

# LEGEND:

- 1. SUPPLY AIR
- 2. EXHAUST AIR
- 3. EXHAUST AIR
- 4. EXHAUST AIR

# NOTES:

1. SUPPLY AIR
2. EXHAUST AIR
3. EXHAUST AIR
4. EXHAUST AIR
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25. EXHAUST AIR

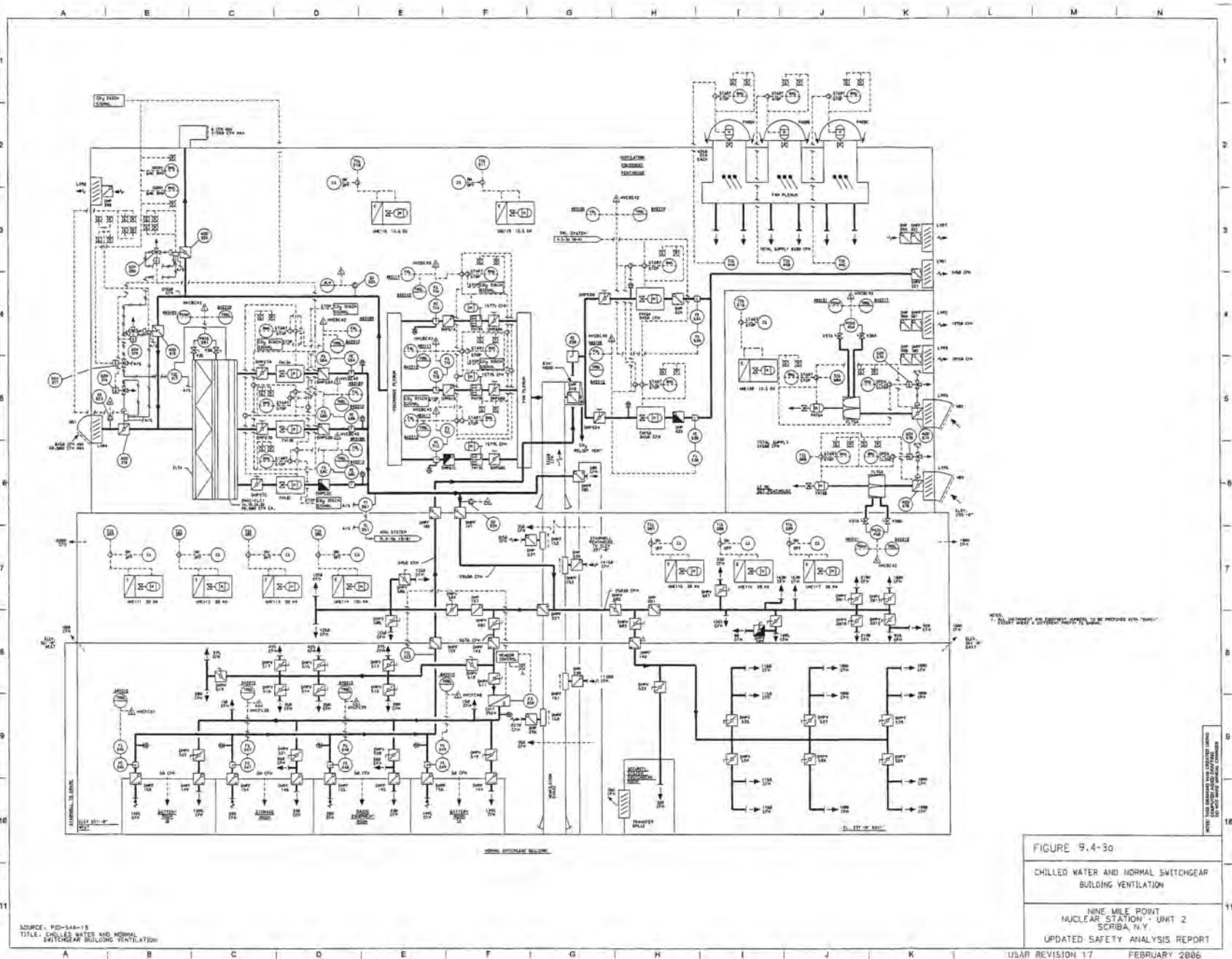
# NOTES:

1. SUPPLY AIR
2. EXHAUST AIR
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24. EXHAUST AIR
25. EXHAUST AIR

NOTES: THIS DRAWING IS A COPY OF THE ORIGINAL DRAWING. IT IS NOT TO BE USED FOR CONSTRUCTION PURPOSES.

FIGURE 9.4-2e  
MISCELLANEOUS HVAC SYSTEMS  
NINE MILE POINT  
NUCLEAR STATION - UNIT 2  
SCRIBA, N.Y.  
UPDATED SAFETY ANALYSIS REPORT

