

(1) FOREIGN PRINT NO. 8 0 0 3 4		(2) ISSUE NO. 0 0 9		(3) CAT 1	(4) PURCHASE ORDER NO. COMM. (SUBT. NO.) 1 3 2 0 0 0 1		(5) JOB NUMBER 9 7 6 3 0 0 6	
(6) VENDOR DRAWING OR DOCUMENT NO. 4 2 2 - 8 5 1						(7) REV. NO. 0 0 3		(8) SIZE M
(9) DESCRIPTION LINE 1 SF6 GAS INSUL SUBSTATION GAS SYSTEM SCHEMATIC LINE 2								
(10) VENDOR'S NAME I - T - E								
(11) CR# / REQUESTOR E N G D G C				(12) LOG-IN DATE 1 2 0 9 0 3		(13) CHECK ELEC. MECH. S MECH. STRUCT. INST. PIPING		
1 <input type="checkbox"/> APPROVED 2 <input type="checkbox"/> APPROVED, SUBMIT REVISED DOC.								
(14) 12/1/03 GDC TPN TPN DATE DESIGN CHKD CE DES								
(17) FINAL DISTRIBUTION DATE 12/1/03				(18) STATUS 		(16) DESCRIPTION *CATEGORY CHANGE TO CAT 1 ** CHANGE GROUP CAT TO "03J" Seabrook Station		

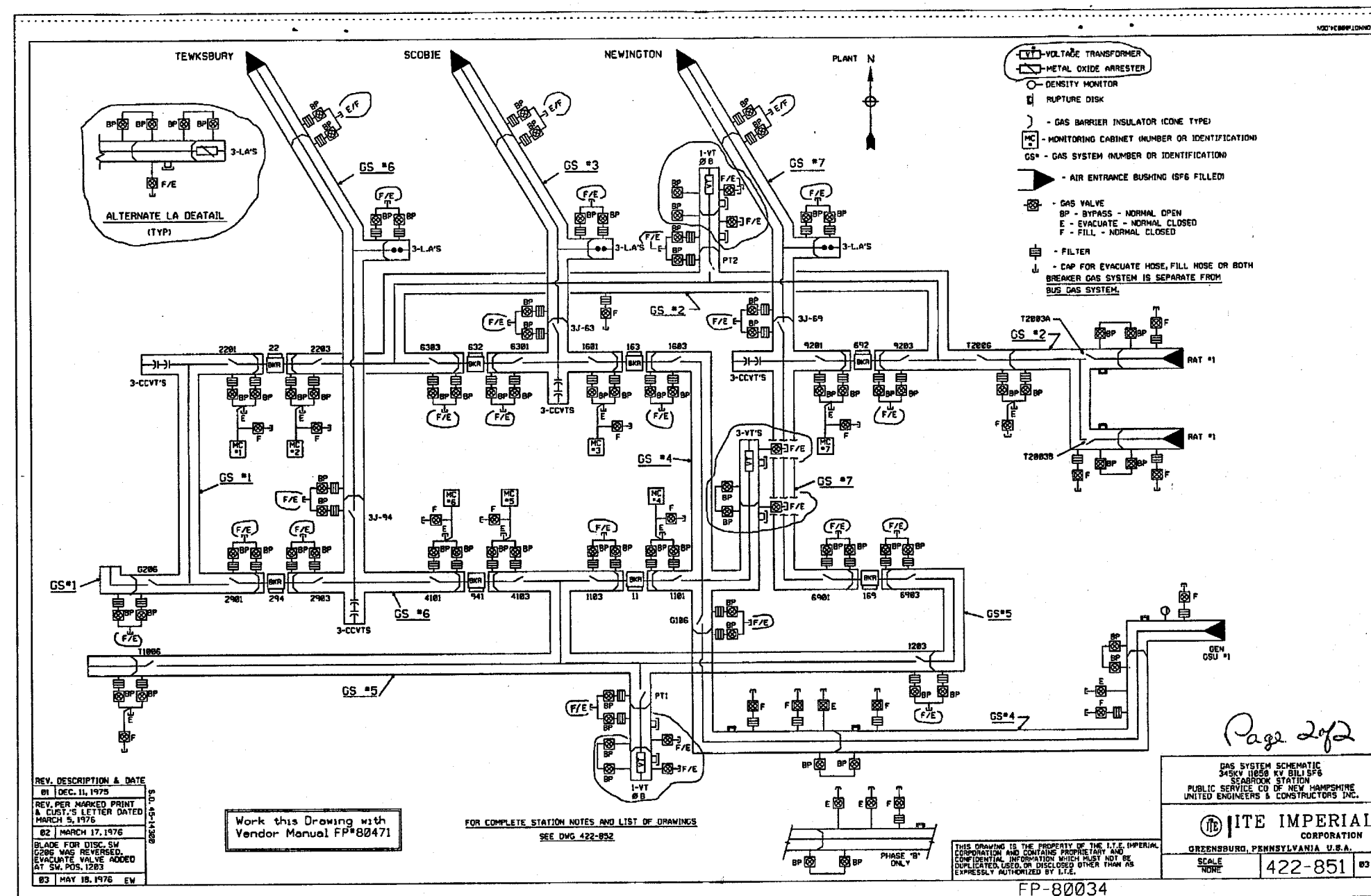
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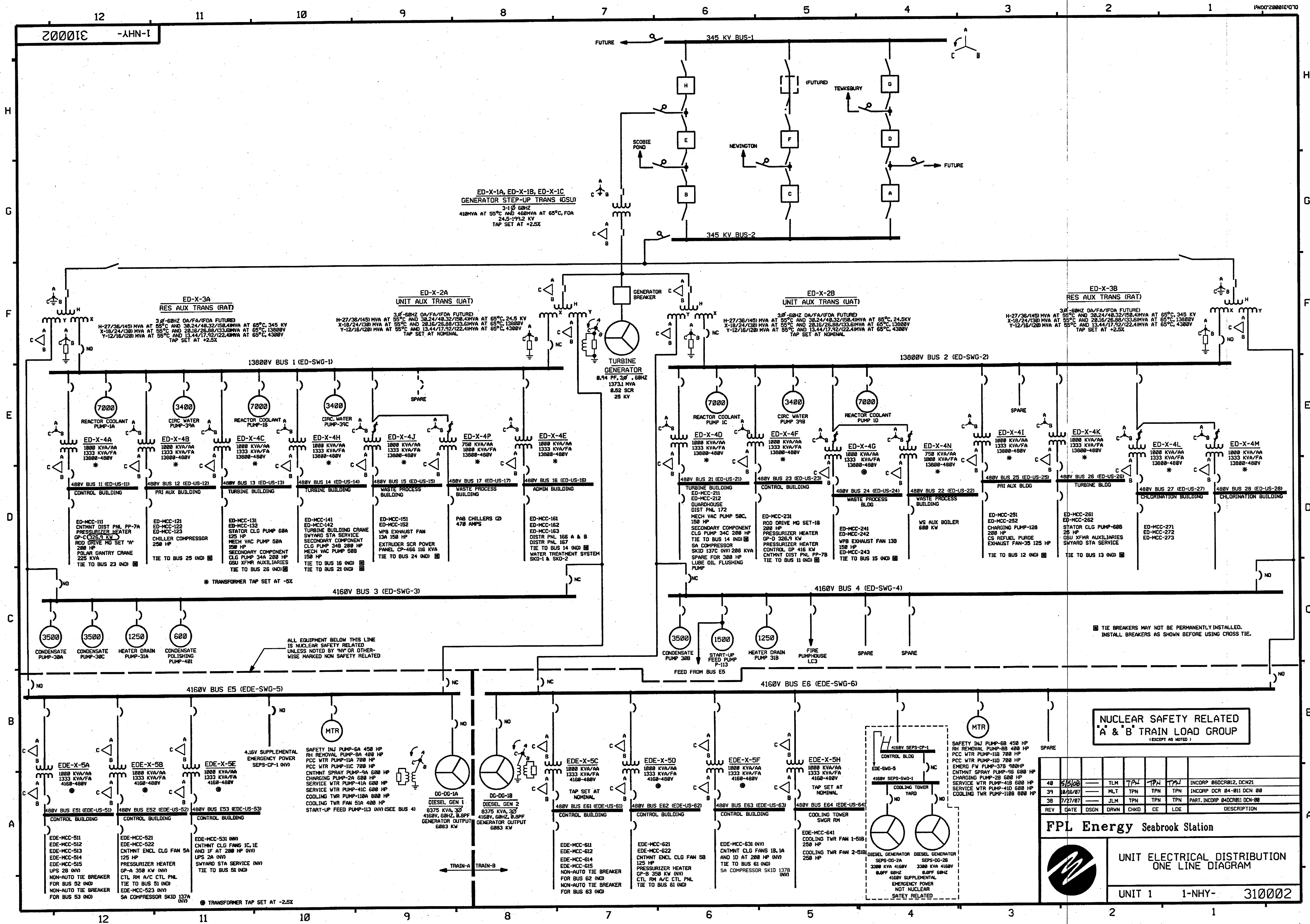
** - INCORP. DCR 01-014 DCN 00
 DCR 02-011 DCN 00
 DCR 02-020 DCN 02
 MSE 01-245 REV 01

