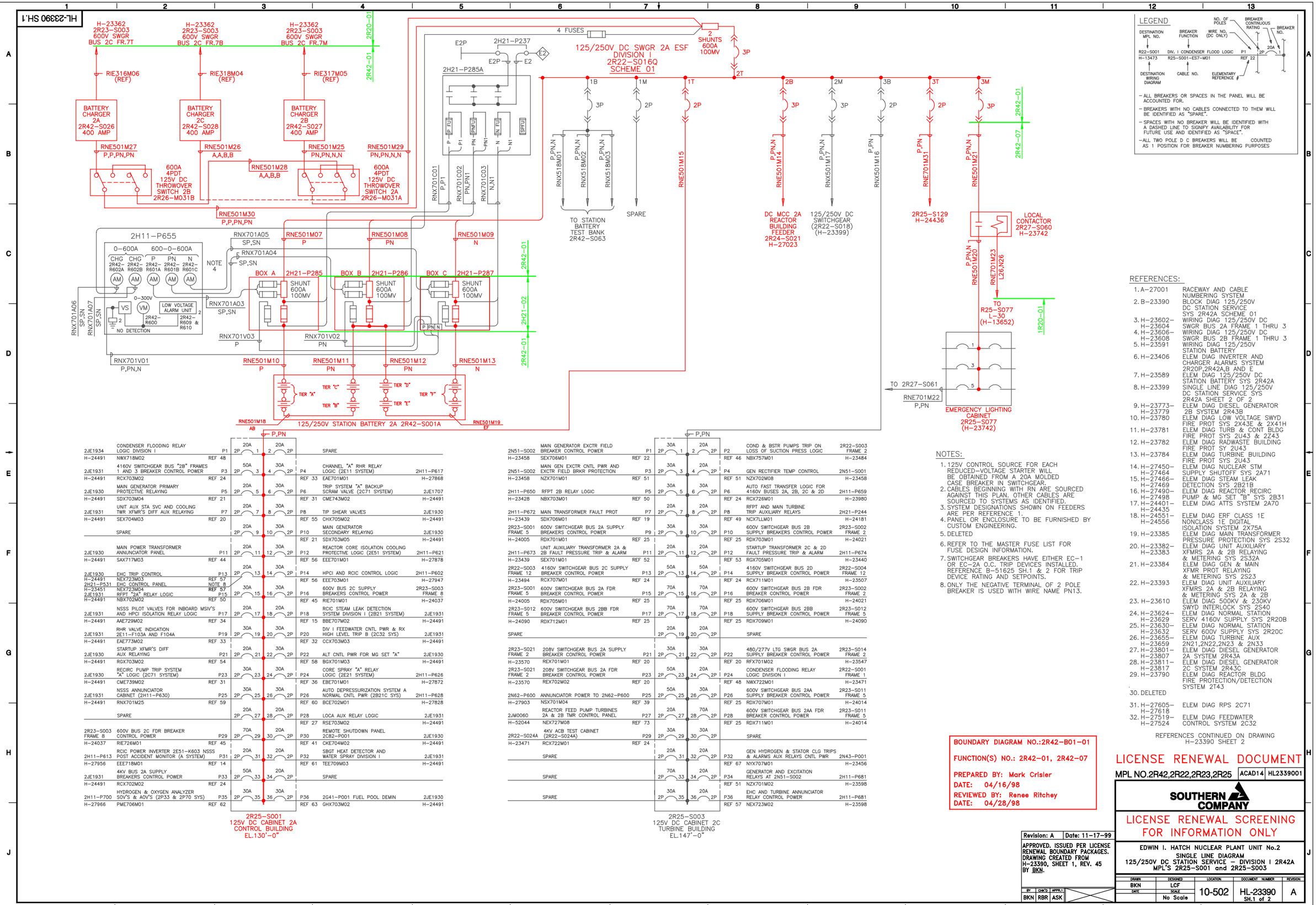
HL-23390 SH.1



2JE1934	CONDENSER FLOODING RELAY LOGIC DIVISION I	P1	20A	20A	SPARE		
H-24491	NWX718M02	REF 48					
2JE1931	4160V SWITCHGEAR BUS "2B" FRAMES 1 AND 3 BREAKER CONTROL POWER	P3	50A	30A	CHANNEL "A" RHR RELAY LOGIC (2E11 SYSTEM)	P4	2H11-P617
H-24491	RCX703M02	REF 24				REF 33	EAE701M01 H-27868
2JE1930	MAIN GENERATOR PRIMARY PROTECTIVE RELAYING	P5	20A	30A	TRIP SYSTEM "A" BACKUP SCRAM VALVE (2C71 SYSTEM)	P6	2JE1707
H-24491	SDX703M04	REF 21				REF 31	CME743M02 H-24491
2JE1931	UNIT AUX STA SVC AND COOLING TWR XFMR'S DIFF AUX RELAYING	P7	20A	30A	TIP SHEAR VALVES	P8	2JE1930
H-24491	SEX704M03	REF 20				REF 55	CHX705M02 H-24491
	SPARE		20A	30A	MAIN GENERATOR SECONDARY RELAYING	P10	2JE1930
						REF 21	SDX703M05 H-24491
2JE1930	MAIN POWER TRANSFORMER ANNUNCIATOR PANEL	P11	20A	30A	REACTOR CORE ISOLATION COOLING PROTECTIVE LOGIC (2E51 SYSTEM)	P12	2H11-P621
H-24491	SAX717M03	REF 44				REF 56	EEE701M01 H-27878
2JE1930	EHC TRIP CONTROL	P13	20A	30A	HPCI AND RCIC CONTROL LOGIC	P14	2H11-P602
H-24491	NEX723M03	REF 57				REF 56	EEE703M01 H-27947
2H21-P531	EHC CONTROL PANEL	NOTE 8					
H-23451	NEX723M04	REF 57	30A	30A	600V BUS 2C SUPPLY BREAKERS CONTROL POWER	P16	2R23-S003 FRAME 8
2JE1931	RFPT "2A" RELAY LOGIC	P15					
H-24491	NBX702M02	REF 50				REF 45	RIE701M01 H-24037
2JE1931	NSSS PILOT VALVES FOR INBOARD MSIV'S AND HPCI ISOLATION RELAY LOGIC	P17	20A	20A	RCIC STEAM LEAK DETECTION SYSTEM DIVISION I (2B21 SYSTEM)	P18	2JE1931
