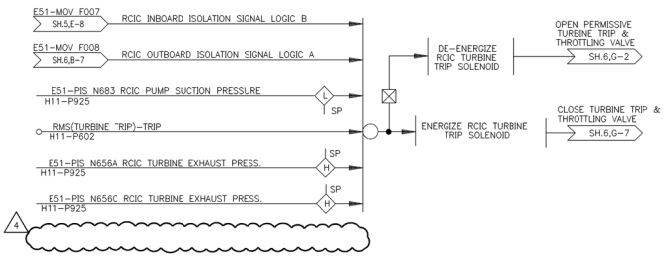
RMS(TURBINE TRIP)
LOCATION: H11-P602
PUSHBUTTON
MOMENTARY CONTACTS

NOTES

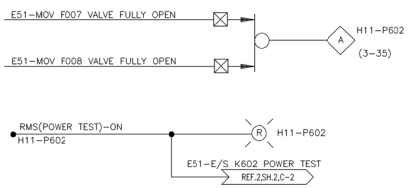
1. ALL EQUIPMENT AND INSTRUMENTS ARE PRECEDED BY MPL NO. E51 UNLESS OTHERWISE NOTED.
2. FOR LOCATION AND INDENTIFICATION OF INSTRUMENTS, SEE INSTRUMENT INDEX OR EQUIPMENT LOCATION INDEX (ELI).
3. FOR LOGIC DIAGRAMS-, LEGEND AND GENERAL NOTES, SEE REFERENCE 1.
4. FOR INFORMATION ON ALARMS, VALVE INDICATING LIGHT REQUIREMENTS AND PROCESS INSTRUMENTATION REQUIREMENTS WHICH ARE NOT SHOWN ON THE LOGIC DIAGRAMS, SEE REFERENCE 2.
5. 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 E51-C002.
6. 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.
7. THE RCIC SYSTEM SHALL BE DESIGNED IN ACCORDANCE WITH REFERENCE 7 AND WITH "PROPOSED CRITERIA FOR NUCLEAR POWER PLANT PROTECTION SYSTEM IEEE-279" AS APPLICABLE TO THE CONTROL CIRCUITRY.
8. ALL POWER FOR OPERATION OF D.C. VALVE MOTORS SHALL ORIGINATE FROM A PLANT D.C. BUS. POWER FOR AC OPERATED VALVES SHALL ORIGINATE FROM AN EMERGENCY A.C. BUS.
9. 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.
10. IF TURBINE TRIP SOLENOID IS ENERGIZED, TRIP AND THROTTLING VALVE IS DISENGAGED FROM ACTUATOR AND THE VALVE CLOSES. AFTER THE SOLENOID HAS BEEN DE-ENERGIZED, THE ACTUATOR MUST BE DRIVEN TO THE FULLY CLOSED POSITION BEFORE THE VALVE CAN OPEN AGAIN.

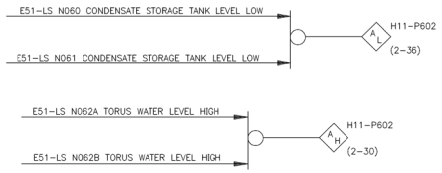


BAROMETRIC CONDENSER VACUUM TANK CONDENSATE PUMP E51-C002-1



RCIC TURBINE TRIP SOLENOID





FOR REFERENCES SEE DRAWING H-19956

SUPERSEDING

THIS DRAWING WAS DEVELOPED FROM G.E. DRAWING NO. 729E622BA, SHT.1, REV.8 SHT.2, REV.6, SHT.3, REV.7 AND, SHT.4, REV.8 SCSI ACCESSION DRAWING NO. S-16159, S-16160, S-16161 AND, S-18107 RESPECTIVELY.

MPL # E51-1030 | ACA2K | H19955

SOUTHERN COMPANY

Revision: 4	Date: 3-1-02
REVISED PER ABN 00-0025-002.	

BY	CHK'D	APPR'D
RCR	CTW	RLP

SEE MICROFILM FOR PREVIOUS REV. SIGNATURES.

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

DRAWN	DESIGNED	LOCATION	DRAWING NUMBER	REVISION
CADD/BEW	DMP	10-502	H-19955	4
DATE 1-14-85	SCALE None			

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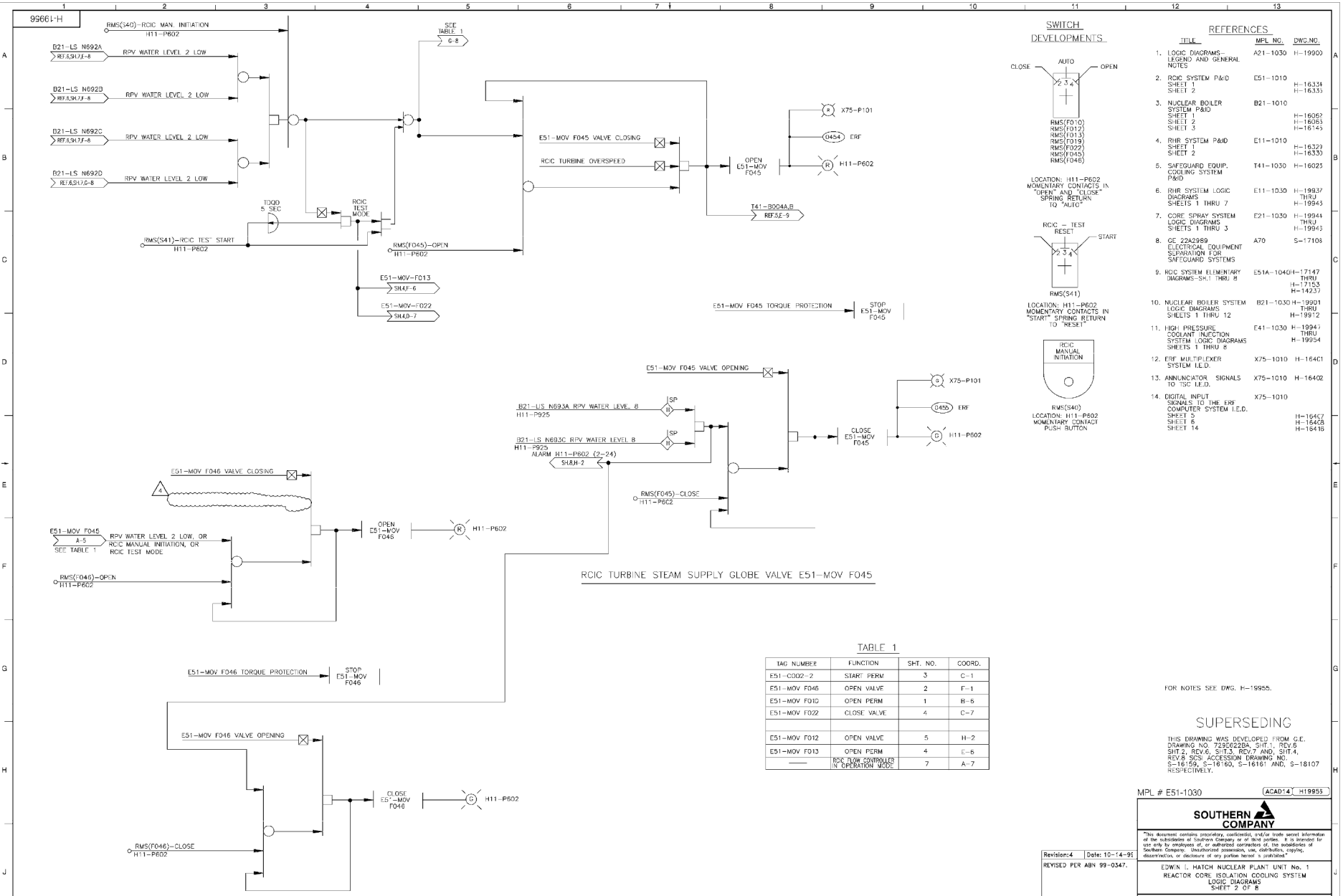
H-19956



SWITCH DEVELOPMENTS

LOCATION: H11-P602
MOMENTARY CONTACTS IN "OPEN" AND "CLOSE" SPRING RETURN TO "AUTO"

LOCATION: H11-P602
MOMENTARY CONTACTS IN "START" SPRING RETURN TO "RESET"

LOCATION: H11-P602
MOMENTARY CONTACT PUSH BUTTON

REFERENCES

	TITLE	MPL NO.	DWG.NO.
1.	LOGIC DIAGRAMS-LEGEND AND GENERAL NOTES	A21-1030	H-19900
2.	RCIC SYSTEM P&ID SHEET 1 SHEET 2	E51-1010	H-16334 H-16335
3.	NUCLEAR BOILER SYSTEM P&ID SHEET 1 SHEET 2 SHEET 3	B21-1010	H-16062 H-16063 H-16145
4.	RHR SYSTEM P&ID SHEET 1 SHEET 2	E11-1010	H-16329 H-16330
5.	SAFEGUARD EQUIP. COOLING SYSTEM P&ID	T41-1030	H-16025
6.	RHR SYSTEM LOGIC DIAGRAMS SHEETS 1 THRU 7	E11-1030	H-19937 THRU H-19943
7.	CORE SPRAY SYSTEM LOGIC DIAGRAMS SHEETS 1 THRU 3	E21-1030	H-19944 THRU H-19946
8.	GE 22A2989 ELECTRICAL EQUIPMENT SEPARATION FOR SAFEGUARD SYSTEMS	A70	S-17108
9.	RCIC SYSTEM ELEMENTARY DIAGRAMS-SH.1 THRU 8	E51A-1040	H-17147 THRU H-17153 H-14237
10.	NUCLEAR BOILER SYSTEM LOGIC DIAGRAMS SHEETS 1 THRU 12	B21-1030	H-19901 THRU H-19912
11.	HIGH PRESSURE COOLANT INJECTION SYSTEM LOGIC DIAGRAMS SHEETS 1 THRU 8	E41-1030	H-19947 THRU H-19954
12.	ERF MULTIPLEXER SYSTEM I.E.D.	X75-1010	H-16401
13.	ANNUNCIATOR SIGNALS TO TSC I.E.D.	X75-1010	H-16402
14.	DIGITAL INPUT SIGNALS TO THE ERF COMPUTER SYSTEM I.E.D. SHEET 5 SHEET 6 SHEET 14	X75-1010	H-16407 H-16408 H-16416

TABLE 1

TAG NUMBER	FUNCTION	SHT. NO.	COORD.
E51-CO02-2	START PERM	3	C-1
E51-MOV F046	OPEN VALVE	2	F-1
E51-MOV F010	OPEN PERM	1	B-5
E51-MOV F022	CLOSE VALVE	4	C-7
E51-MOV F012	OPEN VALVE	5	H-2
E51-MOV F013	OPEN PERM	4	E-6
——	RCIC FLOW CONTROLLER IN OPERATION MODE	7	A-7

FOR NOTES SEE DWG. H-19955.

SUPERSEDING

THIS DRAWING WAS DEVELOPED FROM G.E. DRAWING NO. 729E228A, SHT.1, REV.6 SHT.2, REV.6, SHT.3, REV.7 AND, SHT.4, REV.8 SCS ACCESSION DRAWING NO. S-16159, S-16160, S-16161 AND, S-18107 RESPECTIVELY.

MPL # E51-1030 ACAD14 H19955

SOUTHERN COMPANY

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

DRAWN	DESIGNED	LOCATION	DRAWING NUMBER	REVISION
CADD/DEW	DMP	10-502	H-19956	4
DATE	SCALE			
1-15-86	None			

Revision:4	Date: 10-14-99
REVISED PER ABN 99-0347.	

BY	CHKD	APPVD	SEE MICROFILM FOR PREVIOUS REV. SIGNATURES.
ARK	RLP	RBV	

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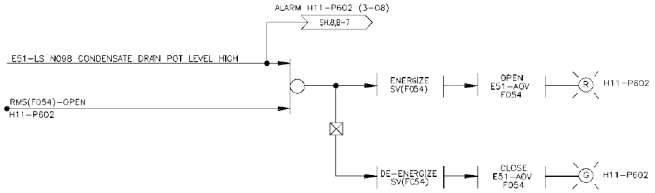
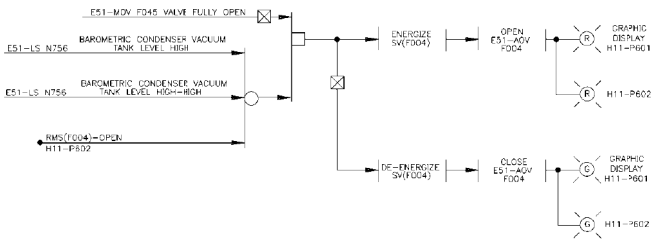
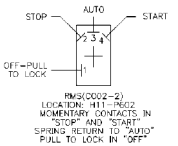


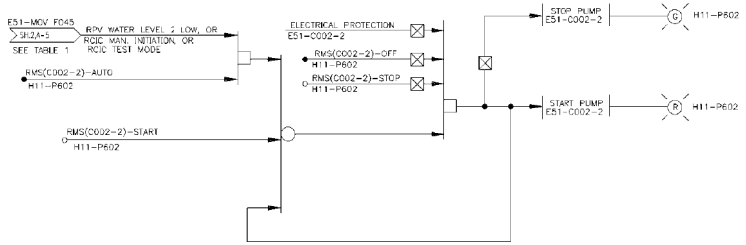
CONDENSATE DRAIN POT DRAIN VALVE E51-AOV F054



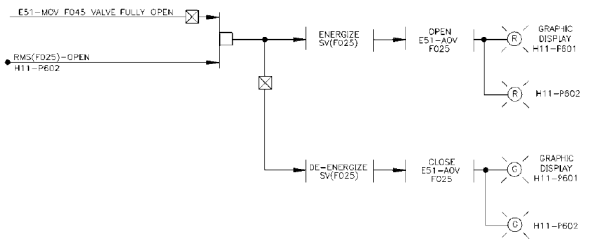
CONDENSATE PUMP DISCHARGE TO CRW ISOLATION INBOARD VALVE E51-AOV F004

SWITCH DEVELOPMENTS

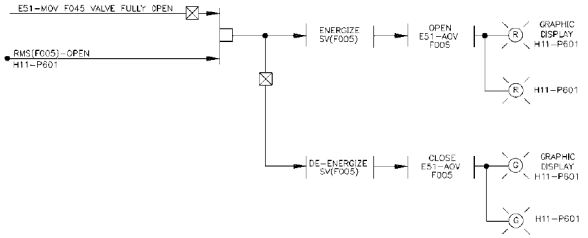




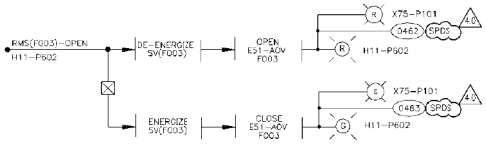
BAROMETRIC CONDENSER VACUUM PUMP E51-C002-2



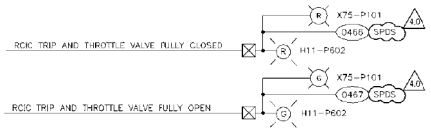
STEAM LINE DRAIN TO MAIN CONDENSER ISOLATION INBOARD VALVE E51-AOV F025, TYPICAL FOR
STEAM LINE DRAIN TO MAIN CONDENSER ISOLATION OUTBOARD VALVE E51-AOV F026
H11-P601



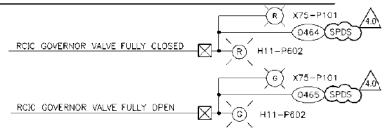
CONDENSATE PUMP DISCHARGE TO CRW ISOLATION OUTBOARD VALVE E51-AOV F005



TORUS ISOLATION VALVE E51-AOV F003



RCIC TRIP AND THROTTLE VALVE E51-M.O.F524 INDICATION



GOVERNOR VALVE E51-M.O.F523 INDICATION

FOR NOTES SEE DWG. H-19955.
FOR REFERENCES SEE DWG. H-19956.

SUPERSEDING

THIS DRAWING WAS DEVELOPED FROM G.E. DRAWING NO. 729E622BA, SHT.1, REV.8 SHT.2, REV.6, SHT.3, REV.7 AND, SHT.4, REV.5 SOSI ACCESSION DRAWING NO. S-15159, S-15160, S-16161 AND, S-18107 RESPECTIVELY.

MPL No. E51-1030 | ACAD2K | H19957

SOUTHERN COMPANY

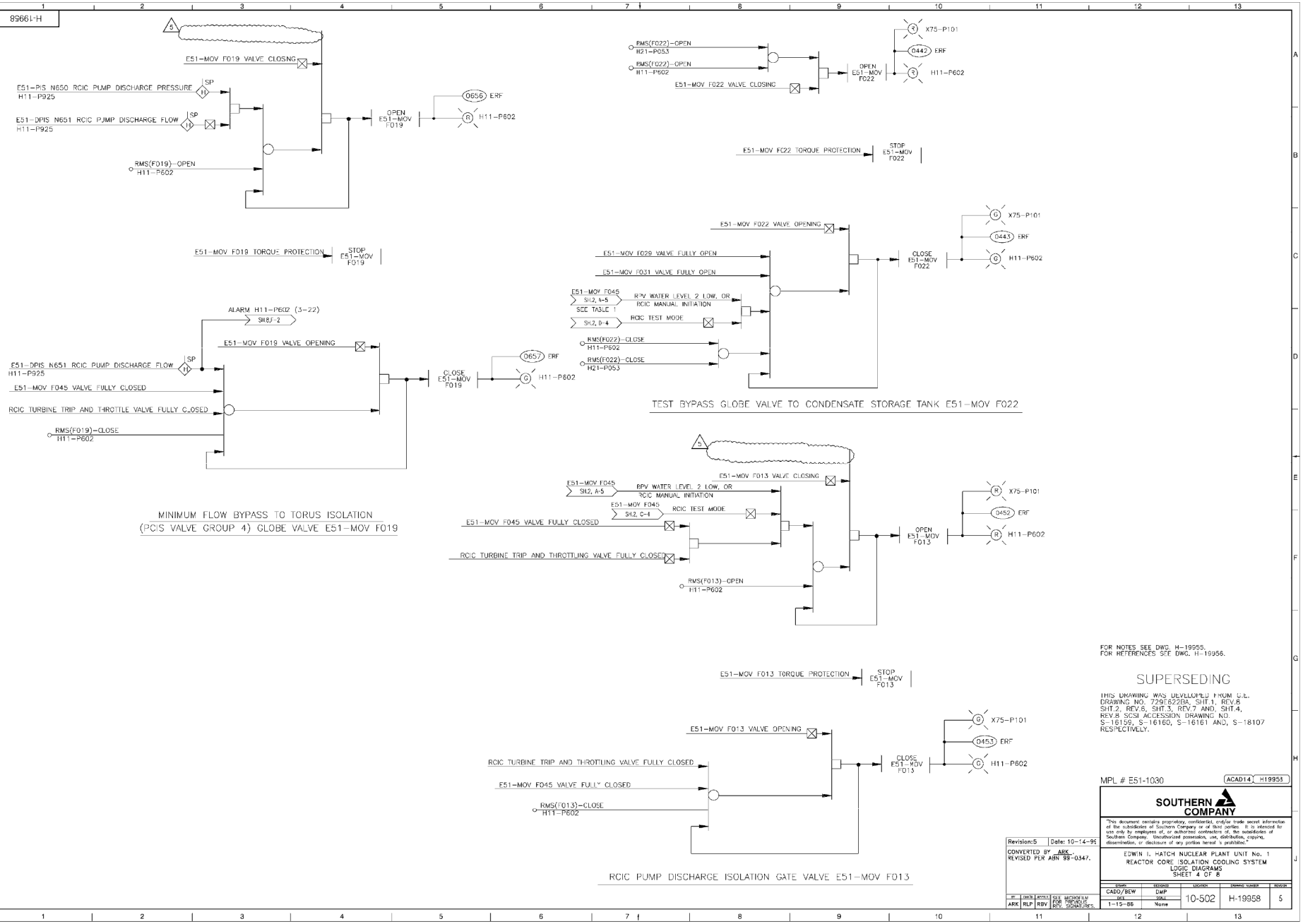
Version: 4.0	Date: 4-13-05
REVISED PER ABN 99-0049-025, VER. 1.0	

EDWIN I. HATCH NUCLEAR PLANT UNIT No.1
REACTOR CORE ISOLATION COOLING SYSTEM
LOGIC DIAGRAMS
Sheet 3 of 8

BRCH	ISSUED	LOCATION	DRAWING NUMBER	VERSION
CADD/BEW	DMP			
APP	DSGN			
1-15-86	No Scale	10-502	H-19957	4.0

By	Date	Appr	SEE MICROFILM FOR PREVIOUS REV. SIGNATURES.
Ver	MLH	DEW	

H-19958



FOR NOTES SEE DWG. H-19955.
FOR REFERENCES SEE DWG. H-19956.

SUPERSEDING

THIS DRAWING WAS DEVELOPED FROM G.E. DRAWING NO. 729E622RA, SHT.1, REV.8 SHT.2, REV.6, SHT.3, REV.7 AND, SHT.4, REV.8 SCSI ACCESSION DRAWING NO. S-16159, S-16160, S-16161 AND, S-18107 RESPECTIVELY.

MPL # E51-1030

ACAD14 H19958

SOUTHERN COMPANY

EDWIN I. HATCH NUCLEAR PLANT UNIT No. 1
REACTOR CORE ISOLATION COOLING SYSTEM
LOGIC DIAGRAMS
SHEET 4 OF 8

STAMP	ISSUED	LOCATION	DRAWING NUMBER	REVISION
CADD/BEW	DWP	10-502	H-19958	5
DCC	SOLS			
1-15-86	None			

Revision:5 Date: 10-14-95
CONVERTED BY ARK.
REVISED PER ABN 99-0347.

BY	DATE	APPVD	SEE MICROFILM FOR PREVIOUS REV. SIGNATURES.
ARK	RLP	RBV	

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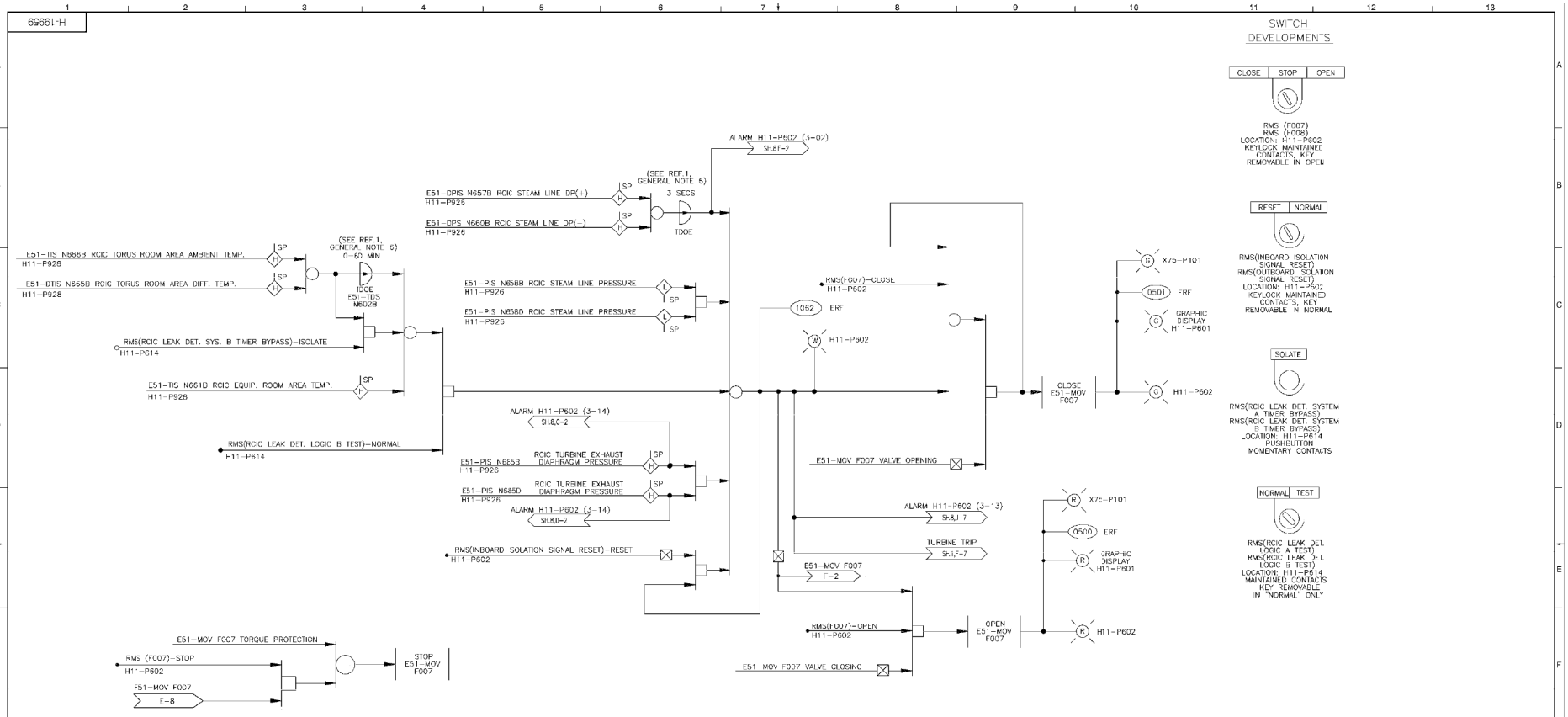


FOR NOTES SEE DWG. H-19955.
FOR REFERENCES SEE DWG. H-19956.

SUPERSEDING

THIS DRAWING WAS DEVELOPED FROM G.E. DRAWING NO. 729E6226A, SHT.1, REV.8 SHT.2, REV.6, SHT.3, REV.7 AND, SHT.4, REV.8 SCSI ACCESSION DRAWING NO. S-16159, S-16160, S-16161 AND, S-18107 RESPECTIVELY.

MPL # E51-1030 | ACAD14 | H19959

SOUTHERN COMPANY

EDWIN I. HATCH NUCLEAR PLANT UNIT No. 1
REACTOR CORE ISOLATION COOLING SYSTEM
LOGIC DIAGRAMS
SHEET 5 OF 8

DRAWN	DESIGNED	LOCATION	DRAWING NUMBER	REVISION
CADD/BEW	DWP			
DATE	SCALE	10-502	H-19959	3
1-15-86	None			

Revision:3	Date: 10-14-99
CONVERTED BY KB. REVISED PER ABN 99-0347.	

BY	DATE	APPVD	SEE MICROFILM FOR PREVIOUS REV. SIGNATURES.
ARK	RLP	RBV	

T:\WORK DOCUMENTS\ABN\990347\DRAWINGS\CALS\H-19959.CAL 10/19/99 10:23:26 AM

H-19960

SWITCH DEVELOPMENTS

ISOLATION

RMS(RCIC MANUAL ISOLATION) LOCATION: H11-P602 PUSH BUTTON MOMENTARY CONTACTS

ALARM H11-P602 (3-02) SH.8,E-2

E51-DPIS N657A RCIC STEAM LINE DP(+) H11-P925

E51-DPS N660A RCIC STEAM LINE DP(-) H11-P925

(SEE REF. 1, GENERAL NOTE 6) 3 SECS TDOE

E51-TIS N666A RCIC TORUS ROOM AREA AMBIENT TEMP. H11-P927

E51-DTIS N665A RCIC TORUS ROOM AREA DIFF. TEMP. H11-P927

(SEE REF. 1, GENERAL NOTE 6) 0-60 MIN. TDOE E51-TDS M602A

RMS(RCIC LEAK DET. SYS. A TIMER BYPASS)-ISOLATE H11-P614

E51-TIS N661A RCIC EQUIP. ROOM AREA TEMP. H11-P927

E51-PIS N658A RCIC STEAM LINE PRESSURE H11-P925

E51-PIS N658C RCIC STEAM LINE PRESSURE H11-P925

H11-P602

RMS(F008)-CLOSE H11-P602

TURBINE TRIP SH.1,F-7

ALARM H11-P602 (3-07) SH.8,H-7

X75-P101

0445 ERF

GRAPHIC DISPLAY H11-P601

CLOSE E51-MOV F008

H11-P602

1061 ERF

E51-MOV F008 VALVE OPENING

ALARM H11-P602 (3-14) SH.8,C-2

RMS(RCIC LEAK DET. LOGIC A TEST)-NORMAL H11-P614

E51-PIS N685A RCIC TURBINE EXHAUST DIAPHRAGM PRESSURE H11-P925

E51-PIS N685C RCIC TURBINE EXHAUST DIAPHRAGM PRESSURE H11-P925

ALARM H11-P602 (3-14) SH.8,D-2

X75-P101

0444 ERF

GRAPHIC DISPLAY H11-P601

E51-MOV F008 TORQUE SWITCH FOR VALVE SEATING 2

RMS(F008)-STOP H11-P602

E51-MOV F008 D-8

STOP E51-MOV F008

SH.7,A-10 RCIC INITIATION SIGNAL

E51-MOV F008 E-1

RMS(F008)-OPEN H11-P602

OPEN E51-MOV F008

H11-P602

RMS(RCIC MANUAL ISOLATION)-ISOLATION H11-P602

E51-MOV F008 VALVE CLOSING

RMS(OUTBOARD ISOLATION SIGNAL RESET)-RESET H11-P602

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

FOR NOTES SEE DWG. H-19955.
FOR REFERENCES SEE DWG. H-19956.

SUPERSEDING

THIS DRAWING WAS DEVELOPED FROM G.E. DRAWING NO. 729E6228A, SHT.1, REV.8 SHT.2, REV.6, SHT.3, REV.7 AND, SHT.4, REV.8 SCSI ACCESSION DRAWING NO. S 16159, S 16180, S 16161 AND, S 18107 RESPECTIVELY.

SH.1,F-11 RCIC TURBINE TRIP SOLENOID ENERGIZED

RMS(RCIC TURBINE TRIP AND THROTTLING VALVE)-CLOSE H11-P602

TURBINE TRIP/THROTTLING VALVE OPENING

ENERGIZE ACTUATOR MOTOR TO CLOSE

CLOSE TURBINE TRIP/THROTTLING VALVE (SEE NOTE 9)

H11-P602

SH.1,F-11 RCIC TURBINE TRIP SOLENOID DE-ENERGIZED

RMS(RCIC TURBINE TRIP AND THROTTLING VALVE)-OPEN H11-P602

MECHANICAL SPRING CLOSING MECHANISM TRIPPED(SEE NOTE 5) E51-C002

TURBINE TRIP/THROTTLING VALVE CLOSING

ENERGIZE ACTUATOR MOTOR TO OPEN

OPEN TURBINE TRIP/THROTTLING VALVE (SEE NOTE 9)

H11-P602

TURBINE TRIP/THROTTLING VALVE TORQUE PROTECTION

STOP TURBINE TRIP/THROTTLING VALVE

RCIC TURBINE TRIP AND THROTTLING VALVE E51-MO F524

MPL NO. E51-1030 ACADOV H19960

SOUTHERN COMPANY

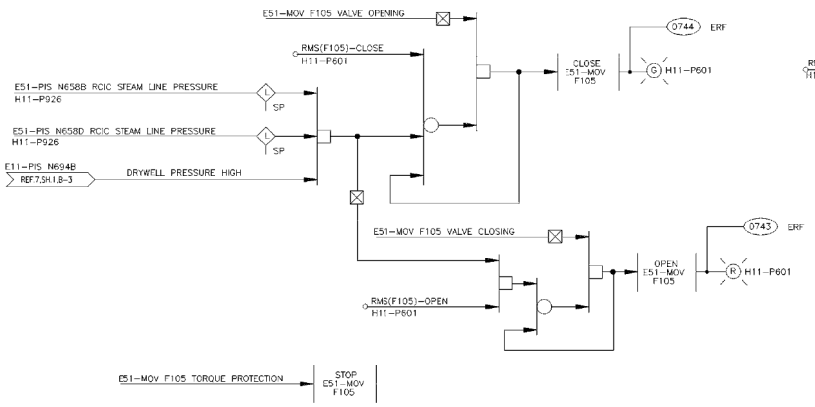
Revision: 2	Date: 7/8/99
REVISED PER A8N 97-0038-008.	