Previously Issued as a Full size drawing


RECORDS MANAGEMENT DEPT.
 CONTROL NUMBER 2003

Page 1 of 2



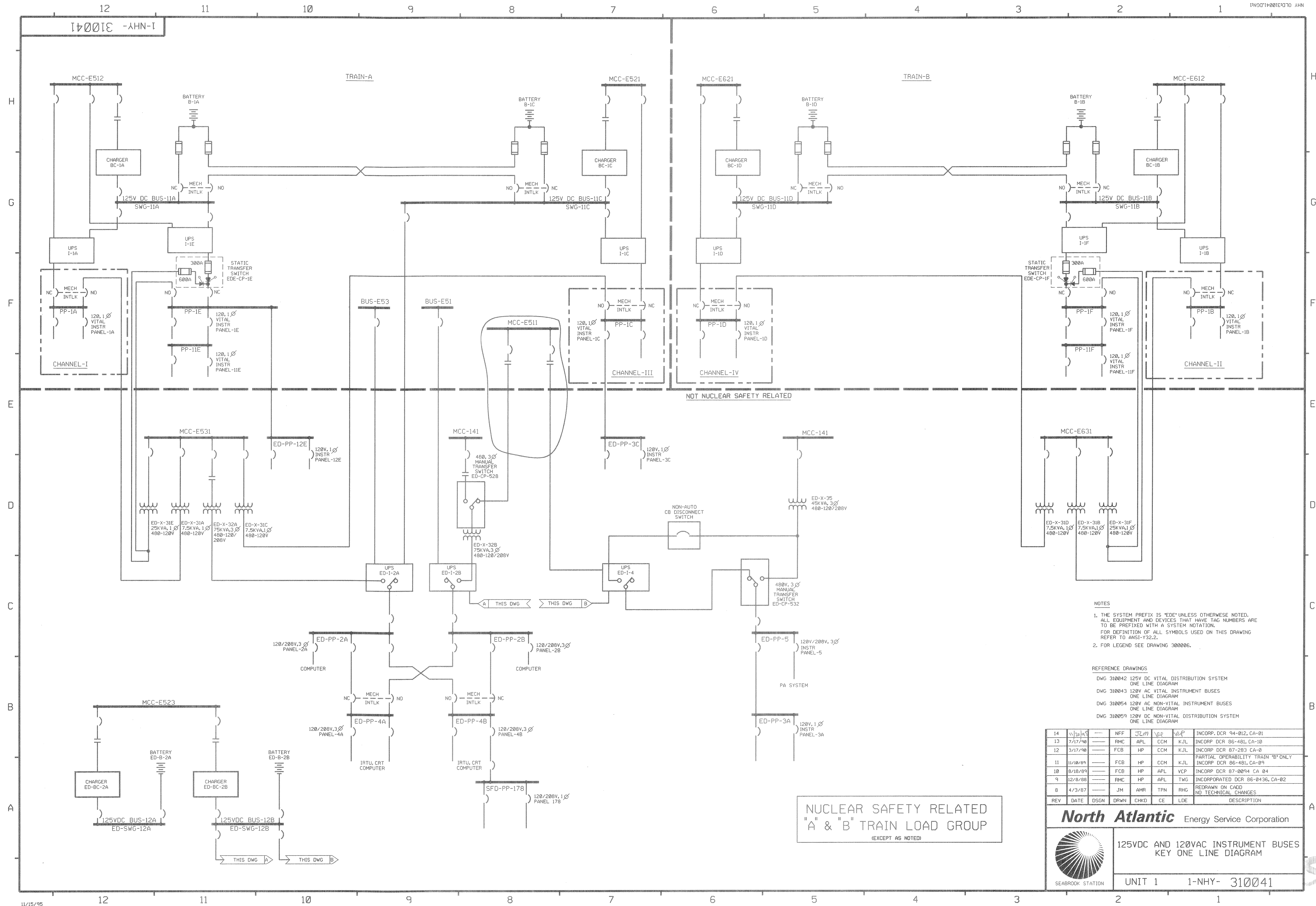


REV	DATE	DSGN	DRWN	CHKD	CE	LOE	DESCRIPTION
48	5/16/08		TLN	TPN	TPN	TPN	INCORP 86DCR812, DCN21
39	8/16/07		MLT	TPN	TPN	TPN	INCORP DCR 84-011 DCN 88
38	7/27/07		JLM	TPN	TPN	TPN	PART, INCORP 84DCR811 DCN-88

**FPL Energy**
Seabrook Station

UNIT ELECTRICAL DISTRIBUTION
ONE LINE DIAGRAM

UNIT 1 1-NHY- 310002



NOTES

1. THE SYSTEM PREFIX IS 'EDE' UNLESS OTHERWISE NOTED. ALL EQUIPMENT AND DEVICES THAT HAVE TAG NUMBERS ARE TO BE PREFIXED WITH A SYSTEM NOTATION. FOR DEFINITION OF ALL SYMBOLS USED ON THIS DRAWING REFER TO ANSI-Y32.2.

2. FOR LEGEND SEE DRAWING 300006.

REFERENCE DRAWINGS

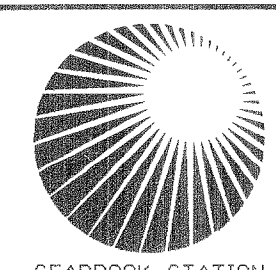
DWG 310042 125V DC VITAL DISTRIBUTION SYSTEM ONE LINE DIAGRAM

DWG 310043 120V AC VITAL INSTRUMENT BUSES ONE LINE DIAGRAM

DWG 310054 120V AC NON-VITAL INSTRUMENT BUSES ONE LINE DIAGRAM

DWG 310059 120V DC NON-VITAL DISTRIBUTION SYSTEM ONE LINE DIAGRAM

14	11/20/95	---	NFF	JLM	VLP	VLP	INCORP. DCR 94-012, CA-01
13	7/17/90	---	RMC	APL	CCM	KJL	INCORP. DCR 86-481, CA-10
12	3/17/90	---	FCB	HP	CCM	KJL	INCORP. DCR 87-283 CA-0
11	11/10/89	---	FCB	HP	CCM	KJL	PARTIAL OPERABILITY TRAIN 'B' ONLY INCORP. DCR 86-481, CA-09
10	8/18/89	---	FCB	HP	APL	VCP	INCORP. DCR 87-0094 CA 04
9	12/8/88	---	RMC	HP	APL	TWG	INCORPORATED DCR 86-0436, CA-02
8	4/3/87	---	JM	AMR	TPN	RHG	REDRAWN ON CADD NO TECHNICAL CHANGES
REV	DATE	DSGN	DRWN	CHKD	CE	LDE	DESCRIPTION