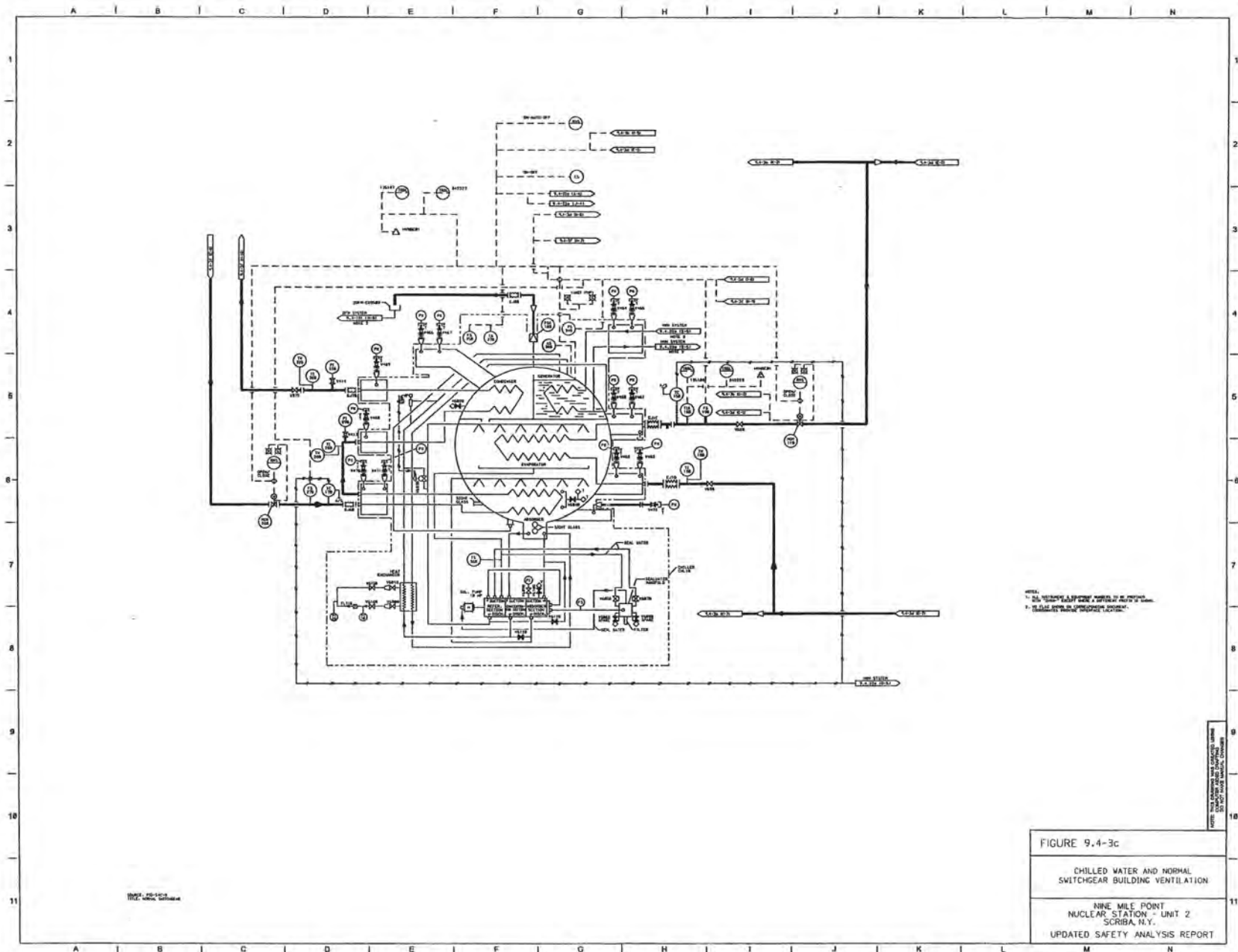




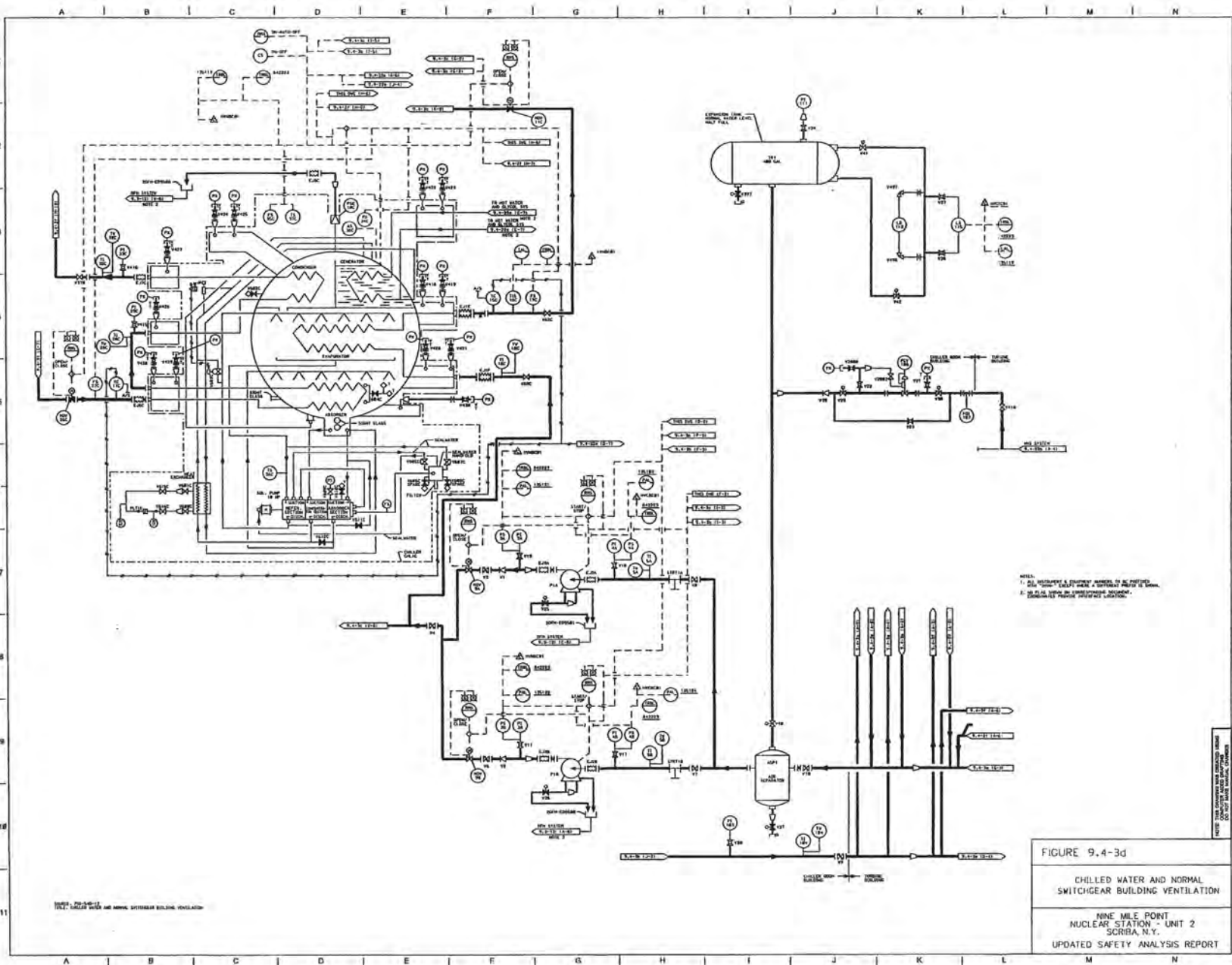




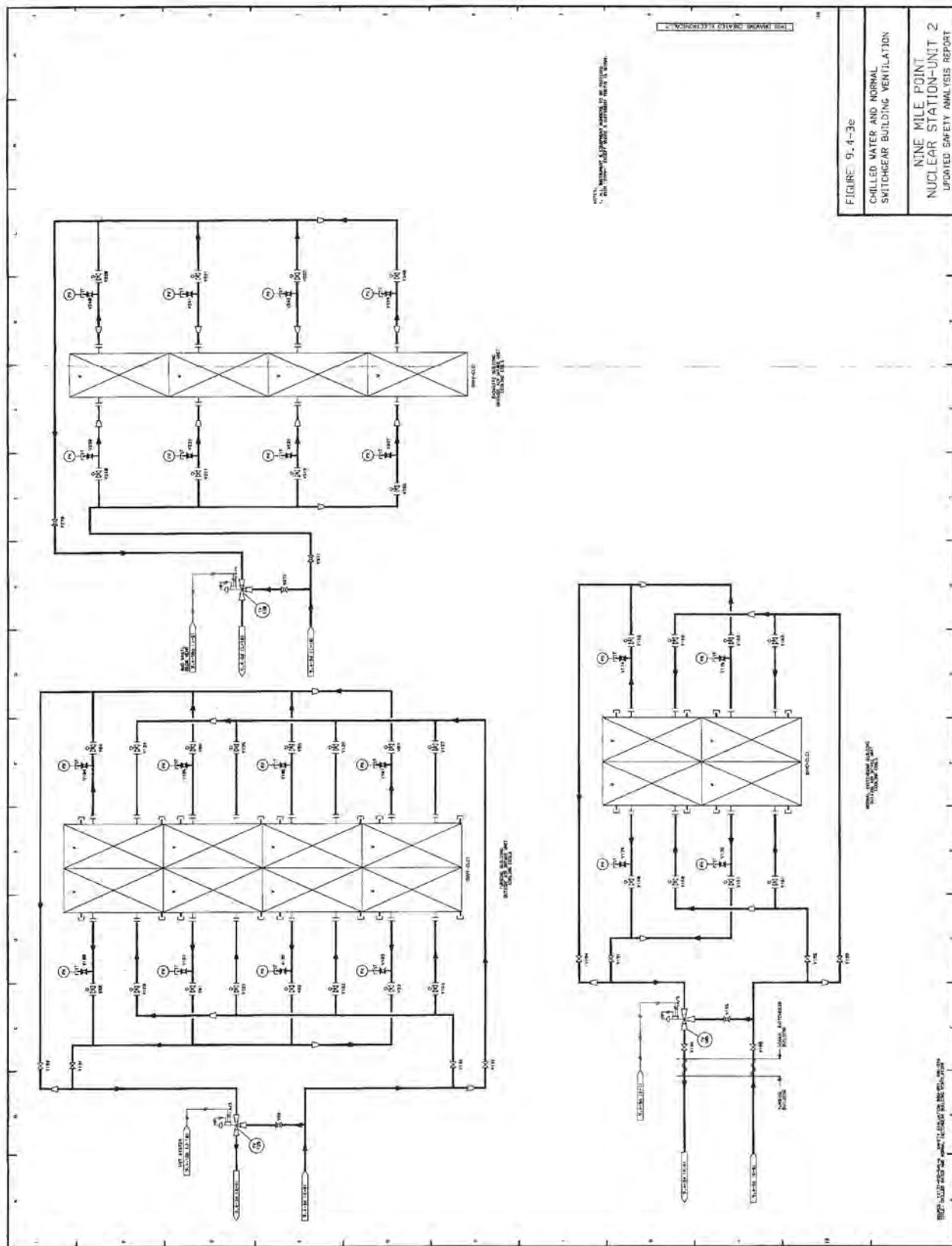




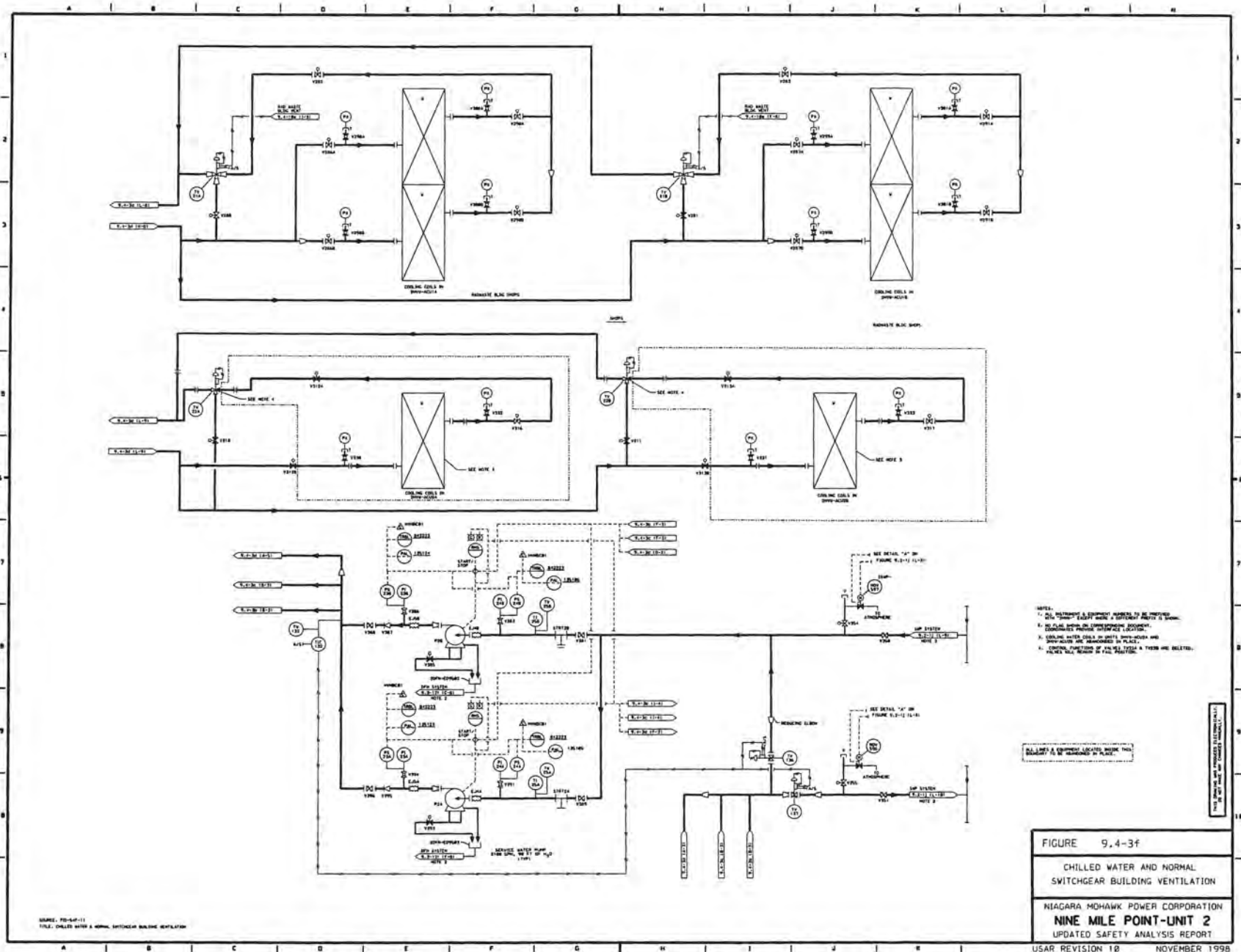








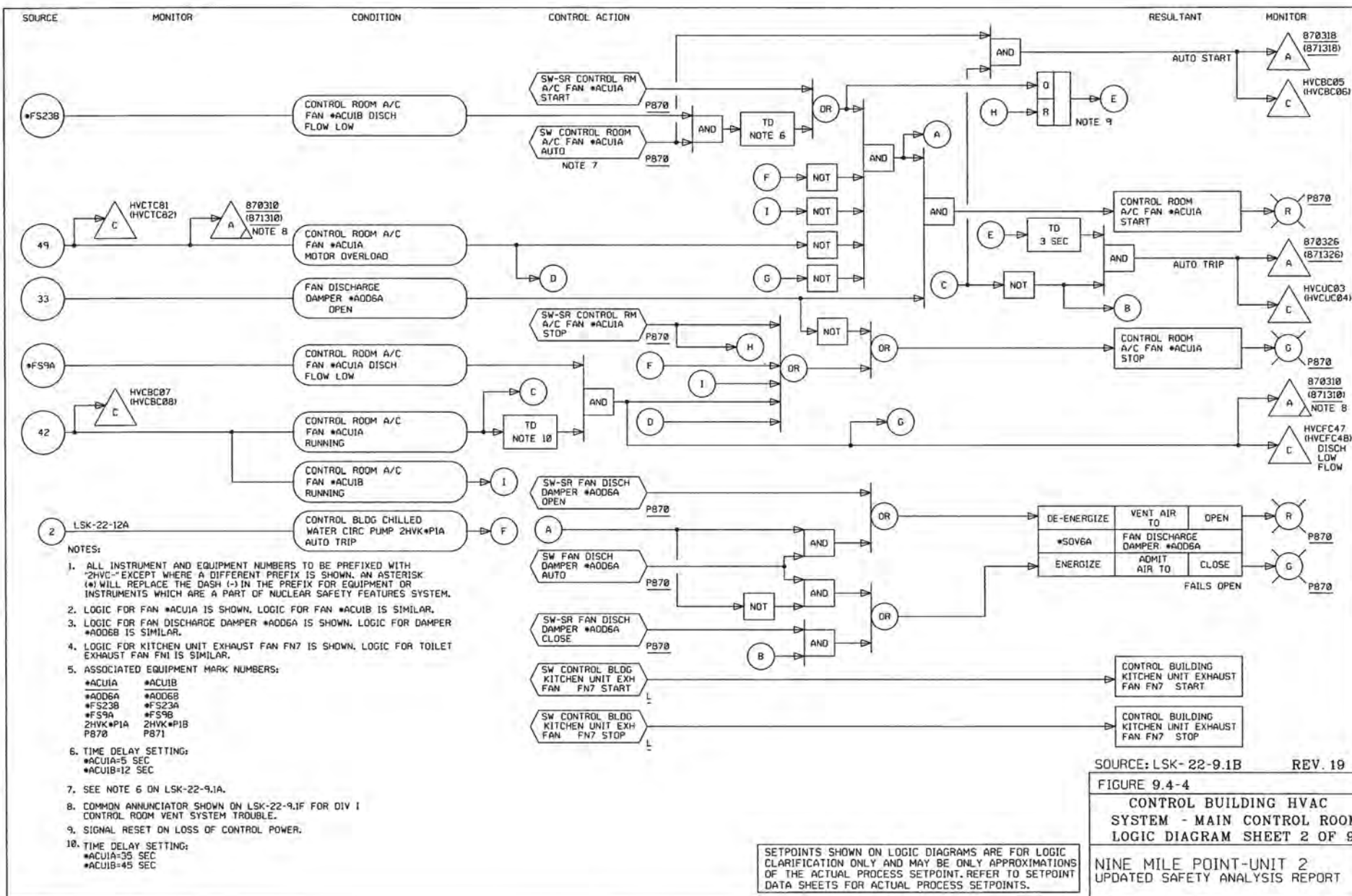












SOURCE: LSK-22-9.1B REV. 19

FIGURE 9.4-4

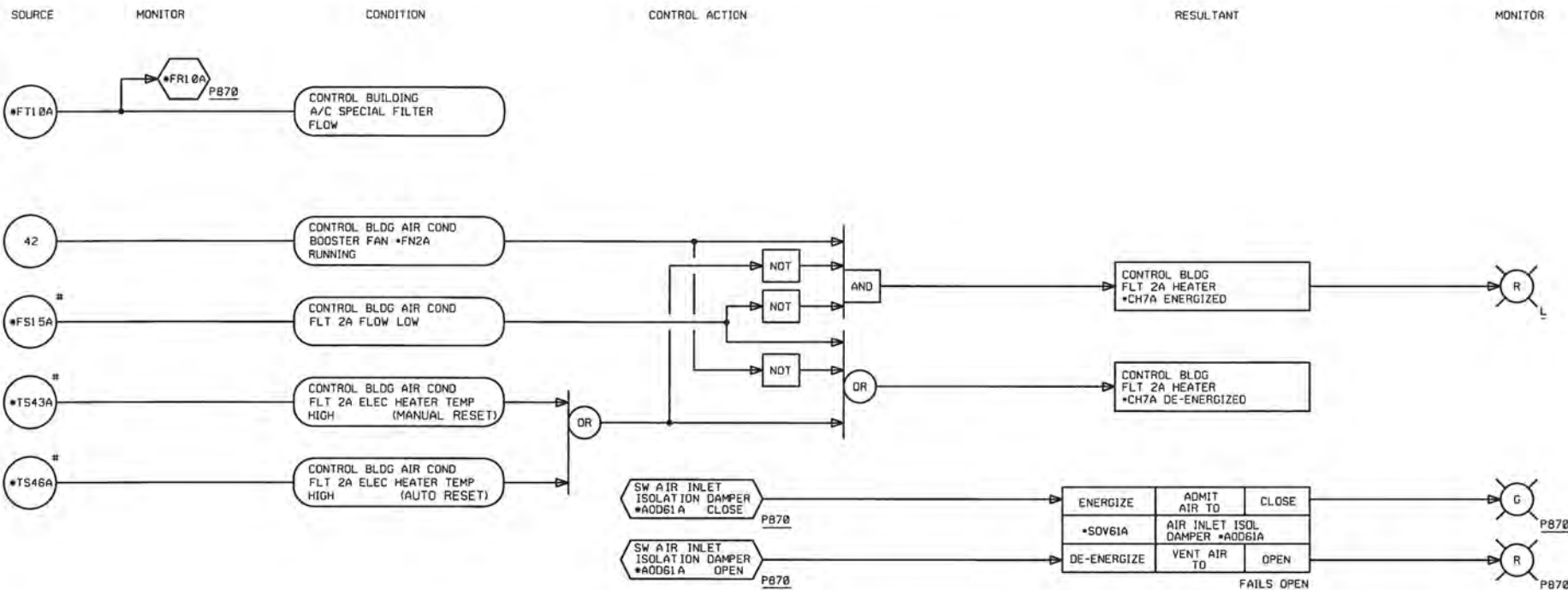
CONTROL BUILDING HVAC  
SYSTEM - MAIN CONTROL ROOM  
LOGIC DIAGRAM SHEET 2 OF 9

NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

USAR REVISION 17

OCTOBER 2006





#### NOTES:

- ALL INSTRUMENT AND EQUIPMENT NUMBERS TO BE PREFIXED WITH '2HVC-' EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN. AN ASTERISK (\*) WILL REPLACE THE DASH (-) IN THE PREFIX FOR EQUIPMENT OR INSTRUMENTS WHICH ARE A PART OF NUCLEAR SAFETY FEATURES SYSTEM.