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

DRAWN	ELEVATION	LOCATION	DRAWING NUMBER	REVISION
BEW	DMP			
DES	SCALE	10-502	H-19960	2
1-15-86	None			

BY	CHK'D	APP'D	SEE MICROFILM FOR PREVIOUS REV. SIGNATURES.
DJT	HEW	JLR	

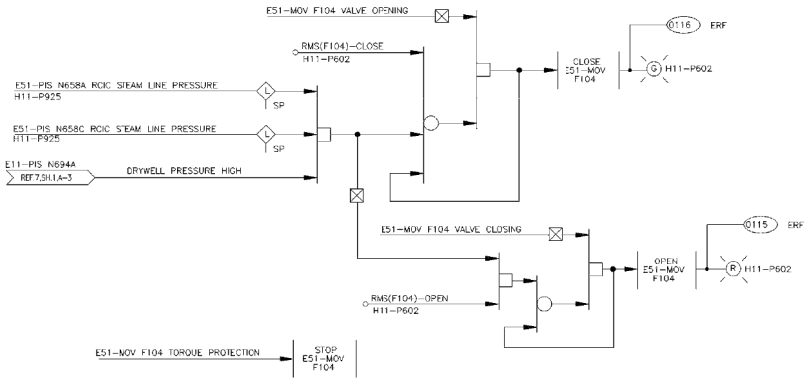
H-19961



TURBINE EXHAUST VACUUM BREAKER GATE VALVE E51-MOV F105

PCIS VALVE GROUP 9

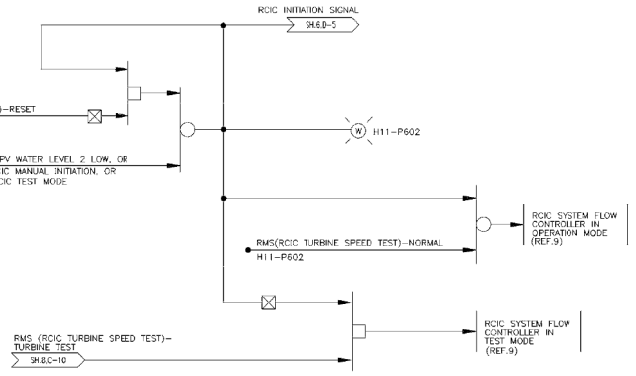
5



TURBINE EXHAUST VACUUM BREAKER GATE VALVE E51-MOV F104

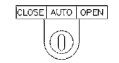
PCIS VALVE GROUP 9

5

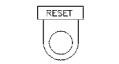


RCIC TURBINE SPEED CONTROL E51-FIC-R612

SWITCH DEVELOPMENTS



RMS(F104)
LOCATION:H11-P602
RMS(F105)
LOCATION:H11-P601
MOMENTARY CONTACTS
SPRING RETURN TO AUTO



RMS(RCIC INITIATION SIGNAL RESET)
LOCATION: H11-P602
PUSHBUTTON
MOMENTARY CONTACTS

FOR NOTES SEE DWG. H-19955.
FOR REFERENCES SEE DWG. H-19956.

SUPERSEDING

THIS DRAWING WAS DEVELOPED FROM G.E. DRAWING NO. 7ZGE622BA, SHT.1, REV.8 SHT.2, REV.6, SHT.3, REV.7 AND, SHT.4, REV.8 SCSI ACCESSION DRAWING NO. S-16159, S-16160, S-16161 AND, S-18107 RESPECTIVELY.

MPL No. E51-1030

ACADGV| H19961

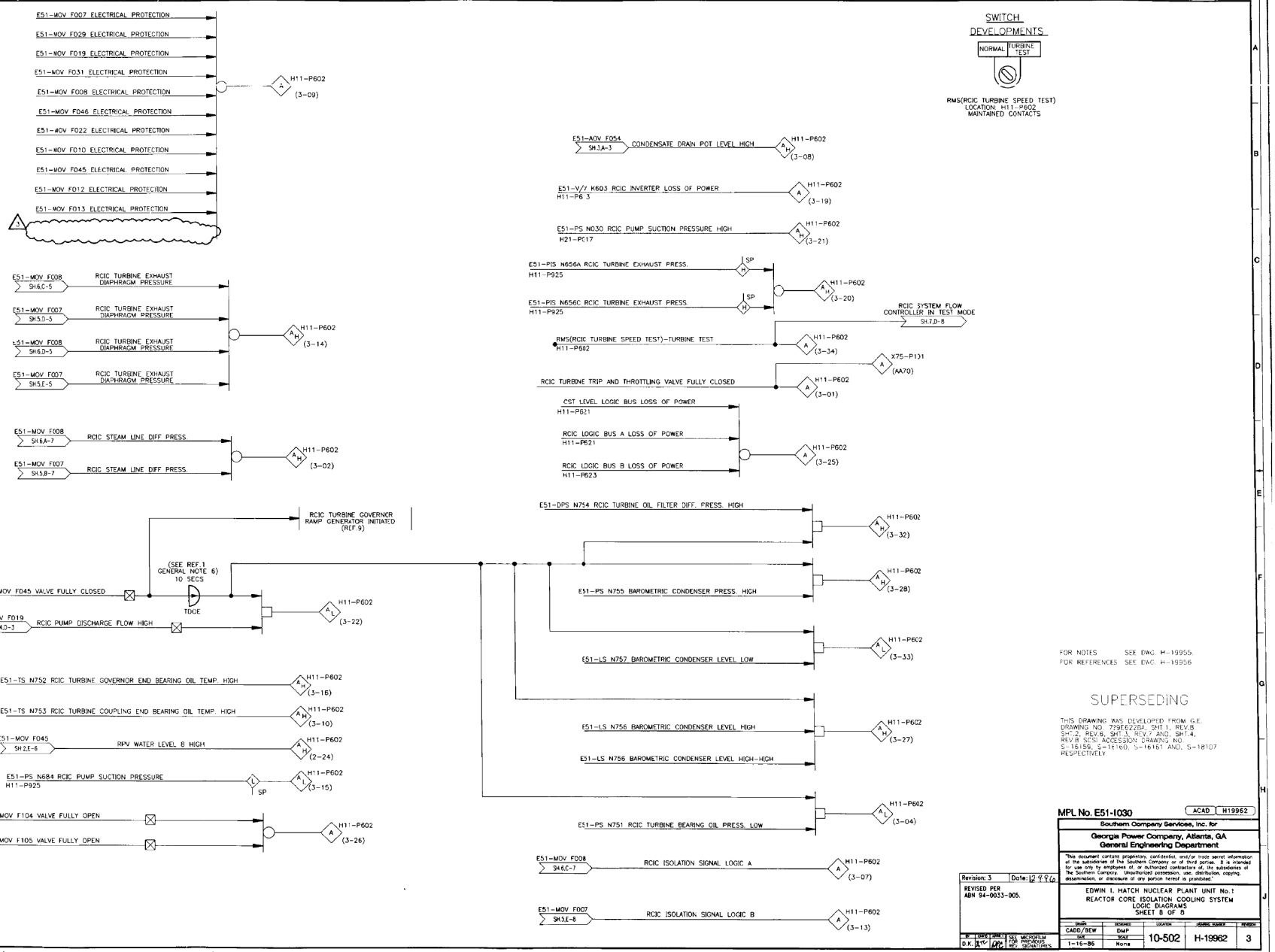
SOUTHERN COMPANY

EDWIN I. HATCH NUCLEAR PLANT UNIT No.1
REACTOR CORE ISOLATION COOLING SYSTEM
LOGIC DIAGRAMS
SHEET 7 of 8

Revisions: 5	Date: 1-14-98
REVISED PER ABN 97-0302.	

BY	DATE	APPR.	SCE MICROFILM OR PREVIOUS REV. SIGNATURES
BgT	RLP	PRK	

DRAWN	DESIGNED	LOCATION	DRAWING NUMBER	REVISION
CADD/BEW	None	10-502	H-19961	5
DATE	SCALE			
1-16-86	No Scale			



FOR NOTES SEE DWG. H-19955.
FOR REFERENCES SEE DWG. H-19956

SUPERSEDING

THIS DRAWING WAS DEVELOPED FROM G.E. DRAWING NO. 729E622BA, SHT.1, REV.8 SH.2, REV.8, SHT.3, REV.7 AND, SHT.4, REV.8. SCSI ACCESSION DRAWING NO. S-16155, S-16160, S-16161 AND, S-18107 RESPECTIVELY

Revision: 3	Date: 12 9 96
REVISED PER ABN 94-0033-005.	

MPL No. E51-1030 ACAD H19962

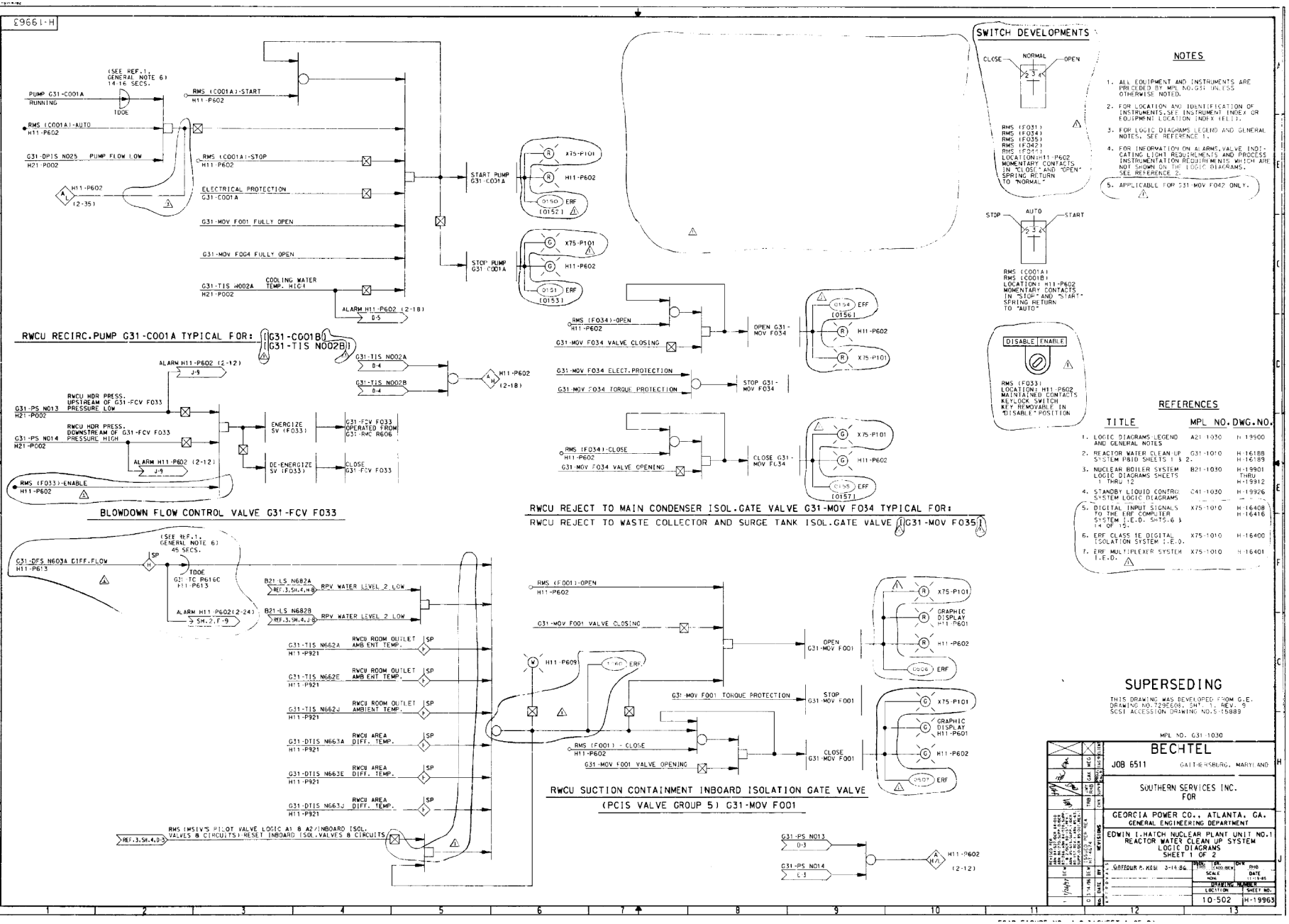
Southern Company Services, Inc. for
Georgia Power Company, Atlanta, GA
General Engineering Department

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

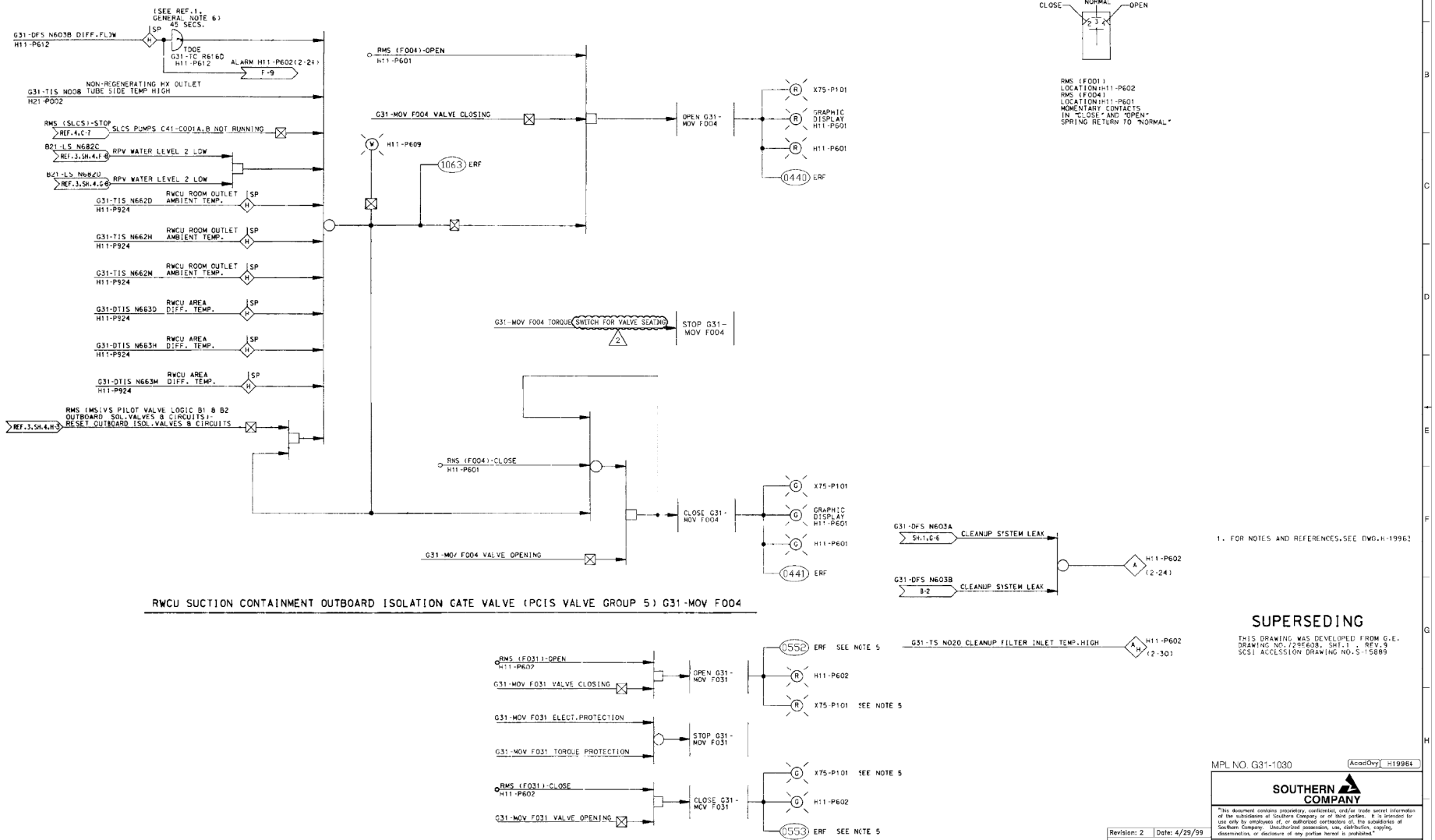
BY	CHK'D	APP'D	SEE MICROFILM FOR PREVIOUS REV. SIGNATURES
D.K.			

DRAWN	REVIEWED	LOCATION	DRAWING NUMBER	REVISION
CADD/BEW	DMP	10-502	H-19962	3
DATE	SCALE			
1-16-86	None			

E9661-H


SWITCH DEVELOPMENTS
CLOSE
NORMAL
OPEN
RMS (F031)
RMS (F034)
RMS (F035)
RMS (F042)
RMS (F044)
LOCATION: H11-P602
MOMENTARY CONTACTS IN "CLOSE" AND "OPEN" SPRING RETURN TO "NORMAL"
STOP
AUTO
START
RMS (C001A)
RMS (C001B)
LOCATION: H11-P602
MOMENTARY CONTACTS IN "STOP" AND "START" SPRING RETURN TO "AUTO"
DISABLE
ENABLE
RMS (F033)
LOCATION: H11-P602
MAINTAINED CONTACTS
KEYLOCK SWITCH
KEY REMOVABLE IN "DISABLE" POSITION
NOTES
1. ALL EQUIPMENT AND INSTRUMENTS ARE PREFIXED BY MPL NO. G31 UNLESS OTHERWISE NOTED.
2. FOR LOCATION AND IDENTIFICATION OF INSTRUMENTS, SEE INSTRUMENT INDEX OR EQUIPMENT LOCATION INDEX (ELI).
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 G31-MOV F042 ONLY.
REFERENCES
TITLE | MPL NO. | DWG. NO.
1. LOGIC DIAGRAMS LEGEND AND GENERAL NOTES | A21-1030 | N-19900
2. REACTOR WATER CLEAN-UP SYSTEM P&ID SHEETS 1 & 2. | G31-1010 | H-16188, H-16189
3. NUCLEAR BOILER SYSTEM LOGIC DIAGRAMS SHEETS 1 THRU 12 | B21-1030 | H-19901 THRU H-19912
4. STANDBY LIQUID CONTROL SYSTEM LOGIC DIAGRAMS | C41-1030 | H-19926
5. DIGITAL INPUT SIGNALS TO THE ERF COMPUTER SYSTEM I.E.D. SHTS. 6 & 14 OF 15. | X75-1010 | H-16408, H-16416
6. ERF CLASS 1E DIGITAL ISOLATION SYSTEM I.E.D. | X75-1010 | H-16400
7. ERF MULTIPLEXER SYSTEM I.E.D. | X75-1010 | H-16401
RWCU RECIRC. PUMP G31-C001A TYPICAL FOR: G31-C001B
G31-TIS N002B
BLOWDOWN FLOW CONTROL VALVE G31-FCV F033
RWCU REJECT TO MAIN CONDENSER ISOL. GATE VALVE G31-MOV F034 TYPICAL FOR:
RWCU REJECT TO WASTE COLLECTOR AND SURGE TANK ISOL. GATE VALVE G31-MOV F035
RWCU SUCTION CONTAINMENT INBOARD ISOLATION GATE VALVE
(PCIS VALVE GROUP 5) G31-MOV F001
SUPERSEDING
THIS DRAWING WAS DEVELOPED FROM G.E. DRAWING NO. 729E608, SHT. 1, REV. 9
SCSI ACCESSION DRAWING NO. S-15889
MPL NO. G31-1030
BECHTEL
JOB 6511 GAITHERSBURG, MARYLAND
SOUTHERN SERVICES INC.
FOR
GEORGIA POWER CO., ATLANTA, GA.
GENERAL ENGINEERING DEPARTMENT
EDWIN I. HATCH NUCLEAR PLANT UNIT NO. 1
REACTOR WATER CLEAN UP SYSTEM
LOGIC DIAGRAMS
SHEET 1 OF 2
DRAWING NUMBER
LOCATION 10-502
SHEET NO. H-19963

H-19964



RWCU SUCTION CONTAINMENT OUTBOARD ISOLATION GATE VALVE (PCIS VALVE GROUP 5) G31-MOV F004

RWCU G31-RO D001 BYPASS GLOBE VALVE G31-MOV F031 TYPICAL FOR:

RWCU RETURN ISOL.GLOBE VALVE G31-MOV F042
RWCU FILTER DEMIN.BYPASS GLOBE VALVE G31-MOV F044

MPL NO. G31-1030

AcadOvy H19964

SOUTHERN COMPANY

EDWIN I. HATCH NUCLEAR PLANT UNIT No. 1
REACTOR WATER CLEAN UP SYSTEM
LOGIC DIAGRAMS
SHEET 2 OF 2

Revision: 2	Date: 4/29/99
REVISED PER ABN 97-0039-006.	

BY	DATE	APPR.	SEE MICROFILM FOR PREVIOUS REV. SIGNATURES.
DJT	JAS	RBV	

DRAWN	DESIGNED	LOCATION	DRAWING NUMBER	REVISION
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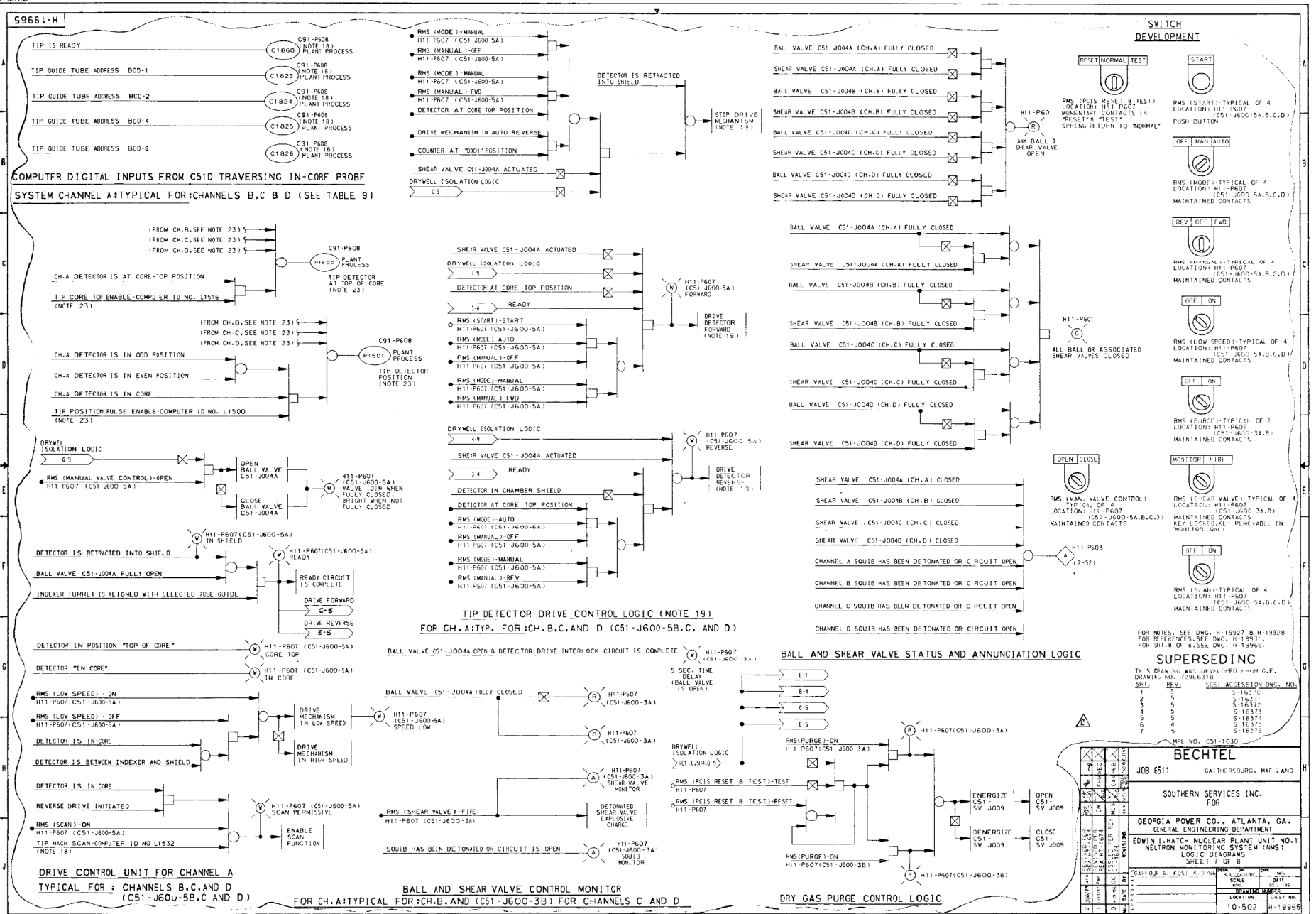
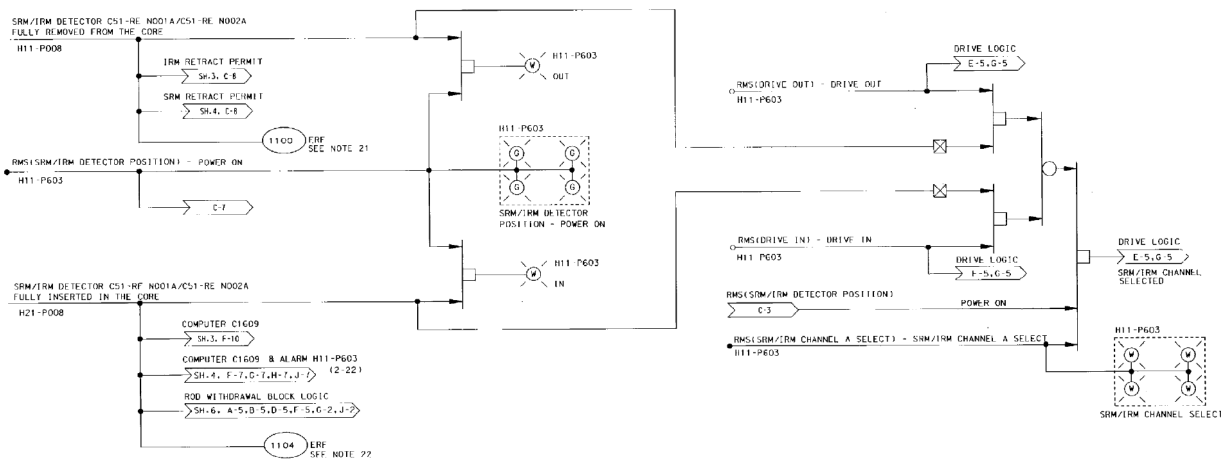
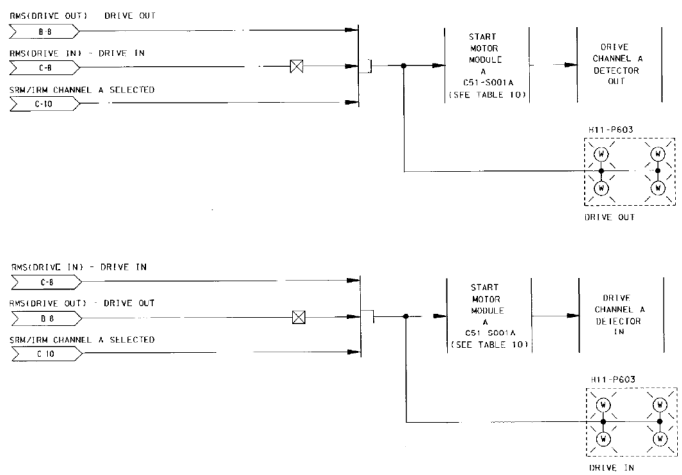
DATE	SCALE			
11-19-85	None			