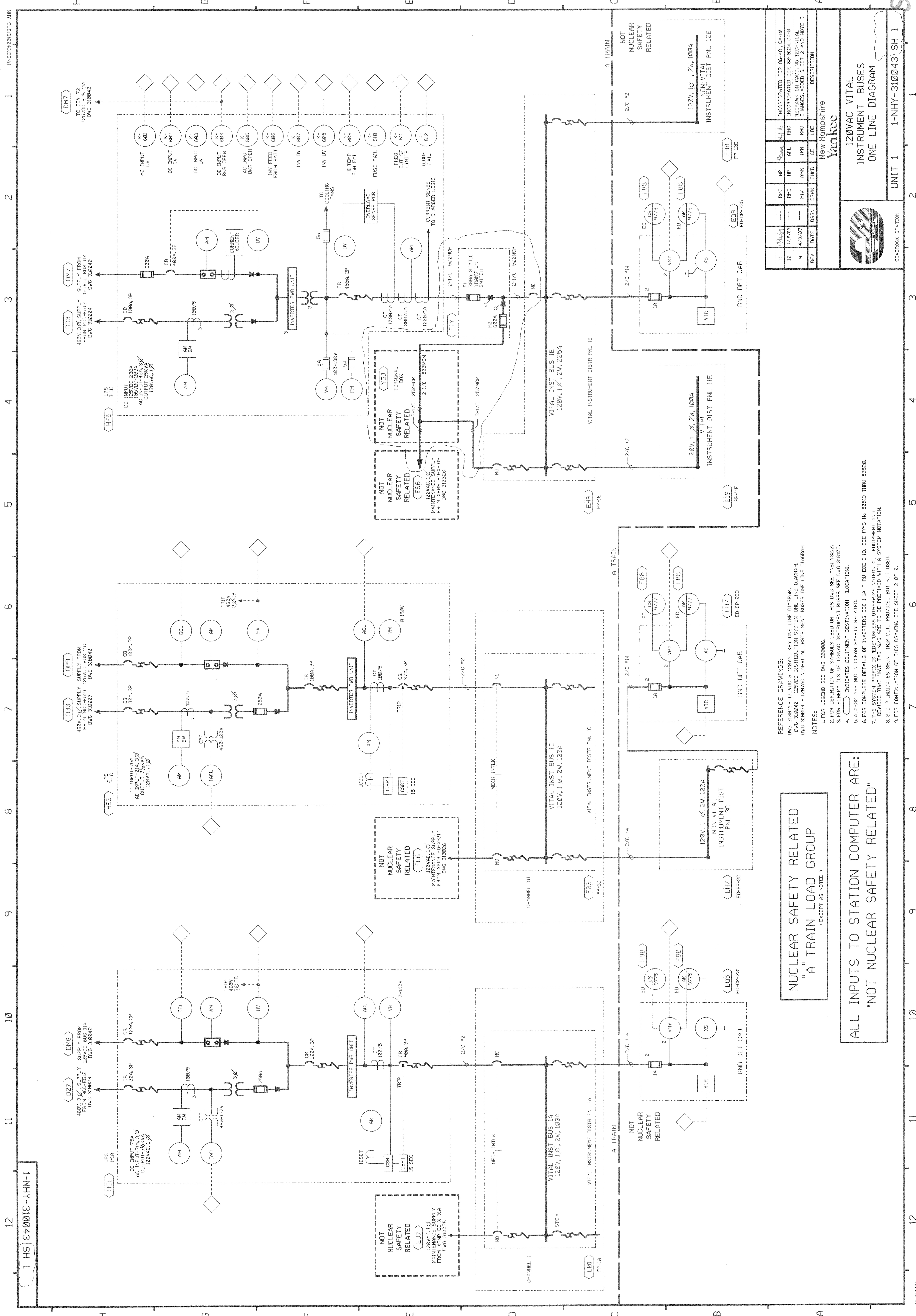


North Atlantic Energy Service Corporation

125VDC AND 120VAC INSTRUMENT BUSES
KEY ONE LINE DIAGRAM

UNIT 1 1-NHY- 310041

NUCLEAR SAFETY RELATED
"A" & "B" TRAIN LOAD GROUP
(EXCEPT AS NOTED)



REFERENCE DRAWINGS:
DWG 310041 - 120VDC & 120VAC KEY ONE LINE DIAGRAM
DWG 310042 - 120VDC & 120VAC DISTRIBUTION SYSTEM ONE LINE DIAGRAM
DWG 310054 - 120VAC NON-VITAL INSTRUMENT BUSES ONE LINE DIAGRAM

- NOTES:
- 1. FOR LEGEND SEE DWG 310006.
 - 2. FOR DEFINITION OF SYMBOLS USED ON THIS DWG SEE ANSI Y32.2.
 - 3. FOR SCHEMATICS OF 120VAC INSTRUMENT BUSES SEE DWG 310005.
 - 4. () INDICATES EQUIPMENT DESTINATION (LOCATION).
 - 5. ALARMS ARE NOT NUCLEAR SAFETY RELATED.
 - 6. FOR COMPLETE DETAILS OF INVERTERS EDE-1-1A THRU EDE-1-1D, SEE FP'S No 50013 THRU 50020.
 - 7. THE SYSTEM PREFIX IS 'EDE' (UNLESS OTHERWISE NOTED). ALL EQUIPMENT AND DEVICES THAT HAVE TAG NO'S ARE TO BE PREFIXED WITH A SYSTEM NOTATION.
 - 8. STC * INDICATES SHUNT TRIP COIL PROVIDED BUT NOT USED.
 - 9. FOR CONTINUATION OF THIS DRAWING SEE SHEET 2 OF 2.

NUCLEAR SAFETY RELATED
"A" TRAIN LOAD GROUP
(EXCEPT AS NOTED)

ALL INPUTS TO STATION COMPUTER ARE:
"NOT NUCLEAR SAFETY RELATED"

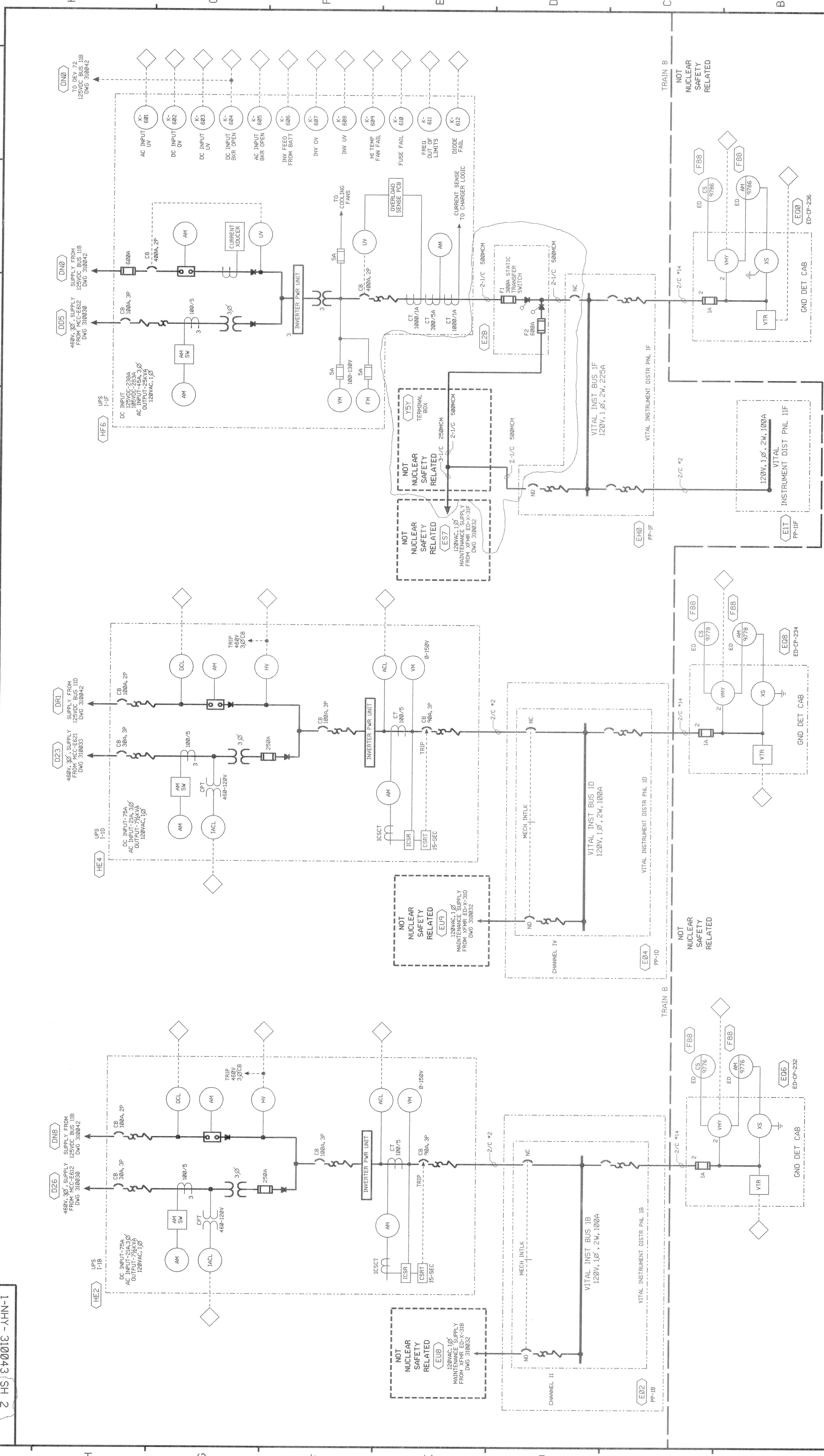
REV	DATE	DSGN	CHKD	CE	LDE	DESCRIPTION
11	11/14/93		RMC	HP	KJL	INCORPORATED DCR 86-181, CA-10
10	11/19/93		RMC	HP	APL	INCORPORATED DCR 88-0124, CA-8
9	4/3/87		HIV	AMR	TPN	REWORKED FOR CHANGES ADDED SHEET 2 AND NOTE 9

New Hampshire
Yankee

120VAC VITAL
INSTRUMENT BUSES
ONE LINE DIAGRAM

UNIT 1 1-NHY-310043 SH 1

SEABROOK STATION



NOTE: FOR CONTINUATION OF THIS DRAWING, NOTES AND REFERENCES SEE SHEET 1.