- # - DENOTES SUPPLIED BY EQUIPMENT VENDOR.
- LOGIC FOR TRAIN A INSTRUMENTS AND EQUIPMENT IS SHOWN. LOGIC FOR TRAIN B INSTRUMENTS AND EQUIPMENT IS SIMILAR.
- ASSOCIATED EQUIPMENT MARK NUMBERS:

TRAIN A	TRAIN B
*FN2A	*FN2B
*FS15A	*FS15B
*TS43A	*TS43B
*A0061A	*A0061B
*FT18A	*FT18B
*FRI8A	*FRI8B
P870	P871
*CH7A	*CH7B

SOURCE: LSK-22-9.1C REV. 15

FIGURE 9.4-4

CONTROL BUILDING HVAC  
SYSTEM - MAIN CONTROL ROOM  
LOGIC DIAGRAM SHEET 3 OF 9

SETPOINTS SHOWN ON LOGIC DIAGRAMS ARE FOR LOGIC CLARIFICATION ONLY AND MAY BE ONLY APPROXIMATIONS OF THE ACTUAL PROCESS SETPOINT. REFER TO SETPOINT DATA SHEETS FOR ACTUAL PROCESS SETPOINTS.

NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

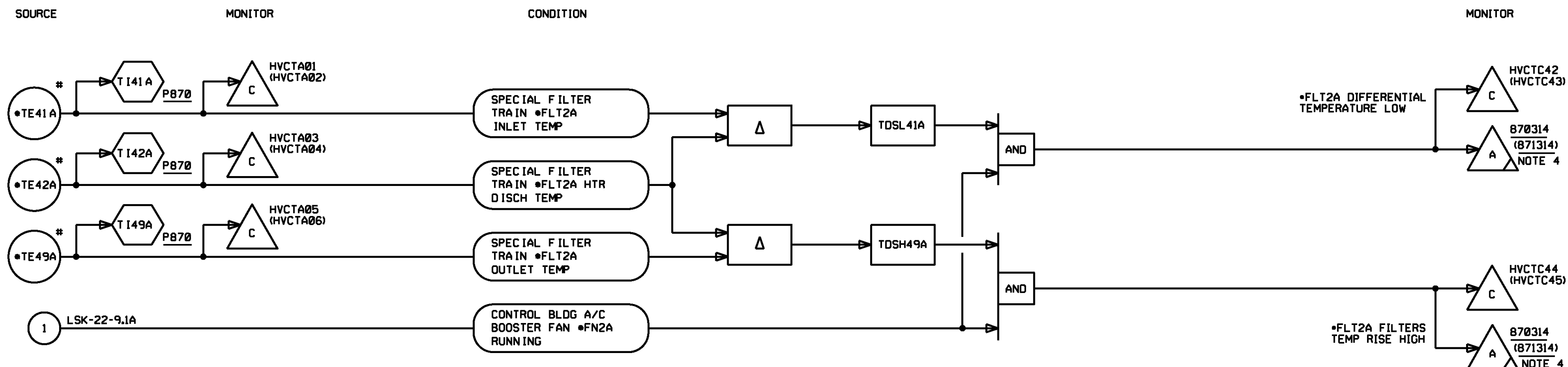
USAR REVISION 15

OCTOBER 2002









#### NOTES:

1. ALL INSTRUMENT AND EQUIPMENT NUMBERS TO BE PREFIXED WITH "2HVC-" EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN. AN ASTERISK (\*) WILL REPLACE THE DASH (-) IN THE PREFIX FOR EQUIPMENT OR INSTRUMENTS WHICH ARE A PART OF NUCLEAR SAFETY FEATURES SYSTEM.
2. ALARMS FOR HVAC TRAIN A PANEL ARE SHOWN. ALARMS FOR HVAC TRAIN B PANEL ARE SIMILAR.
3. SEE LSK-22-9.1G FOR ASSOCIATED EQUIPMENT MARK NUMBERS.
4. COMMON ANNUNCIATOR SHOWN ON LSK-22-9.1F AND 9.1A FOR DIV I SPECIAL FILTER TRAIN A TROUBLE.
5. EQUIPMENT LOCATED ON P870 FOR TRAIN A IS LOCATED ON P871 FOR TRAIN B.