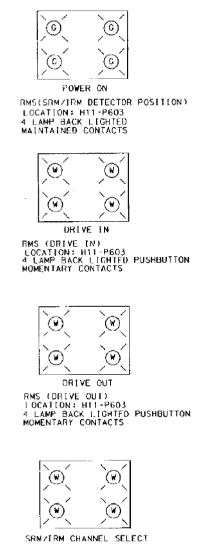

TIP IS READY
C91-P608 (NOTE 18) PLANT PROCESS C1860
TIP GUIDE TUBE ADDRESS BCD-1 C1823
TIP GUIDE TUBE ADDRESS BCD-2 C1824
TIP GUIDE TUBE ADDRESS BCD-4 C1825
TIP GUIDE TUBE ADDRESS BCD-8 C1826
COMPUTER DIGITAL INPUTS FROM C51D TRAVERSING IN-CORE PROBE
SYSTEM CHANNEL A:TYPICAL FOR:CHANNELS B,C & D (SEE TABLE 9)
RMS (MODE)-MANUAL H11-P607 (C51-J600-5A)
RMS (MANUAL)-OFF H11-P607 (C51-J600-5A)
RMS (MODE)-MANUAL H11-P607 (C51-J600-5A)
RMS (MANUAL)-FWD H11-P607 (C51-J600-5A)
DETECTOR AT CORE TOP POSITION
DRIVE MECHANISM IN AUTO REVERSE
COUNTER AT "0001" POSITION
SHEAR VALVE C51-J004A ACTUATED
DRYWELL ISOLATION LOGIC 6-9
DETECTOR IS RETRACTED INTO SHIELD
STOP DRIVE MECHANISM (NOTE 19)
BALL VALVE C51-J004A (CH.A) FULLY CLOSED
SHEAR VALVE C51-J004A (CH.A) FULLY CLOSED
BALL VALVE C51-J004B (CH.B) FULLY CLOSED
SHEAR VALVE C51-J004B (CH.B) FULLY CLOSED
BALL VALVE C51-J004C (CH.C) FULLY CLOSED
SHEAR VALVE C51-J004C (CH.C) FULLY CLOSED
BALL VALVE C51-J004D (CH.D) FULLY CLOSED
SHEAR VALVE C51-J004D (CH.D) FULLY CLOSED
H11-P601 R ANY BALL & SHEAR VALVE OPEN
SWITCH DEVELOPMENT
RESET NORMAL TEST
RMS (PCIS RESET & TEST) LOCATION: H11-P607 MOMENTARY CONTACTS IN "RESET" & "TEST" SPRING RETURN TO "NORMAL"
START
RMS (START)-TYPICAL OF 4 LOCATION: H11-P607 (C51-J600-5A,B,C,D) PUSH BUTTON
OFF MAN AUTO
RMS (MODE)-TYPICAL OF 4 LOCATION: H11-P607 (C51-J600-5A,B,C,D) MAINTAINED CONTACTS
REV OFF FWD
RMS (MANUAL)-TYPICAL OF 4 LOCATION: H11-P607 (C51-J600-5A,B,C,D) MAINTAINED CONTACTS
OFF ON
RMS (LOW SPEED)-TYPICAL OF 4 LOCATION: H11-P607 (C51-J600-5A,B,C,D) MAINTAINED CONTACTS
OFF ON
RMS (PURGE)-TYPICAL OF 2 LOCATION: H11-P607 (C51-J600-3A,B) MAINTAINED CONTACTS
(FROM CH.B,SEE NOTE 23)
(FROM CH.C,SEE NOTE 23)
(FROM CH.D,SEE NOTE 23)
C91-P608 P1500 PLANT PROCESS TIP DETECTOR AT TOP OF CORE (NOTE 23)
CH.A DETECTOR IS AT CORE-TOP POSITION
TIP CORE TOP ENABLE-COMPUTER ID NO. L1516 (NOTE 23)
C91-P608 P1501 PLANT PROCESS TIP DETECTOR POSITION (NOTE 23)
CH.A DETECTOR IS IN ODD POSITION
CH.A DETECTOR IS IN EVEN POSITION
CH.A DETECTOR IS IN CORE
TIP POSITION PULSE ENABLE-COMPUTER ID NO. L1500 (NOTE 23)
SHEAR VALVE C51-J004A ACTUATED
DRYWELL ISOLATION LOGIC 1-5
DETECTOR AT CORE TOP POSITION
READY 1-4
RMS (START)-START H11-P607 (C51-J600-5A)
RMS (MODE)-AUTO H11-P607 (C51-J600-5A)
RMS (MANUAL)-OFF H11-P607 (C51-J600-5A)
RMS (MODE)-MANUAL H11-P607 (C51-J600-5A)
RMS (MANUAL)-FWD H11-P607 (C51-J600-5A)
H11-P607 (C51-J600-5A) FORWARD
DRIVE DETECTOR FORWARD (NOTE 19)
DRYWELL ISOLATION LOGIC 6-9
RMS (MANUAL VALVE CONTROL)-OPEN H11-P607 (C51-J600-5A)
OPEN BALL VALVE C51-J004A
CLOSE BALL VALVE C51-J004A
H11-P607 (C51-J600-5A) VALVE LIGHT WHEN FULLY CLOSED, BRIGHT WHEN NOT FULLY CLOSED
DRYWELL ISOLATION LOGIC 6-9
SHEAR VALVE C51-J004A ACTUATED
READY 1-4
DETECTOR IN CHAMBER SHIELD
DETECTOR AT CORE TOP POSITION
RMS (MODE)-AUTO H11-P607 (C51-J600-5A)
RMS (MANUAL)-OFF H11-P607 (C51-J600-5A)
RMS (MODE)-MANUAL H11-P607 (C51-J600-5A)
RMS (MANUAL)-REV H11-P607 (C51-J600-5A)
H11-P607 (C51-J600-5A) REVERSE
DRIVE DETECTOR REVERSE (NOTE 19)
TIP DETECTOR DRIVE CONTROL LOGIC (NOTE 19)
FOR CH.A:TYP. FOR:CH.B,C,AND D (C51-J600-5B,C, AND D)
BALL VALVE C51-J004A FULLY CLOSED
SHEAR VALVE C51-J004A (CH.A) FULLY CLOSED
BALL VALVE C51-J004B (CH.B) FULLY CLOSED
SHEAR VALVE C51-J004B (CH.B) FULLY CLOSED
BALL VALVE C51-J004C (CH.C) FULLY CLOSED
SHEAR VALVE C51-J004C (CH.C) FULLY CLOSED
BALL VALVE C51-J004D (CH.D) FULLY CLOSED
SHEAR VALVE C51-J004D (CH.D) FULLY CLOSED
H11-P601 G ALL BALL OR ASSOCIATED SHEAR VALVES CLOSED
OPEN CLOSE
RMS (MAN. VALVE CONTROL) TYPICAL OF 4 LOCATION: H11-P607 (C51-J600-5A,B,C,D) MAINTAINED CONTACTS
MONITOR FIRE
RMS (SHEAR VALVE)-TYPICAL OF 4 LOCATION: H11-P607 (C51-J600-3A,B) MAINTAINED CONTACTS KEY LOCKED, KEY REMOVABLE IN "MONITOR" ONLY
OFF ON
RMS (SCAN)-TYPICAL OF 4 LOCATION: H11-P607 (C51-J600-5A,B,C,D) MAINTAINED CONTACTS
SHEAR VALVE C51-J004A (CH.A) CLOSED
SHEAR VALVE C51-J004B (CH.B) CLOSED
SHEAR VALVE C51-J004C (CH.C) CLOSED
SHEAR VALVE C51-J004D (CH.D) CLOSED
CHANNEL A SQUIB HAS BEEN DETONATED OR CIRCUIT OPEN
CHANNEL B SQUIB HAS BEEN DETONATED OR CIRCUIT OPEN
CHANNEL C SQUIB HAS BEEN DETONATED OR CIRCUIT OPEN
CHANNEL D SQUIB HAS BEEN DETONATED OR CIRCUIT OPEN
H11-P603 A (2-52)
BALL AND SHEAR VALVE STATUS AND ANNUNCIATION LOGIC
DETECTOR IS RETRACTED INTO SHIELD
H11-P607(C51-J600-5A) IN SHIELD
BALL VALVE C51-J004A FULLY OPEN
H11-P607(C51-J600-5A) READY
INDEXER TURRET IS ALIGNED WITH SELECTED TUBE GUIDE
READY CIRCUIT IS COMPLETE
DRIVE FORWARD C-5
DRIVE REVERSE E-5
DETECTOR IN POSITION "TOP OF CORE"
H11-P607 (C51-J600-5A) CORE TOP
DETECTOR "IN CORE"
H11-P607 (C51-J600-5A) IN CORE
RMS (LOW SPEED) - ON H11-P607 (C51-J600-5A)
RMS (LOW SPEED) - OFF H11-P607(C51-J600-5A)
DETECTOR IS IN-CORE
DETECTOR IS BETWEEN INDEXER AND SHIELD
DRIVE MECHANISM IN LOW SPEED
DRIVE MECHANISM IN HIGH SPEED
H11-P607 (C51-J600-5A) SPEED LOW
DETECTOR IS IN CORE
REVERSE DRIVE INITIATED
RMS (SCAN)-ON H11-P607 (C51-J600-5A)
TIP MACH SCAN-COMPUTER ID NO L1532 (NOTE 18)
H11-P607 (C51-J600-5A) SCAN PERMISSIVE
ENABLE SCAN FUNCTION
DRIVE CONTROL UNIT FOR CHANNEL A
TYPICAL FOR : CHANNELS B,C,AND D (C51-J600-5B,C AND D)
BALL VALVE C51-J004A OPEN & DETECTOR DRIVE INTERLOCK CIRCUIT IS COMPLETE H11-P607 (C51-J600-3A)
5 SEC. TIME DELAY (BALL VALVE IS OPEN)
BALL VALVE C51-J004A FULLY CLOSED
H11-P607 (C51-J600-3A)
H11-P607 (C51-J600-3A) SHEAR VALVE MONITOR
RMS (SHEAR VALVE)-FIRE H11-P607 (C51-J600-3A)
DETONATED SHEAR VALVE EXPLOSIVE CHARGE
SQUIB HAS BEEN DETONATED OR CIRCUIT IS OPEN
H11-P607 (C51-J600-3A) SQUIB MONITOR
BALL AND SHEAR VALVE CONTROL MONITOR
FOR CH.A:TYPICAL FOR:CH.B,AND (C51-J600-3B) FOR CHANNELS C AND D
E-1
B-4
C-5
E-5
DRYWELL ISOLATION LOGIC REF.6,3H4,6-9
RMS (PCIS RESET & TEST)-TEST H11-P607
RMS (PCIS RESET & TEST)-RESET H11-P607
H11-P607(C51-J600-3A)
RMS(PURGE)-ON H11-P607(C51-J600-3A)
ENERGIZE C51-SV J009
OPEN C51-SV J009
DENERGIZE C51-SV J009
CLOSE C51-SV J009
RMS(PURGE)-ON H11-P607(C51-J600-3B)
H11-P607(C51-J600-3B)
DRY GAS PURGE CONTROL LOGIC
FOR NOTES, SEE DWG. H-19927 & H-19928
FOR REFERENCES, SEE DWG. H-19931.
FOR SH.1,8 OF 8, SEE DWG. H-19966.
SUPERSEDING
THIS DRAWING WAS DEVELOPED FROM G.E. DRAWING NO. 729E631B
SHT. REV. SCSI ACCESSION DWG. NO.
1 5 S-16370
2 5 S-16371
3 5 S-16372
4 5 S-16373
5 5 S-16374
6 4 S-16375
7 5 S-16376
MPL NO. C51-T030
BECHTEL
JOB 6511 GAITHERSBURG, MARYLAND
SOUTHERN SERVICES INC.
FOR
GEORGIA POWER CO., ATLANTA, GA.
GENERAL ENGINEERING DEPARTMENT
EDWIN I. HATCH NUCLEAR PLANT UNIT NO.1
NEUTRON MONITORING SYSTEM (NMS)
LOGIC DIAGRAMS
SHEET 7 OF 8
SCALE NONE
DRAWING NUMBER
LOCATION 10-502
SHEET NO. H-19965

99661-H





SWITCH DEVELOPMENTS



RMS (SRM CHANNEL A SELECT)
RMS (SRM CHANNEL B SELECT)
RMS (SRM CHANNEL C SELECT)
RMS (SRM CHANNEL D SELECT)
RMS (IRM CHANNEL A SELECT)
RMS (IRM CHANNEL B SELECT)
RMS (IRM CHANNEL C SELECT)
RMS (IRM CHANNEL D SELECT)
RMS (IRM CHANNEL E SELECT)
RMS (IRM CHANNEL F SELECT)
RMS (IRM CHANNEL G SELECT)
RMS (IRM CHANNEL H SELECT)
LOCATION: H11-P603
2 LAMP BACK LIGHTED
MAINTAINED CONTACTS

TABLE 10

SRM CHANNEL A	MOTOR MODULE A	C51-S001 A
SRM CHANNEL B	MOTOR MODULE B	C51-S001 B
SRM CHANNEL C	MOTOR MODULE C	C51-S001 C
SRM CHANNEL D	MOTOR MODULE D	C51-S001 D
IRM CHANNEL A	MOTOR MODULE E	C51-S001 E
IRM CHANNEL B	MOTOR MODULE F	C51-S001 F
IRM CHANNEL C	MOTOR MODULE G	C51-S001 G
IRM CHANNEL D	MOTOR MODULE H	C51-S001 H
IRM CHANNEL E	MOTOR MODULE J	C51-S001J
IRM CHANNEL F	MOTOR MODULE K	C51-S001K
IRM CHANNEL G	MOTOR MODULE L	C51-S001L
IRM CHANNEL H	MOTOR MODULE M	C51-S001M

SRM/IRM MOTOR MODULES

TABLE 9

DESCRIPTION		COMPUTER ID NUMBERS			
		CHANNEL A	CHANNEL B	CHANNEL C	CHANNEL D
DRIVE CONTROL UNIT		C51-J600-5A	C51-J600-5B	C51-J600-5C	C51-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	C1835
	BCD-2	C1824	C1828	C1832	C1836
	BCD-4	C1825	C1829	C1833	C1837
	BCD 8	C1826	C1830	C1834	C1838
TIP READY		C1860	C1861	C1862	C1863

FOR NOTES, SEE DWG. H-19927 & H-19928
FOR REFERENCES, SEE DWG. H-19931.

SUPERSEDING

THIS DRAWING WAS DEVELOPED FROM G.E.
DRAWING NO. 729E631B

SHT.	REV.	SCSI ACCESSION DWG. NO.
1	5	S-16370
2	5	S-16371
3	5	S-16372
4	5	S-16373
5	5	S-16374
6	4	S-16375
7	5	S 16376

MPL NO. C51-1030

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.

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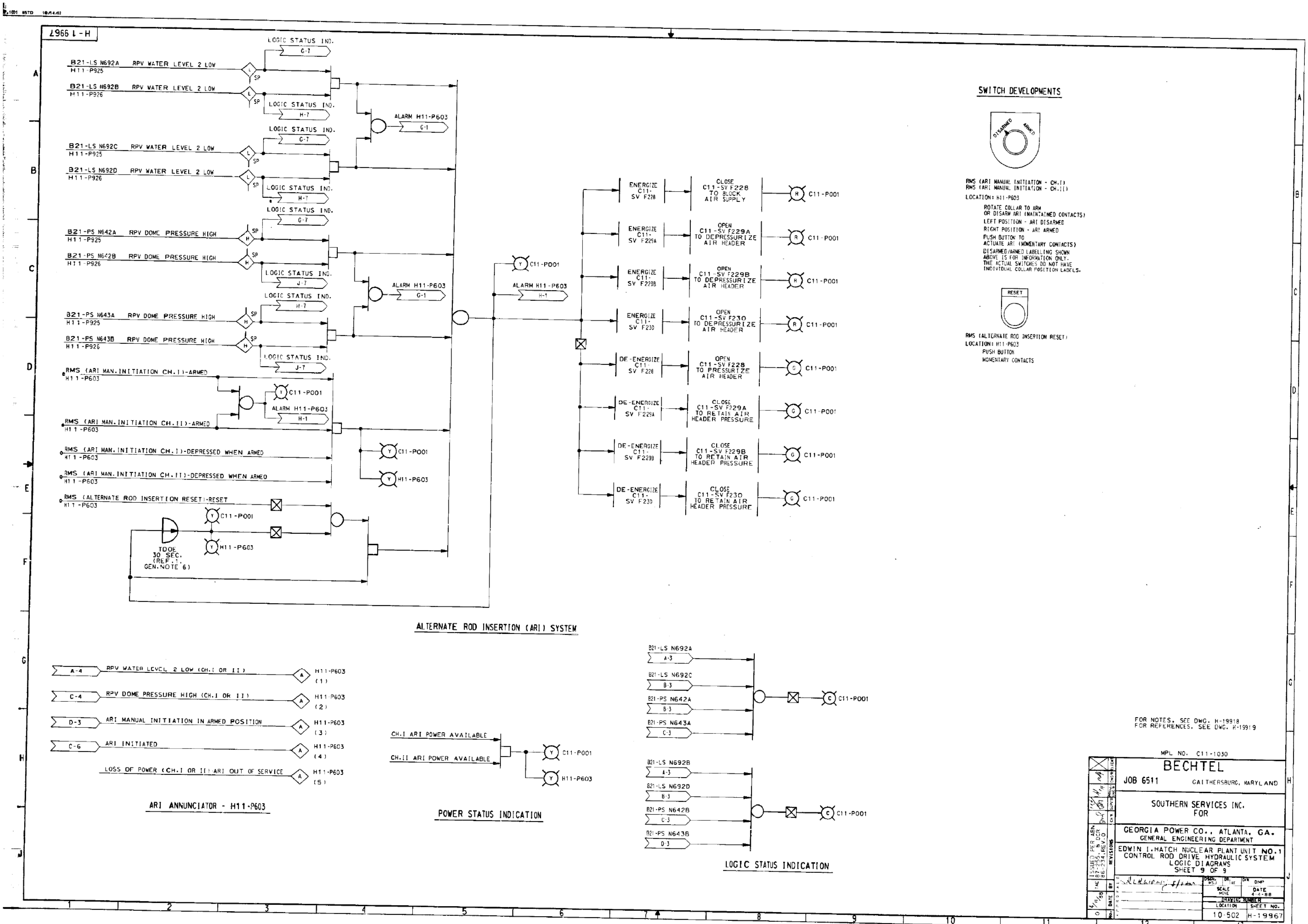
SOUTHERN SERVICES INC.
FOR

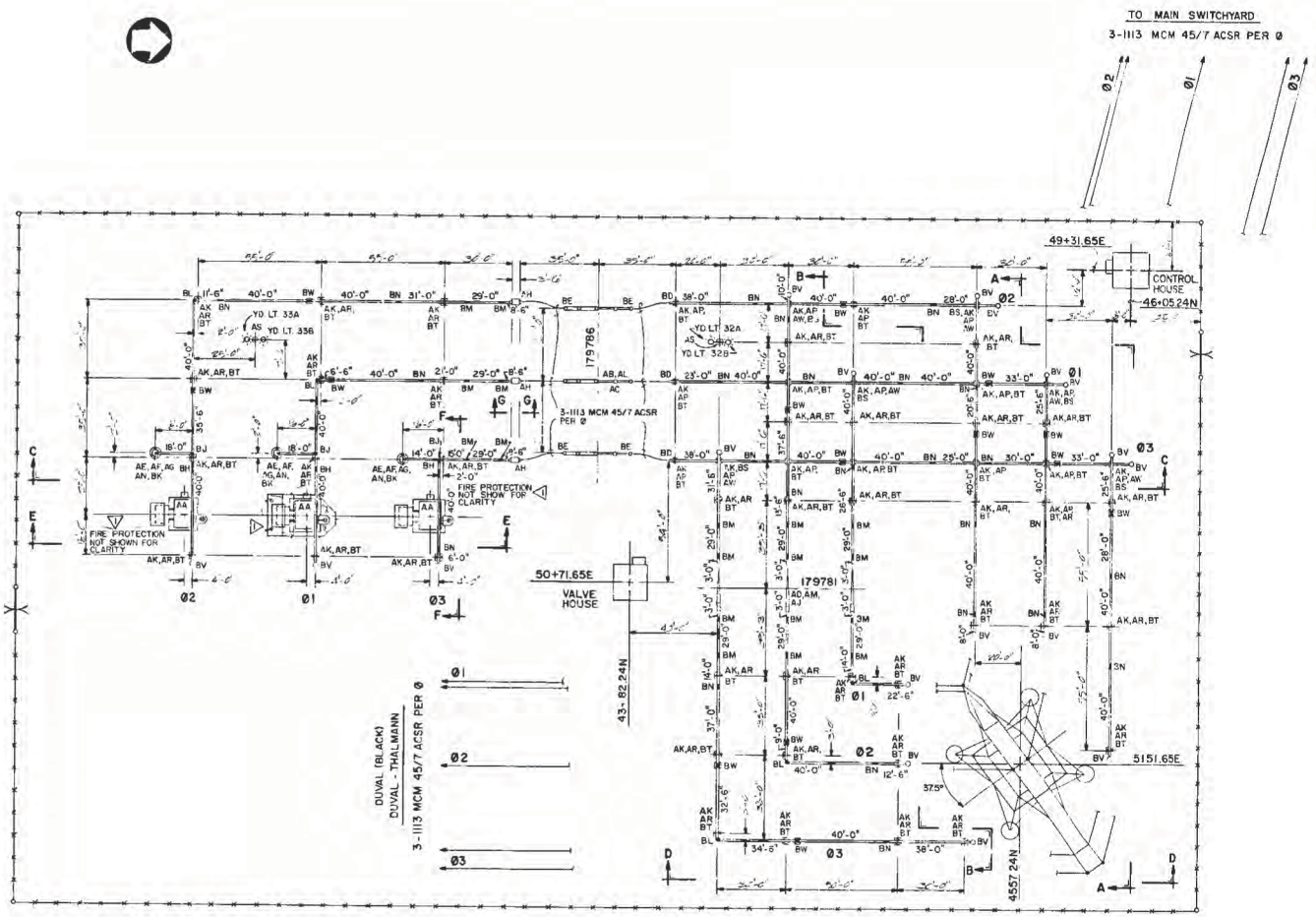
GEORGIA POWER CO., ATLANTA, GA.
GENERAL ENGINEERING DEPARTMENT

EDWIN I. HATCH NUCLEAR PLANT UNIT NO. 1
NEUTRON MONITORING SYSTEM (NMS)
LOGIC DIAGRAMS
SHEET 8 OF 8

GAFFOUR A. KOSI 4/9/86
SCALE: NONE
DATE: 4-5-86
DRAWING NUMBER
LOCATION: 10-502
SHEET NO.: H-19966



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



REFERENCES:

10-502 D-20025	500KV REACTOR SWYD SECTION A-A
10-502 D-20026	500KV REACTOR SWYD SECTION B-B
10-502 D-20027	500KV REACTOR SWYD SECTION D-D
10-502 D-20028	500KV REACTOR SWYD SECTION B DET.
10-502 H-20193	500KV REACTOR SWYD SECTION C-C
10-502 H-20194	500KV REACTOR SWYD SECTIONS

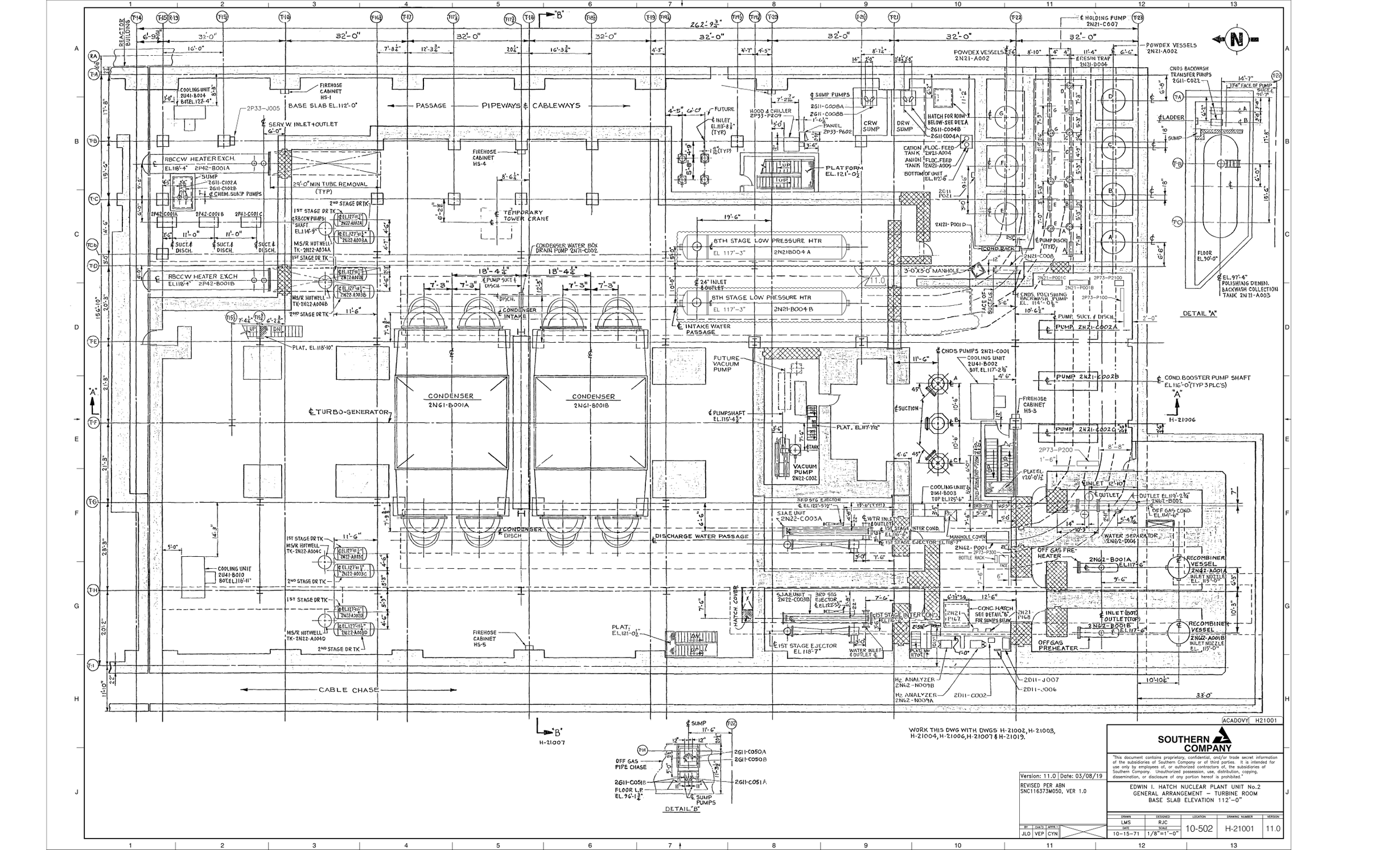
13-8-82	REVISED ADDED FIRE PROTECTION SYSTEM.		
NO.	DATE	BY	REVISIONS

GEORGIA POWER CO., ATLANTA, GA.
POWER SUPPLY ENG. AND SERVICES DEPT.

HATCH NUCLEAR PLANT UNIT No.2

500KV REACTOR SWYD PLAN

DRAWN BY	JKT, BEM
SCALE	1"=20'-0"
DATE	12-15-81
DRAWING NUMBER	
LOCATION	10-502 H20192
SHEET NO	



ACADOVY H21001

SOUTHERN COMPANY

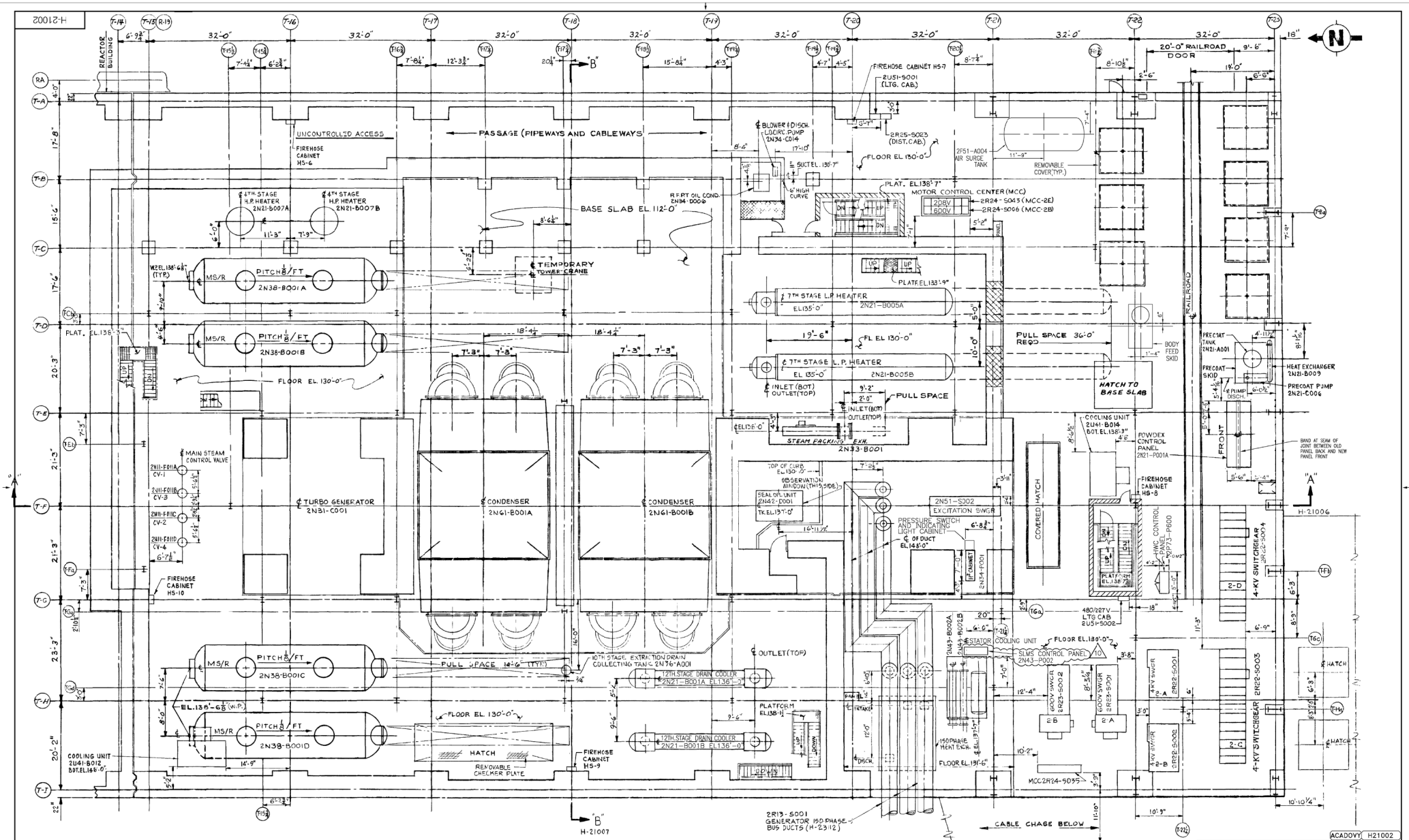
Version: 11.0 | Date: 03/08/19

REVISED PER ABN SNC116373M050, VER 1.0

EDWIN I. HATCH NUCLEAR PLANT UNIT No.2
GENERAL ARRANGEMENT – TURBINE ROOM
BASE SLAB ELEVATION 112'-0"

BY	CHK'D	APPR'D
JLO	VEP	CYN

DRAWN	DESIGNED	LOCATION	DRAWING NUMBER	VERSION
LMS	RJC	10-502	H-21001	11.0
DATE	SCALE			
10-15-71	1/8"=1'-0"			



SOUTHERN COMPANY

EDWIN I. HATCH NUCLEAR PLANT UNIT No. 2
GENERAL ARRANGEMENT – TURBINE ROOM
INTERMEDIATE FLOOR EL. 130'-0"

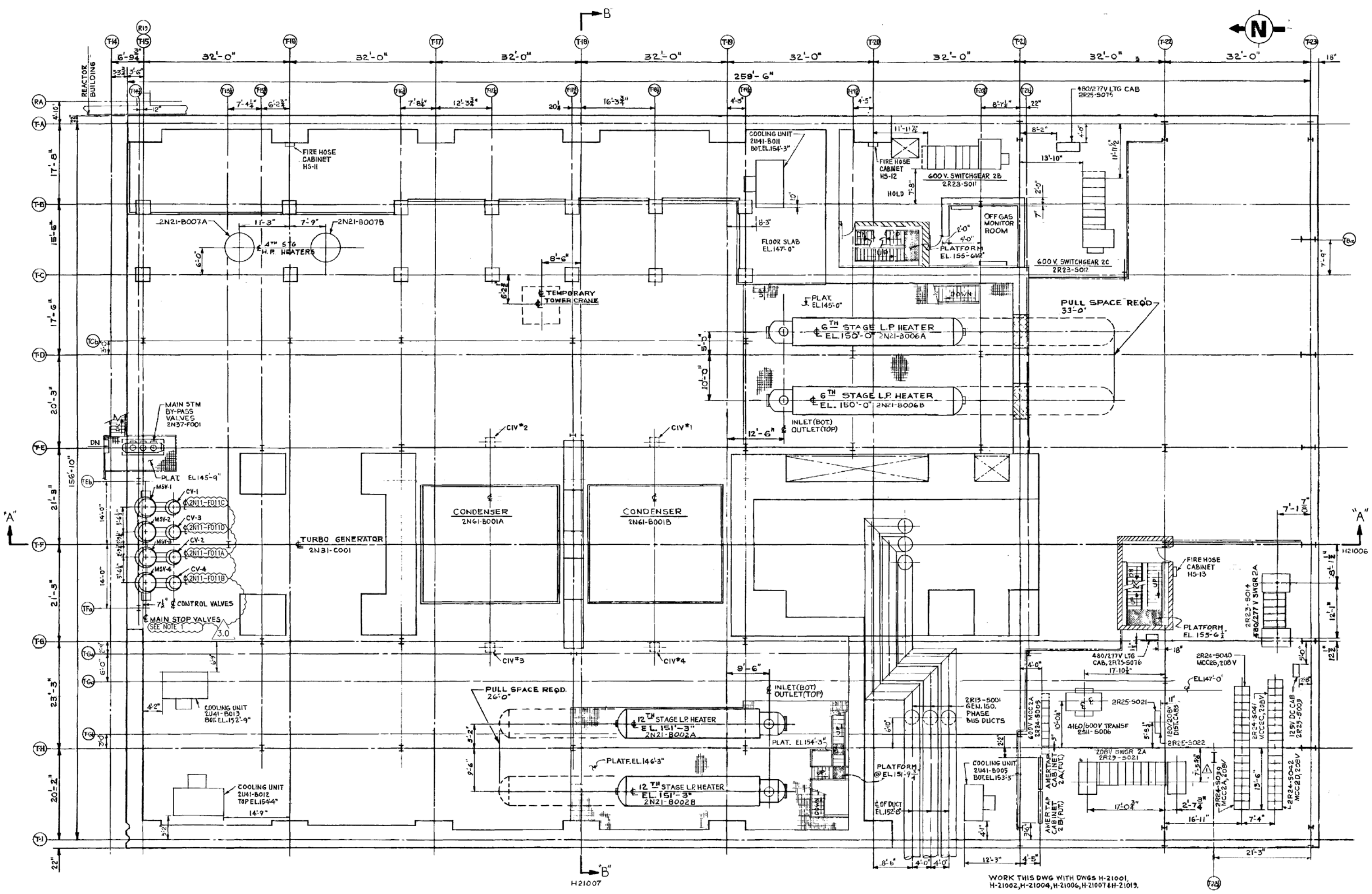
Revision: 10	Date: 8-17-99
REVISED PER ABN 97-0013-002.	

BY	CHK'D	APP'D
BgT	JAS	RBV

SEE MICROFILM FOR PREVIOUS REV. SIGNATURES.

DRAWN	DESIGNED	LOCATION	DRAWING NUMBER	REVISION
RCR	TW	10-502	H-21002	10
DATE 8-12-94	SCALE 1/8"=1'-0"			

H21003



NOTES
1) MASTER STOP VALVES
MSV-1: 2N11-F036C MSV-3: 2N11-F036A
MSV-2: 2N11-F036D MSV-4: 2N11-F036B

3.0

OVY2000 H21003

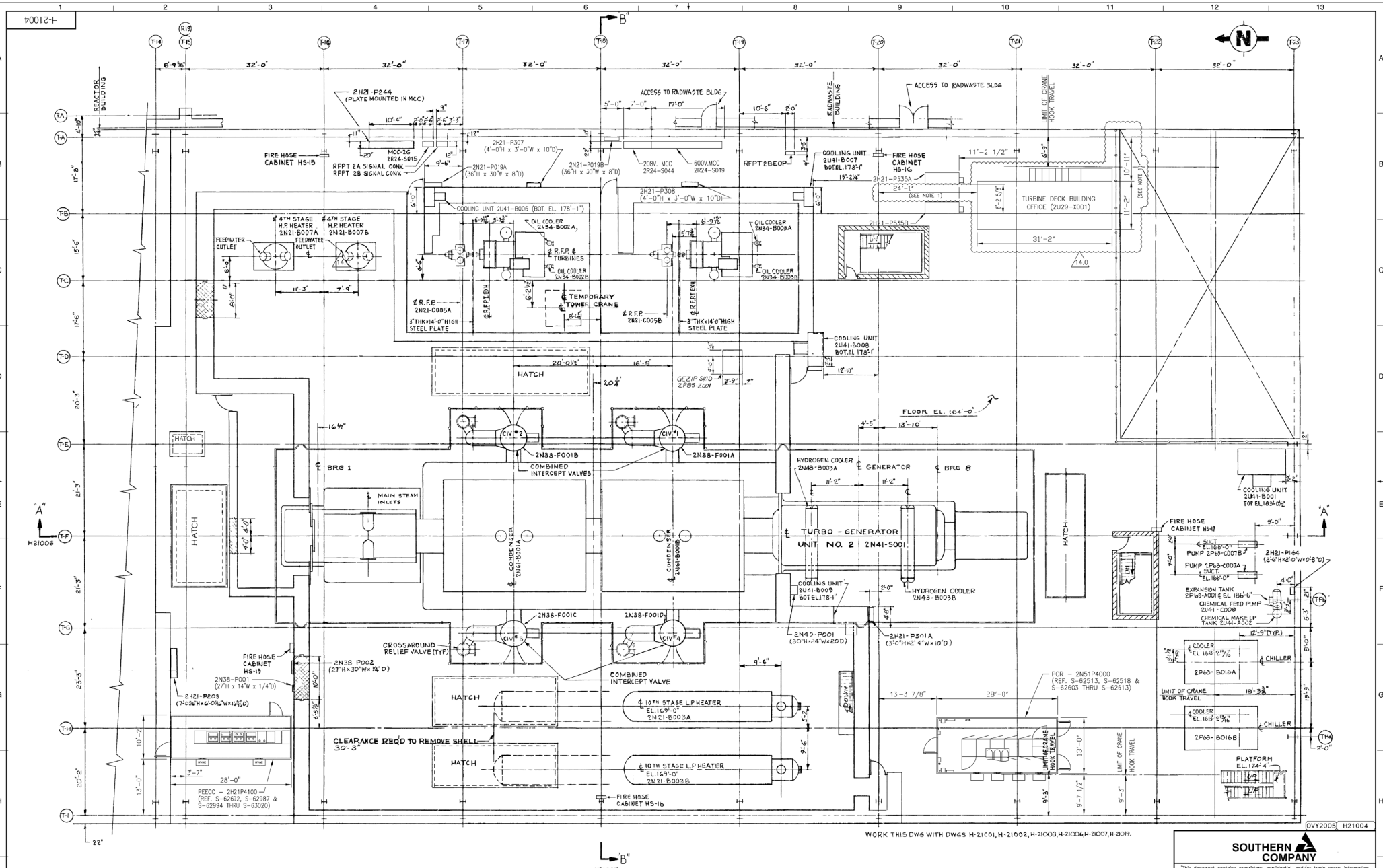
SOUTHERN COMPANY

Version: 3.0	Date: 02/11/15
REVISED BY SNC PER ABN-H03877, VER. 1.0	

BY	CHK'D	APPR.
GTR	JCP	JTL

EDWIN I. HATCH NUCLEAR PLANT UNIT No.2
GENERAL ARRANGEMENT–TURBINE ROOM
FLOOR SLAB EL. 147'–0"

DRAWN	DESIGNED	LOCATION	DRAWING NUMBER	VERSION
None	RCS	10-502	H-21003	3.0
DATE: None	SCALE: None			



H-21004

NOTES:
1. FINAL LOCATION OF OFFICE BUILDING TO BE DETERMINED BY THE SITE. SEE S-64226 FOR MORE INFORMATION ON THE OFFICE TRAILER.