H-24491	AAE729M02	REF 34				REF 15	BBE707M02 H-24491
2JE1931	RHR VALVE INDICATION 2E11-F103A AND F104A	P19	30A	20A	DIV I FEEDWATER CNTL PWR & RX HIGH LEVEL TRIP B (2C32 SYS)	P20	2JE1931
H-24491	EAE773M02	REF 33				REF 32	CCX703M03 H-24491
2JE1930	STARTUP XFMR'S DIFF AUX RELAYING	P21	20A	30A	ALT CNTL PWR FOR MG SET "A"	P22	2JE1930
H-24491	RGX703M02	REF 54				REF 58	BGX701M03 H-24491
2JE1930	RECIRC PUMP TRIP SYSTEM "A" LOGIC (2C71 SYSTEM)	P23	30A	30A	CORE SPRAY "A" RELAY LOGIC (2E21 SYSTEM)	P24	2H11-P626
H-24491	CME739M02	REF 31				REF 36	EBE701M01 H-27872
2JE1931	NSSS ANNUNCIATOR CABINET (2H11-P630)	P25	30A	30A	AUTO DEPRESSURIZATION SYSTEM A NORMAL CNTL PWR (2B21C SYS)	P26	2H11-P628
H-24491	RNX701M25	REF 59				REF 60	BCE702M01 H-27828
	SPARE		20A	20A	LOCA AUX RELAY LOGIC	P28	2JE1931
						REF 27	RSE703M02 H-24491
2R23-S003 FRAME 8	600V BUS 2C FDR BREAKER CONTROL POWER	P29	70A	20A	REMOTE SHUTDOWN PANEL 2C82-P001	P30	2JE1930
H-24037	RIE726M01	REF 45				REF 41	CKE704M02 H-24491
2H11-P613	RCIC POWER INVERTER 2E51-K603 NSSS POST ACCIDENT MONITOR (A SYSTEM)	P31	20A	20A	SBGT HEAT DETECTOR AND WATER SPRAY DIVISION I	P32	2JE1931
H-27956	EEE718M01	REF 14				REF 61	TEE709M03 H-24491
2JE1931	4KV BUS 2A SUPPLY BREAKERS CONTROL POWER	P33	50A	20A	SPARE		
H-24491	RCX702M02	REF 24					
2H11-P700	HYDROGEN & OXYGEN ANALYZER SOV'S & AOV'S (2P33 & 2P70 SYS)	P35	30A	30A	2G41-P001 FUEL POOL DEMIN	P36	2JE1930
H-27966	PME706M01	REF 62				REF 63	GHX703M02 H-24491