SETPOINTS SHOWN ON LOGIC DIAGRAMS ARE FOR LOGIC CLARIFICATION ONLY AND MAY BE ONLY APPROXIMATIONS OF THE ACTUAL PROCESS SETPOINT. REFER TO SETPOINT DATA SHEETS FOR ACTUAL PROCESS SETPOINTS.

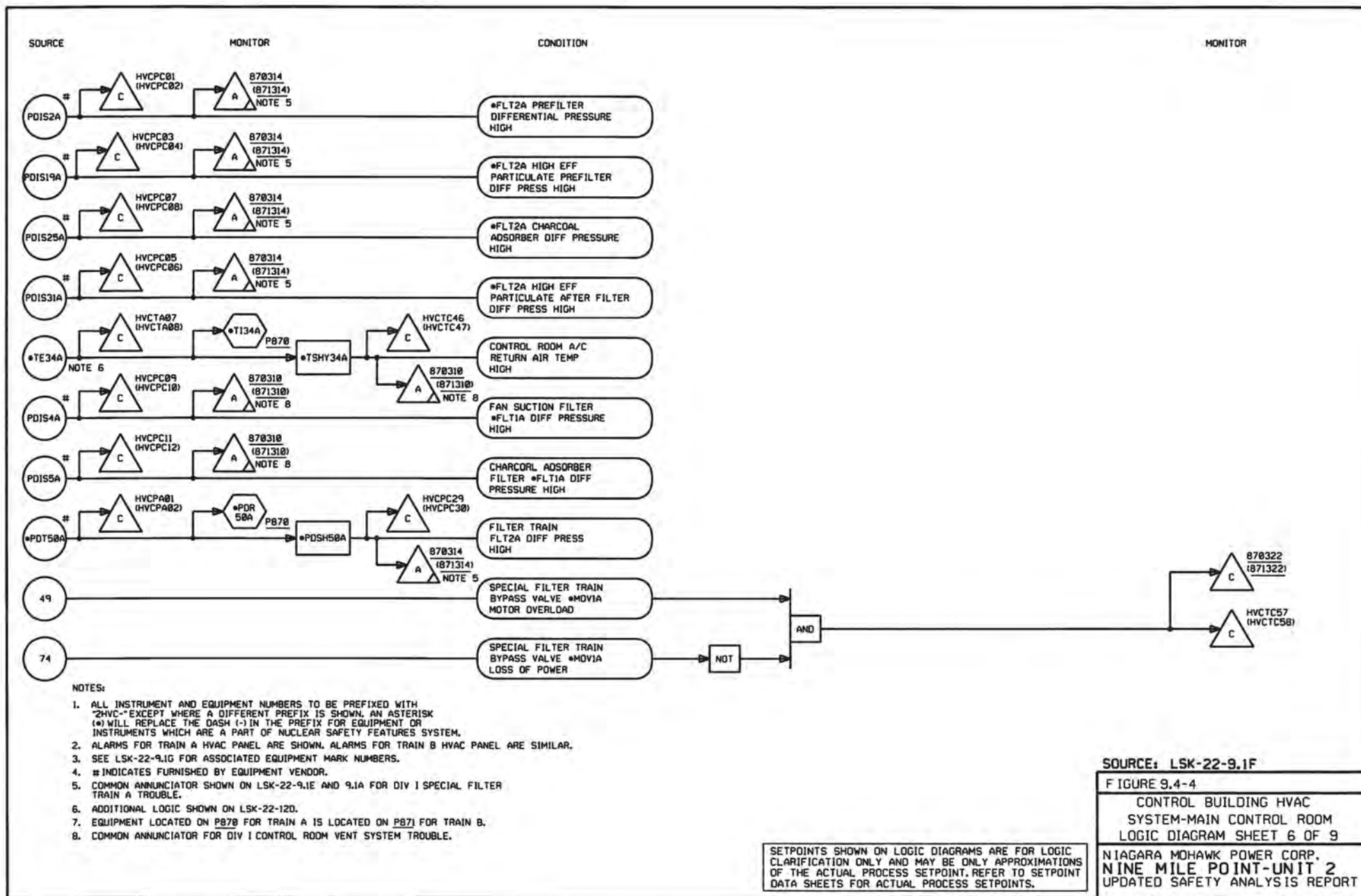
SOURCE: LSK-22-9.1E REV. 17

FIGURE 9.4-4

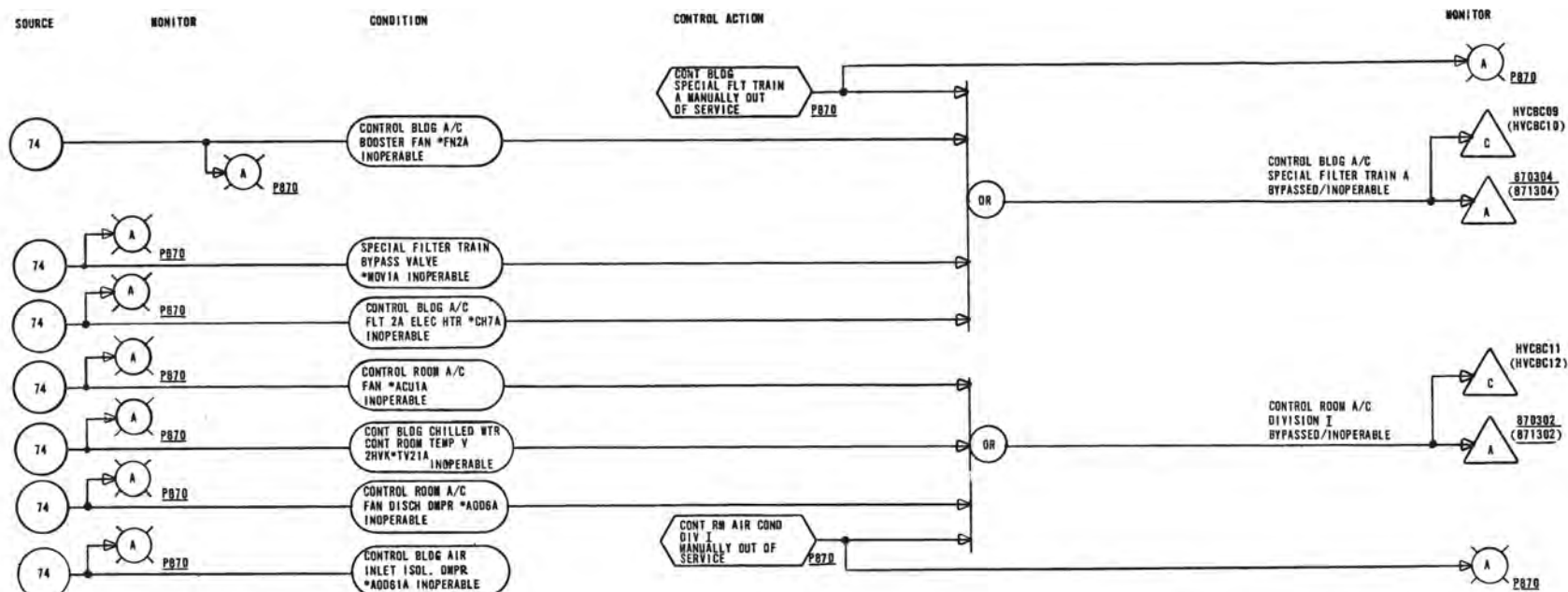
CONTROL BUILDING HVAC  
SYSTEM - MAIN CONTROL ROOM  
LOGIC DIAGRAM SHEET 5 OF 9

NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT









# NOTES:

- ALL INSTRUMENT AND EQUIPMENT NUMBERS TO BE PREFIXED WITH "2HVC-" EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN. AN ASTERISK (\*) WILL REPLACE THE DASH (-) IN THE PREFIX FOR INSTRUMENT AND EQUIPMENT WHICH ARE A PART OF NUCLEAR SAFETY FEATURES SYSTEMS.