14.0

OVY2005 H21004

SOUTHERN COMPANY

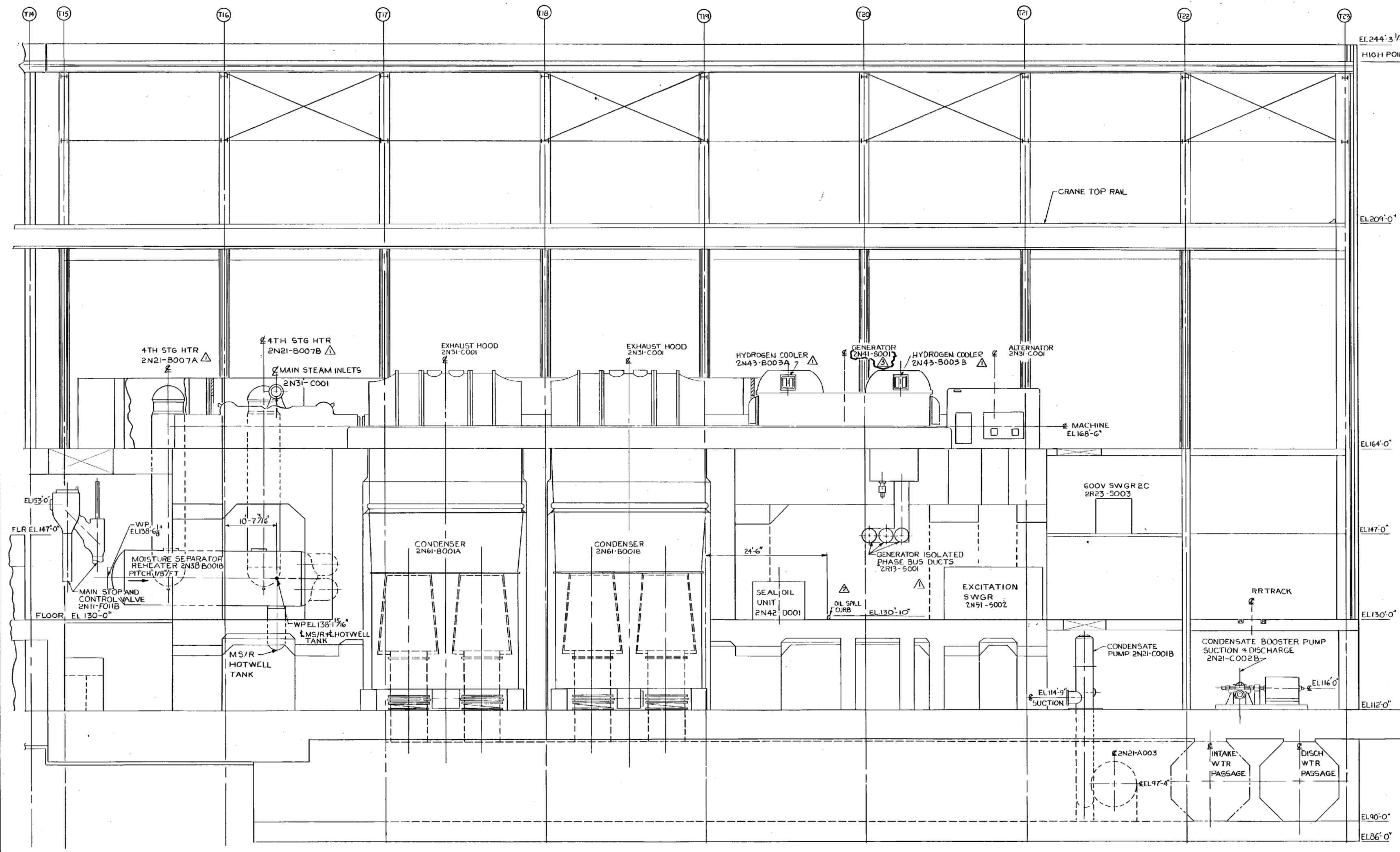
Version: 14.0 | Date: 11/18/19

REVISED PER:
SNC115436C012, VER 2.0

BY	CHK'D	APPR.
GTR	JRC	BDW

EDWIN I. HATCH NUCLEAR PLANT UNIT No. 2
GENERAL ARRANGEMENT - TURBINE
ROOM OPERATING FLOOR
EL. 164'-0"

DRAWN	DESIGNED	LOCATION	DRAWING NUMBER	VERSION
PDM		10-502	H-21004	14.0
DATE	SCALE			
5-24-71	1/8"=1'-0"			



ELEVATION "A-A"
LOOKING EAST

WORK THIS DWG WITH DWG H-21001, 21002, 21003, 21004, 21007, 21019

NO.	DATE	BY	REVISIONS	CH'K	SUPV'R	PROJ. ENG'R	CLIENT
3	10/6/82		INCORP. ABN 82-87 REV. 1	DM			
2	3/22/82	DKP	INCORP. DCR 79-310 & ABN 79-500				
1	5-8-75	N.A.	2N21-B007A, B WAS 2N21-B008A, B. REMOVED HOLD ON 2N42-D001, 2R23-S003, HT EXCH, BUS DUCTS, EXC. SWGR. ADDED MPL 2N43-B003A, B	DM			
0	10-11-73	LAK	ISSUE FOR CONSTR	RJC			

BECHTEL
JOB 6511 GAITHERSBURG, MARYLAND

SOUTHERN SERVICES INC.
FOR

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

PLANT HATCH UNIT NO. 2
GENERAL ARRANGEMENT TURBINE
BUILDING ELEVATION "A-A"

APPROVALS 10/11/73

DSGN.	DR.	CH'K.
	LAK	RJC

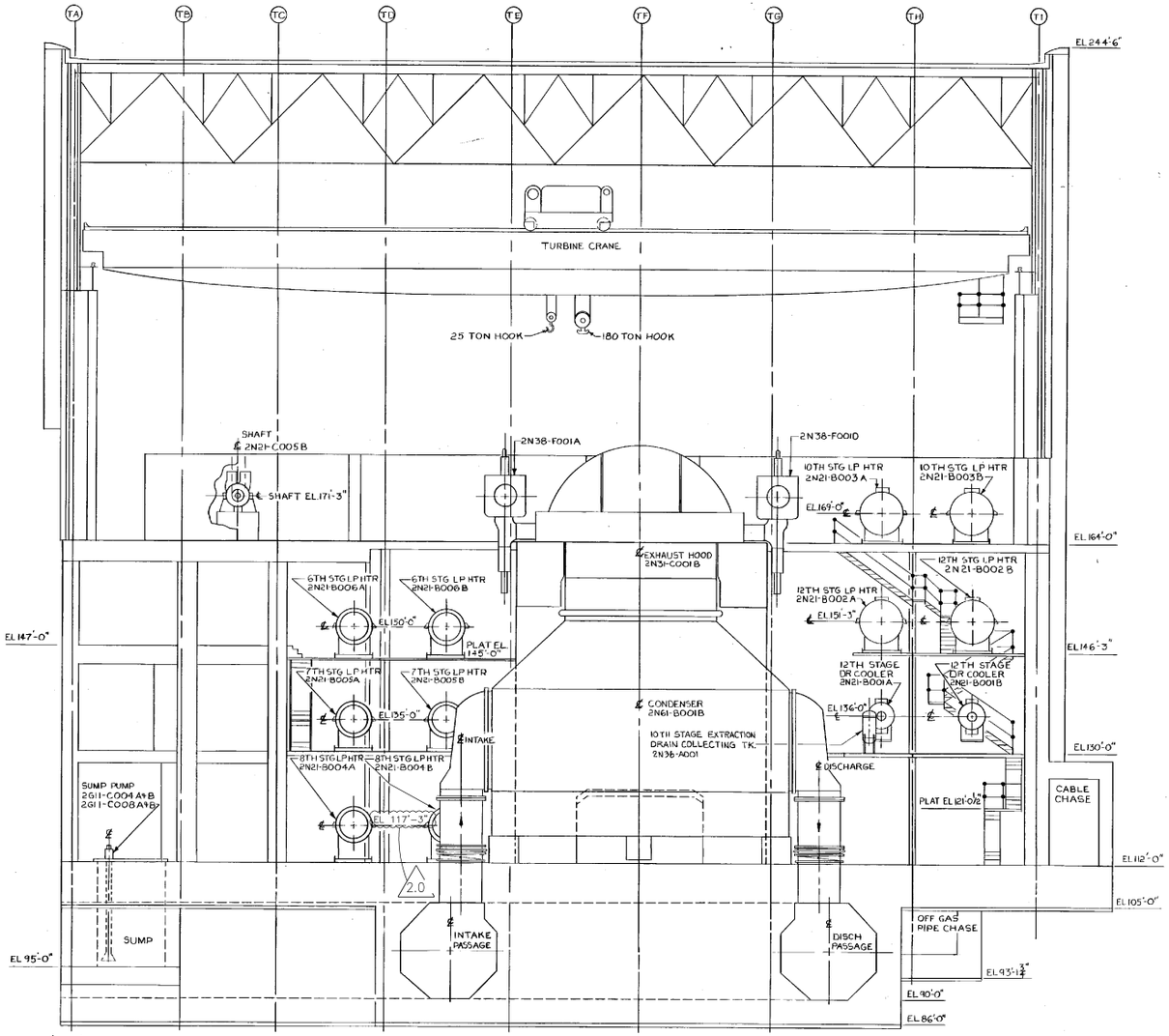
SCALE	DATE
1/8" = 1'-0"	6/26/73

DRAWING NUMBER

LOCATION	SHEET NO.
10-502	H21006

2Z99-GPPD

H-21007



ELEVATION "B-B"
LOOKING SOUTH

WORK THIS DWG WITH DWG H-21001, 21002, 21003, 21004, 21006, 21019

ACADOVY H21007

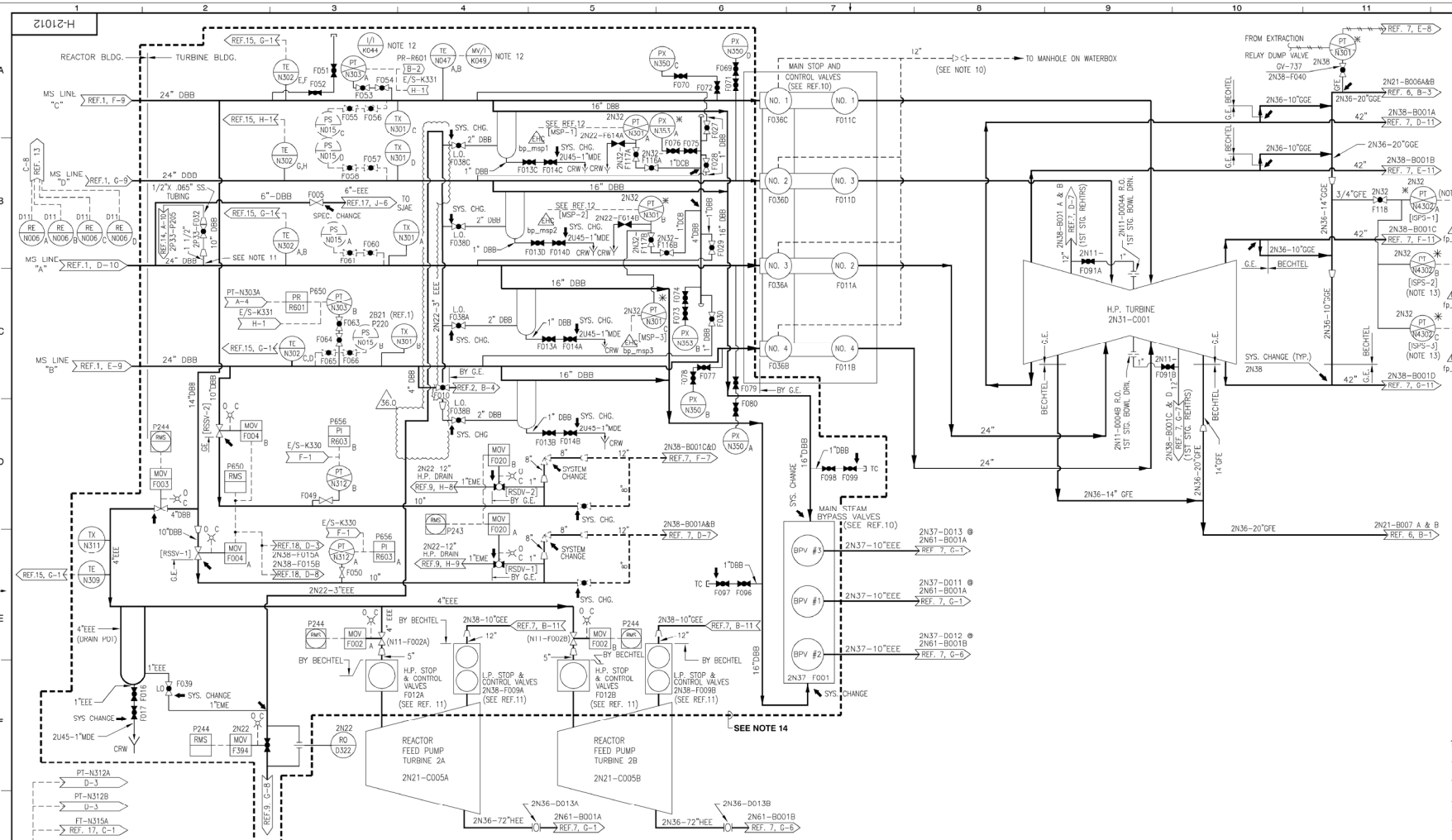
SOUTHERN COMPANY

EDWIN I. HATCH NUCLEAR PLANT UNIT No.2
GENERAL ARRANGEMENT TURBINE BUILDING
ELEVATION "B-B"

Version: 2.0	Date: 03/08/19
REVISED PER ABN SNC116373M051, VER 1.0	

BY	CHK'D	APPR.'D
JLO	VEP	CYN

DRAWN	DESIGNED	LOCATION	DRAWING NUMBER	VERSION
LMS	RJC	10-502	H-21007	2.0
DATE	SCALE			
07-09-73	1/8"=1'-0"			



NOTES

1. ALL EQUIPMENT AND INSTRUMENTS PREFIXED BY MPL NUMBER 2N11 UNLESS OTHERWISE NOTED.
2. 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.
3. ANY ADDITIONAL HIGH POINT VENTS AND LOW POINT DRAINS TO BE ADDED BY FIELD AS REQUIRED.
4. FOR LOCATION AND IDENTIFICATION OF INSTRUMENTS, SEE INSTRUMENT DATA SHEET LISTED IN MPL FOR EACH INSTRUMENT.
5. INSTRUMENT LINE VALVING MUST COMPLY WITH PIPING STANDARD SPECIFICATIONS.
6. INSTRUMENT PIPING OR TUBING BEYOND THE ROOT VALVE IS TO BE IN ACCORDANCE WITH THE INSTRUMENT INSTALLATION DETAIL DRAWING A-26412.
7. VALVE & INSTR. NO'S IN [ ] INDICATE G.E. VALVE & INSTRUMENT NUMBERS.
8. VALVE NUMBER IN ( ) INDICATES VALVE NUMBER OF CORRESPONDING VALVE ON UNIT 1.
9. PSCC – POWER SYSTEM COMPUTER CONTROL.
10. DOTTED LINES INDICATE TEMPORARY 12" PIPING INSTALLED ONLY FOR FLUSHING PROCEDURES.
11. ISOKINETIC STEAM SAMPLE PROBE WILL BE INSERTED INTO MAIN STEAM LINE "A". SEE IID'S A-26412-253 AND A-26412-254
12. POWER IS DISCONNECTED AND INSTRUMENT LOOP IS NOT OPERATIONAL.
13. SEE S-62834 FOR MARK VI EHC INPUTS.
14. IN SUPPORT OF MSIV ALTERNATE LEAKAGE TREATMENT PATHWAY, WHICH IS CREDITED FOR AST (10CFR50.67), THE HIGHLIGHTED EQUIPMENT, PIPING, AND ASSOCIATED SUPPORTS HAVE BEEN SEISMICALLY VERIFIED TO MAINTAIN THEIR STRUCTURAL AND PRESSURE BOUNDARY INTEGRITY WHEN HATCH DBE AND 1/2 SME EARTHQUAKE LOADS ARE APPLIED WITH DEAD LOADS. FUTURE REPAIRS OR MODIFICATIONS SHOULD BE PERFORMED IN A MANNER THAT MAINTAINS THIS SEISMIC QUALIFICATION.

REFERENCES

	TITLE	MPL. NO.	DWG. NO.
1.	NUCLEAR BOILER SYS, P.&I.D. SH. 1	2B21-1010	H-26000
2.	STEAM SEAL SYS. P.&I.D.	2N33-1010	H-21046
3.	CONDENSATE AND FEEDWATER BYPASS & DRAINS SYS. P.&I.D. SH. 1	2N21-1010	H-21037
4.	CONDENSER VACUUM AND GLAND SEAL SYS. P.&I.D.	2N62-1010	H-21030
5.	OFF GAS SYS. P.&I.D.	2N62-1010	H-26045
6.	EXTRACTION STEAM P.&I.D.	2N36-1010	H-21014
7.	REHEAT SYSTEM P.&I.D.	2N38-1010	H-21013
8.	EXTRACTION STEAM BYPASS & DRAINS P.&I.D.	2N36-1010	H-21036
9.	MAIN & R.F.P. TURBINE DRAINS P.&I.D.	2N22-1010	H-21031
10.	TURBINE CONTROL DIAGRAM (G.E.)	2N32-1010 thru	H-21242 H-21244
11.	CONTROL DIAGRAM FOR RFP TURBINE (G.E.)	2N21 C005	509E550BY (S-21436)
12.	M-SPS-HQ PRESSURE SENSOR EHC (G.E.)	2N32-N301	272A4042 (S-32901)
13.	PROCESS RADIATION MONITORING SYSTEM	2D11-1010	H-26011
14.	SAMPLE SYSTEM		H-21205
15.	MSR & HEATER VENTS & SHELL DRAINS SH. 2	2N22-1010	H-21024
16.	DELETED		
17.	SJAE SYSTEM P.&I.D.	2N22-1010	H-21056
18.	MSP & HTP. VENTS & SHELL DRAINS P&ID SH.1	2N22-1010	H-21023

CRITICAL DOCUMENT

LVN-FD004

MPL NO. 2N11-1010 (LVN-F040) ACAD2000 H21012

SOUTHERN COMPANY

EDWIN I. HATCH NUCLEAR PLANT UNIT No. 2

MAIN STEAM P. & I.D.

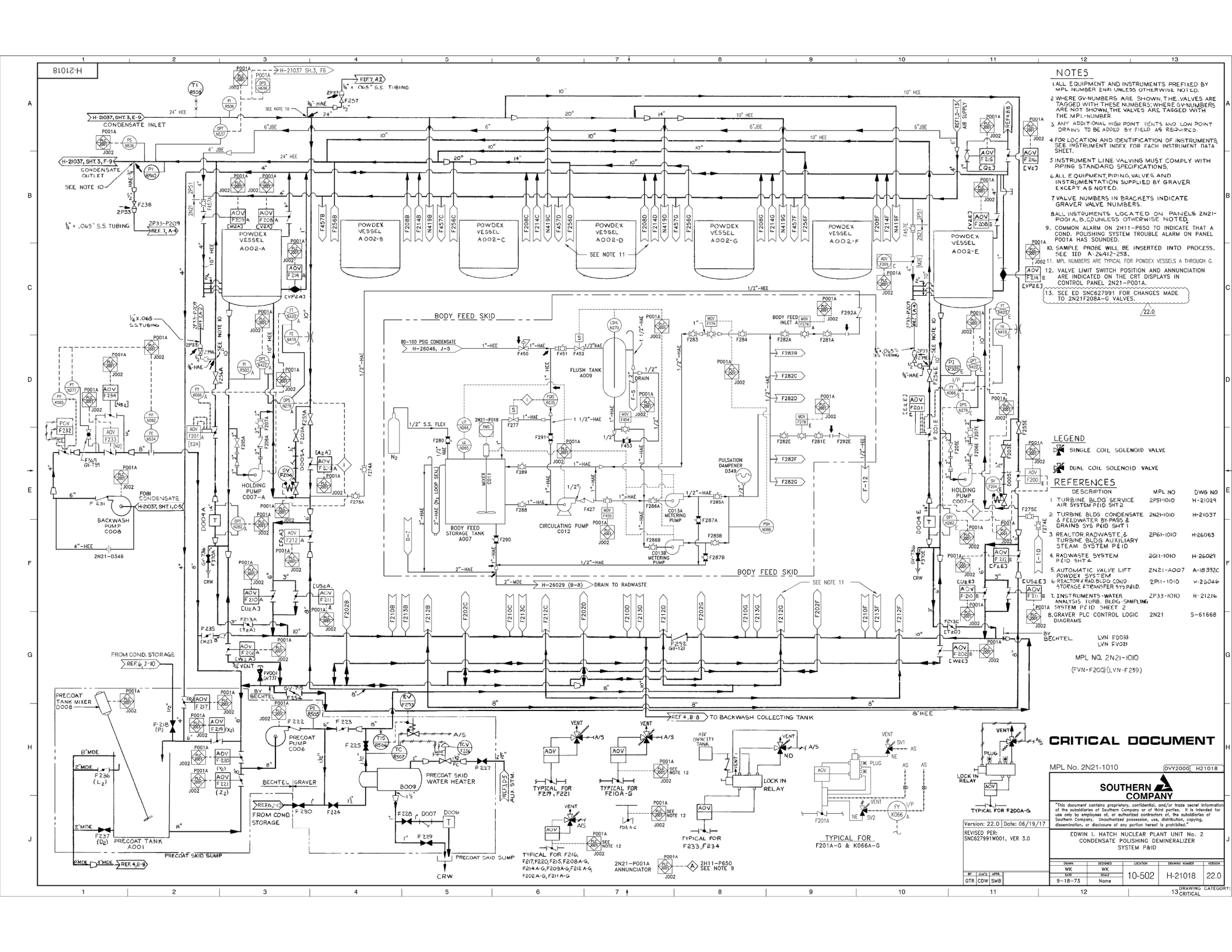
DRAWN	DESIGNED	LOCATION	DRAWING NUMBER	VERSION
DC	None	10-502	H-21012	36.0
DATE 8-17-73	SCALE None			

Version: 36.0 Date: 8/24/2016

REVISED PER SNC808902M001 VER. 1.0

BY	CHK'D	APP'D
BRJ	HBF	DAB

DWG. CATEGORY: CRITICAL


H-21018
NOTES
1. ALL EQUIPMENT AND INSTRUMENTS PREFIXED BY MPL NUMBER 2N21 UNLESS OTHERWISE NOTED.
2. 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
3. ANY ADDITIONAL HIGH POINT VENTS AND LOW POINT DRAINS TO BE ADDED BY FIELD AS REQUIRED.
4. FOR LOCATION AND IDENTIFICATION OF INSTRUMENTS, SEE INSTRUMENT INDEX FOR EACH INSTRUMENT DATA SHEET.
5. INSTRUMENT LINE VALVING MUST COMPLY WITH PIPING STANDARD SPECIFICATIONS.
6. ALL EQUIPMENT, PIPING, VALVES AND INSTRUMENTATION SUPPLIED BY GRAVER EXCEPT AS NOTED.
7. VALVE NUMBERS IN BRACKETS INDICATE GRAVER VALVE NUMBERS.
8. ALL INSTRUMENTS LOCATED ON PANELS 2N21-P001A, B, C UNLESS OTHERWISE NOTED.
9. COMMON ALARM ON 2H11-P650 TO INDICATE THAT A COND. POLISHING SYSTEM TROUBLE ALARM ON PANEL P001A HAS SOUNDED.
10. SAMPLE PROBE WILL BE INSERTED INTO PROCESS. SEE IID A-26412-253.
11. MPL NUMBERS ARE TYPICAL FOR POWDEX VESSELS A THROUGH G.
12. VALVE LIMIT SWITCH POSITION AND ANNUNCIATION ARE INDICATED ON THE CRT DISPLAYS IN CONTROL PANEL 2N21-P001A.
13. SEE ED SNC627991 FOR CHANGES MADE TO 2N21F208A-G VALVES.
22.0
LEGEND
SINGLE COIL SOLENOID VALVE
DUAL COIL SOLENOID VALVE
REFERENCES
DESCRIPTION | MPL NO | DWG NO
1. TURBINE BLDG SERVICE AIR SYSTEM P&ID SHT 2 | 2P51-1010 | H-21029
2. TURBINE BLDG CONDENSATE & FEEDWATER BY-PASS & DRAINS SYS P&ID SHT 1 | 2N21-1010 | H-21037
3. REACTOR RADWASTE & TURBINE BLDG AUXILIARY STEAM SYSTEM P&ID | 2P61-1010 | H-26063
4. RADWASTE SYSTEM P&ID SHT 2 | 2G11-1010 | H-26029
5. AUTOMATIC VALVE LIFT POWDEX SYSTEM | 2N21-A007 | A-18332C
6. REACTOR & RAD BLDG COND STORAGE & TRANSFER SYS P&ID. | 2P11-1010 | H-26046
7. INSTRUMENTS-WATER ANALYSIS TURB. BLDG-SAMPLING SYSTEM P&ID SHEET 2 | 2P33-1010 | H-21216
8. GRAVER PLC CONTROL LOGIC DIAGRAMS | 2N21 | S-61668
BY BECHTEL
LVN F0033
LVN FV021
MPL NO. 2N21-1010
(FVN-F200)(LVN-F259)
CONDENSATE INLET
CONDENSATE OUTLET
POWDEX VESSEL A002-A
POWDEX VESSEL A002-B
POWDEX VESSEL A002-C
POWDEX VESSEL A002-D
POWDEX VESSEL A002-E
POWDEX VESSEL A002-F
POWDEX VESSEL A002-G
SEE NOTE 11
BODY FEED SKID
80-100 PSIG CONDENSATE H-26046, J-5
FLUSH TANK A009
BODY FEED STORAGE TANK A007
CIRCULATING PUMP C012
PULSATION DAMPENER D349
C013A METERING PUMP
C013B METERING PUMP
MIXER C011
HOLDING PUMP C007-A
HOLDING PUMP C007-B
BACKWASH PUMP C008
FROM COND. STORAGE
TO BACKWASH COLLECTING TANK
DRAIN TO RADWASTE
PRECOAT TANK MIXER D008
PRECOAT TANK A001
PRECOAT PUMP C006
PRECOAT SKID WATER HEATER B009
PRECOAT SKID SUMP
CRW
AIR SUPPLY
TYPICAL FOR F216, F217, F220, F215, F208A-G, F214A-G, F209A-G, F212A-G, F202A-G, F211A-G
TYPICAL FOR F219, F221
TYPICAL FOR F210A-G
TYPICAL FOR F233, F234
TYPICAL FOR F201A-G & K066A-G
TYPICAL FOR F200A-G
2N21-P001A ANNUNCIATOR
2H11-P650 SEE NOTE 9
LOCK IN RELAY
AIR CAPACITY TANK
CRITICAL DOCUMENT
MPL No. 2N21-1010
OVY2000 H21018
SOUTHERN COMPANY
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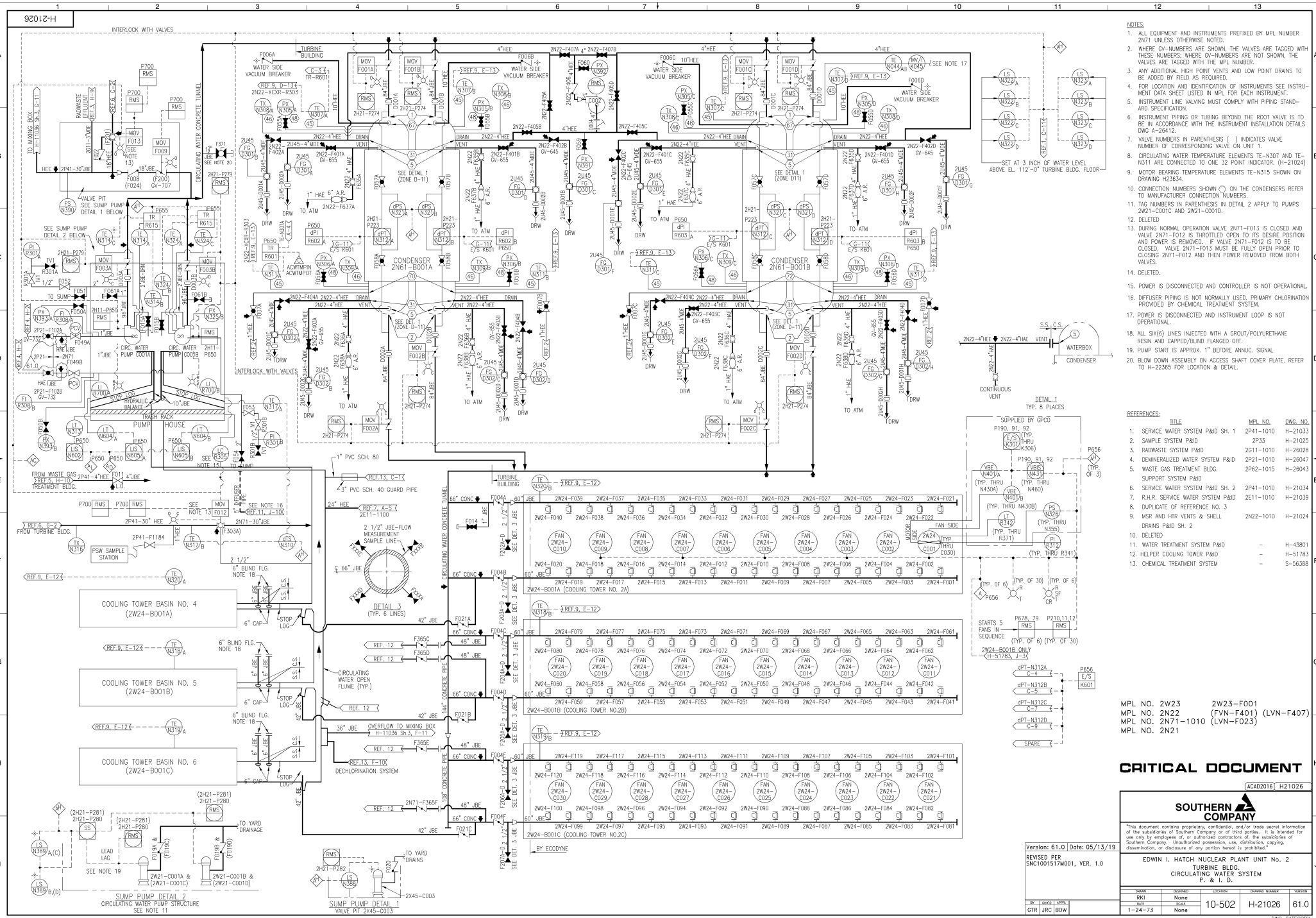
Version: 22.0 Date: 06/19/17
REVISED PER: SNC627991W001, VER 3.0
BY GTR | CHK'D CDW | APPR SMB
EDWIN I. HATCH NUCLEAR PLANT UNIT NO. 2
CONDENSATE POLISHING DEMINERALIZER SYSTEM P&ID
DRAWN WK | DESIGNED WK | LOCATION 10-502 | DRAWING NUMBER H-21018 | VERSION 22.0
DATE 9-18-73 | SCALE None
DRAWING CATEGORY: 13 CRITICAL



NOTES:

1. ALL EQUIPMENT AND INSTRUMENTS PREFIXED BY MPL NUMBER 2N71 UNLESS OTHERWISE NOTED.
2. 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.
3. ANY ADDITIONAL HIGH POINT VENTS AND LOW POINT DRAINS TO BE ADDED BY FIELD AS REQUIRED.
4. FOR LOCATION AND IDENTIFICATION OF INSTRUMENTS SEE INSTRUMENT DATA SHEET LISTED IN MPL FOR EACH INSTRUMENT.
5. INSTRUMENT LINE VALVING MUST COMPLY WITH PIPING STANDARD SPECIFICATION.
6. INSTRUMENT PIPING OR TUBING BEYOND THE ROOT VALVE IS TO BE IN ACCORDANCE WITH THE INSTRUMENT INSTALLATION DETAILS DWG A-26412.
7. VALVE NUMBERS IN PARENTHESIS ( ) INDICATES VALVE NUMBER OF CORRESPONDING VALVE ON UNIT 1.
8. CIRCULATING WATER TEMPERATURE ELEMENTS TE-N307 AND TE-N311 ARE CONNECTED TO ONE 32 POINT INDICATOR. (H-21024)
9. MOTOR BEARING TEMPERATURE ELEMENTS TE-N315 SHOWN ON DRAWING H23634.
10. CONNECTION NUMBERS SHOWN ◯ ON THE CONDENSERS REFER TO MANUFACTURER CONNECTION NUMBERS.
11. TAG NUMBERS IN PARENTHESIS IN DETAIL 2 APPLY TO PUMPS 2W21-C001C AND 2W21-C001D.
12. DELETED
13. DURING NORMAL OPERATION VALVE 2N71-F013 IS CLOSED AND VALVE 2N71-F012 IS THROTTLED OPEN TO ITS DESIRE POSITION AND POWER IS REMOVED. IF VALVE 2N71-F012 IS TO BE CLOSED, VALVE 2N71-F013 MUST BE FULLY OPEN PRIOR TO CLOSING 2N71-F012 AND THEN POWER REMOVED FROM BOTH VALVES.
14. DELETED.
15. POWER IS DISCONNECTED AND CONTROLLER IS NOT OPERATIONAL.
16. DIFFUSER PIPING IS NOT NORMALLY USED. PRIMARY CHLORINATION PROVIDED BY CHEMICAL TREATMENT SYSTEM.
17. POWER IS DISCONNECTED AND INSTRUMENT LOOP IS NOT OPERATIONAL.
18. ALL SIX(6) LINES INJECTED WITH A GROUT/POLYURETHANE RESIN AND CAPPED/BLIND FLANGED OFF.
19. PUMP START IS APPROX. 1" BEFORE ANNUC. SIGNAL
20. BLOW DOWN ASSEMBLY ON ACCESS SHAFT COVER PLATE, REFER TO H-22365 FOR LOCATION & DETAIL.