2R25-S001
125V DC CABINET 2A
CONTROL BUILDING
EL.130'-0"

2N51-S002	MAIN GENERATOR EXCTR FIELD BREAKER CONTROL POWER	P1	30A	20A	COND & BSTR PUMPS TRIP ON LOSS OF SUCTION PRESS LOGIC	P2	2R22-S003 FRAME 2
H-23458	SEX706M01	REF 22				REF 46	NBX757M01 H-23484
2N51-S002	MAIN GEN EXCTR CNTL PWR AND EXCTR FIELD BRKR PROTECTION	P3	30A	20A	GEN RECTIFIER TEMP CONTROL	P4	2N51-S001
H-23458	NZX701M01	REF 51				REF 51	NZX702M08 H-23458
2H11-P650	RFPT 2B RELAY LOGIC	P5	30A	30A	AUTO FAST TRANSFER LOGIC FOR 4160V BUSES 2A, 2B, 2C & 2D	P6	2H11-P659
H-23428	NBX703M01	REF 50				REF 24	RCX726M01 H-23980
2H11-P672	MAIN TRANSFORMER FAULT PROT	P7	20A	20A	RFPT AND MAIN TURBINE TRIP AUXILIARY RELAYS	P8	2H21-P244
H-23439	SDX706M01	REF 19				REF 49	NCX7LM01 H-24181
2R23-S001 FRAME 5	600V SWITCHGEAR BUS 2A SUPPLY BREAKERS CONTROL POWER	P9	30A	30A	600V SWITCHGEAR BUS 2B SUPPLY BREAKERS CONTROL POWER	P10	2R23-S002 FRAME 2
H-24005	RDX701M01	REF 25				REF 25	RDX703M01 H-24021
2H11-P673	UNIT AUXILIARY TRANSFORMER 2A & 2B FAULT PRESSURE TRIP & ALARM	P11	20A	20A	STARTUP TRANSFORMER 2C & 2D FAULT PRESSURE TRIP & ALARM	P12	2H11-P674
H-23439	SEX701M01	REF 52				REF 53	RCX705M01 H-23440
2R22-S003 FRAME 12	4160V SWITCHGEAR BUS 2C SUPPLY BREAKER CONTROL POWER	P13	50A	50A	4160V SWITCHGEAR BUS 2D SUPPLY BREAKER CONTROL POWER	P14	2R22-S004 FRAME 12
H-23494	RCX707M01	REF 24				REF 24	RCX711M01 H-23507
2R23-S001 FRAME 5	600V SWITCHGEAR BUS 2A FDR BREAKER CONTROL POWER	P15	70A	70A	600V SWITCHGEAR BUS 2B FDR BREAKER CONTROL POWER	P16	2R23-S002 FRAME 2
H-24005	RDX705M01	REF 25				REF 25	RDX706M01 H-24021
2R23-S012 FRAME 5	600V SWITCHGEAR BUS 2BB FDR BREAKER CONTROL POWER	P17	70A	70A	600V SWITCHGEAR BUS 2BB SUPPLY BREAKER CONTROL POWER	P18	2R23-S012 FRAME 5
H-24090	RDX712M01	REF 25				REF 25	RDX709M01 H-24090
SPARE			20A	20A	SPARE		
2R23-S021 FRAME 2	208V SWITCHGEAR BUS 2A SUPPLY BREAKER CONTROL POWER	P21	30A	30A	480/277V LTG SWGR BUS 2A SUPPLY BREAKER CONTROL POWER	P22	2R23-S014 FRAME 2
H-23570	REX701M01	REF 20				REF 20	RFX701M02 H-23547
2R23-S021 FRAME 2	208V SWITCHGEAR BUS 2A FDR BREAKER CONTROL POWER	P23	50A	20A	CONDENSER FLOODING RELAY LOGIC DIVISION I	P24	2R22-S001 FRAME 1
H-23570	REX702M02	REF 20				REF 48	NWX722M01 H-23471
2N62-P600	ANNUNCIATOR POWER TO 2N62-P600	P25	50A	30A	600V SWITCHGEAR BUS 2AA SUPPLY BREAKER CONTROL POWER	P26	2R23-S011 FRAME 5
H-27903	NSX701M04	REF 39				REF 25	RDX707M01 H-24014
2JM0060	REACTOR FEED PUMP TURBINES 2A & 2B TMR CONTROL PANEL	P27	20A	70A	600V SWITCHGEAR BUS 2AA FDR BREAKER CONTROL POWER	P28	2R23-S011 FRAME 5
H-52044	NEX727M08	REF 73				REF 25	RDX711M01 H-24014
2R22-S024A	4KV ACB TEST CABINET (2R22-S024A)	P29	30A	30A	SPARE		
H-23471	RCX722M01	REF 24					
	SPARE		20A	20A	GEN HYDROGEN & STATOR CLG TRIPS & ALARMS AUX RELAYS CNTL PWR	P32	2N43-P001
						REF 67	NYX707M01 H-23456
	SPARE		70A	20A	GENERATOR AND EXCITATION RELAYS AT 2N51-S002	P34	2H11-P681
						REF 51	NZX701M02 H-23598
	SPARE		30A	20A	EHC AND TURBINE ANNUNCIATOR RELAY CONTROL POWER	P36	2H11-P681
						REF 57	NEX723M02 H-23598