- OPERABILITY OF CONTROL ROOM AIR CONDITIONING TRAIN A MONITORING IS SHOWN. OPERABILITY OF CONTROL ROOM AIR CONDITIONING TRAIN B MONITORING IS SIMILAR.
- ASSOCIATED EQUIPMENT MARK NUMBERS:

TRAIN A	TRAIN B	TRAIN A	TRAIN B
*CH7A	*CH7B	P01S5A	P01S5B
*FN2A	*FN2B		
		*TE34A	*TE34B
*MOV1A	*MOV1B	*TS64A	*TS64B
*ACU1A	*ACU1B	P870	P871
*A006A	*A006B	*TE49A	*TE49B
*RE18A	*RE18B	P01S2A	P01S2B
*RE18C	*RE18D	P01S19A	P01S19B
*TE41A	*TE41B	P01S25A	P01S25B
*TE42A	*TE42B	P01S31A	P01S31B
P01S4A	P01S4B		
*A0061A	*A0061B	2HVK*TV21A	2HVK*TV21B

# NOTE:

FOR LATEST SET POINT INFORMATION  
SEE SET POINT DATA SHEET

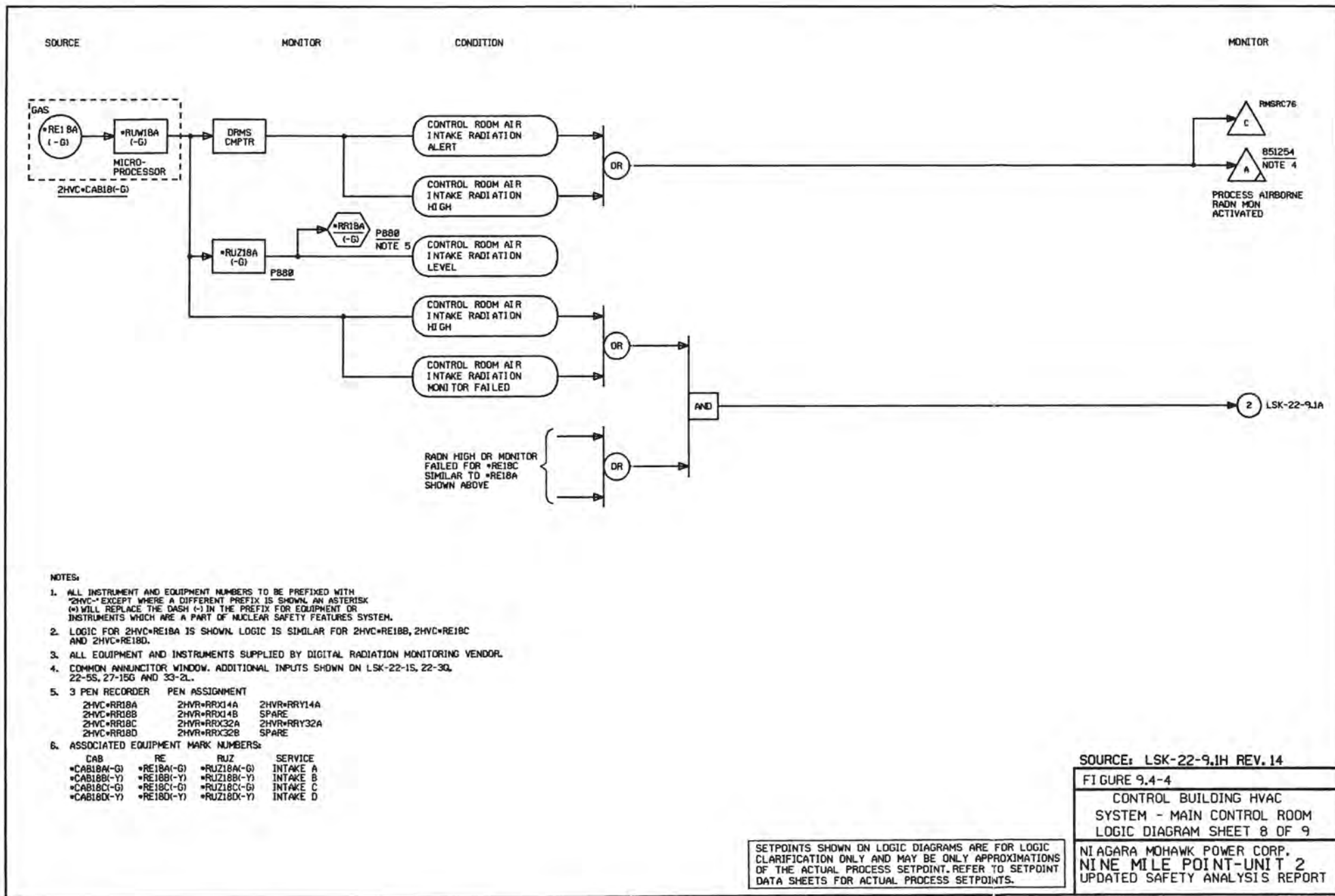
SOURCE: 12177-LSK-22-9.1G REV.13

FIGURE 9.4-4

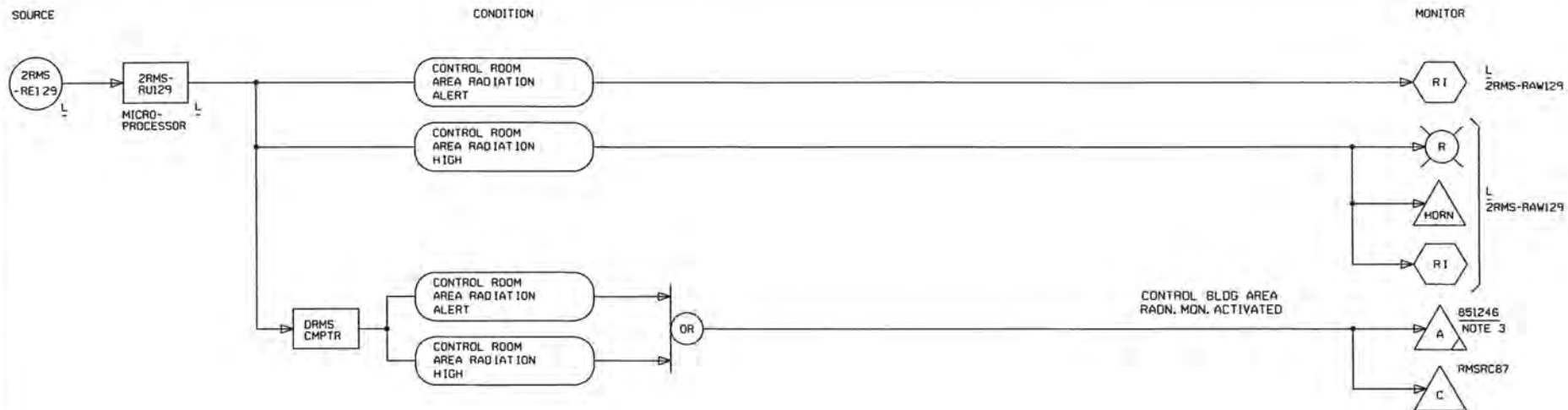
CONTROL BUILDING HVAC  
SYSTEM-MAIN CONTROL ROOM  
LOGIC DIAGRAM SHEET 7 OF 9

NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT









NOTES:

1. ALL INSTRUMENT AND EQUIPMENT NUMBERS TO BE PREFIXED WITH 'ZHV-' EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN.
2. LOGIC FOR 2RMS-RE129 IS SHOWN. LOGIC FOR 2RMS-RE130 AND 2RMS-RE190 IS SIMILAR.
3. COMMON ANNUNCIATOR WINDOW FOR 2RMS-RE129, RE130 AND RE190.
4. ALL EQUIPMENT AND INSTRUMENTS SUPPLIED BY DIGITAL RADIATION MONITORING VENDOR.
5. ASSOCIATED EQUIPMENT MARK NUMBERS:

RE	RU	SERVICE
2RMS-RE129	2RMS-RU129	MN CONTROL ROOM
2RMS-RE130	2RMS-RU130	RMT SHT ON PNLA
2RMS-RE190	2RMS-RU190	RLY AND CMPTR RM

SETPOINTS SHOWN ON LOGIC DIAGRAMS ARE FOR LOGIC CLARIFICATION ONLY AND MAY BE ONLY APPROXIMATIONS OF THE ACTUAL PROCESS SETPOINT. REFER TO SETPOINT DATA SHEETS FOR ACTUAL PROCESS SETPOINTS.

SOURCE: LSK-22-9.1J REV. 16

FIGURE 9.4-4

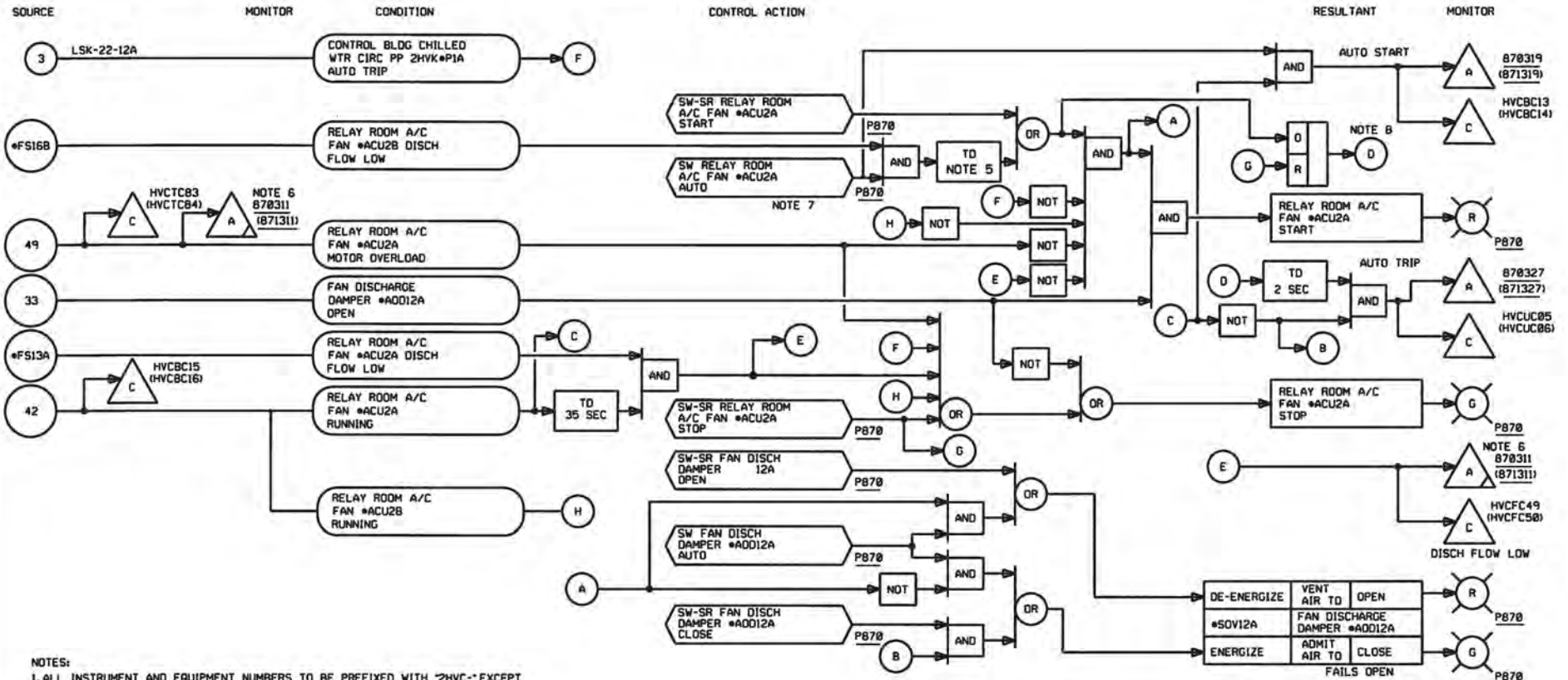
CONTROL BUILDING HVAC  
SYSTEM - MAIN CONTROL ROOM  
LOGIC DIAGRAM SHEET 9 OF 9

NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

USAR REVISION 16

OCTOBER 2004





#### NOTES:

1. ALL INSTRUMENT AND EQUIPMENT NUMBERS TO BE PREFIXED WITH "2HVC-" EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN. AN ASTERISK (\*) WILL REPLACE THE DASH (-) IN THE PREFIX FOR EQUIPMENT OR INSTRUMENTS WHICH ARE PART OF NUCLEAR SAFETY FEATURES SYSTEM.

2. LOGIC FOR A/C FAN \*ACU2A IS SHOWN. LOGIC FOR A/C FAN \*ACU2B IS SIMILAR.

3. LOGIC FOR DAMPER \*ADD12A IS SHOWN. LOGIC FOR DAMPER \*ADD12B IS SIMILAR.

4. ASSOCIATED EQUIPMENT MARK NUMBERS:

*ACU2A	*ACU2B
*ADD12A	*ADD12B
*FS16A	*FS16B
*FS13A	*FS13B
*TE37A	*TE37B
2HVC-P1A	2HVC-P1B

5. TIME DELAY SETTING:

\*ACU2A=12 SEC  
\*ACU2B=5 SEC

6. SEE NOTE 3 ON LSK-9.2C.

7. AUTO INCLUDES AUTO START IN BOTH "NORMAL AFTER TRIP" AND "NORMAL AFTER START" POSITIONS. AUTO START ALARM OCCURS ONLY IF SWITCH IS IN "NORMAL AFTER TRIP" POSITION COINCIDENT WITH OTHER FUNCTIONS SHOWN.