REFERENCES:

	TITLE	MPL NO.	DWG. NO.
1.	SERVICE WATER SYSTEM P&ID SH. 1	2P41-1010	H-21033
2.	SAMPLE SYSTEM P&ID	2P33	H-21025
3.	RADWASTE SYSTEM P&ID	2G11-1010	H-26028
4.	DEMINERALIZED WATER SYSTEM P&ID	2P21-1010	H-26047
5.	WASTE GAS TREATMENT BLDG. SUPPORT SYSTEM P&ID	2P62-1015	H-26043
6.	SERVICE WATER SYSTEM P&ID SH. 2	2P41-1010	H-21034
7.	R.H.R. SERVICE WATER SYSTEM P&ID	2E11-1010	H-21039
8.	DUPLICATE OF REFERENCE NO. 3		
9.	MSR AND HTR VENTS & SHELL DRAINS P&ID SH. 2	2N22-1010	H-21024
10.	DELETED		
11.	WATER TREATMENT SYSTEM P&ID	–	H-43801
12.	HELPER COOLING TOWER P&ID	–	H-51783
13.	CHEMICAL TREATMENT SYSTEM	–	S-56388

MPL NO. 2W23 2W23-F001
MPL NO. 2N22 (FVN-F401) (LVN-F407)
MPL NO. 2N71-1010 (LVN-F023)
MPL NO. 2N21

CRITICAL DOCUMENT

ACAD2016 | H21026

SOUTHERN COMPANY

EDWIN I. HATCH NUCLEAR PLANT UNIT No. 2
TURBINE BLDG.
CIRCULATING WATER SYSTEM
P. & I. D.

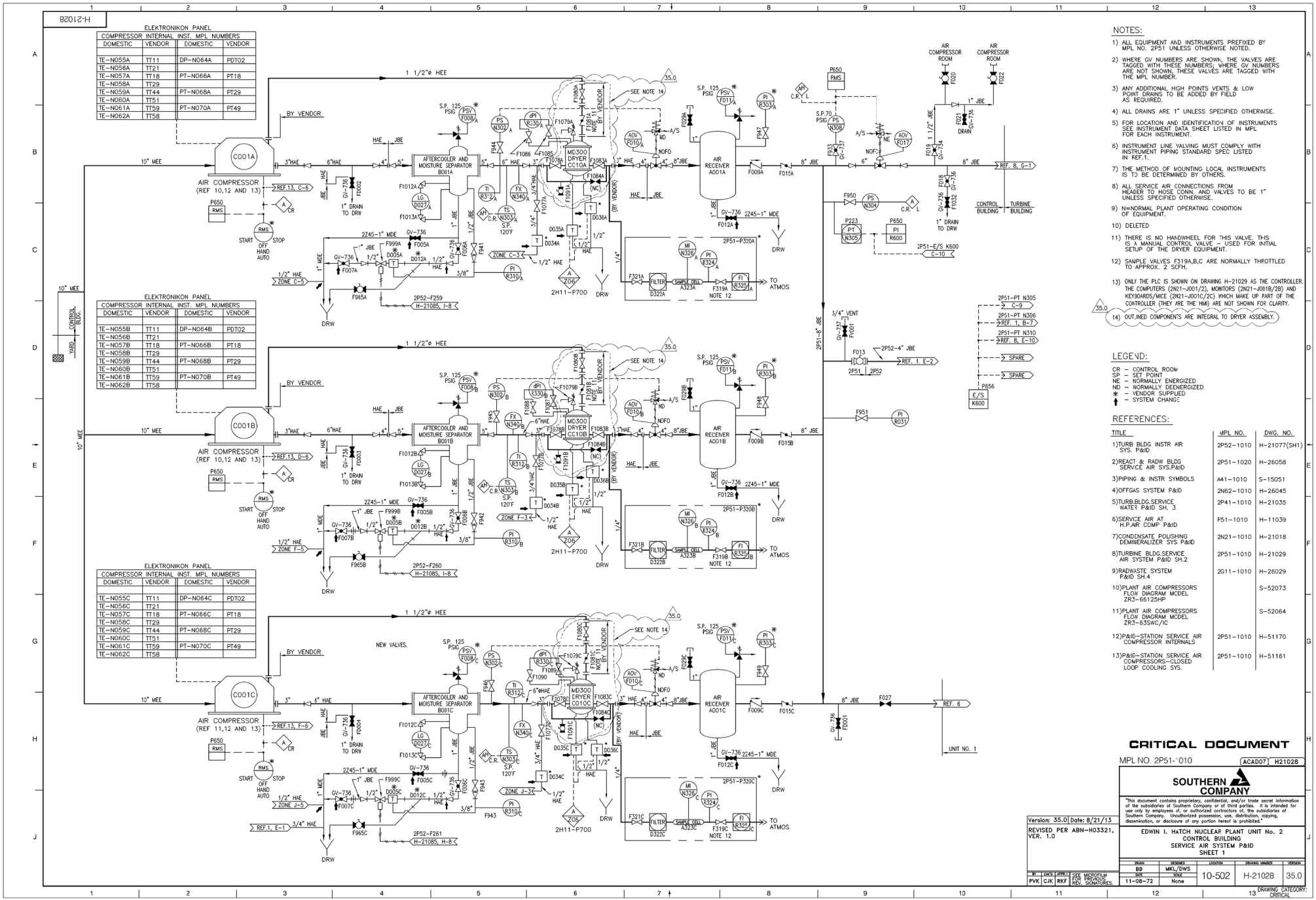
DRAWN	DESIGNED	LOCATION	DRAWING NUMBER	VERSION
RKI	None	10-502	H-21026	61.0
DATE 1-24-73	SCALE None			

DWG CATEGORY: CRITICAL

Version: 61.0 | Date: 05/13/19

REVISED PER SNC1001517M001, VER. 1.0

BY	CHK'D	APPR.
GTR	JRC	BDW


H-21028
ELEKTRONIKON PANEL
COMPRESSOR INTERNAL INST. MPL NUMBERS
DOMESTIC | VENDOR | COMESTIC | VENDOR
TE-N055A TT11 DP-N064A PDT02
TE-N056A TT21
TE-N057A TT18 PT-N066A PT18
TE-N058A TT29
TE-N059A TT44 PT-N068A PT29
TE-N060A TT51
TE-N061A TT59 PT-N070A PT49
TE-N062A TT58
ELEKTRONIKON PANEL
COMPRESSOR INTERNAL INST. MPL NUMBERS
DOMESTIC | VENDOR | DOMESTIC | VENDOR
TE-N055B TT11 DP-N064B PDT02
TE-N056B TT21
TE-N057B TT18 PT-N066B PT18
TE-N058B TT29
TE-N059B TT44 PT-N068B PT29
TE-N060B TT51
TE-N061B TT59 PT-N070B PT49
TE-N062B TT58
ELEKTRONIKON PANEL
COMPRESSOR INTERNAL INST. MPL NUMBERS
DOMESTIC | VENDOR | DOMESTIC | VENDOR
TE-N055C TT11 DP-N064C PDT02
TE-N056C TT21
TE-N057C TT18 PT-N066C PT18
TE-N058C TT29
TE-N059C TT44 PT-N068C PT29
TE-N060C TT51
TE-N061C TT59 PT-N070C PT49
TE-N062C TT58
C001A
C001B
C001C
AIR COMPRESSOR (REF 10,12 AND 13)
AIR COMPRESSOR (REF 11,12 AND 13)
AFTERCOOLER AND MOISTURE SEPARATOR B001A
AFTERCOOLER AND MOISTURE SEPARATOR B001B
AFTERCOOLER AND MOISTURE SEPARATOR B001C
MD300 DRYER CC10A
MD300 DRYER CC10B
MD300 DRYER CC10C
AIR RECEIVER A001A
AIR RECEIVER A001B
AIR RECEIVER A001C
AIR COMPRESSOR ROOM F020
AIR COMPRESSOR ROOM F022
1 1/2"ø HEE
10" MEE
3"HAE
6"HAE
8" JBE
2245-1" MDE
2P51-8" JBE
2P52-4" JBE
BY VENDOR
SEE NOTE 14
NEW VALVES.
1" DRAIN TO DRW
TO ATMOS
DRW
CONTROL BUILDING
TURBINE BUILDING
UNIT NO. 1
SPARE
REF. 8, G-1
REF. 1, E-2
REF. 6
NOTES:
1) ALL EQUIPMENT AND INSTRUMENTS PREFIXED BY MPL NO. 2P51 UNLESS OTHERWISE NOTED.
2) WHERE GV NUMBERS ARE SHOWN, THE VALVES ARE TAGGED WITH THESE NUMBERS; WHERE GV NUMBERS ARE NOT SHOWN, THESE VALVES ARE TAGGED WITH THE MPL NUMBER.
3) ANY ADDITIONAL HIGH POINTS VENTS & LOW POINT DRAINS TO BE ADDED BY FIELD AS REQUIRED.
4) ALL DRAINS ARE 1" UNLESS SPECIFIED OTHERWISE.
5) FOR LOCATION AND IDENTIFICATION OF INSTRUMENTS SEE INSTRUMENT DATA SHEET LISTED IN MPL FOR EACH INSTRUMENT.
6) INSTRUMENT LINE VALVING MUST COMPLY WITH INSTRUMENT PIPING STANDARD SPEC LISTED IN REF.1.
7) THE METHOD OF MOUNTING LOCAL INSTRUMENTS IS TO BE DETERMINED BY OTHERS.
8) ALL SERVICE AIR CONNECTIONS FROM HEADER TO HOSE CONN. AND VALVES TO BE 1" UNLESS SPECIFIED OTHERWISE.
9) N=NORMAL PLANT OPERATING CONDITION OF EQUIPMENT.
10) DELETED
11) THERE IS NO HANDWHEEL FOR THIS VALVE. THIS IS A MANUAL CONTROL VALVE – USED FOR INITIAL SETUP OF THE DRYER EQUIPMENT.
12) SAMPLE VALVES F319A,B,C ARE NORMALLY THROTTLED TO APPROX. 2 SCFH.
13) ONLY THE PLC IS SHOWN ON DRAWING H-21029 AS THE CONTROLLER. THE COMPUTERS (2N21-J001/2), MONITORS (2N21-J001B/2B) AND KEYBOARDS/MICE (2N21-J001C/2C) WHICH MAKE UP PART OF THE CONTROLLER (THEY ARE THE HMI) ARE NOT SHOWN FOR CLARITY.
35.0 14) OUTLINED COMPONENTS ARE INTEGRAL TO DRYER ASSEMBLY.
LEGEND:
CR – CONTROL ROOM
SP – SET POINT
NE – NORMALLY ENERGIZED
ND – NORMALLY DEENERGIZED
* – VENDOR SUPPLIED
↑ – SYSTEM CHANGE
REFERENCES:
TITLE | MPL NO. | DWG. NO.
1)TURB BLDG INSTR AIR SYS. P&ID | 2P52-1010 | H-21077(SH1)
2)REACT & RADW BLDG SERVICE AIR SYS.P&ID | 2P51-1020 | H-26058
3)PIPING & INSTR SYMBOLS | A41-1010 | S-15051
4)OFFGAS SYSTEM P&ID | 2N62-1010 | H-26045
5)TURB.BLDG.SERVICE WATER P&ID SH. 3 | 2P41-1010 | H-21035
6)SERVICE AIR AT H.P.AIR COMP P&ID | P51-1010 | H-11039
7)CONDENSATE POLISHING DEMINERALIZER SYS P&ID | 2N21-1010 | H-21018
8)TURBINE BLDG.SERVICE AIR SYSTEM P&ID SH.2 | 2P51-1010 | H-21029
9)RADWASTE SYSTEM P&ID SH.4 | 2G11-1010 | H-26029
10)PLANT AIR COMPRESSORS FLOW DIAGRAM MCDEL ZR3-66125HP | | S-52073
11)PLANT AIR COMPRESSORS FLOW DIAGRAM MCDEL ZR3-63SWC/IC | | S-52064
12)P&ID–STATION SERVICE AIR COMPRESSOR INTERNALS | 2P51-1010 | H-51170
13)P&ID–STATION SERVICE AIR COMPRESSORS–CLOSED LOOP COOLING SYS. | 2P51-1010 | H-51161
CRITICAL DOCUMENT
MPL NO. 2P51-*010
ACAD07 H21028
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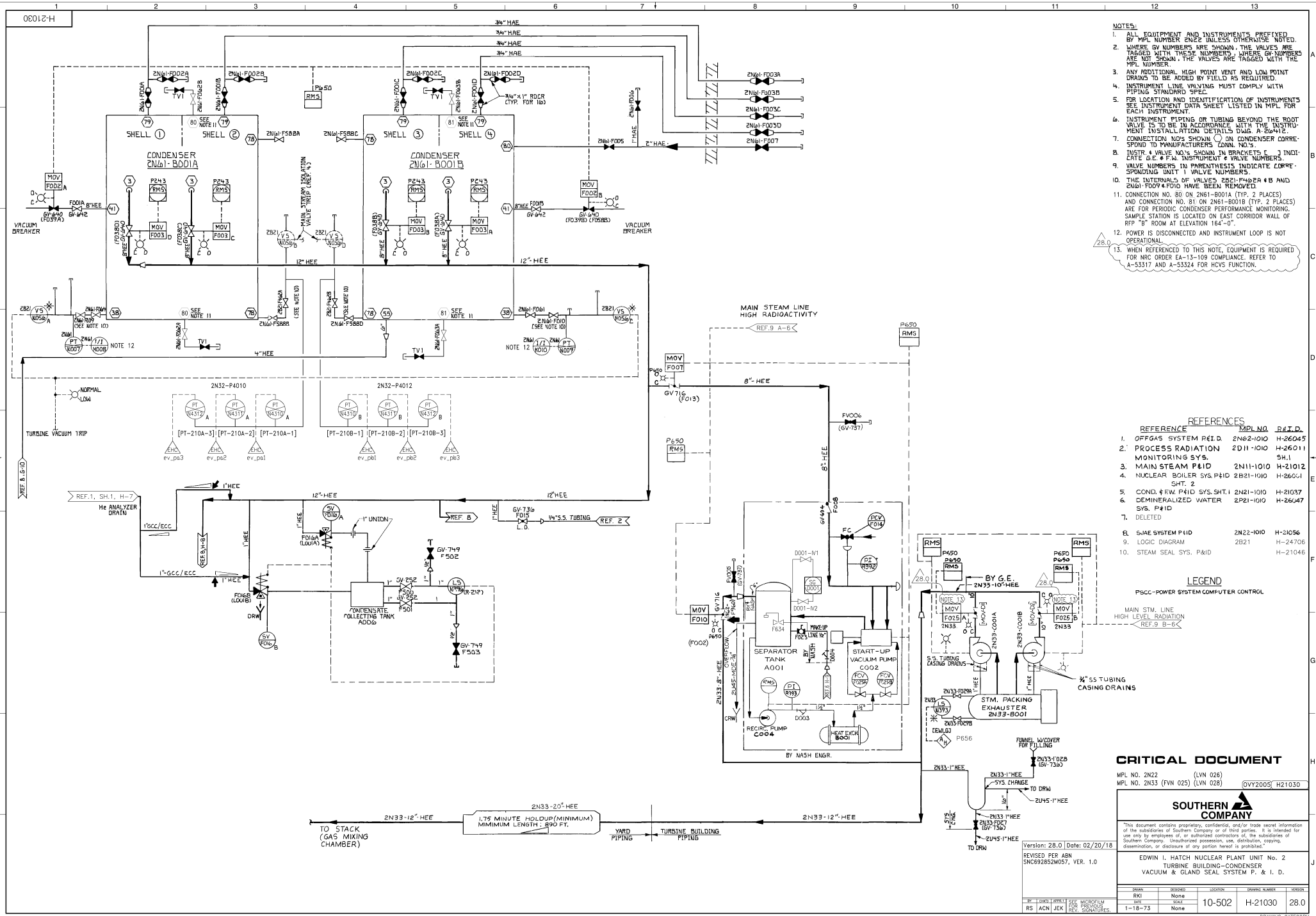
EDWIN I. HATCH NUCLEAR PLANT UNIT No. 2
CONTROL BUILDING
SERVICE AIR SYSTEM P&ID
SHEET 1
Version: 35.0 Date: 8/21/13
REVISED PER ABN-H03321, VER. 1.0
BY CHKD APPR'D
PVK CJK RKF
SEE MICROFILM FOR PREVIOUS REV. SIGNATURES.
DRAWN BB
DESIGNED MKL/DWS
DATE 11-08-72
SCALE None
LOCATION 10-502
DRAWING NUMBER H-21028
VERSION 35.0
DRAWING CATEGORY: CRITICAL



NOTES:

1. ALL EQUIPMENT AND INSTRUMENTS PREFIXED BY MPL NUMBER 2N22 UNLESS OTHERWISE NOTED.
2. 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.
3. ANY ADDITIONAL HIGH POINT VENT AND LOW POINT DRAINS TO BE ADDED BY FIELD AS REQUIRED.
4. INSTRUMENT LINE VALVING MUST COMPLY WITH PIPING STANDARD SPEC.
5. FOR LOCATION AND IDENTIFICATION OF INSTRUMENTS SEE INSTRUMENT DATA SHEET LISTED IN MPL FOR EACH INSTRUMENT.
6. INSTRUMENT PIPING OR TUBING BEYOND THE ROOT VALVE IS TO BE IN ACCORDANCE WITH THE INSTRUMENT INSTALLATION DETAILS DWG. A-20412.
7. CONNECTION NO'S SHOWN ◯ ON CONDENSER CORRESPOND TO MANUFACTURERS CONN. NO'S.
8. INSTR. & VALVE NO.'s SHOWN IN BRACKETS [ ] INDICATE G.E. & F.W. INSTRUMENT & VALVE NUMBERS.
9. VALVE NUMBERS IN PARENTHESIS INDICATE CORRESPONDING UNIT 1 VALVE NUMBERS.
10. THE INTERNALS OF VALVES 2B21-F440A & B AND 2N61-F009 & FD10 HAVE BEEN REMOVED.
11. CONNECTION NO. 80 ON 2N61-B001A (TYP. 2 PLACES) AND CONNECTION NO. 81 ON 2N61-B001B (TYP. 2 PLACES) ARE FOR PERIODIC CONDENSER PERFORMANCE MONITORING. SAMPLE STATION IS LOCATED ON EAST CORRIDOR WALL OF RFP "B" ROOM AT ELEVATION 164'-0".
12. POWER IS DISCONNECTED AND INSTRUMENT LOOP IS NOT OPERATIONAL.
13. (28.0) WHEN REFERENCED TO THIS NOTE, EQUIPMENT IS REQUIRED FOR NRC ORDER EA-13-109 COMPLIANCE. REFER TO A-53317 AND A-53324 FOR HCVS FUNCTION.

REFERENCES

	REFERENCE	MPL NO.	P&I D.
1.	OFFGAS SYSTEM P&I D.	2N62-1010	H-26045
2.	PROCESS RADIATION MONITORING SYS.	2D11-1010	H-26011 SH.1
3.	MAIN STEAM P&ID	2N11-1010	H-21012
4.	NUCLEAR BOILER SYS. P&ID SHT. 2	2B21-1010	H-26001
5.	COND. & F.W. P&ID SYS. SHT. 1	2N21-1010	H-21037
6.	DEMINERALIZED WATER SYS. P&ID	2P21-1010	H-26047
7.	DELETED		
8.	SJAE SYSTEM P&ID	2N22-1010	H-21056
9.	LOGIC DIAGRAM	2B21	H-24706
10.	STEAM SEAL SYS. P&ID		H-21046

LEGEND

PSCC-POWER SYSTEM COMPUTER CONTROL

CRITICAL DOCUMENT

MPL NO. 2N22 (LVN 026)
MPL NO. 2N33 (FVN 025) (LVN 028)
0VY2005 H21030

SOUTHERN COMPANY

Version: 28.0 | Date: 02/20/18

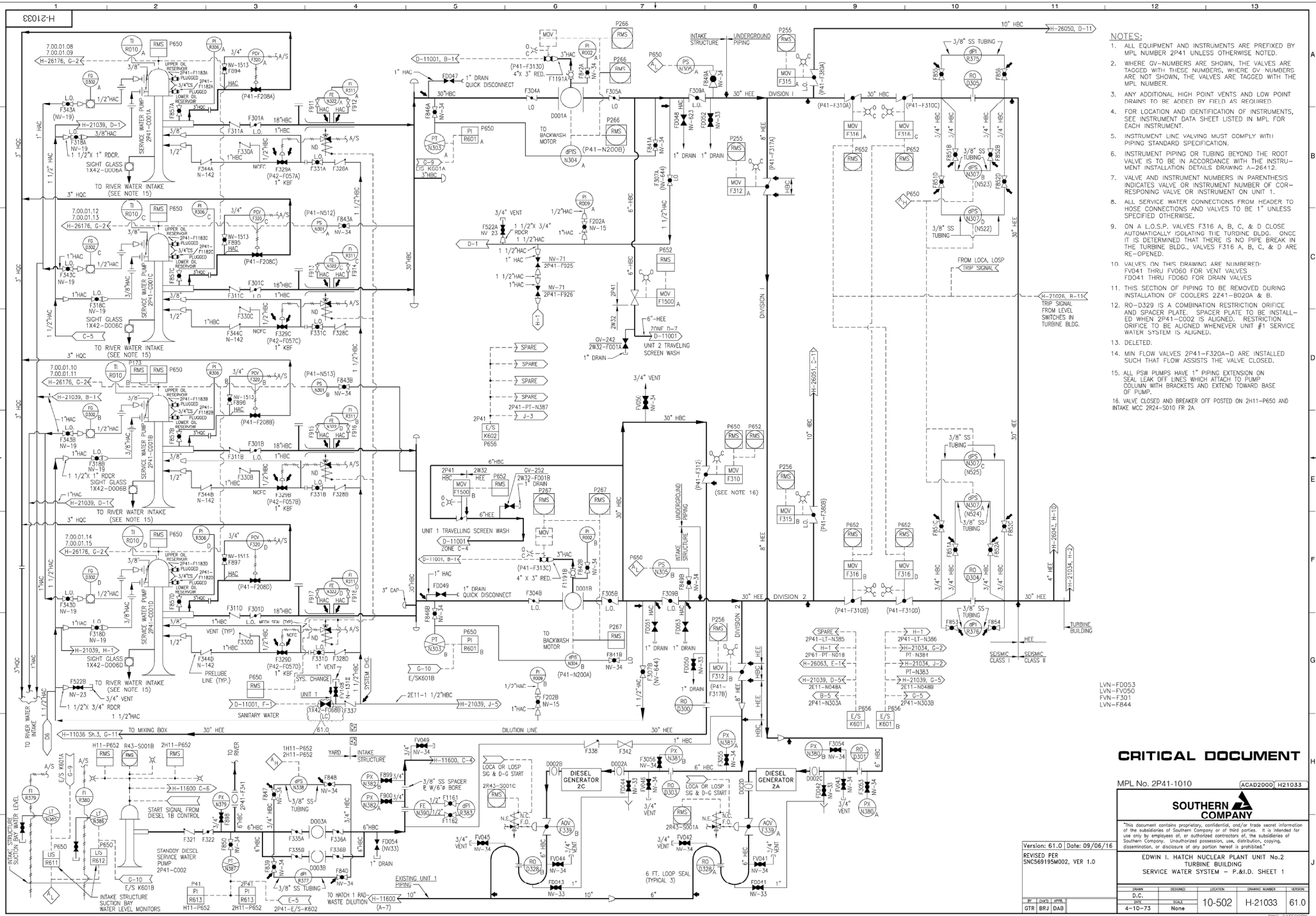
REVISED PER ABN SNC692852M057, VER. 1.0

EDWIN I. HATCH NUCLEAR PLANT UNIT No. 2
TURBINE BUILDING-CONDENSER
VACUUM & GLAND SEAL SYSTEM P. & I. D.

BY	CHK'D	APPR'D	SEE MICROFILM FOR PREVIOUS REV. SIGNATURES.
RS	ACN	JEK	

DRAWN	DESIGNED	LOCATION	DRAWING NUMBER	VERSION
RKI	None	10-502	H-21030	28.0
DATE	SCALE			
1-18-73	None			

DRAWING CATEGORY: CRITICAL


H-21033
NOTES:
1. ALL EQUIPMENT AND INSTRUMENTS ARE PREFIXED BY MPL NUMBER 2P41 UNLESS OTHERWISE NOTED.
2. 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.
3. ANY ADDITIONAL HIGH POINT VENTS AND LOW POINT DRAINS TO BE ADDED BY FIELD AS REQUIRED.
4. FOR LOCATION AND IDENTIFICATION OF INSTRUMENTS, SEE INSTRUMENT DATA SHEET LISTED IN MPL FOR EACH INSTRUMENT.
5. INSTRUMENT LINE VALVING MUST COMPLY WITH PIPING STANDARD SPECIFICATION.
6. INSTRUMENT PIPING OR TUBING BEYOND THE ROOT VALVE IS TO BE IN ACCORDANCE WITH THE INSTRUMENT INSTALLATION DETAILS DRAWING A-26412.
7. VALVE AND INSTRUMENT NUMBERS IN PARENTHESIS INDICATES VALVE OR INSTRUMENT NUMBER OF CORRESPONING VALVE OR INSTRUMENT ON UNIT 1.
8. ALL SERVICE WATER CONNECTIONS FROM HEADER TO HOSE CONNECTIONS AND VALVES TO BE 1" UNLESS SPECIFIED OTHERWISE.
9. ON A L.O.S.P. VALVES F316 A, B, C, & D CLOSE AUTOMATICALLY ISOLATING THE TURBINE BLDG. ONCE IT IS DETERMINED THAT THERE IS NO PIPE BREAK IN THE TURBINE BLDG., VALVES F316 A, B, C, & D ARE RE-OPENED.
10. VALVES ON THIS DRAWING ARE NUMBERED: FV041 THRU FV060 FOR VENT VALVES FD041 THRU FD060 FOR DRAIN VALVES
11. THIS SECTION OF PIPING TO BE REMOVED DURING INSTALLATION OF COOLERS 2Z41-B020A & B.
12. RO-D329 IS A COMBINATION RESTRICTION ORIFICE AND SPACER PLATE. SPACER PLATE TO BE INSTALLED WHEN 2P41-C002 IS ALIGNED. RESTRICTION ORIFICE TO BE ALIGNED WHENEVER UNIT #1 SERVICE WATER SYSTEM IS ALIGNED.
13. DELETED.
14. MIN FLOW VALVES 2P41-F320A-D ARE INSTALLED SUCH THAT FLOW ASSISTS THE VALVE CLOSED.
15. ALL PSW PUMPS HAVE 1" PIPING EXTENSION ON SEAL LEAK OFF LINES WHICH ATTACH TO PUMP COLUMN WITH BRACKETS AND EXTEND TOWARD BASE OF PUMP.
16. VALVE CLOSED AND BREAKER OFF POSTED ON 2H11-P650 AND INTAKE MCC 2R24-S010 FR 2A.
LVN-FD053
LVN-FV050
FVN-F301
LVN-F844
CRITICAL DOCUMENT
MPL No. 2P41-1010
ACAD2000 H21033
SOUTHERN COMPANY
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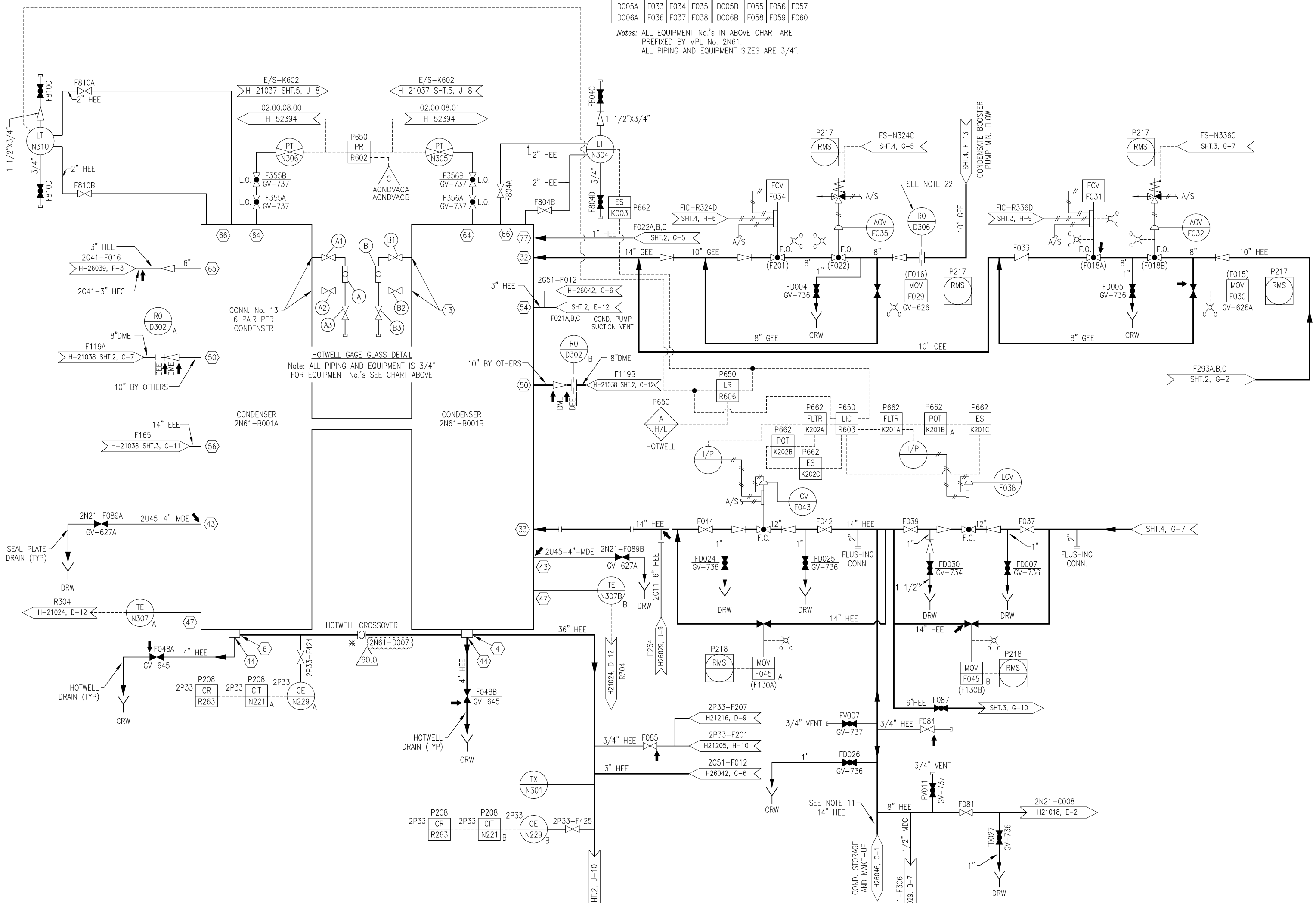
EDWIN I. HATCH NUCLEAR PLANT UNIT No.2
TURBINE BUILDING
SERVICE WATER SYSTEM – P.&I.D. SHEET 1
Version: 61.0 | Date: 09/06/16
REVISED PER SNC569195M002, VER 1.0
BY | CHK'D | APPR.
GTR | BRJ | DAB
DRAWN: D.C.
DESIGNED:
LOCATION: 10-502
DRAWING NUMBER: H-21033
VERSION: 61.0
DATE: 4-10-73
SCALE: None
DWG CATEGORY: CRITICAL

H-21037 SH.1

HOTWELL GAGE GLASS EQUIPMENT NUMBERS

2N61-B001A				2N61-B001B			
'A'	'A1'	'A2'	'A3'	'B'	'B1'	'B2'	'B3'
D001A	F021	F022	F023	D001B	F043	F044	F045
D002A	F024	F025	F026	D002B	F046	F047	F048
D003A	F027	F028	F029	D003B	F049	F050	F051
D004A	F030	F031	F032	D004B	F052	F053	F054
D005A	F033	F034	F035	D005B	F055	F056	F057
D006A	F036	F037	F038	D006B	F058	F059	F060

Notes: ALL EQUIPMENT No.'s IN ABOVE CHART ARE PREFIXED BY MPL No. 2N61.
ALL PIPING AND EQUIPMENT SIZES ARE 3/4".