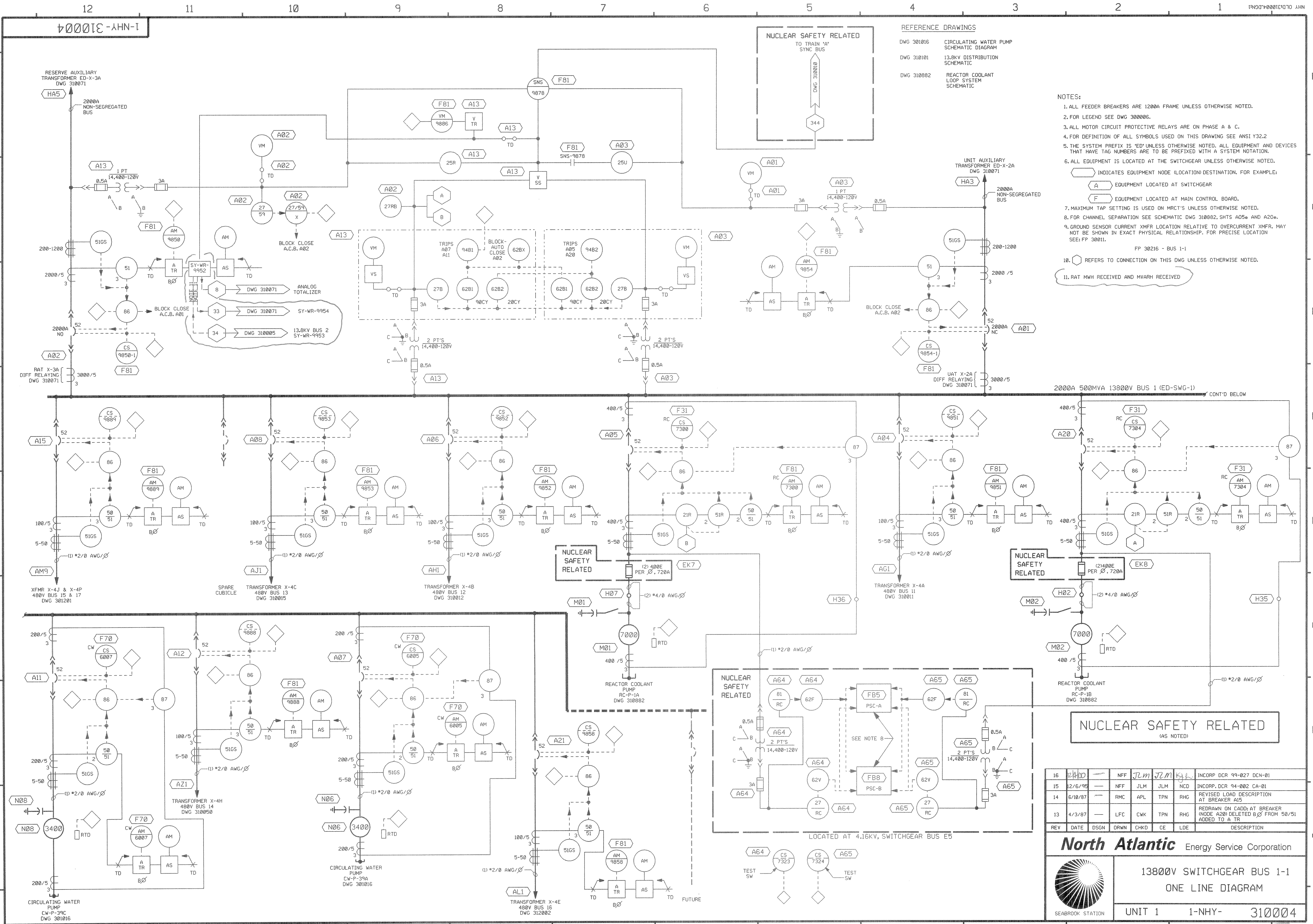
REV	DATE	DESCRIPTION
1	11/10/87	INCORP. DCR 88-481, CA-89
2	4/3/87	REDRAWN ON CAD, NO TECHNICAL CHANGES, ADDED SHEET 2 AND NOTE 9

Yankee
New Hampshire

REV	DATE	DESCRIPTION
1	11/10/87	INCORP. DCR 88-481, CA-89
2	4/3/87	REDRAWN ON CAD, NO TECHNICAL CHANGES, ADDED SHEET 2 AND NOTE 9

NUCLEAR SAFETY RELATED
"B" TRAIN LOAD GROUP
(EXCEPT AS NOTED)


ALL INPUTS TO STATION COMPUTER ARE:
"NOT NUCLEAR SAFETY RELATED"



REFERENCE DRAWINGS
DWG 301016 CIRCULATING WATER PUMP SCHEMATIC DIAGRAM
DWG 310101 13.8KV DISTRIBUTION SCHEMATIC
DWG 310882 REACTOR COOLANT LOOP SYSTEM SCHEMATIC

- NOTES:
- 1. ALL FEEDER BREAKERS ARE 1200A FRAME UNLESS OTHERWISE NOTED.
 - 2. FOR LEGEND SEE DWG 300006.
 - 3. ALL MOTOR CIRCUIT PROTECTIVE RELAYS ARE ON PHASE A & C.
 - 4. FOR DEFINITION OF ALL SYMBOLS USED ON THIS DRAWING SEE ANSI Y32.2
 - 5. THE SYSTEM PREFIX IS 'ED' UNLESS OTHERWISE NOTED. ALL EQUIPMENT AND DEVICES THAT HAVE TAG NUMBERS ARE TO BE PREFIXED WITH A SYSTEM NOTATION.
 - 6. ALL EQUIPMENT IS LOCATED AT THE SWITCHGEAR UNLESS OTHERWISE NOTED.
 - 7. MAXIMUM TAP SETTING IS USED ON MCT'S UNLESS OTHERWISE NOTED.
 - 8. FOR CHANNEL SEPARATION SEE SCHEMATIC DWG 310882, SHTS A05 AND A20.
 - 9. GROUND SENSOR CURRENT XMFR LOCATION RELATIVE TO OVERCURRENT XMFR, MAY NOT BE SHOWN IN EXACT PHYSICAL RELATIONSHIP, FOR PRECISE LOCATION SEE: FP 30011.
 - 10. REFERS TO CONNECTION ON THIS DWG UNLESS OTHERWISE NOTED.
 - 11. RAT MWH RECEIVED AND MVARH RECEIVED

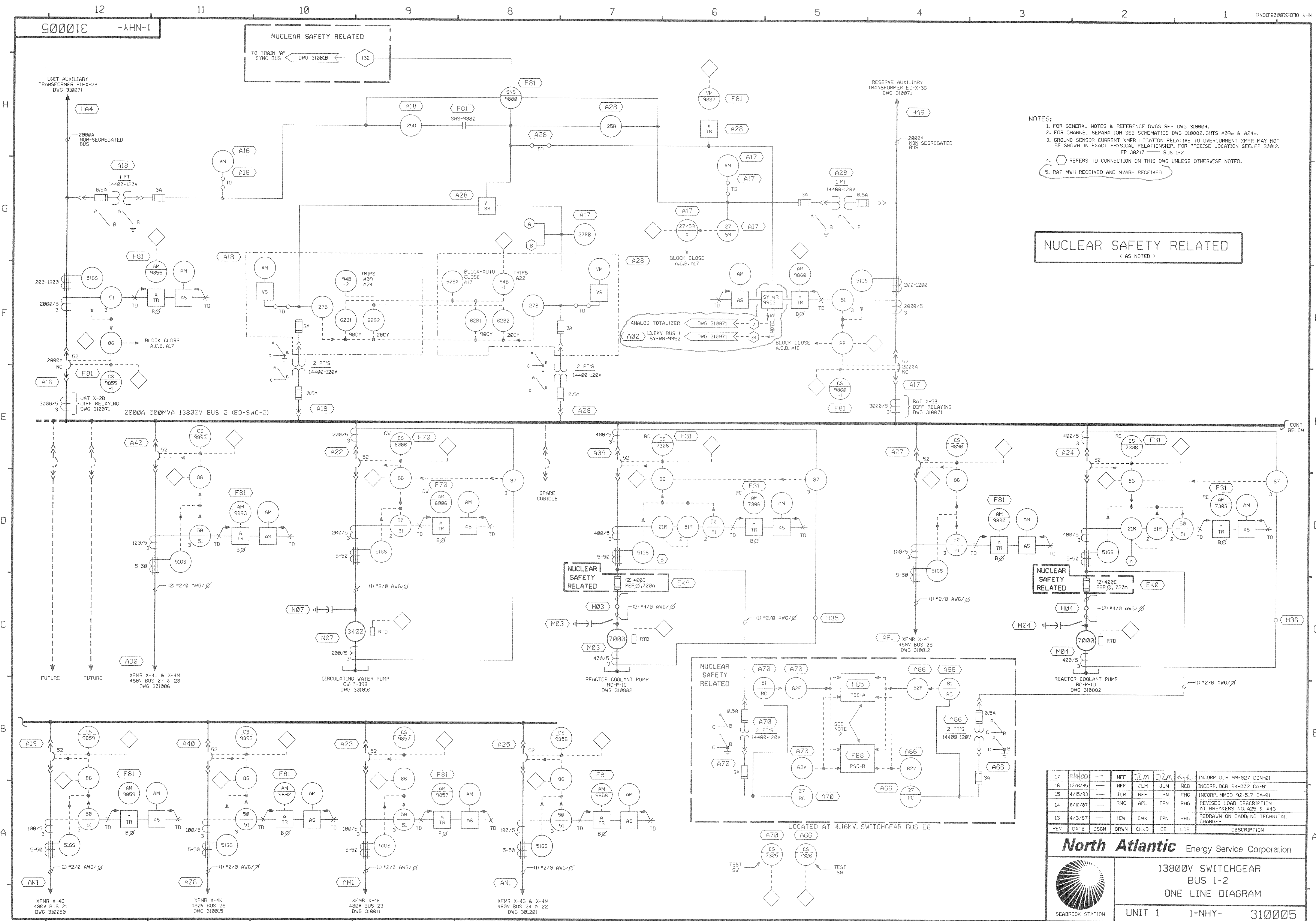
16	2/10/95	NFF	JLM	JLM	INCORP. DCR 94-027 DCN-01
15	2/6/95	NFF	JLM	JLM	INCORP. DCR 94-002 CA-01
14	6/10/87	RMC	APL	TPN	REVISED LOAD DESCRIPTION AT BREAKER AIS
13	4/3/87	LFC	CKW	TPN	REDRAWN ON CAD: AT BREAKER (NODE A20) DELETED B/D FROM 50/51 ADDED TO A TR
REV	DATE	DSGN	DRWN	CHKD	CE LDE DESCRIPTION