2R25-S003
125V DC CABINET 2C
TURBINE BUILDING
EL.147'-0"

LEGEND

DESTINATION MPL NO. | BREAKER FUNCTION | WIRE NO. (DC ONLY) | NO. OF POLES | BREAKER CONTINUOUS RATING | BREAKER NO.

R22-S001 | DIV. I CONDENSER FLOOD LOGIC | P1 | 2P | 20A | 1

H-13473 | R25-S001-ES7-M01 | REF 22

DESTINATION WIRING DIAGRAM | CABLE NO. | ELEMENTARY REFERENCE #

- ALL BREAKERS OR SPACES IN THE PANEL WILL BE ACCOUNTED FOR.
- BREAKERS WITH NO CABLES CONNECTED TO THEM WILL BE IDENTIFIED AS "SPARE".
- SPACES WITH NO BREAKER WILL BE IDENTIFIED WITH A DASHED LINE TO SIGNIFY AVAILABILITY FOR FUTURE USE AND IDENTIFIED AS "SPACE".
- ALL TWO POLE D C BREAKERS WILL BE COUNTED AS 1 POSITION FOR BREAKER NUMBERING PURPOSES

REFERENCES:

1.	A-27001	RACEWAY AND CABLE NUMBERING SYSTEM
2.	B-23390	BLOCK DIAG 125/250V DC STATION SERVICE SYS 2R42A SCHEME 01
3.	H-23602-H-23604	WIRING DIAG 125/250V DC SWGR BUS 2A FRAME 1 THRU 3
4.	H-23606-H-23608	WIRING DIAG 125/250V DC SWGR BUS 2B FRAME 1 THRU 3
5.	H-23591	WIRING DIAG 125/250V STATION BATTERY
6.	H-23406	ELEM DIAG INVERTER AND CHARGER ALARMS SYSTEM 2R20P,2R42A,B AND E
7.	H-23589	ELEM DIAG 125/250V DC STATION BATTERY SYS 2R42A
8.	H-23399	SINGLE LINE DIAG 125/250V DC STATION SERVICE SYS 2R42A SHEET 2 OF 2
9.	H-23773-H-23779	ELEM DIAG DIESEL GENERATOR 2B SYSTEM 2R43B
10.	H-23780	ELEM DIAG LOW VOLTAGE SWYD FIRE PROT SYS 2X43E & 2X41H
11.	H-23781	ELEM DIAG TURB & CONT BLDG FIRE PROT SYS 2U43 & 2Z43
12.	H-23782	ELEM DIAG RADWASTE BUILDING FIRE PROT SY 2U43
13.	H-23784	ELEM DIAG TURBINE BUILDING FIRE PROT SYS 2U43
14.	H-27450-H-27464	ELEM DIAG NUCLEAR STM SUPPLY SHUTOFF SYS 2A71
15.	H-27466-H-27469	ELEM DIAG STEAM LEAK DETECTION SYS 2B21B
16.	H-27490-H-27498	ELEM DIAG REACTOR RECIRC PUMP & MG SET "B" SYS 2B31
17.	H-24401-H-24435	ELEM DIAG ATTS SYSTEM 2A70
18.	H-24551-H-24556	ELEM DIAG ERF CLASS 1E NONCLASS 1E DIGITAL ISOLATION SYSTEM 2X75A
19.	H-23385	ELEM DIAG MAIN TRANSFORMER PRESSURE PROTECTION SYS 2S32
20.	H-23382-H-23383	ELEM DIAG UNIT AUXILIARY XFMRS 2A & 2B RELAYING & METERING SYS 2S32A