NOTES:

1. ALL EQUIPMENT AND INSTRUMENTS PREFIXED BY MPL NUMBER 2N21 UNLESS OTHERWISE NOTED.
2. WHERE GV-NUMBERS ARE SHOWN, THE VALVES ARE TAGGED WITH THESE NUMBERS; WHERE GV-NUMBERS ARE NOT SHOWN THE VALVES ARE TAGGED WITH MPL #.
3. ANY ADDITIONAL HIGH POINT VENTS AND LOW POINT DRAINS TO BE ADDED BY FIELD AS REQUIRED.
4. FOR LOCATION AND IDENTIFICATION OF INSTRUMENTS SEE INSTRUMENT DATA SHEET LISTED IN INSTRUMENT INDEX FOR EACH INSTRUMENT.
5. INSTRUMENT LINE VALVING MUST COMPLY WITH PIPING STANDARD SPEC.
6. INSTRUMENT PIPING OR TUBING BEYOND THE ROOT VALVE IS TO BE IN ACCORDANCE WITH THE INSTRUMENT INSTALLATION DETAILS DWG. A-26412.
7. VALVE & INSTRUMENT NUMBERS IN PARENTHESIS INDICATE THE CORRESPONDING VALVE & INSTRUMENT NUMBERS FOR UNIT 1.
8. VALVE F014 SUPPLIED BY GRAVER. NO. B2 VALVES F011 & F012 DISKS HAVE BEEN REMOVED RENDERING THEM INOPERABLE.
9. CONNECTION No.'s SHOWN ⬡ ON CONDENSERS CORRESPOND TO MANUFACTURERS CONNECTION No.'s.
10. VALVE NUMBERS IN BRACKETS [ ] INDICATES G.E. VALVE NUMBER.
11. PORTIONS OF PIPES EMBEDDED IN CONCRETE SHALL BE FABRICATED FROM STAINLESS STEEL AND REQUIREMENTS OF THE PIPE SPECS OF THE UPSTREAM LINE.
12. SAMPLE PROBE WILL BE INSERTED INTO PROCESS. SEE IID A-26412-252.
13. SUPPLIED BY GPC FIELD.
14. DELETED
15. INDICATING LIGHTS ARE PROVIDED ON PANEL 2H21-P308, TO SHOW PRESSURE SWITCH FAIL.
16. INDICATING LIGHTS ARE PROVIDED ON PANEL 2H21-P307, TO SHOW PRESSURE SWITCH FAIL.
17. INDICATING LIGHTS ARE PROVIDED ON J BOX 2JM5011, TO SHOW PRESSURE SWITCH FAIL.
18. INDICATING LIGHTS ARE PROVIDED ON J BOX 2JM5012, TO SHOW PRESSURE SWITCH FAIL.
19. INDICATING LIGHTS ARE PROVIDED ON J BOX 2JM5013, TO SHOW PRESSURE SWITCH FAIL.
20. DELETED.
21. INDICATING LIGHTS ARE PROVIDED ON PANELS 2N21-P019A AND B TO SHOW NORMAL OPERATION.
22. ORIFICE HAS A 1/8" DIA. VENT HOLE ADDED. TOP OF VENT HOLE IS WITHIN 3/16"± 1/16" BELOW TOP OF PIPE ID. THE VENT HOLE ALLOWS VENTING OF NON-CONDENSIBLE GASES PER ENG-009 NPRG LOG NO. 2N21-D306-001 AND CALCULATION SINH 94-002.
23. INSTRUMENTS ABANDONED IN PLACE.
24. FEEDWATER HEATER TUBE-SIDE VENTS, DRAINS, AND RELIEF VALVES ARE SHOWN ON DRAWINGS H-21024 & H-21025.
25. ASTERISKS (*) INDICATES COMPONENTS ORIGINALLY SUPPLIED BY VENDOR.
26. ONLY THE PLC IS SHOWN ON DRAWING H-21037 SH.4 AS THE CONTROLLER. THE COMPUTERS (2N21-J001/2), MONITORS (2N21-J001B/2B AND KEYBOARDS/MICE (2N21-J001C/2C) WHICH MAKE UP PART OF THE CONTROLLER (THEY ARE THE HMI) ARE NOT SHOWN FOR CLARITY.
27. STARTUP STRAINERS WERE REMOVED.

REFERENCES:

	Description	MPL No.	Dwg. No.
1.	FEEDWTR CONTROL SYS. DESIGN SPEC	2C32-4010	S-25321
2.	NUCLEAR BOILER SYS. P&ID SHT. 1	2B21-1010	H-26000
3.	CONDENSATE POLISHING DEMINERALIZER SYSTEM P&ID.	2N21-1010	H-21018
4.	REACTOR & RADWASTE BLDGS - CONDENSATE STORAGE & TRANSFER SYS P&ID	2P11-1010	H-26046
5.	MSR AND HEATER VENTS & SHELL DRAINS SYS P&ID SH.1, SH.2, & SH.3	2N22-1010	H-21023 H-21024 H-21025
6.	DEMINERALIZED WATER SYSTEM P&ID	2P21-1010	H-26047
7.	MAIN STEAM SYS. P&ID		H-21012
8.	FUEL POOL COOLING SYS. P&ID	2G41-1010	H-26039
9.	COND. VACUUM & GLAND SEAL SYS.		H-21030
10.	TURBINE & GEN. AUX. SYS. I.E.D. RFPT CONTROL DIA.		H-21246
11.	FEEDWATER CONTROL SYSTEM	2C32-1010	76IE966
12.	REACTOR RECIRCULATION SYSTEM	2B31-1030	S-27482
13.	SAMPLING SYSTEM P&ID		H-21205
14.	TORUS DRAINAGE & PURIFICATION SYSTEM P&ID AND PFD.	2G51-1010	H-26042
15.	RADWASTE SYSTEM P&ID SHT. 4	2G11-1010	H-26029

REFERENCES CONTINUED ON H-21037 SHEET 2

CRITICAL DOCUMENT

MPL No. 2N21-1010

ACAD2010 H2103701

SOUTHERN COMPANY

Version: 60.0 | Date: 09/20/19

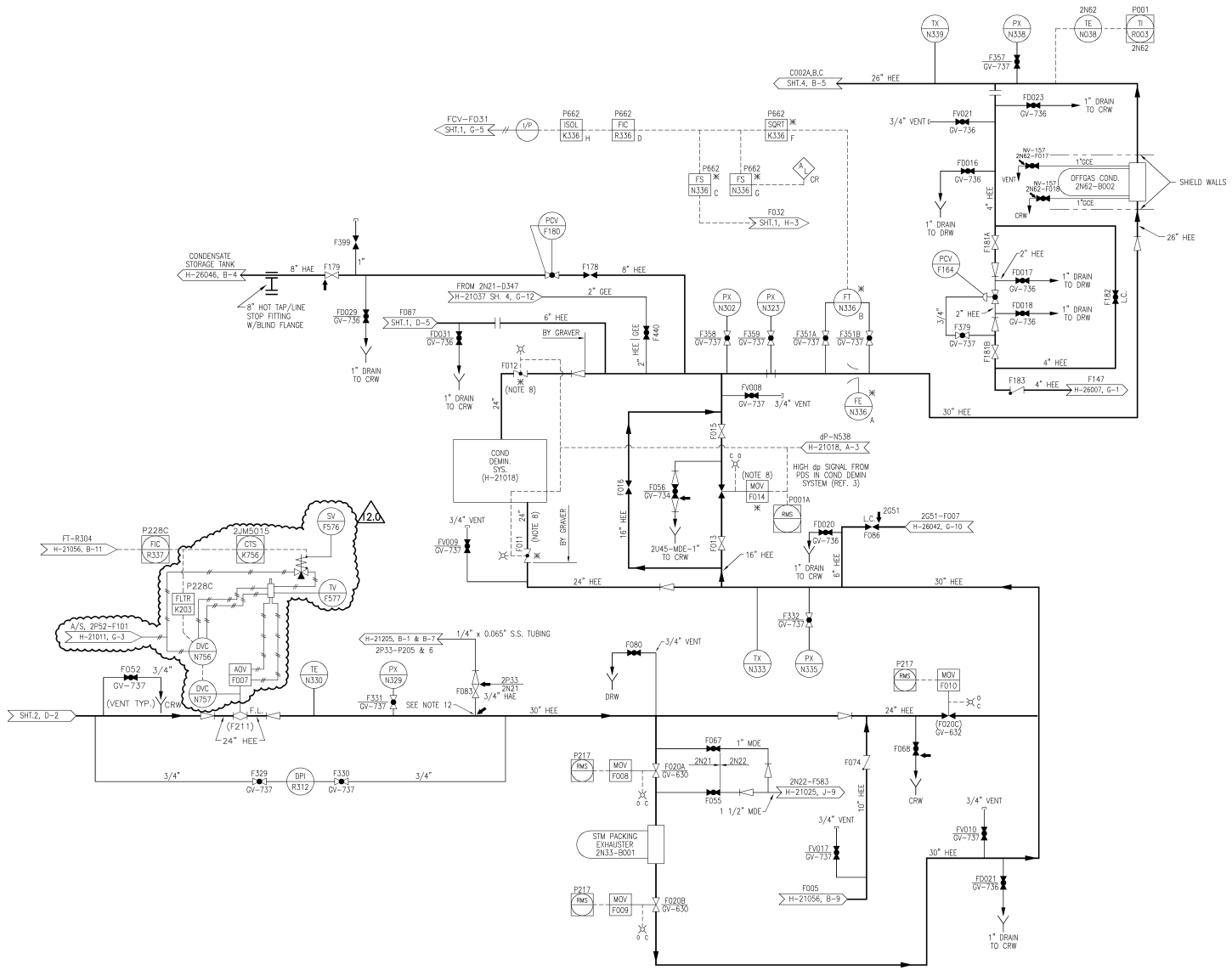
REVISED PER ABN SNC1034836M003, VER. 1.0

BY	CHK'D	APPR.
RYW	HP	BDW

EDWIN I. HATCH NUCLEAR PLANT UNIT No. 2
TURBINE BUILDING
CONDENSATE & FEEDWATER SYSTEM P&ID

DRAWN	DESIGNED	LOCATION	DRAWING NUMBER	VERSION
B. Snow	BRA	10-502	H-21037 Sheet 1	60.0
DATE: 10-17-91	SCALE: No Scale			

DRAWING CATEGORY: CRITICAL



FOR NOTES AND REFERENCES SEE H-21037 SHEETS 1 & 2

CRITICAL DOCUMENT

MPL NO. 2N21-1010

ACAD2000 H2103703

SOUTHERN COMPANY

EDWIN I. HATCH NUCLEAR PLANT UNIT No. 2
TURBINE BUILDING
CONDENSATE & FEEDWATER SYSTEM P & ID
SHEET 3 OF 5

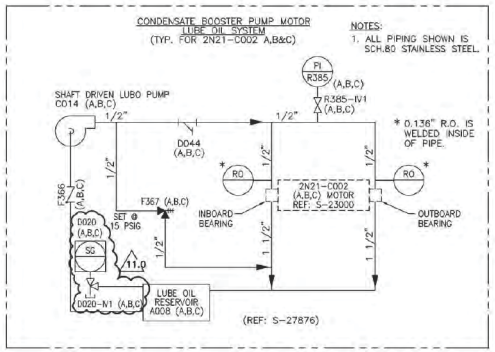
DRAWN	DESIGNED	LOCATION	DRAWING NUMBER	VERSION
BS	BRA	10-502	H-21037 SH.3	12.0
DATE	SCALE None			

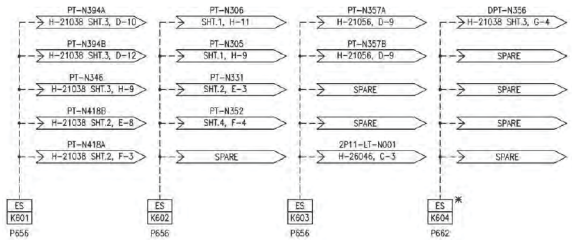
Version: 12.0 Date: 7/17/19

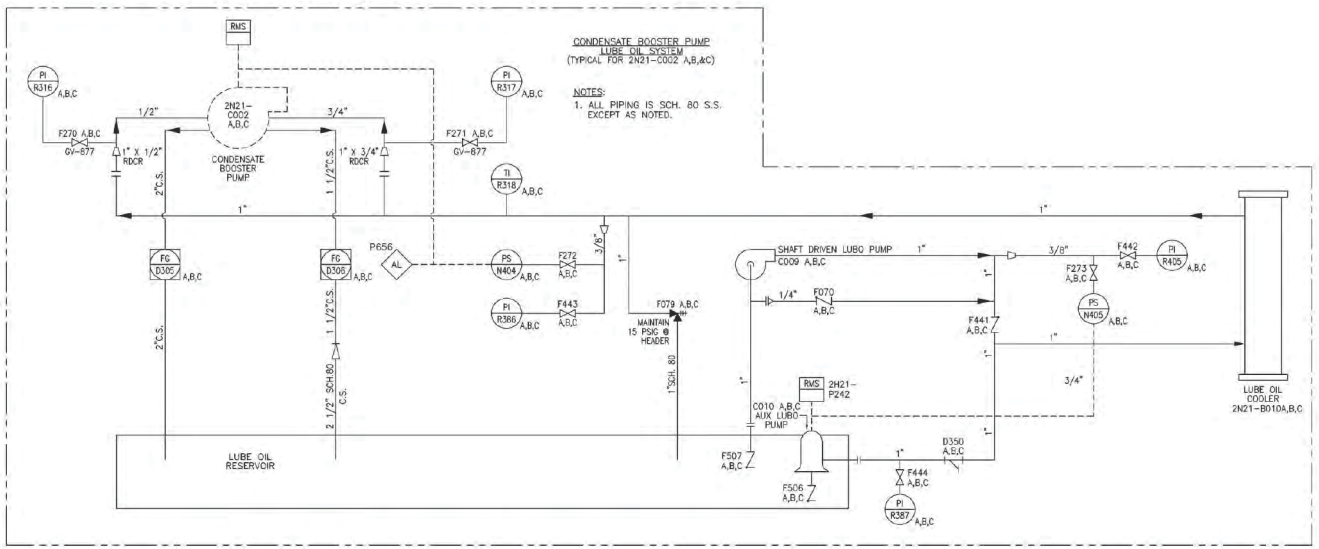
REVISED PER SNC512552J016 VER 3.0

BY	CHK'D	APPR.
JMM	JDC	JMC

DRAWING CATEGORY: CRITICAL







Notes:
FOR NOTES AND REFERENCES SEE DRAWINGS H-21037 SHEETS 1 & 2.

CRITICAL DOCUMENT

MPL # 2N21-1010 Acad2K H2103705

SOUTHERN COMPANY

Version: 11.0	Date: 12-13-10
REVISED PER ABN-H02099. VERSION 1.0	

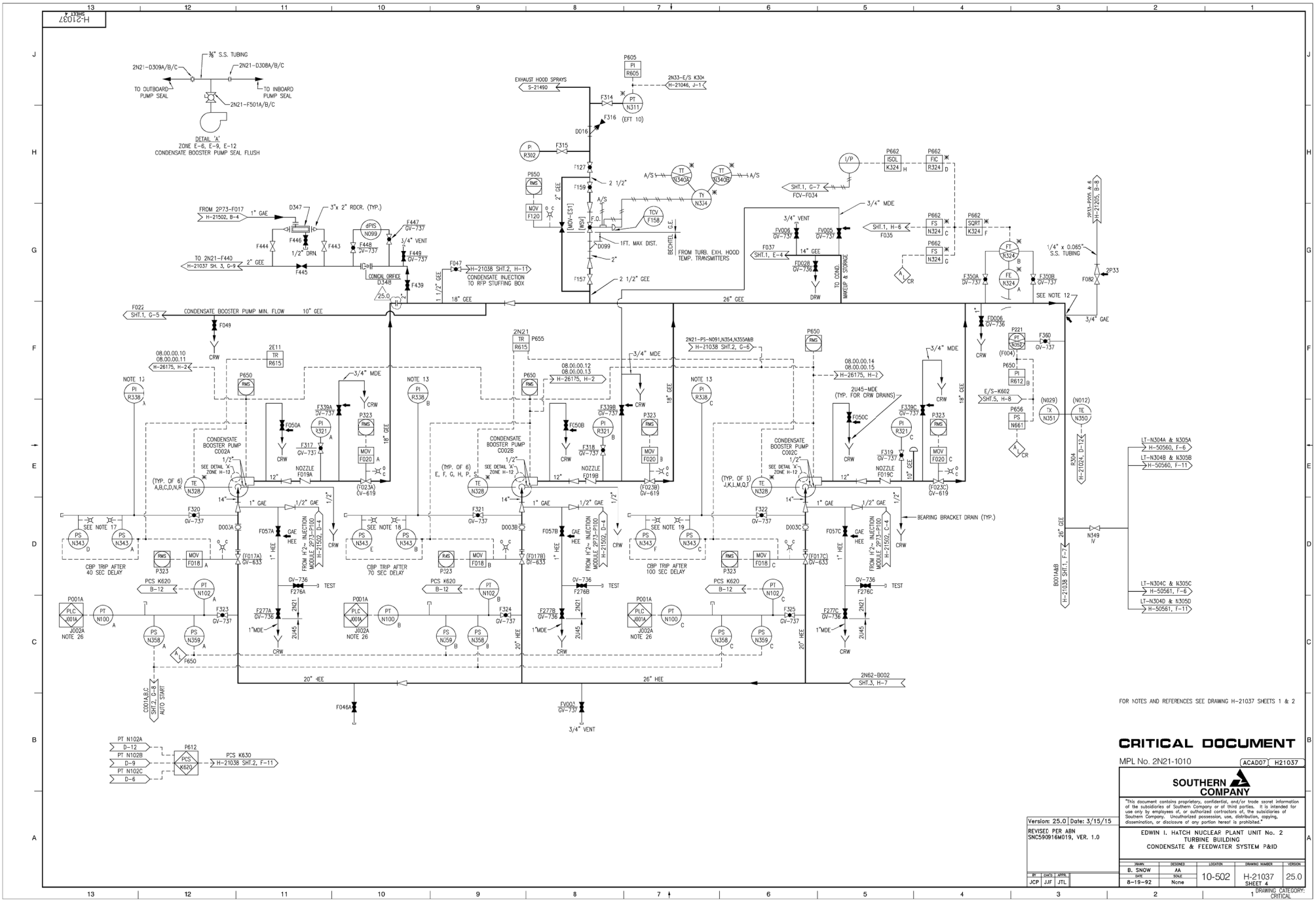
BY	CHK'D	APPR'D
LPW	LCF	WLN

SEE MICROFILM FOR ORIGINAL REV. SIGNATURES.

EDWIN I. HATCH NUCLEAR PLANT UNIT No. 2
TURBINE BUILDING
CONDENSATE & FEEDWATER SYSTEM P&ID
SHEET 5 OF 5

DRAWN	DESIGNED	LOCATION	DRAWING NUMBER	REVISION
B. SNOW	None	10-502	H-21037 SHEET 5	11.0
DATE	SCALE			
8-20-92	None			

DRAWING CATEGORY: CRITICAL


H-21037
SHEET 4
DETAIL 'A'
ZONE E-6, E-9, E-12
CONDENSATE BOOSTER PUMP SEAL FLUSH
TO OUTBOARD PUMP SEAL
TO INBOARD PUMP SEAL
EXHAUST HOOD SPRAYS
CONDENSATE BOOSTER PUMP MIN. FLOW
CONDENSATE INJECTION TO RFP STUFFING BOX
FROM TURB. EXH. HOOD TEMP. TRANSMITTERS
TO COND MAKEUP & STORAGE
CONDENSATE BOOSTER PUMP C002A
CONDENSATE BOOSTER PUMP C002B
CONDENSATE BOOSTER PUMP C002C
CBP TRIP AFTER 40 SEC DELAY
CBP TRIP AFTER 70 SEC DELAY
CBP TRIP AFTER 100 SEC DELAY
BEARING BRACKET DRAIN (TYP.)
FOR NOTES AND REFERENCES SEE DRAWING H-21037 SHEETS 1 & 2
CRITICAL DOCUMENT
MPL No. 2N21-1010
ACAD07 H21037
SOUTHERN COMPANY
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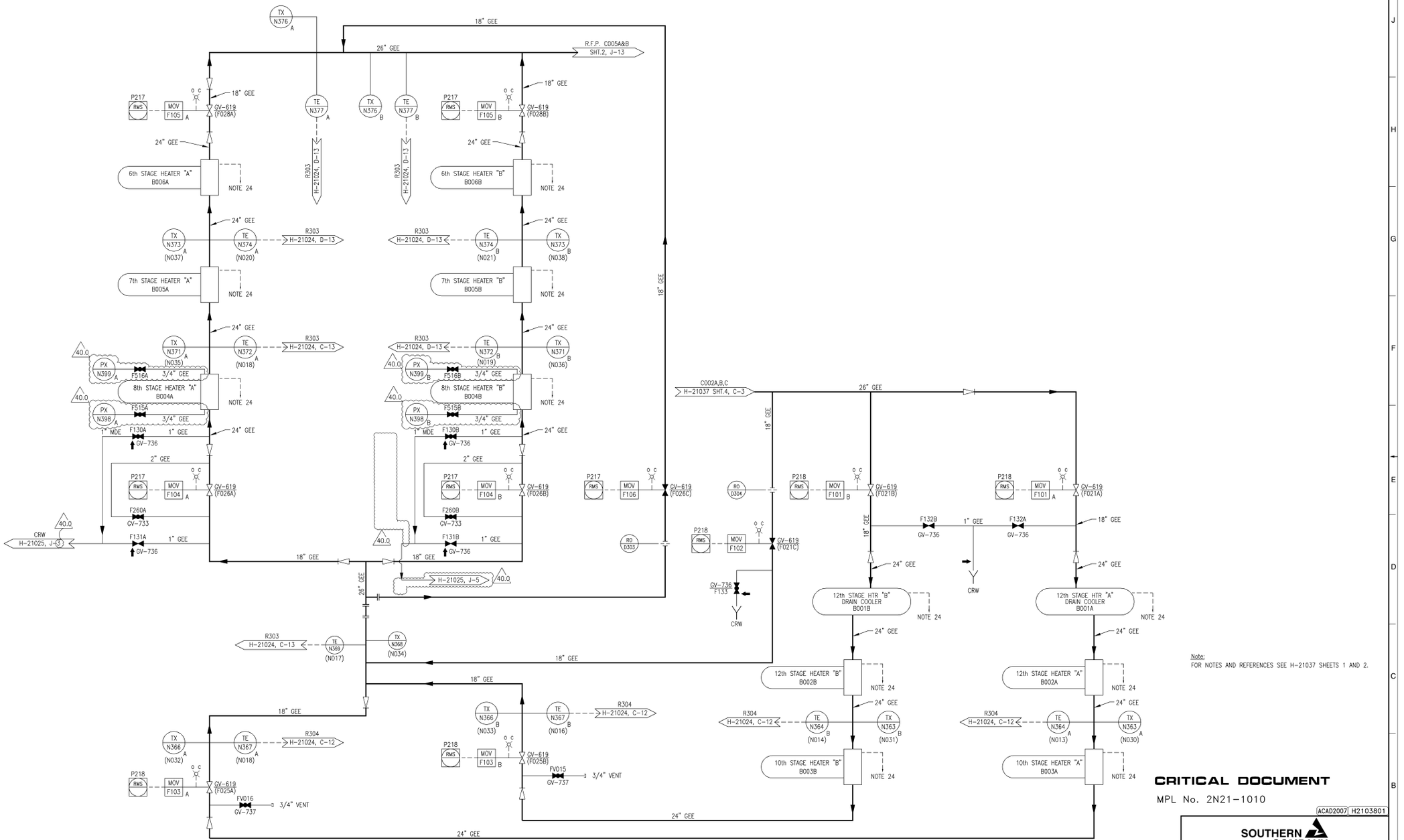
EDWIN I. HATCH NUCLEAR PLANT UNIT No. 2
TURBINE BUILDING
CONDENSATE & FEEDWATER SYSTEM P&ID
Version: 25.0 Date: 3/15/15
REVISED PER ABN SNC590916M019, VER. 1.0
BY CHKD APPR
JCP JJF JTL
DRAWN B. SNOW
DESIGNED AA
LOCATION 10-502
DRAWING NUMBER H-21037 SHEET 4
VERSION 25.0
DATE 8-19-92
SCALE None
DRAWING CATEGORY: 1 CRITICAL



Note:
FOR NOTES AND REFERENCES SEE H-21037 SHEETS 1 AND 2.

CRITICAL DOCUMENT

MPL No. 2N21-1010

ACAD2007 | H2103801

SOUTHERN COMPANY

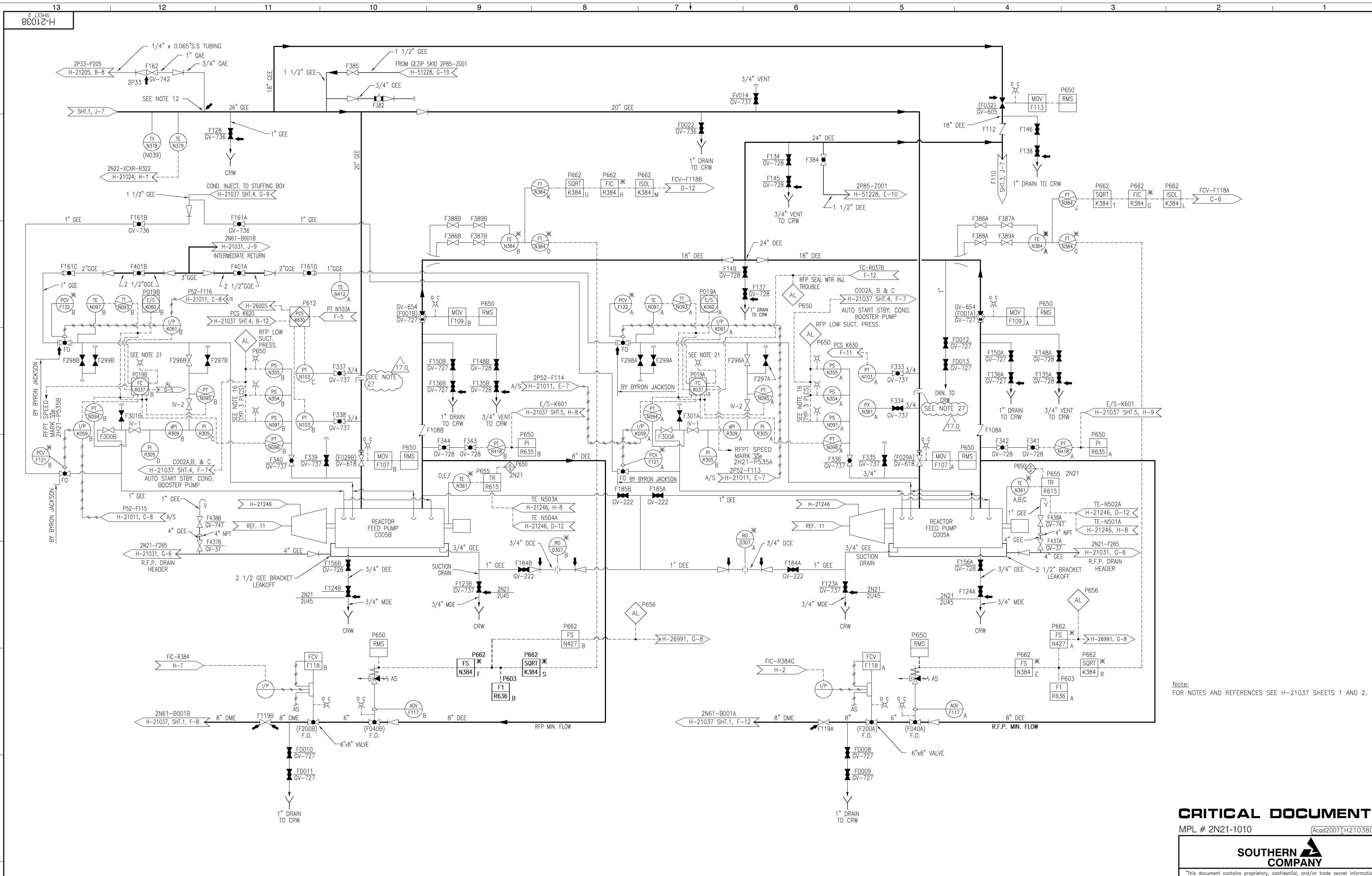
EDWIN I. HATCH NUCLEAR PLANT UNIT No.2
TURBINE BUILDING
CONDENSATE & FEEDWATER SYSTEM P&ID
SHEET 1 (40.0)

Version: 40.0	Date: 03/22/19
REVISED PER ABN SNC116373M144, VER. 2.0	

BY	CHK'D	APPR.
JLO	VEP	CYN

DRAWN	DESIGNED	LOCATION	DRAWING NUMBER	VERSION
B.SNOW	--	10-502	H-21038 SHEET 1	40.0
DATE	SCALE			
--	None			

DRAWING CATEGORY: CRITICAL



Note:
FOR NOTES AND REFERENCES SEE H-21037 SHEETS 1 AND 2.