North Atlantic Energy Service Corporation

13800V SWITCHGEAR BUS 1-1
ONE LINE DIAGRAM

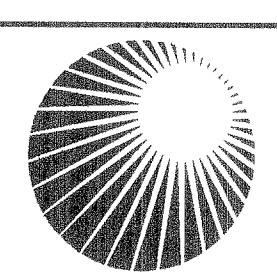
UNIT 1 1-NHY- 310004



- NOTES:
1. FOR GENERAL NOTES & REFERENCE DWGS SEE DWG 310004.
 2. FOR CHANNEL SEPARATION SEE SCHEMATICS DWG 310082, SHTS A09a & A24a.
 3. GROUND SENSOR CURRENT XMR LOCATION RELATIVE TO OVERCURRENT XMR MAY NOT BE SHOWN IN EXACT PHYSICAL RELATIONSHIP. FOR PRECISE LOCATION SEE: FP 30012, FP 30217 — BUS 1-2
 4. REFERS TO CONNECTION ON THIS DWG UNLESS OTHERWISE NOTED.
 5. RAT MWH RECEIVED AND MVARH RECEIVED

NUCLEAR SAFETY RELATED
(AS NOTED)

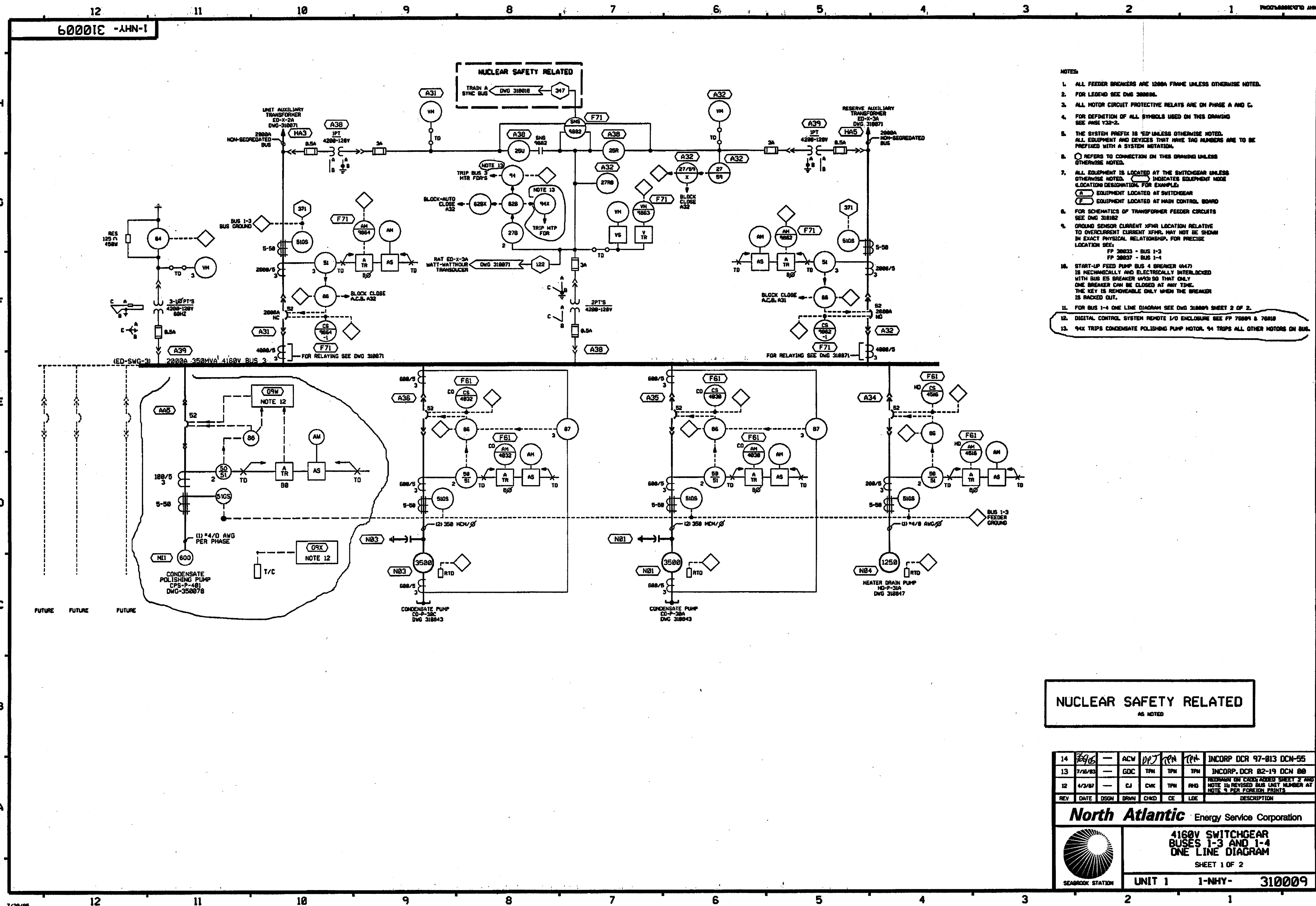
17	11/10/00	—	NFF	JLM	JLM	—	INCORP DCR 99-027 DCN-01
16	12/6/95	—	NFF	JLM	JLM	—	INCORP DCR 94-002 CA-01
15	4/15/93	—	JLM	NFF	TPN	RHG	INCORP MMOD 92-517 CA-01
14	6/10/87	—	RMC	APL	TPN	RHG	REVISED LOAD DESCRIPTION AT BREAKERS NO. A25 & A43
13	4/3/87	—	HW	CWK	TPN	RHG	REDRAWN ON CADD; NO TECHNICAL CHANGES
REV	DATE	DSGN	DRWN	CHKD	CE	LDE	DESCRIPTION