21.	H-23384	ELEM DIAG GEN & MAIN XFMR PROT RELAYING & METERING SYS 2S23
22.	H-23393	ELEM DIAG UNIT AUXILIARY XFMRS 2A & 2B RELAYING & METERING SYS 2A & 2B
23.	H-23610	ELEM DIAG 500KV & 230KV SWYD INTERLOCK SYS 2S40
24.	H-23624-H-23629	ELEM DIAG NORMAL STATION SERV 4160V SUPPLY SYS 2R20B
25.	H-23630-H-23632	ELEM DIAG NORMAL STATION SERV 600V SUPPLY SYS 2R20C
26.	H-23655-H-23659	ELEM DIAG TURBINE AUX 2N21,2N22,2N23 & 2N33
27.	H-23801-H-23807	ELEM DIAG DIESEL GENERATOR 2A SYSTEM 2R43A
28.	H-23811-H-23817	ELEM DIAG DIESEL GENERATOR 2C SYSTEM 2R43C
29.	H-23790	ELEM DIAG REACTOR BLDG FIRE PROTECTION/DETECTION SYSTEM 2T43
30.	DELETED	
31.	H-27605-H-27618	ELEM DIAG RPS 2C71
32.	H-27519-H-27524	ELEM DIAG FEEDWATER CONTROL SYSTEM 2C32

REFERENCES CONTINUED ON DRAWING H-23390 SHEET 2

NOTES:

1. 125V CONTROL SOURCE FOR EACH REDUCED-VOLTAGE STARTER WILL BE OBTAINED FROM A 20A MOLDED CASE BREAKER IN SWITCHGEAR.
2. CABLES BEGINNING WITH RN ARE SOURCED AGAINST THIS PLAN. OTHER CABLES ARE SOURCED TO SYSTEMS AS IDENTIFIED.
3. SYSTEM DESIGNATIONS SHOWN ON FEEDERS ARE PER REFERENCE 1.
4. PANEL OR ENCLOSURE TO BE FURNISHED BY CUSTOM ENGINEERING.
5. DELETED
6. REFER TO THE MASTER FUSE LIST FOR FUSE DESIGN INFORMATION.
7. SWITCHGEAR BREAKERS HAVE EITHER EC-1 OR EC-2A O.C. TRIP DEVICES INSTALLED. REFERENCE B-51625 SH.1 & 2 FOR TRIP DEVICE RATING AND SETPOINTS.
8. ONLY THE NEGATIVE TERMINAL OF 2 POLE BREAKER IS USED WITH WIRE NAME PN13.

BOUNDARY DIAGRAM NO.:2R42-B01-01

FUNCTION(S) NO.: 2R42-01, 2R42-07

PREPARED BY: Mark Crisler
DATE: 04/16/98
REVIEWED BY: Renee Ritchey
DATE: 04/28/98

LICENSE RENEWAL DOCUMENT

MPL NO.2R42,2R22,2R23,2R25 | ACAD14 | HL2339001

SOUTHERN COMPANY

LICENSE RENEWAL SCREENING FOR INFORMATION ONLY

Revision: A	Date: 11-17-99

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BY	CHK'D	APPR'L
BKN	RBR	ASK

EDWIN I. HATCH NUCLEAR PLANT UNIT No.2
SINGLE LINE DIAGRAM
125/250V DC STATION SERVICE - DIVISION I 2R42A
MPL'S 2R25-S001 and 2R25-S003

DRAWN	DESIGNED	LOCATION	DOCUMENT NUMBER	REVISION
BKN	LCF	10-502	HL-23390 SH.1 of 2	A
DATE	SCALE			
	No Scale			