CRITICAL DOCUMENT

MPL # 2N21-1010

Acad2007 H2103802

SOUTHERN COMPANY

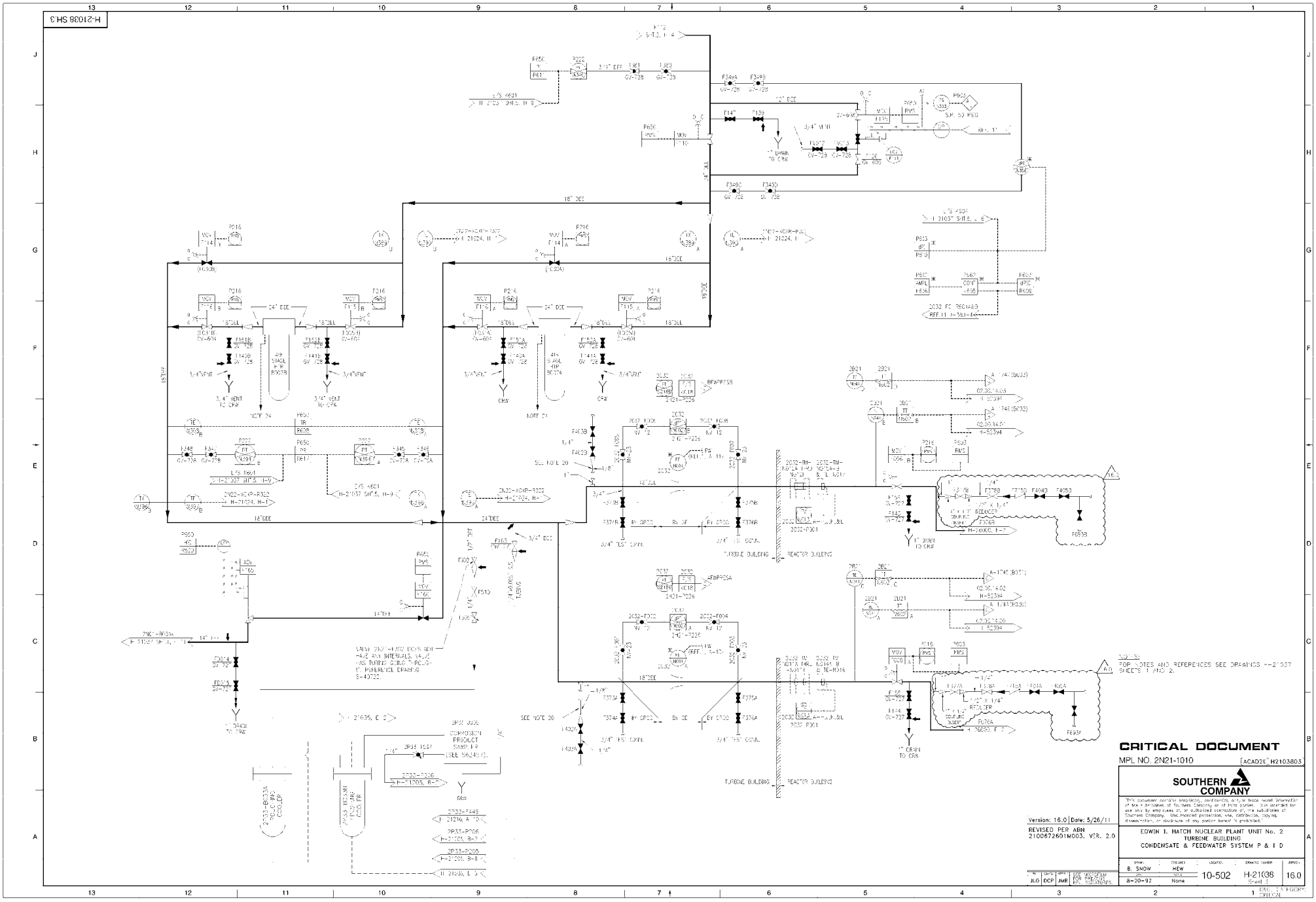
Version: 17.0	Date: 10/18/18
REVISED PER ABN SNC869237M002, VER. 1.0	

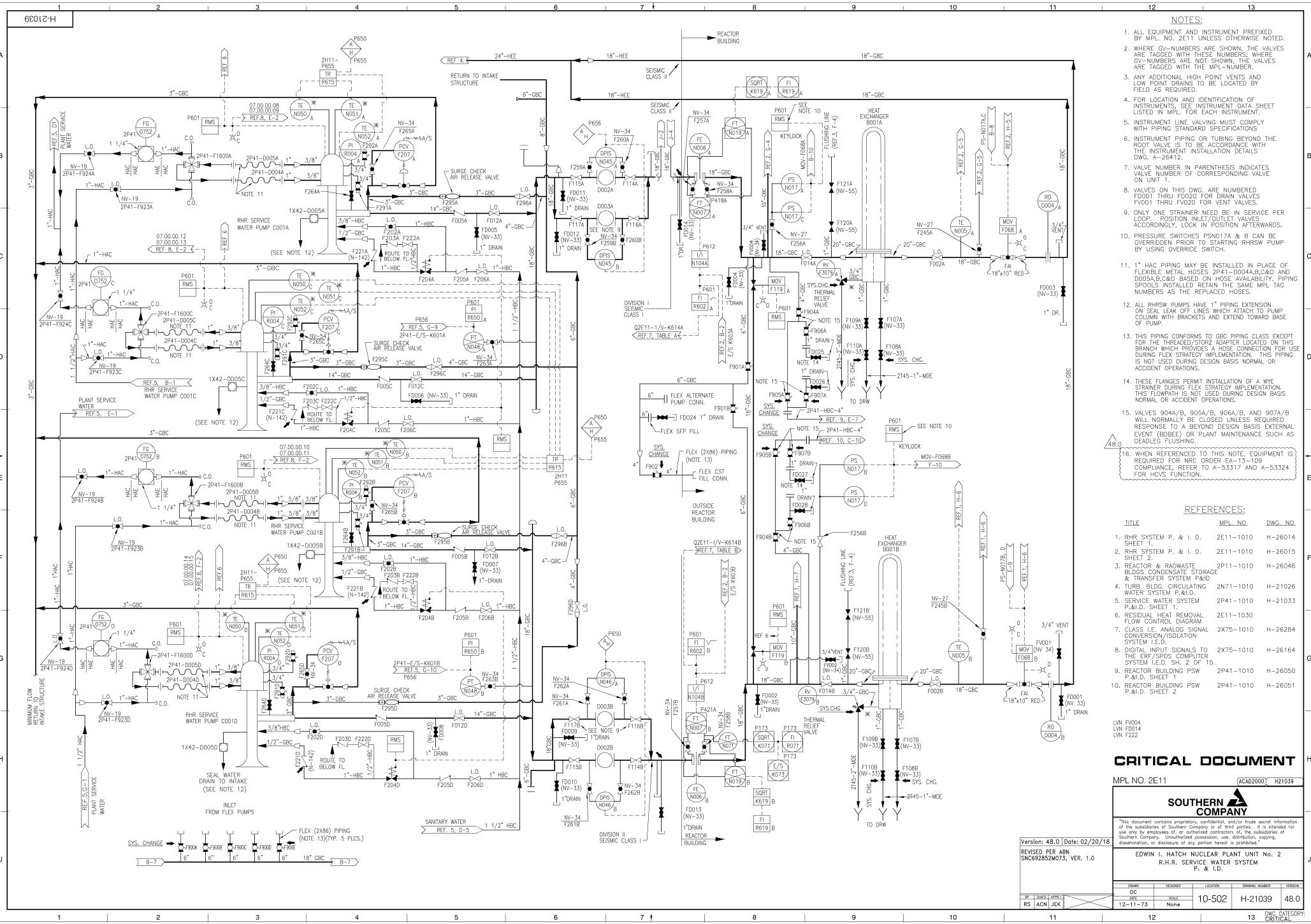
BY	CHK'D	APPR.1
JRC	WTB	BDW

EDWIN I. HATCH NUCLEAR PLANT UNIT No. 2
TURBINE BUILDING
CONDENSATE & FEEDWATER SYSTEM P & ID
SHEET 2 OF 3

DRAWN	DESIGNED	LOCATION	DRAWING NUMBER	VERSION
B. SNOW	None	10-502	H-21038 SHEET 2	17.0
DATE	SCALE			
8-25-92	None			

DRAWING CATEGORY: CRITICAL


H-21038 SH 3
CRITICAL DOCUMENT
MPL NO. 2N21-1010
(ACAD2K) H2103803
SOUTHERN COMPANY
EDWIN I. HATCH NUCLEAR PLANT UNIT No. 2
TURBINE BUILDING
CONDENSATE & FEEDWATER SYSTEM P & I D
Version: 16.0 | Date: 5/26/11
REVISED PER ABN 2100672601M003, VER. 2.0
B. SNOW
HEW
10-502
H-21038
16.0
8-20-92
Sheet 3
None
JLO
DCP
JMR
TURBINE BUILDING
REACTOR BUILDING
NOTES:
FOR NOTES AND REFERENCES SEE DRAWINGS H-21037 SHEETS 1 AND 2.



NOTES:

1. ALL EQUIPMENT AND INSTRUMENT PREFIXED BY MPL. NO. 2E11 UNLESS OTHERWISE NOTED.
2. 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.
3. ANY ADDITIONAL HIGH POINT VENTS AND LOW POINT DRAINS TO BE LOCATED BY FIELD AS REQUIRED.
4. FOR LOCATION AND IDENTIFICATION OF INSTRUMENTS, SEE INSTRUMENT DATA SHEET LISTED IN MPL. FOR EACH INSTRUMENT.
5. INSTRUMENT LINE VALVING MUST COMPLY WITH PIPING STANDARD SPECIFICATIONS
6. INSTRUMENT PIPING OR TUBING BEYOND THE ROOT VALVE IS TO BE ACCORDANCE WITH THE INSTRUMENT INSTALLATION DETAILS DWG. A–26412.
7. VALVE NUMBER IN PARENTHESIS INDICATES VALVE NUMBER OF CORRESPONDING VALVE ON UNIT 1.
8. VALVES ON THIS DWG. ARE NUMBERED FD001 THRU FD020 FOR DRAIN VALVES FV001 THRU FV020 FOR VENT VALVES.
9. ONLY ONE STRAINER NEED BE IN SERVICE PER LOOP. POSITION INLET/OUTLET VALVES ACCORDINGLY, LOCK IN POSITION AFTERWARDS.
10. PRESSURE SWITCHES PSN017A & B CAN BE OVERRIDDEN PRIOR TO STARTING RHRSW PUMP BY USING OVERRIDE SWITCH.
11. 1" HAC PIPING MAY BE INSTALLED IN PLACE OF FLEXIBLE METAL HOSES 2P41–D004A,B,C&D AND D005A,B,C&D BASED ON HOSE AVAILABILITY. PIPING SPOOLS INSTALLED RETAIN THE SAME MPL TAG NUMBERS AS THE REPLACED HOSES.
12. ALL RHRSW PUMPS HAVE 1" PIPING EXTENSION ON SEAL LEAK OFF LINES WHICH ATTACH TO PUMP COLUMN WITH BRACKETS AND EXTEND TOWARD BASE OF PUMP.
13. THIS PIPING CONFORMS TO GBC PIPING CLASS EXCEPT FOR THE THREADED/STORZ ADAPTER LOCATED ON THIS BRANCH WHICH PROVIDES A HOSE CONNECTION FOR USE DURING FLEX STRATEGY IMPLEMENTATION. THIS PIPING IS NOT USED DURING DESIGN BASIS NORMAL OR ACCIDENT OPERATIONS.
14. THESE FLANGES PERMIT INSTALLATION OF A WYE STRAINER DURING FLEX STRATEGY IMPLEMENTATION. THIS FLOWPATH IS NOT USED DURING DESIGN BASIS NORMAL OR ACCIDENT OPERATIONS.
15. VALVES 904A/B, 905A/B, 906A/B, AND 907A/B WILL NORMALLY BE CLOSED UNLESS REQUIRED RESPONSE TO A BEYOND DESIGN BASIS EXTERNAL EVENT (BDBEE) OR PLANT MAINTENANCE SUCH AS DEADLEG FLUSHING.

48.0 16. WHEN REFERENCED TO THIS NOTE, EQUIPMENT IS REQUIRED FOR NRC ORDER EA–13–109 COMPLIANCE, REFER TO A–53317 AND A–53324 FOR HCVS FUNCTION.

REFERENCES:

	TITLE	MPL. NO.	DWG. NO.
1.	RHR SYSTEM P. & I. D. SHEET 1.	2E11–1010	H–26014
2.	RHR SYSTEM P. & I. D. SHEET 2.	2E11–1010	H–26015
3.	REACTOR & RADWASTE BLDGS CONDENSATE STORAGE & TRANSFER SYSTEM P&ID	2P11–1010	H–26046
4.	TURB. BLDG. CIRCULATING WATER SYSTEM P.&I.D.	2N71–1010	H–21026
5.	SERVICE WATER SYSTEM P.&I.D. SHEET 1.	2P41–1010	H–21033
6.	RESIDUAL HEAT REMOVAL FLOW CONTROL DIAGRAM	2E11–1030	
7.	CLASS I.E. ANALOG SIGNAL CONVERSION/ISOLATION SYSTEM I.E.D.	2X75–1010	H–26284
8.	DIGITAL INPUT SIGNALS TO THE ERF/SPDS COMPUTER SYSTEM I.E.D. SH. 2 OF 15.	2X75–1010	H–26164
9.	REACTOR BUILDING PSW P.&I.D. SHEET 1	2P41–1010	H–26050
10.	REACTOR BUILDING PSW P.&I.D. SHEET 2	2P41–1010	H–26051

LVN FV004
LVN FD014
LVN F222

CRITICAL DOCUMENT

MPL NO. 2E11 ACAD2000 H21039

SOUTHERN COMPANY

Version: 48.0 | Date: 02/20/18

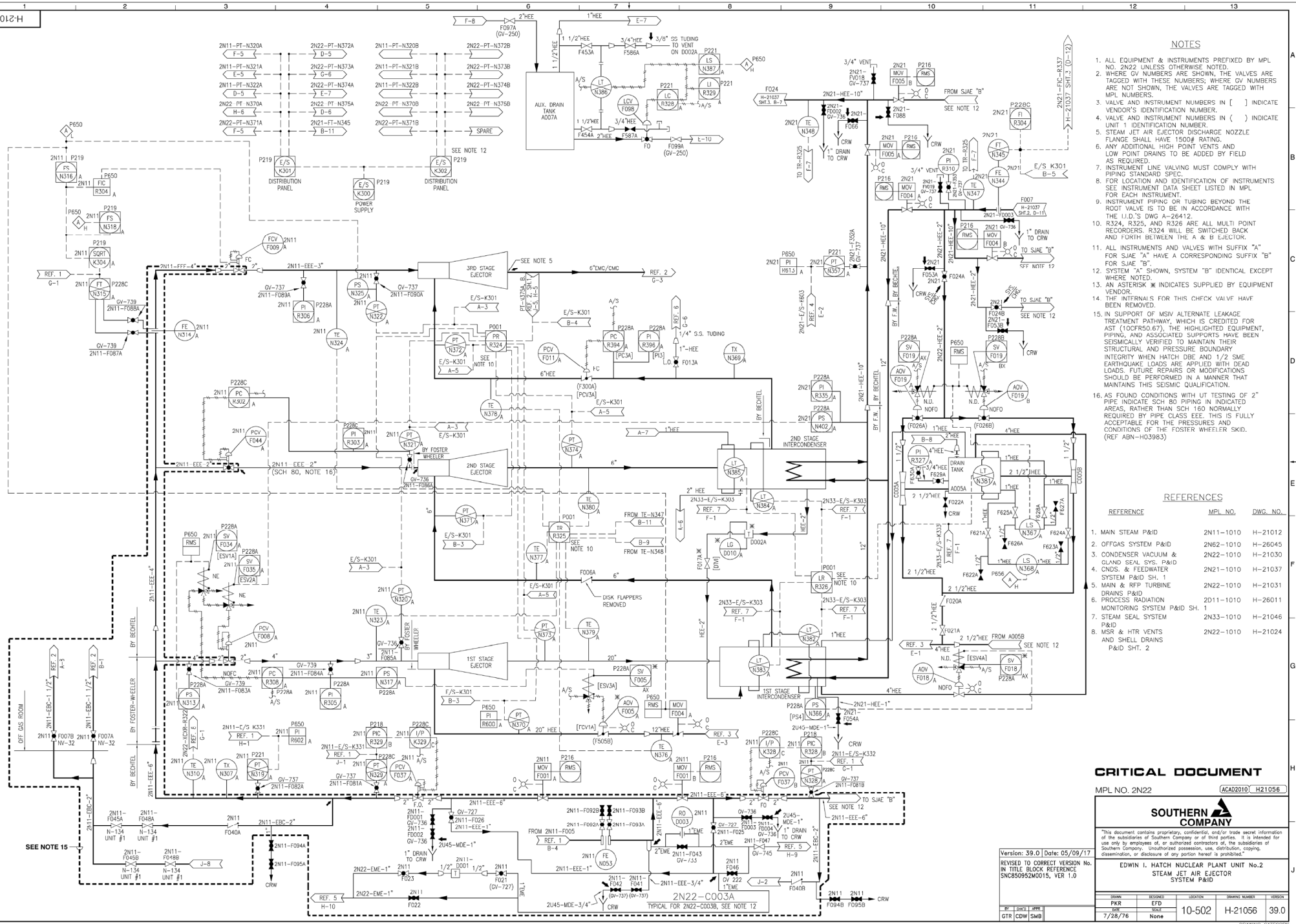
REVISED PER ABN SNC692852M073, VER. 1.0

EDWIN I. HATCH NUCLEAR PLANT UNIT No. 2
R.H.R. SERVICE WATER SYSTEM
P. & I.D.

BY	CHK'D	APPR'D
RS	ACN	JEK

DRAWN	DESIGNED	LOCATION	DRAWING NUMBER	VERSION
DC		10-502	H-21039	48.0
DATE	SCALE			
12-11-73	None			

DWG CATEGORY: CRITICAL


H-21056
NOTES
1. ALL EQUIPMENT & INSTRUMENTS PREFIXED BY MPL NO. 2N22 UNLESS OTHERWISE NOTED.
2. WHERE GV NUMBERS ARE SHOWN, THE VALVES ARE TAGGED WITH THESE NUMBERS; WHERE GV NUMBERS ARE NOT SHOWN, THE VALVES ARE TAGGED WITH MPL NUMBERS.
3. VALVE AND INSTRUMENT NUMBERS IN [ ] INDICATE VENDOR'S IDENTIFICATION NUMBER.
4. VALVE AND INSTRUMENT NUMBERS IN ( ) INDICATE UNIT 1 IDENTIFICATION NUMBER.
5. STEAM JET AIR EJECTOR DISCHARGE NOZZLE FLANGE SHALL HAVE 1500# RATING.
6. ANY ADDITIONAL HIGH POINT VENTS AND LOW POINT DRAINS TO BE ADDED BY FIELD AS REQUIRED.
7. INSTRUMENT LINE VALVING MUST COMPLY WITH PIPING STANDARD SPEC.
8. FOR LOCATION AND IDENTIFICATION OF INSTRUMENTS SEE INSTRUMENT DATA SHEET LISTED IN MPL FOR EACH INSTRUMENT.
9. INSTRUMENT PIPING OR TUBING BEYOND THE ROOT VALVE IS TO BE IN ACCORDANCE WITH THE I.I.D.'S DWG A-26412.
10. R324, R325, AND R326 ARE ALL MULTI POINT RECORDERS. R324 WILL BE SWITCHED BACK AND FORTH BETWEEN THE A & B EJECTOR.
11. ALL INSTRUMENTS AND VALVES WITH SUFFIX "A" FOR SJAE "A" HAVE A CORRESPONDING SUFFIX "B" FOR SJAE "B".
12. SYSTEM "A" SHOWN, SYSTEM "B" IDENTICAL EXCEPT WHERE NOTED.
13. AN ASTERISK ✱ INDICATES SUPPLIED BY EQUIPMENT VENDOR.
14. THE INTERNALS FOR THIS CHECK VALVE HAVE BEEN REMOVED.
15. IN SUPPORT OF MSIV ALTERNATE LEAKAGE TREATMENT PATHWAY, WHICH IS CREDITED FOR AST (10CFR50.67), THE HIGHLIGHTED EQUIPMENT, PIPING, AND ASSOCIATED SUPPORTS HAVE BEEN SEISMICALLY VERIFIED TO MAINTAIN THEIR STRUCTURAL AND PRESSURE BOUNDARY INTEGRITY WHEN HATCH DBE AND 1/2 SME EARTHQUAKE LOADS ARE APPLIED WITH DEAD LOADS. FUTURE REPAIRS OR MODIFICATIONS SHOULD BE PERFORMED IN A MANNER THAT MAINTAINS THIS SEISMIC QUALIFICATION.
16. AS FOUND CONDITIONS WITH UT TESTING OF 2" PIPE INDICATE SCH 80 PIPING IN INDICATED AREAS, RATHER THAN SCH 160 NORMALLY REQUIRED BY PIPE CLASS EEE. THIS IS FULLY ACCEPTABLE FOR THE PRESSURES AND CONDITIONS OF THE FOSTER WHEELER SKID. (REF ABN-H03983)
REFERENCES
REFERENCE | MPL NO. | DWG. NO.
1. MAIN STEAM P&ID | 2N11-1010 | H-21012
2. OFFGAS SYSTEM P&ID | 2N62-1010 | H-26045
3. CONDENSER VACUUM & GLAND SEAL SYS. P&ID | 2N22-1010 | H-21030
4. CNDS. & FEEDWATER SYSTEM P&ID SH. 1 | 2N21-1010 | H-21037
5. MAIN & RFP TURBINE DRAINS P&ID | 2N22-1010 | H-21031
6. PROCESS RADIATION MONITORING SYSTEM P&ID SH. 1 | 2D11-1010 | H-26011
7. STEAM SEAL SYSTEM P&ID | 2N33-1010 | H-21046
8. MSR & HTR VENTS AND SHELL DRAINS P&ID SHT. 2 | 2N22-1010 | H-21024
CRITICAL DOCUMENT
MPL NO. 2N22
ACAD2010 H21056
SOUTHERN COMPANY
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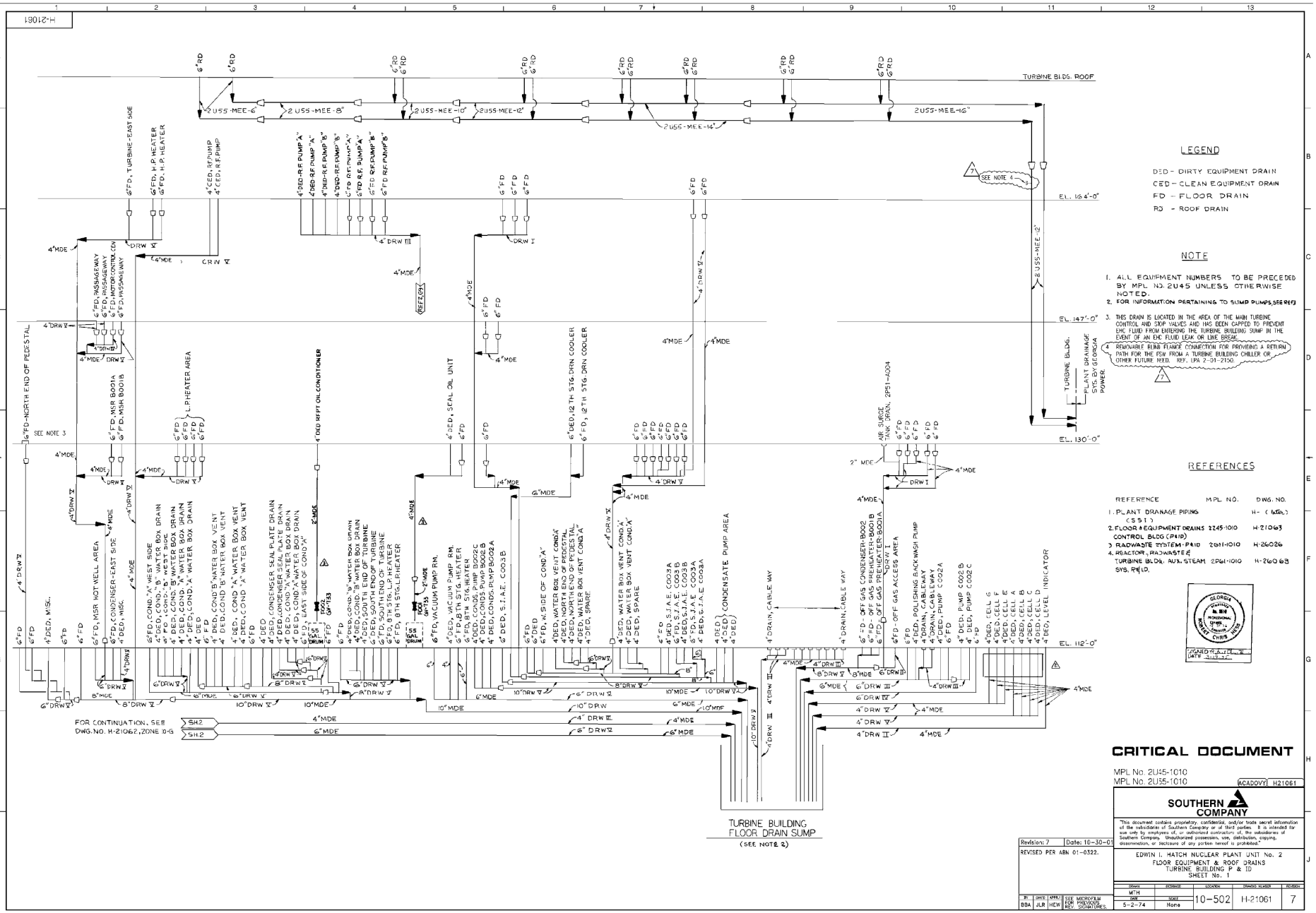
EDWIN I. HATCH NUCLEAR PLANT UNIT No.2
STEAM JET AIR EJECTOR
SYSTEM P&ID
Version: 39.0 | Date: 05/09/17
REVISED TO CORRECT VERSION No. IN TITLE BLOCK REFERENCE SNC850952M0015, VER 1.0
BY | CHK'D | APP'R
GTR | CDW | SMB
DRAWN PKR | DESIGNED EFD | LOCATION 10-502 | DRAWING NUMBER H-21056 | VERSION 39.0
DATE 7/28/76 | SCALE None
DRAWING CATEGORY: CRITICAL
AUX. DRAIN TANK A007A
DISTRIBUTION PANEL
POWER SUPPLY
3RD STAGE EJECTOR
2ND STAGE EJECTOR
1ST STAGE EJECTOR
2ND STAGE INTERCONDENSER
1ST STAGE INTERCONDENSER
DRAIN TANK A005A
2N22-C003A
TYPICAL FOR 2N22-C003B, SEE NOTE 12
SEE NOTE 15
OFF GAS ROOM
BY BECHTEL
BY FOSTER-WHEELER
BY FOSTER WHEELER
BY F.W.
BY BECHTEL



LEGEND

DED - DIRTY EQUIPMENT DRAIN
CED - CLEAN EQUIPMENT DRAIN
FD - FLOOR DRAIN
RD - ROOF DRAIN

NOTE

1. ALL EQUIPMENT NUMBERS TO BE PRECEDED BY MPL NO. 2U45 UNLESS OTHERWISE NOTED.
2. FOR INFORMATION PERTAINING TO SUMP PUMPS, SEE REF 3
3. THIS DRAIN IS LOCATED IN THE AREA OF THE MAIN TURBINE CONTROL AND STOP VALVES AND HAS BEEN CAPPED TO PREVENT EHC FLUID FROM ENTERING THE TURBINE BUILDING SUMP IN THE EVENT OF AN EHC FLUID LEAK OR LINE BREAK.
4. REMOVABLE BLIND FLANGE CONNECTION FOR PROVIDING A RETURN PATH FOR THE FSW FROM A TURBINE BUILDING CHILLER OR OTHER FUTURE NEED. REF. LPA 2-01-2150.

REFERENCES

REFERENCE	MPL NO.	DWG. NO.
1. PLANT DRAINAGE PIPING (CSSI)		H- (illegible)
2. FLOOR & EQUIPMENT DRAINS	2245-1010	H-21063
CONTROL BLDG (P&ID)		
3. RADWASTE SYSTEM-P&ID	2611-1010	H-26026
4. REACTOR, RADWASTE & TURBINE BLDG. AUX. STEAM SYS. R&D.	2P61-1010	H-260163

SIGNED "As Built" DATE illegible

CRITICAL DOCUMENT

MPL No. 2U55-1010
MPL No. 2U55-1010 ACADOVY H21061

Revision: 7	Date: 10-30-01
REVISED PER ABN 01-0322.	

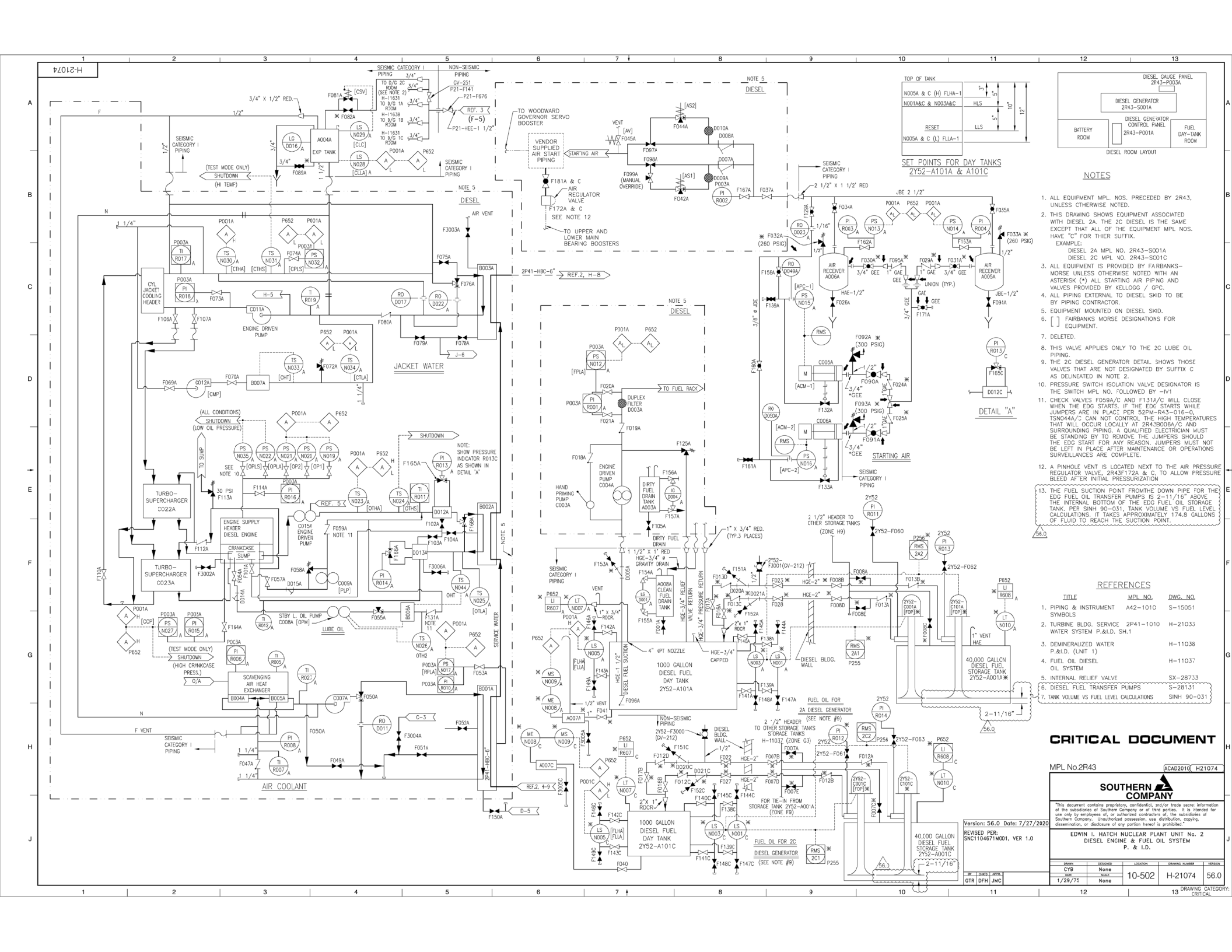
DR	CHK'D	APPR'D	SEE MICROFILM FOR PREVIOUS REV. SIGNATURES.
BBA	JLR	NEW	

EDWIN I. HATCH NUCLEAR PLANT UNIT No. 2
FLOOR EQUIPMENT & ROOF DRAINS
TURBINE BUILDING P & ID
SHEET No. 1

DESIGN	ECONOMIC	LOCATION	DRAWING NUMBER	REVISION
MTH				
DATE	SCALE	10-502	H-21061	7
5-2-74	None			

T:\WORK DOCUMENTS\vBM\010322\DRAWINGS\CALS\H21061.CAL 10/30/01 1:41:59 PM

H-21074



NOTES

1. ALL EQUIPMENT MPL. NOS. PRECEDED BY 2R43, UNLESS OTHERWISE NCTED.
2. THIS DRAWING SHOWS EQUIPMENT ASSOCIATED WITH DIESEL 2A. THE 2C DIESEL IS THE SAME EXCEPT THAT ALL OF THE EQUIPMENT MPL NOS. HAVE "C" FOR THIER SUFFIX.
   EXAMPLE:
   DIESEL 2A MPL NO. 2R43-S001A
   DIESEL 2C MPL NO. 2R43-SC01C
3. ALL EQUIPMENT IS PROVIDED BY FARBANKS-MORSE UNLESS OTHERWISE NOTED WITH AN ASTERISK (*) ALL STARTING AIR PIPING AND VALVES PROVIDED BY KELLOGG / GPC.
4. ALL PIPING EXTERNAL TO DIESEL SKID TO BE BY PIPING CONTRACTOR.
5. EQUIPMENT MOUNTED ON DIESEL SKID.
6. [ ] FAIRBANKS MORSE DESIGNATIONS FOR EQUIPMENT.
7. DELETED.
8. THIS VALVE APPLIES ONLY TO THE 2C LUBE OIL PIPING.
9. THE 2C DIESEL GENERATOR DETAIL SHOWS THOSE VALVES THAT ARE NOT DESIGNATED BY SUFFIX C AS DELINEATED IN NOTE 2.
10. PRESSURE SWITCH ISOLATION VALVE DESIGNATOR IS THE SWITCH MPL NO. FOLLOWED BY -IV1
11. CHECK VALVES F059A/C AND F131A/C WILL CLOSE WHEN THE EDG STARTS. IF THE EDG STARTS WHILE JUMPERS ARE IN PLACE PER 52PM-R43-016-0, TSN044A/C CAN NOT CONTROL THE HIGH TEMPERATURES THAT WILL OCCUR LOCALLY AT 2R43006A/C AND SURROUNDING PIPING. A QUALIFIED ELECTRICIAN MUST BE STANDING BY TO REMOVE THE JUMPERS SHOULD THE EDG START FOR ANY REASON. JUMPERS MUST NOT BE LEFT IN PLACE AFTER MAINTENANCE OR OPERATIONS SURVEILLANCES ARE COMPLETE.
12. A PINHOLE VENT IS LOCATED NEXT TO THE AIR PRESSURE REGULATOR VALVE, 2R43F172A & C, TO ALLOW PRESSURE BLEED AFTER INITIAL PRESSURIZATION
13. THE FUEL SUCTION PONT FROMTHE DOWN PIPE FOR THE EDG FUEL OIL TRANSFER PUMPS IS 2-11/16" ABOVE THE INTERNAL BOTTOM OF THE EDG FUEL OIL STORAGE TANK. PER SINH 90-031, TANK VOLUME VS FUEL LEVEL CALCULATIONS. IT TAKES APPROXIMATELY 174.8 GALLONS OF FLUID TO REACH THE SUCTION POINT.