North Atlantic Energy Service Corporation


13800V SWITCHGEAR
BUS 1-2
ONE LINE DIAGRAM

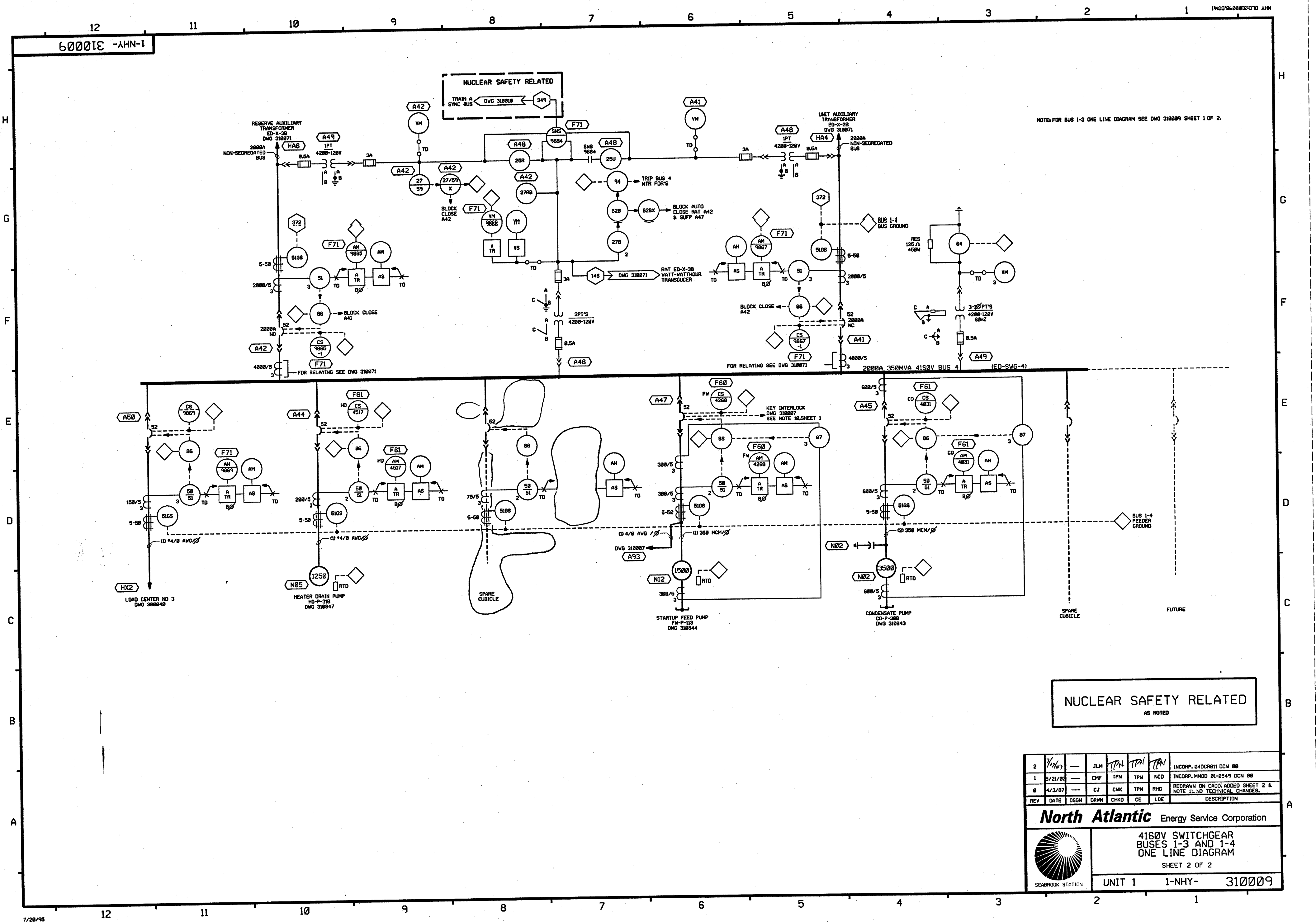
UNIT 1 1-NHY- 310005



- NOTES:
1. ALL FEEDER BREAKERS ARE 1200A FRAME UNLESS OTHERWISE NOTED.
 2. FOR LEGEND SEE DNG 310009.
 3. ALL MOTOR CIRCUIT PROTECTIVE RELAYS ARE ON PHASE A AND C.
 4. FOR DEFINITION OF ALL SYMBOLS USED ON THIS DRAWING SEE ANSI Y32-2.
 5. THE SYSTEM PREFIX IS 'ED' UNLESS OTHERWISE NOTED. ALL EQUIPMENT AND DEVICES THAT HAVE TAG NUMBERS ARE TO BE PREFIXED WITH A SYSTEM NOTATION.
 6. ○ REFERS TO CONNECTION ON THIS DRAWING UNLESS OTHERWISE NOTED.
 7. ALL EQUIPMENT IS LOCATED AT THE SWITCHGEAR UNLESS OTHERWISE NOTED. ○ INDICATES EQUIPMENT NODE LOCATION DESIGNATION. FOR EXAMPLE:
○ EQUIPMENT LOCATED AT SWITCHGEAR
○ EQUIPMENT LOCATED AT MAIN CONTROL BOARD
 8. FOR SCHEMATICS OF TRANSFORMER FEEDER CIRCUITS SEE DNG 310182.
 9. GROUND SENSOR CURRENT XFRMR. LOCATION RELATIVE TO OVERCURRENT CURRENT XFRMR. MAY NOT BE SHOWN IN EXACT PHYSICAL RELATIONSHIP. FOR PRECISE LOCATION SEE:
FP 30033 - BUS 1-3
FP 30037 - BUS 1-4
 10. START-UP FEED PUMP BUS 4 BREAKER (A47) IS MECHANICALLY AND ELECTRICALLY INTERLOCKED WITH BUS 1-3 BREAKER (A31) SO THAT ONLY ONE BREAKER CAN BE CLOSED AT ANY TIME. THE KEY IS REMOVABLE ONLY WHEN THE BREAKER IS RACKED OUT.
 11. FOR BUS 1-4 ONE LINE DIAGRAM SEE DNG 310009 SHEET 2 OF 2.
 12. DIGITAL CONTROL SYSTEM REMOTE I/O ENCLOSURE SEE FP 70004 & 70010.
 13. 94X TRIPS CONDENSATE POLISHING PUMP MOTOR. 94 TRIPS ALL OTHER MOTORS ON BUS.

NUCLEAR SAFETY RELATED
AS NOTED

14	7/28/95	—	ACW	DPJ	RM	TPN	INCORP DCR 97-013 DCN-55
13	7/16/93	—	GDC	TPN	TPN	TPN	INCORP DCR 82-19 DCN 00
12	4/3/87	—	CJ	CHK	TPN	RMG	REVISION ON CONFORMANCE SHEET 2 AND NOTE IN REVISION BUS UNIT NUMBER AT NOTE 3 PER FOREIGN PRINTS
REV	DATE	DSGN	DRWN	CHKD	CE	LDE	DESCRIPTION
North Atlantic Energy Service Corporation							
 SEABROOK STATION							
4160V SWITCHGEAR BUSES 1-3 AND 1-4 ONE LINE DIAGRAM SHEET 1 OF 2							
UNIT 1 1-NHY-							310009



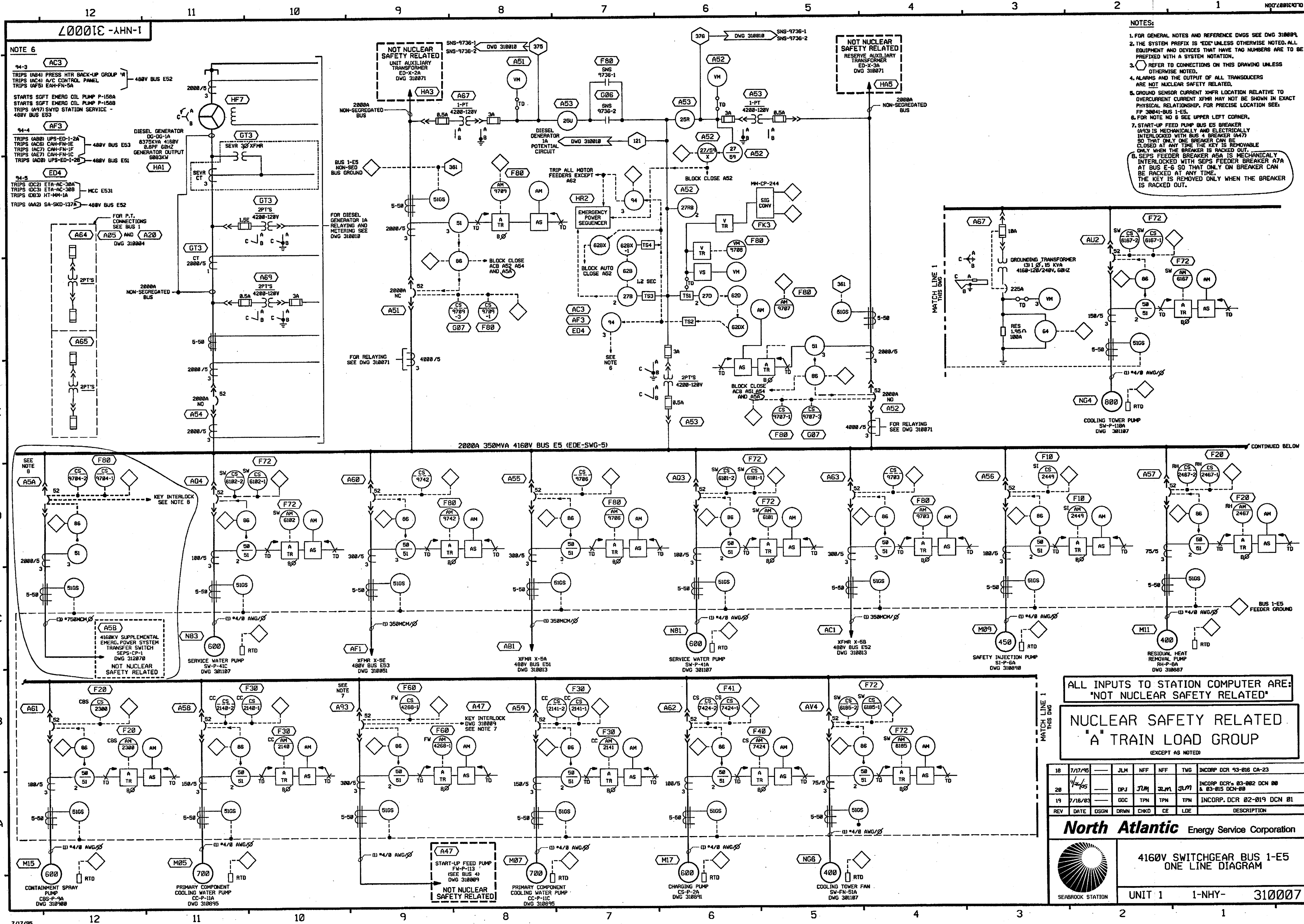
60001E -AHN-1

NUCLEAR SAFETY RELATED

NOTE: FOR BUS 1-3 ONE LINE DIAGRAM SEE DWG 310009 SHEET 1 OF 2.

NUCLEAR SAFETY RELATED
AS NOTED

2	7/1/87	—	JLM	TPH	TPH	TPH	INCORP. 84DCR011 DCN 00
1	5/21/82	—	CHF	TPN	TPN	NCD	INCORP. 84DCR011 DCN 00
0	4/3/87	—	CJ	CKW	TPN	RHG	REDRAWN ON CADD, ADDED SHEET 2 & NOTE 11, NO TECHNICAL CHANGES.
REV	DATE	DSGN	DRWN	CHKD	CE	LOE	DESCRIPTION
North Atlantic Energy Service Corporation							
4160V SWITCHGEAR BUSES 1-3 AND 1-4 ONE LINE DIAGRAM SHEET 2 OF 2							
UNIT 1 1-NHY- 310009							

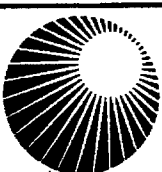


- NOTES:**
1. FOR GENERAL NOTES AND REFERENCE DWGS SEE DWG 310009.
 2. THE SYSTEM PREFIX IS 'E' UNLESS OTHERWISE NOTED. ALL EQUIPMENT AND DEVICES THAT HAVE TAG NUMBERS ARE TO BE PREFIXED WITH A SYSTEM NOTATION.
 3. REFER TO CONNECTIONS ON THIS DRAWING UNLESS OTHERWISE NOTED.
 4. ALARMS AND THE OUTPUT OF ALL TRANSDUCERS ARE NOT NUCLEAR SAFETY RELATED.
 5. GROUND SENSOR CURRENT XFR LOCATION RELATIVE TO OVERCURRENT CURRENT XFR MAY NOT BE SHOWN IN EXACT PHYSICAL RELATIONSHIP. FOR PRECISE LOCATION SEE: PP 30041-BUS 1-E5.
 6. FOR NOTE NO 6 SEE UPPER LEFT CORNER.
 7. START-UP FEED PUMP BUS E5 BREAKER (A93) IS MECHANICALLY AND ELECTRICALLY INTERLOCKED WITH BUS 4 BREAKER (A47) SO THAT ONLY ONE BREAKER CAN BE CLOSED AT ANY TIME. THE KEY IS REMOVABLE ONLY WHEN THE BREAKER IS RACKED OUT.
 8. SEPS FEEDER BREAKER A5A IS MECHANICALLY INTERLOCKED WITH SEPS FEEDER BREAKER A7A AT BUS E-6 SO THAT ONLY ONE BREAKER CAN BE RACKED AT ANY TIME. THE KEY IS REMOVABLE ONLY WHEN THE BREAKER IS RACKED OUT.

ALL INPUTS TO STATION COMPUTER ARE:
"NOT NUCLEAR SAFETY RELATED"
NUCLEAR SAFETY RELATED
"A" TRAIN LOAD GROUP
(EXCEPT AS NOTED)

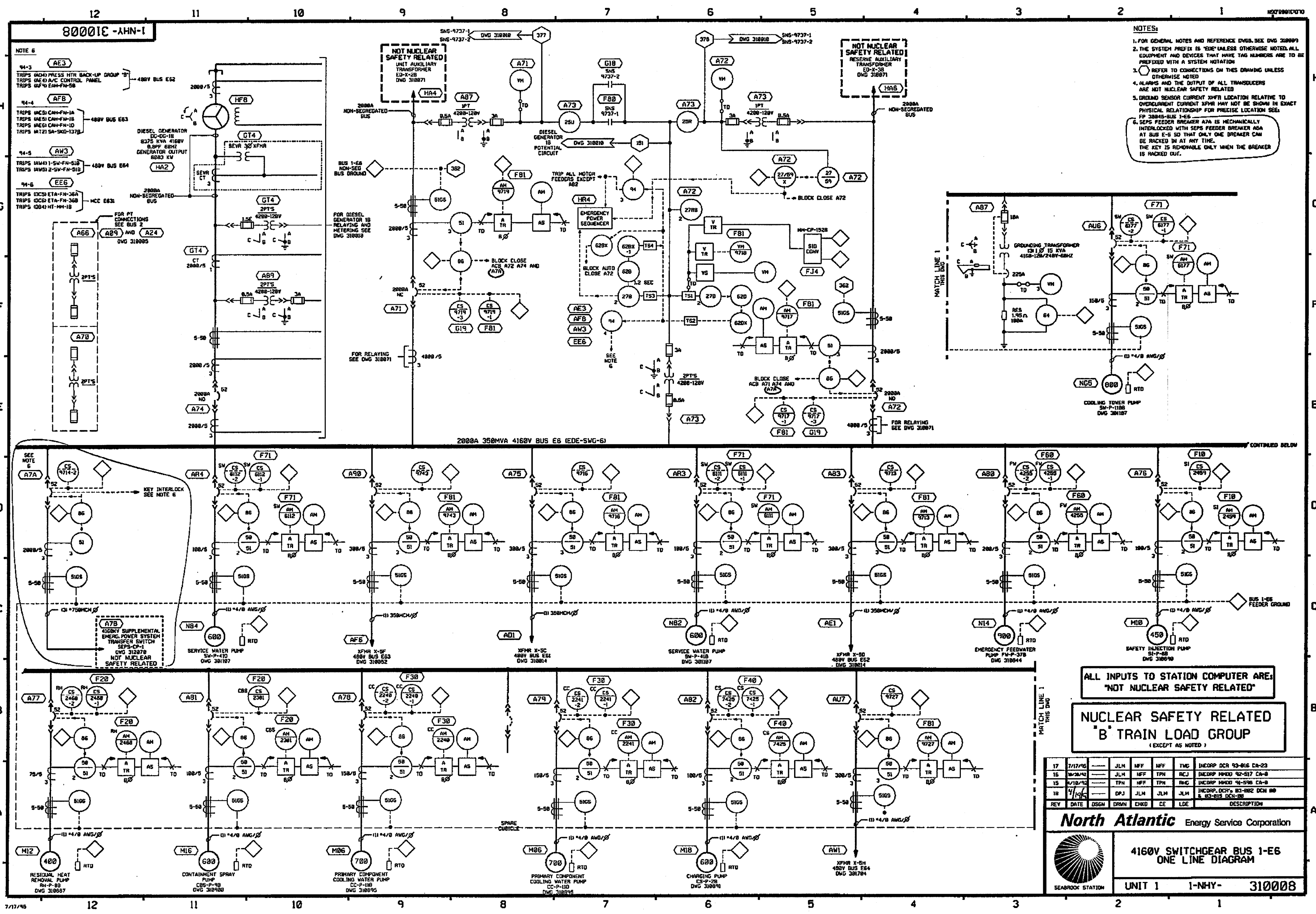
18	7/17/85	—	JLM	NFF	NFF	TWG	INCRP DCR 93-016 CA-23
20	4/2/85	—	DPJ	JLM	JLM	JLM	INCRP DCR-83-002 DCN 00 & 83-015 DCN-00
19	7/16/83	—	GDC	TPN	TPN	TPN	INCRP DCR 02-019 DCN 01
REV	DATE	DSGN	DRWN	CHKD	CE	LDE	DESCRIPTION

North Atlantic Energy Service Corporation



4160V SWITCHGEAR BUS 1-E5
ONE LINE DIAGRAM

UNIT 1 1-NHY-310007



- NOTES:
- 1. FOR GENERAL NOTES AND REFERENCE DWS, SEE DWS 30000.
 - 2. THE SYSTEM PREFIX IS 'E' UNLESS OTHERWISE NOTED. ALL EQUIPMENT AND DEVICES THAT HAVE TAG NUMBERS ARE TO BE PREFIXED WITH A SYSTEM NOTATION.
 - 3. REFER TO CONNECTIONS ON THIS DRAWING UNLESS OTHERWISE NOTED.
 - 4. ALARMS AND THE OUTPUT OF ALL TRANSDUCERS ARE NOT NUCLEAR SAFETY RELATED.
 - 5. GROUND SENSOR CURRENT XPMR LOCATION RELATIVE TO OVERCURRENT CURRENT XPMR MAY NOT BE SHOWN IN EXACT PHYSICAL RELATIONSHIP FOR PRECISE LOCATION SEE: FP 30040-BUS 1-E6.
 - 6. SEPS FEEDER BREAKER A7A IS MECHANICALLY INTERLOCKED WITH SEPS FEEDER BREAKER A7B AT BUS 1-E6 SO THAT ONLY ONE BREAKER CAN BE RACKED IN AT ANY TIME. THE KEY IS REMOVABLE ONLY WHEN THE BREAKER IS RACKED OUT.

ALL INPUTS TO STATION COMPUTER ARE:
"NOT NUCLEAR SAFETY RELATED"