56.0

REFERENCES

	TITLE	MPL NO.	DWG. NO.
1.	PIPING & INSTRUMENT SYMBOLS	A42-1010	S-15051
2.	TURBINE BLDG. SERVICE WATER SYSTEM P.&I.D. SH.1	2P41-1010	H-21033
3.	DEMINERALIZED WATER P.&I.D. (UNIT 1)		H-11038
4.	FUEL OIL DIESEL OIL SYSTEM		H-11037
5.	INTERNAL RELIEF VALVE		SX-28733
6.	DIESEL FUEL TRANSFER PUMPS		S-28131
7.	TANK VOLUME VS FUEL LEVEL CALCULATIONS		SINH 90-031

CRITICAL DOCUMENT

MPL No.2R43 ACAD2010 H21074

SOUTHERN COMPANY

Version: 56.0 Date: 7/27/2020

REVISED PER: SNC1104671M001, VER 1.0

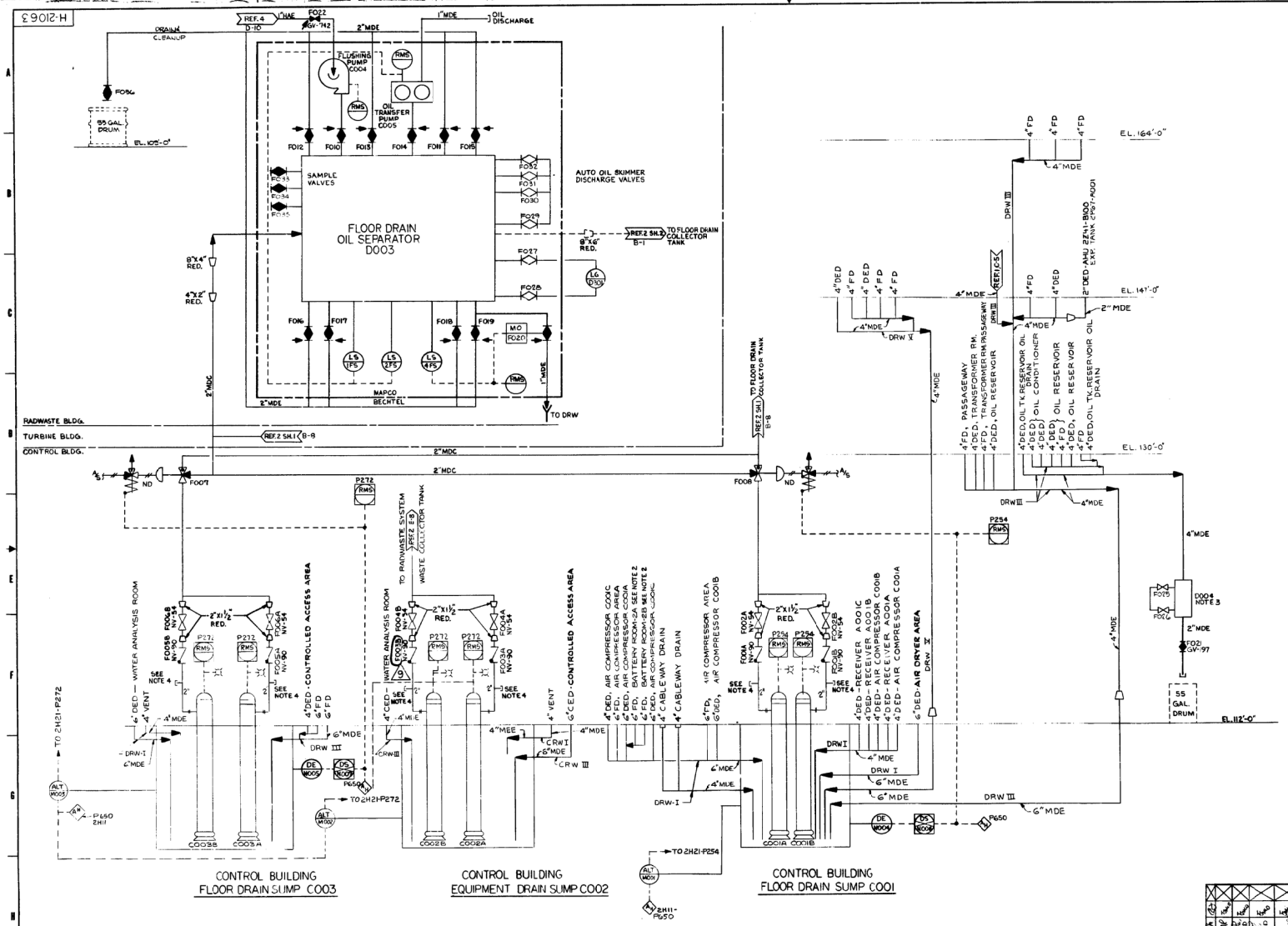
EDWIN I. HATCH NUCLEAR PLANT UNIT No. 2
DIESEL ENGINE & FUEL OIL SYSTEM
P. & I.D.

BY	CHK'D	APPR.
GTR	DFH	JMC

DRAWN	DESIGNED	LOCATION	DRAWING NUMBER	VERSION
CYB	None	10-502	H-21074	56.0
DATE 1/29/73	SIGNS None			

DRAWING CATEGORY: CRITICAL

H-21063



LEGEND

DED – DIRTY EQUIPMENT DRAIN
CED – CLEAN EQUIPMENT DRAIN
FD – FLOOR DRAIN

NOTE

1. ALL EQUIPMENT NUMBERS TO BE PRECEDED BY MPL NO. 2245 UNLESS OTHERWISE NOTED
2. BATTERY ROOM DRAINS SHALL BE FITTED WITH EXPANDABLE PLUGS WHICH SHALL BE INSTALLED IMMEDIATELY PRIOR TO AND DURING OPERATION OF THE UNIT #2 REACTOR.
3. LOCAL COLLECTION TANK D004 TO BE FIELD FABRICATED FROM 24" C.S. PIPING. TANK HEIGHT TO BE APPROX. 3 FEET. TANK TO BE EQUIPPED WITH GAGE GLASS.
4. TEST CONNECTIONS TO BE ¾" IN SIZE

REFERENCES

REFERENCE	MPL NO.	DWG. NO.
1. FLOOR, EQUIPMENT & ROOF DRAINS – TURBINE BLDG. – P&I.D. SH.1	2145-1010	H-21061
2. RADWASTE SYSTEM P&I.D	2411-1010	H-26026-H-26032
3. COND. STORAGE & TRANSFER SYS. P&I.D.	2P11-1010	H-26046
4. DEMINERALIZED WATER SYS. P&I.D.	2P21-1010	H-26047

GEORGIA REGISTERED PROFESSIONAL ENGINEER CHRIS

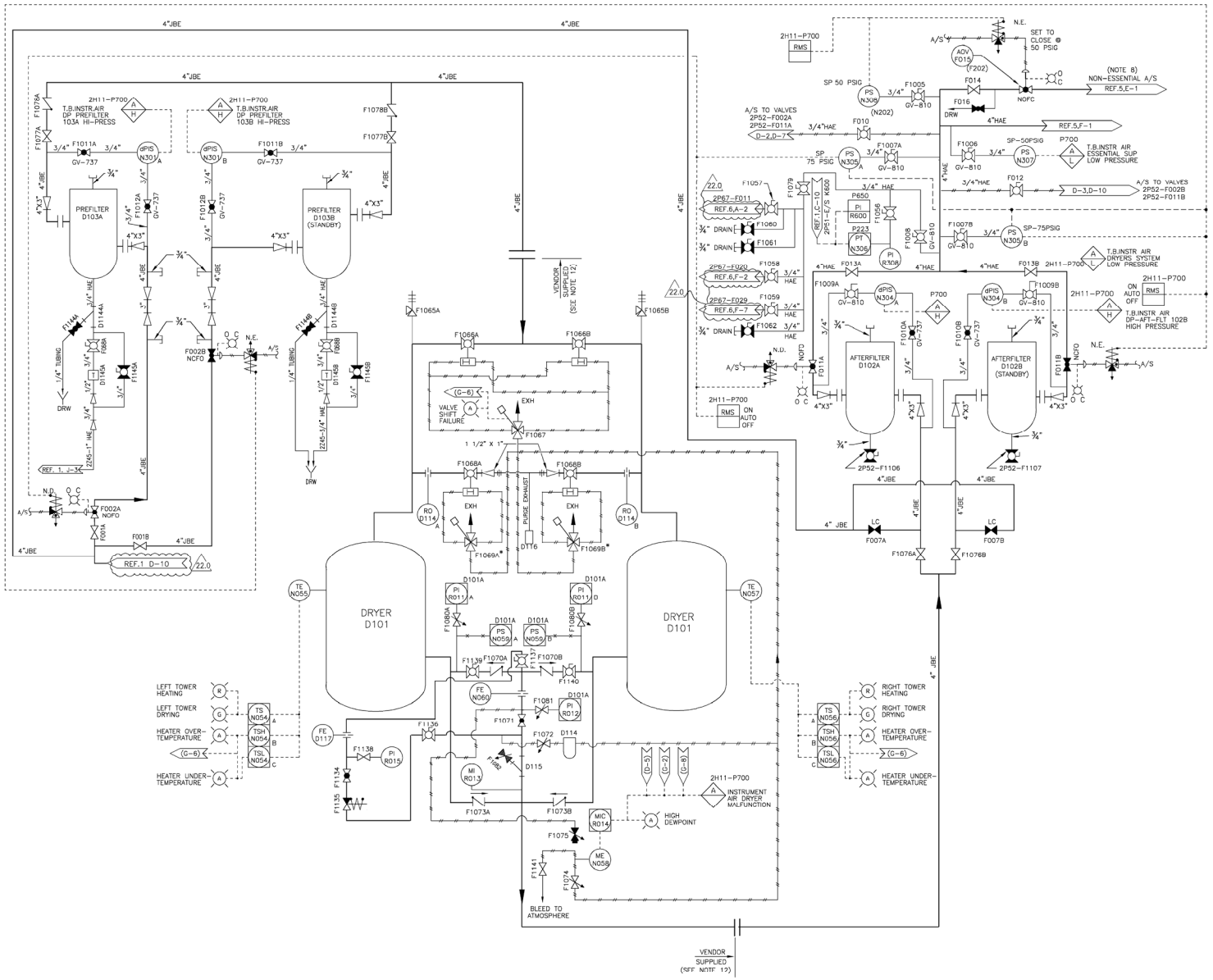
CRITICAL DOCUMENT
MPL NO. 2245-1010 LVN-F022

REVISION	DATE	DESCRIPTION
9	7-23-80	(CHANGE) MPL NO. FROM F003A TO F003B IN RESPONSE TO ABN 90-429 (NO DCR)
7	4-4-78	ADDED 2" LINE TO AH-1 IN RESPONSE TO MCN 88-148-DE.

BECHTEL
JOB 0511 GAITHERSBURG, MARYLAND
SOUTHERN SERVICES INC.
FOR
GEORGIA POWER CO., ATLANTA, GA.
GENERAL ENGINEERING DEPARTMENT
EDWIN I. HATCH NUCLEAR PLANT UNIT NO 2
FLOOR AND EQUIPMENT DRAINS
CONTROL BUILDING – P&I.D.

DSGN.	DR.	CHK.	QT.
MTH			

SCALE NONE 5 1/2" x 34"
DRAWING NUMBER
LOCATION 10-5112 SHEET NO. H2106 3



NOTES:

1) ALL EQUIPMENT AND INSTRUMENTS PREFIXED BY MPL–NUMBERS 2P52 UNLESS OTHERWISE NOTED.
2) 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.
3) LOW POINT DRAINS ARE TO BE PROVIDED WHERE NECESSARY AS DETERMINED BY PHYSICAL ROUTING OF PIPE, UNLESS SPECIFIED OTHERWISE.
4) FOR LOCATION AND IDENTIFICATION OF INSTRUMENTS, SEE INSTRUMENT DATA SHEET LISTED IN MPL FOR EACH INSTRUMENT.
5) INSTRUMENT LINE VALVING MUST COMPLY WITH PIPING STANDARD SPEC.
6) INSTRUMENT PIPING OR TUBING BEYOND THE ROOT VALVE IS TO BE IN ACCORDANCE WITH THE INSTRUMENT INSTALLATION DETAILS DWG. A–26412
7) VALVE NUMBERS IN ( ) INDICATE VALVE NUMBER OF CORRESPONDING VALVE ON UNIT #1.
8) NON–ESSENTIAL AIR–SUPPLY IS NOT REQUIRED FOR EMERGENCY PLANT OPERATION. ESSENTIAL AIR–SUPPLY IS REQUIRED FOR EMERGENCY AND NORMAL PLANT OPERATION.
9) ALL VENDOR SUPPLIED DRYER VALVES ARE SHOWN OPEN. DRYER OPERATIONS ARE CONTROLLED INTERNALLY.
10) AT OPERATIONS DISCRETION, DESICCANT AIR DRYER 2P52–D101 MAY BE INCLUDED IN THE NORMAL SYSTEM LINEUP OR BYPASSED AND OPERATED IN STANDBY, AS DETERMINED BY COMPRESSED AIR DEWPOINT INDICATION.

LEGEND:

SP – SET POINT
CR – CONTROL ROOM
N.E. – NORMALLY ENERGIZED
N.D. – NORMALLY DEENERGIZED

REFERENCES:

NO.	TITLE	MPL–NO.	DWG. NO.
1)	CONTROL BLDG. SERVICE AIR SYS. P&ID SHT.1	2P51–1010	H–21028
2)	TURBINE BLDG. INSTR. AIR SYS P&ID SHT.2	2P52–1010	H–21082
3)	TURBINE BLDG. INSTR. AIR SYS P&ID SH. 3	2P52–1010	H–21085
4)	TURBINE BLDG. INSTR. AIR SYS P&ID SHT.4	2P52–1010	H–21088
5)	TURBINE BLDG. INSTR. AIR SYS P&ID SHT.5	2P52–1010	H–21078
6)	CTRL BLDG. CHILLED WATER COOLING UNITS P&ID	2Z41–1010	H–51179
7)	TURB BLDG. SERVICE AIR SYS. P&ID SHT.2	2P51–1010	H–21029

CRITICAL DOCUMENT

MPL No. 2P52-1010 ACAD2000 H21077

SOUTHERN COMPANY

EDWIN I. HATCH NUCLEAR PLANT UNIT No.2
TURBINE BUILDING
INSTRUMENT AIR SYSTEM P&ID
SHEET NO. 1

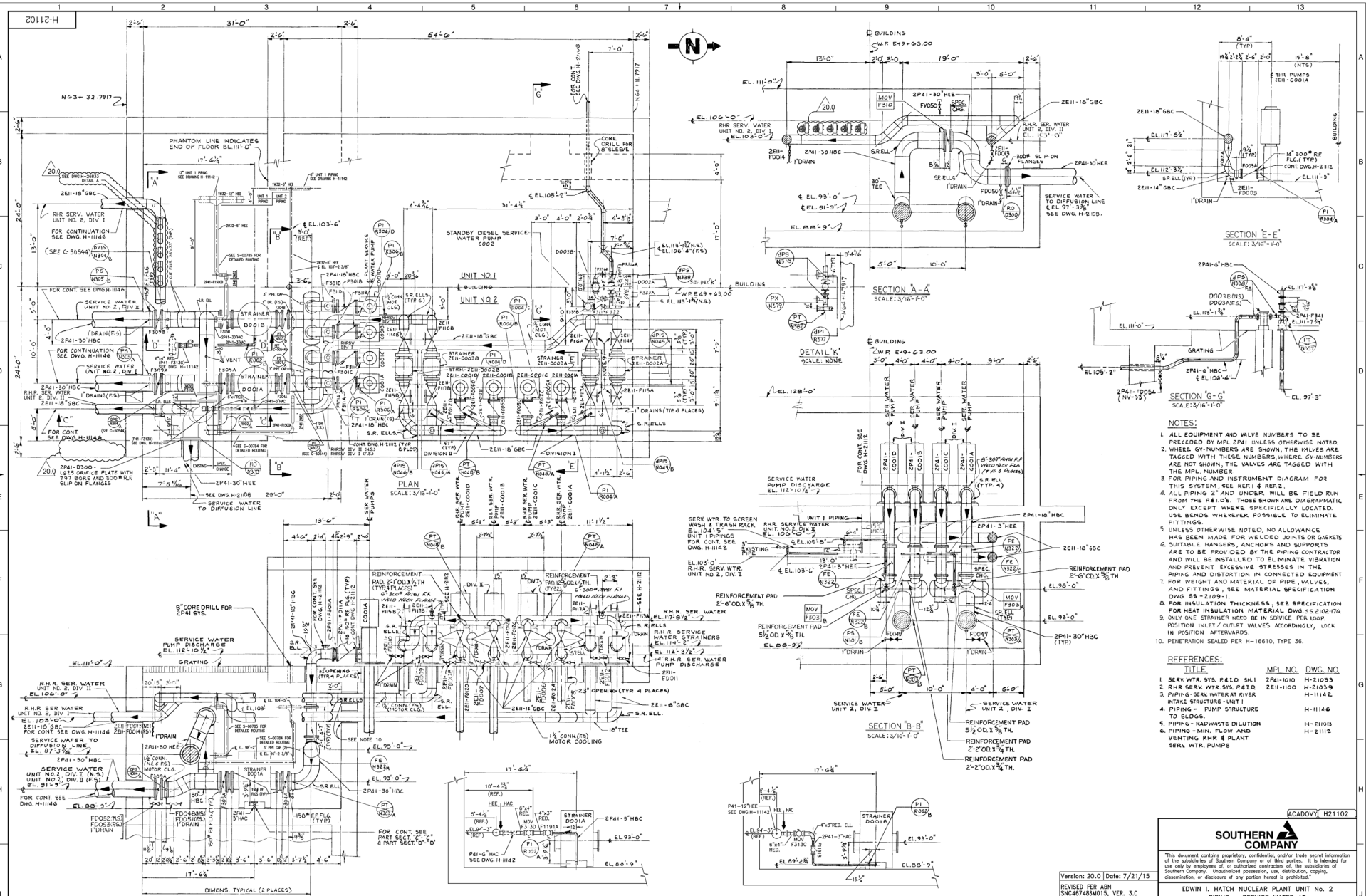
DRAWN	DESIGNED	LOCATION	DRAWING NUMBER	VERSION
GLH	ML/DWS	10-502	H-21077	22.0
DATE	SCALE			
11-14-72	None			

Version: 22.0 | Date: 06/05/17

REVISED PER SNC837506M001, VER 1.0

BY	CHK'D	APP'D
JJH	JRC	SMB

DWG CATEGORY: CRITICAL


PLAN
SCALE: 3/16"-1'-0"
ELEVATION
SCALE: 3/16"-1'-0"
PART SECTION "C-C"
SCALE: 3/16"-1'-0"
PART SECTION "D-D"
SCALE: 3/16"-1'-0"
SECTION "A-A"
SCALE: 3/16"-1'-0"
SECTION "B-B"
SCALE: 3/16"-1'-0"
SECTION "E-E"
SCALE: 3/16"-1'-0"
SECTION "G-G"
SCALE: 3/16"-1'-0"
DETAIL "K"
SCALE: NONE
UNIT NO. 1
UNIT NO. 2
STANDBY DIESEL SERVICE WATER PUMP C002
PHANTOM LINE INDICATES END OF FLOOR EL. 111'-0"
SERVICE WATER PUMP DISCHARGE EL. 112'-10½"
GRATING
DIMENS. TYPICAL (2 PLACES)
NOTES:
1. ALL EQUIPMENT AND VALVE NUMBERS TO BE PRECEDED BY MPL 2P41 UNLESS OTHERWISE NOTED.
2. 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
3. FOR PIPING AND INSTRUMENT DIAGRAM FOR THIS SYSTEM, SEE REF. 1 & REF. 2.
4. ALL PIPING 2" AND UNDER WILL BE FIELD RUN FROM THE P&I DS. THOSE SHOWN ARE DIAGRAMMATIC ONLY EXCEPT WHERE SPECIFICALLY LOCATED. USE BENDS WHEREVER POSSIBLE TO ELIMINATE FITTINGS.
5. UNLESS OTHERWISE NOTED, NO ALLOWANCE HAS BEEN MADE FOR WELDED JOINTS OR GASKETS
6. SUITABLE HANGERS, ANCHORS AND SUPPORTS ARE TO BE PROVIDED BY THE PIPING CONTRACTOR AND WILL BE INSTALLED TO ELMINATE VIBRATION AND PREVENT EXCESSIVE STRESSES IN THE PIPING AND DISTORTION IN CONNECTED EQUIPMENT
7. FOR WEIGHT AND MATERIAL OF PIPE, VALVES, AND FITTINGS, SEE MATERIAL SPECIFICATION DWG. SS-2109-1.
8. FOR INSULATION THICKNESS, SEE SPECIFICATION FOR HEAT INSULATION MATERIAL DWG. SS-2102-176
9. ONLY ONE STRAINER NEED BE IN SERVICE PER LOOP. POSITION INLET/OUTLET VALVES ACCORDINGLY, LOCK IN POSITION AFTERWARDS.
10. PENETRATION SEALED PER H-16610, TYPE 36.
REFERENCES:
TITLE | MPL NO. | DWG. NO.
1. SERV. WTR. SYS. P&I D. SH. 1 | 2P41-1010 | H-21033
2. RHR SERV. WTR. SYS. P&I D. | 2E11-1100 | H-21039
3. PIPING - SERV. WATER AT RIVER INTAKE STRUCTURE - UNIT 1 | | H-11142
4. PIPING - PUMP STRUCTURE TO BLDGS. | | H-11146
5. PIPING - RADWASTE DILUTION | | H-21108
6. PIPING - MIN. FLOW AND VENTING RHR & PLANT SERV. WTR. PUMPS | | H-21112
ACADDVY H21102
SOUTHERN COMPANY
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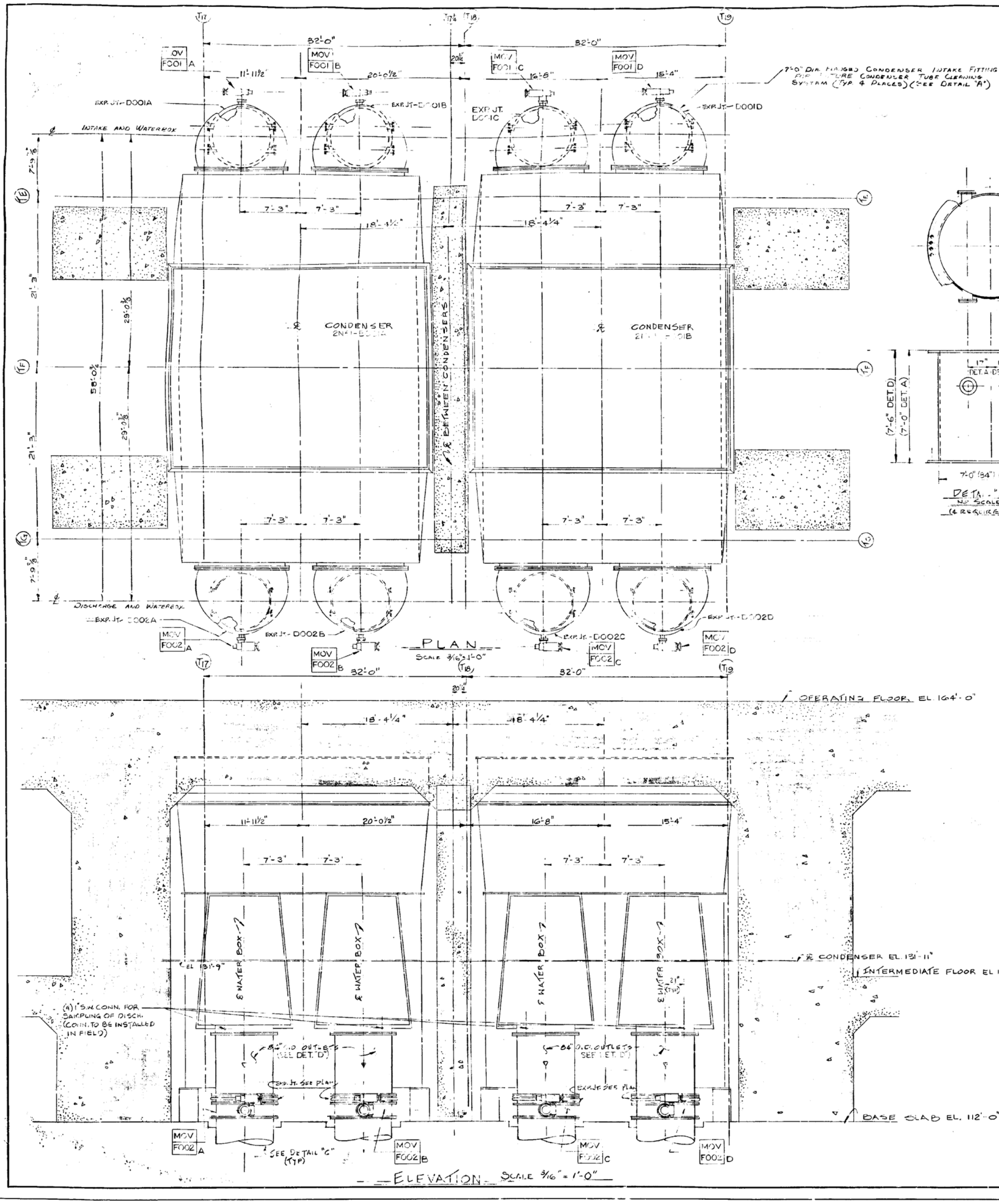
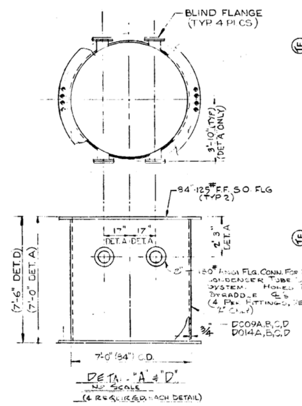
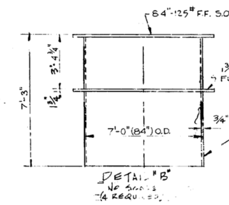
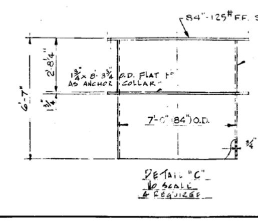
EDWIN I. HATCH NUCLEAR PLANT UNIT No. 2
PIPING — SERVICE WATER AT RIVER INTAKE STRUCTURE
Version: 20.0 | Date: 7/2/15
REVISED PER ABN SNC467488M015, VER. 3.0
BY | CHK'D | APPR.
JLO | CYN | TSL
DRAWN: WTB | DESIGNED | LOCATION: 10-502 | DRAWING NUMBER: H-21102 | VERSION: 20.0
DATE: 4-7-71 | SCALE: AS SHOWN

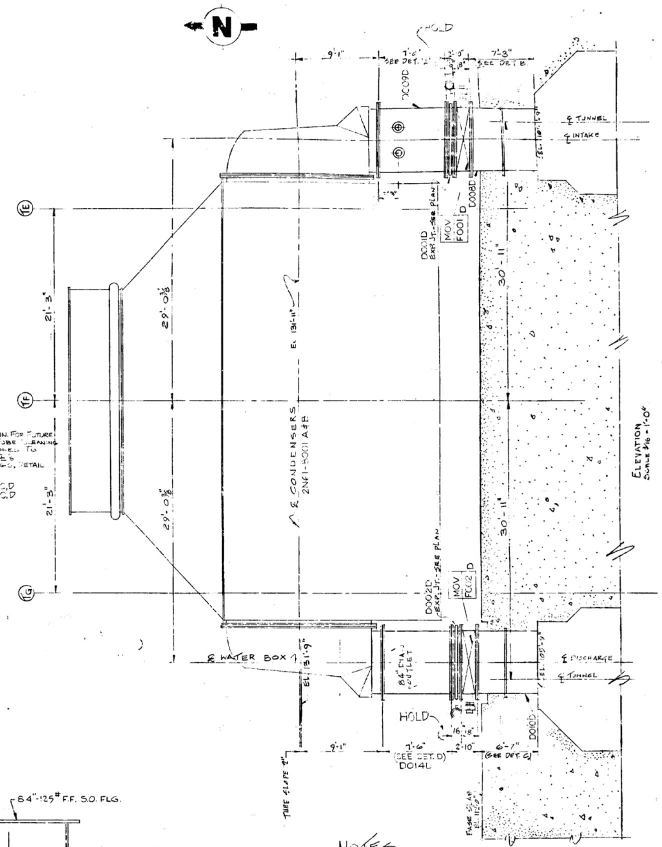
H-21114











NOTES

1. ALL EQUIPMENT AND VALVE NUMBERS TO BE PRECEDED BY MPL-2N71 UNLESS OTHERWISE NOTED.
2. 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.
3. FOR PIPING AND INSTRUMENT DIAGRAM THIS SYSTEM SEE REF 1.
4. UNLESS OTHERWISE NOTED, NO ALLOWANCE HAS BEEN MADE FOR WELDED JOINTS OR GASKETS.
5. FOR WEIGHT AND MATERIAL OF PIPE, VALVES, AND FITTINGS, SEE MATERIAL SPECIFICATION DWG. SS-2109-1.

REFERENCES:

1. CIRCULATING WATER SYS. P&ID	2N71-1010	H-21026
2. TURBINE BLDG CONC. BASE SLAB CIRC. WATER PASSAGES FLOORS 4,5,10,11,12,13 & 14 NEAT LINES		H-22013

No.	DATE	BY	REVISIONS
2	3-20-74		REV. DETAILS, NOTES & REFERENCES. DELETED OUTLET STRAINERS, ADDED DET. D, VA. & PIECE NO.
1	1-5-73	ELD	ORIG. TRACING TRANS. TO BECHTEL
0	11-29-72		ISSUED FOR APPROVAL

SOUTHERN SERVICES, INC.

FOR

GEORGIA POWER CO., ATLANTA, GA.

GENERAL ENGINEERING DEPARTMENT

PLANT HATCH UNIT No. 2

PIPING - CIRCULATING WATER

SCALE: AS SHOWN — DATE: 9-4-69

DRAWING NUMBER — LOCATION: 10-502 — SHEET NO.: H-21114

HALF-SIZE PRINT DO NOT SCALE