**NUCLEAR SAFETY RELATED
"B" TRAIN LOAD GROUP**
(EXCEPT AS NOTED)

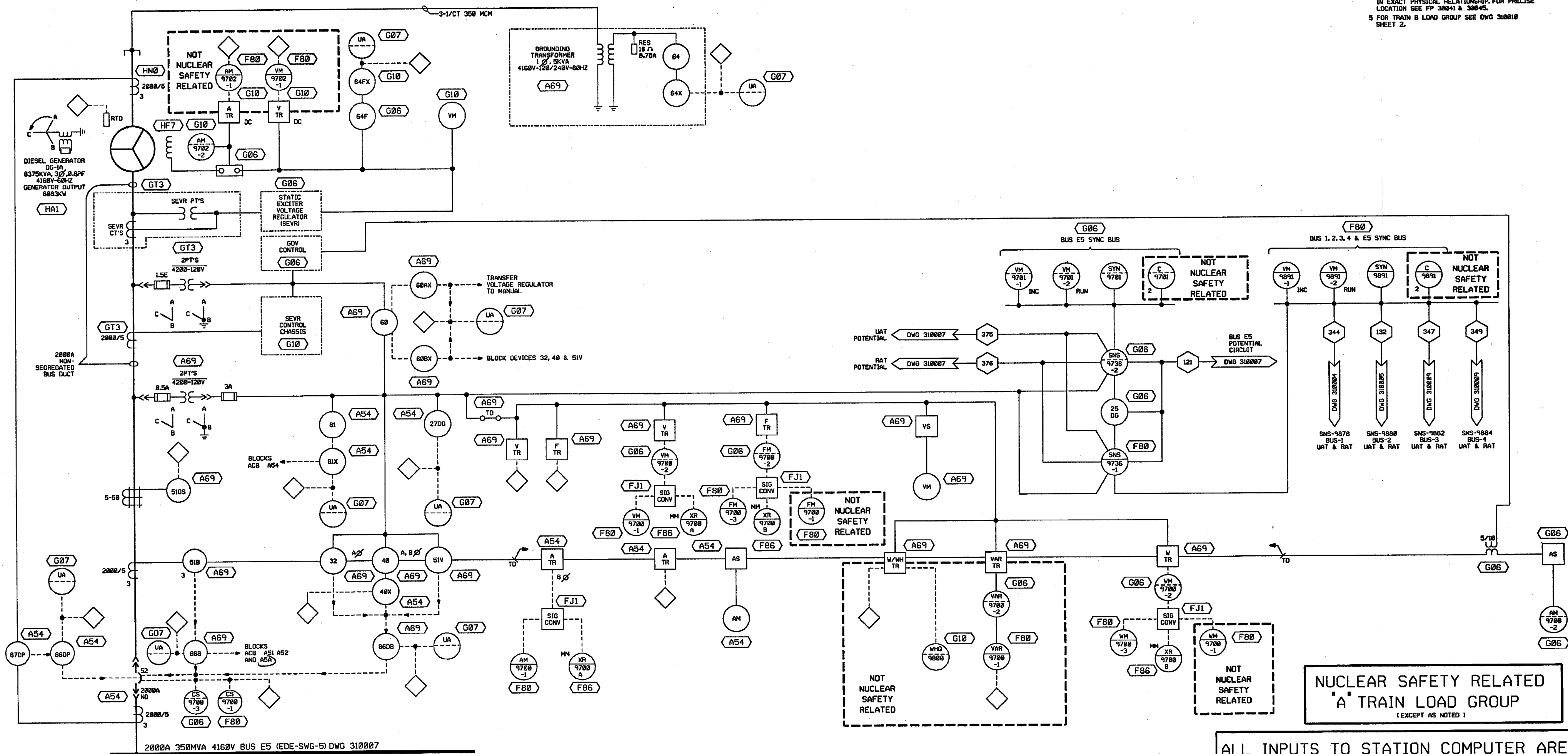
REV	DATE	DSGN	DRWN	CHKD	CE	LDE	DESCRIPTION
17	7/17/76	JLM	NFF	NFF	TMC	INCORP	DCR 93-016 CR-23
16	6/28/74	JLM	NFF	TPH	RLJ	INCORP	W400 92-517 CR-8
15	4/18/72	TPN	NFF	TPH	RNG	INCORP	W400 91-596 CR-8
14	7/1/71	DPJ	JLM	JLM	CE	INCORP	W400 89-082 DCR 80
13	6/1/71	JLM	CE	CE	LDE	INCORP	W400 88-000 CR-8

North Atlantic Energy Service Corporation

4160V SWITCHGEAR BUS 1-E6
ONE LINE DIAGRAM

UNIT 1 1-NHY- 310008

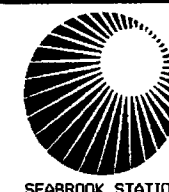
- 1 FOR GENERAL NOTES SEE DWG 310809
- 2 THE SYSTEM PREFIX IS 'EDE' UNLESS OTHERWISE NOTED. ALL EQUIPMENT & DEVICES THAT HAVE TAG NUMBERS ARE TO BE PREFIXED WITH A SYSTEM NOTATION.
- 3 ALL ALARMS AT MCB ARE NOT NUCLEAR SAFETY RELATED.
- 4 GROUND SENSOR CURRENT X4FR LOCATION RELATIVE TO OVERCURRENT CURRENT IS TO BE SHOWN IN EXACT PHYSICAL RELATIONSHIP. FOR PRECISE LOCATION SEE FP 38041 & 38045.
- 5 FOR TRAIN B LOAD GROUP SEE DWG 310818 SHEET 2.



ALL INPUTS TO STATION COMPUTER ARE:
"NOT NUCLEAR SAFETY RELATED"

13	11/6/95	---	JLM	NFF	NFF	VCP	INCRP DCR 95-022 CA-8
12	10/30/94	---	JLM	NFF	TPN	RCJ	INCRP MM00 92-517 CA-8
15	4/24/95	---	JLM	TPN	TPN	RCJ	INCRP DCR 83-015 DCN-88
4	7/17/83	---	CHF	JLM	JLM	TPN	INCRP DCR 81-0085 DCN 89
REV	DATE	PGDN	PGWN	CHKD	DE	DOE	DESCRIPTION

North Atlantic Energy Service Corporation

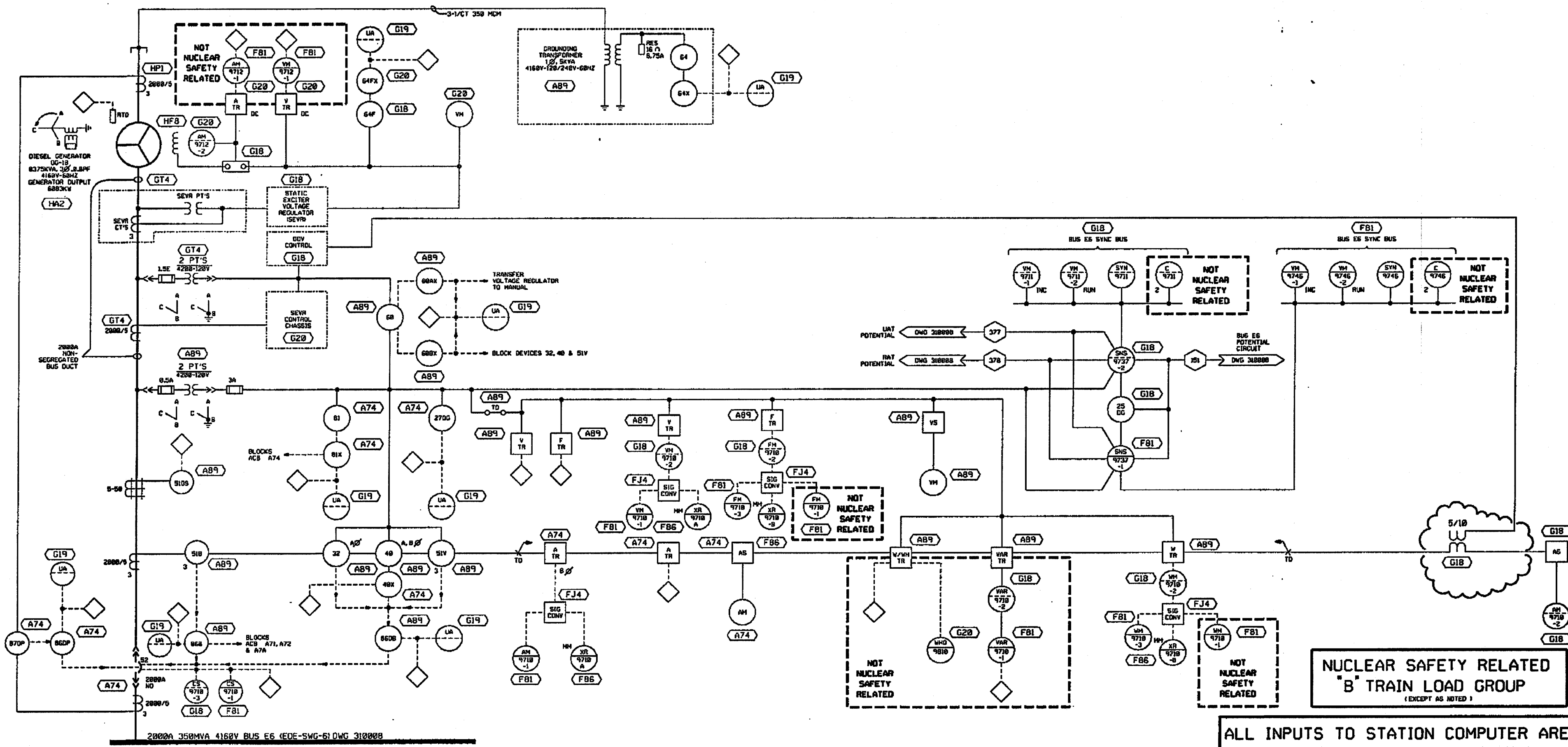


DIESEL GENERATOR DG-1A AND DG-1B ONE LINE DIAGRAM

UNIT 1 1-NHY- 310010

01001E -AHN-1


NOTES:
1 FOR NOTES SEE DWG 31001B SHEET 1.
2 FOR TRAIN A LOAD GROUP SEE DWG 31001B SHEET 1.



**NUCLEAR SAFETY RELATED
'B' TRAIN LOAD GROUP**
(EXCEPT AS NOTED)

**ALL INPUTS TO STATION COMPUTER ARE:
'NOT NUCLEAR SAFETY RELATED'**

4	4/1/75	SP	JLM	JLM	JLM	INCORP. DCR-81-0005, DCM-89-5 DCR 89-010 DCM-89	
3	11/6/75	JLM	NFF	NFF	VCP	INCORP. DCM 89-222 CA-8	
2	10/30/75	JLM	NFF	TPN	RCJ	INCORP. PH400 72-517 CA-8	
REV	DATE	DSGN	DRWN	CHKD	CE	LDE	DESCRIPTION

 SEABROOK STATION	North Atlantic Energy Service Corporation DIESEL GENERATOR DG-1A AND DC-1B ONE LINE DIAGRAM SHEET 2 OF 2 UNIT 1 1-NHY- 310010
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