8. SIGNAL RESET ON LOSS OF CONTROL POWER.

SOURCE: LSK-22-9.2A

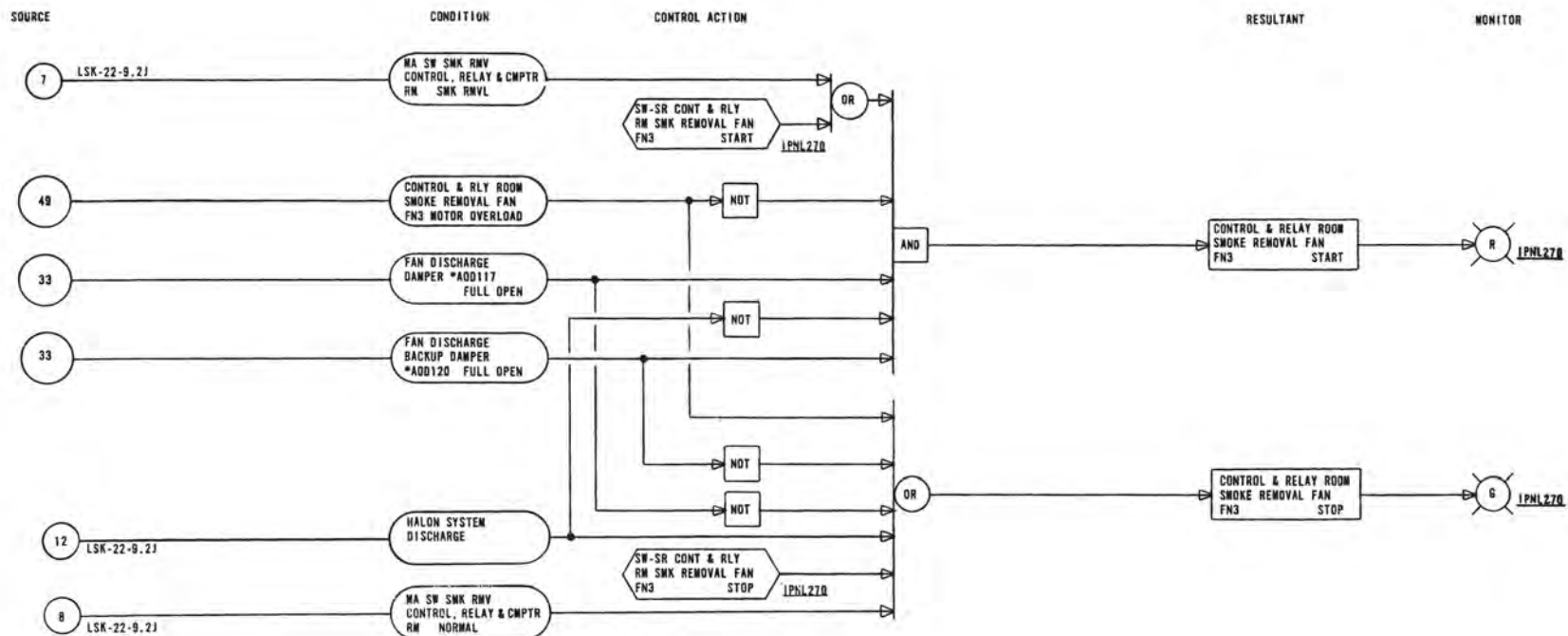
FIGURE 9.4-5

CONTROL BUILDING HVAC SYSTEM-  
RELAY AND COMPUTER ROOMS  
LOGIC DIAGRAM SHEET 1 OF 8

NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

SETPOINTS SHOWN ON LOGIC DIAGRAMS ARE FOR LOGIC CLARIFICATION ONLY AND MAY BE ONLY APPROXIMATIONS OF THE ACTUAL PROCESS SETPOINT. REFER TO SETPOINT DATA SHEETS FOR ACTUAL PROCESS SETPOINTS.





NOTES:  
1. ALL INSTRUMENT AND EQUIPMENT NUMBERS TO BE PREFIXED WITH "2HVC-" EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN. AN ASTERISK (\*) WILL REPLACE THE DASH (-) IN THE PREFIX FOR EQUIPMENT OR INSTRUMENTS WHICH ARE PART OF A NUCLEAR SAFETY FEATURES SYSTEM.

NOTE:  
FOR LATEST SET POINT INFORMATION  
SEE SET POINT DATA SHEET

SOURCE: 121 77-LSK-22-9.2B REV.12

FIGURE 9.4-5

CONTROL BUILDING HVAC SYSTEM-  
RELAY AND COMPUTER ROOMS  
LOGIC DIAGRAM SHEET 2 OF 8

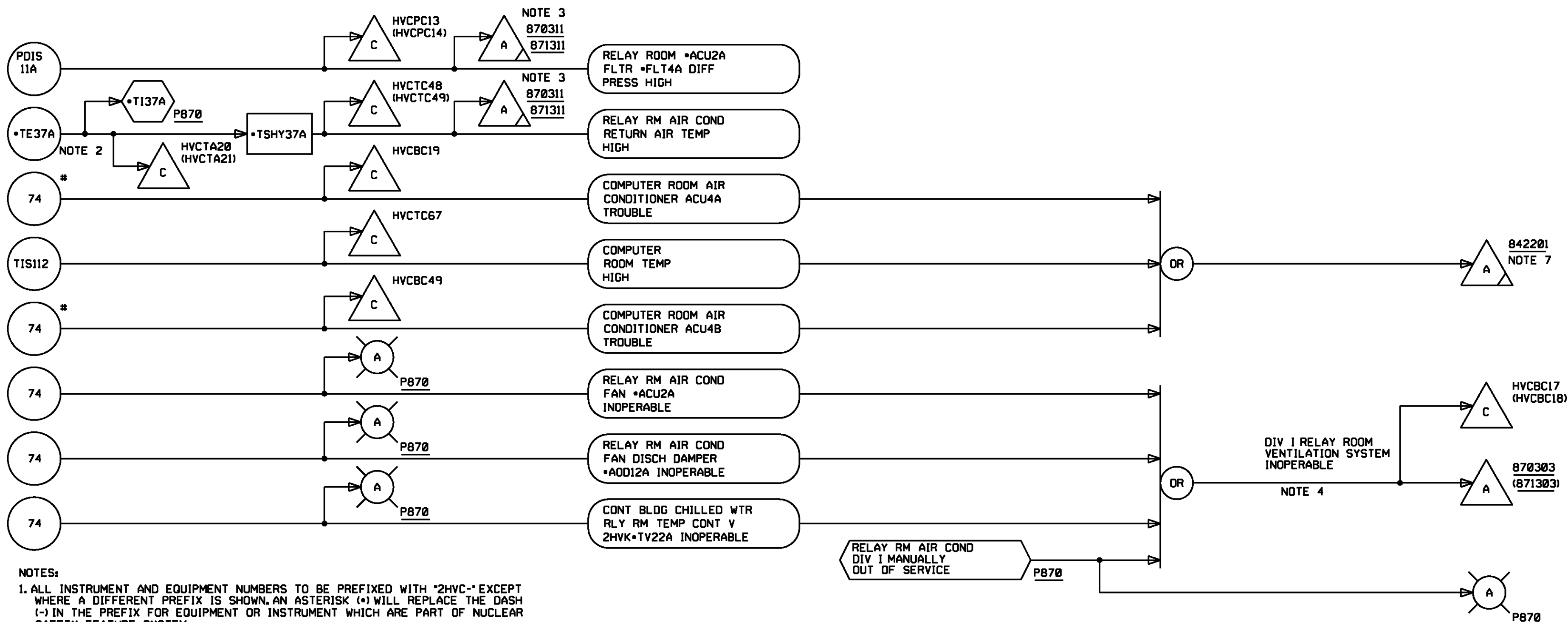
NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

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APRIL 1989



SOURCE	MONITOR	CONDITION	CONTROL ACTION	RESULTANT	MONITOR
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- NOTES:
- ALL INSTRUMENT AND EQUIPMENT NUMBERS TO BE PREFIXED WITH "2HVC-" EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN. AN ASTERISK (\*) WILL REPLACE THE DASH (-) IN THE PREFIX FOR EQUIPMENT OR INSTRUMENT WHICH ARE PART OF NUCLEAR SAFETY FEATURE SYSTEM.
  - ADDITIONAL LOGIC SHOWN ON LSK-22-12D.
  - COMMON ANNUNCIATOR FOR RELAY ROOM A/C DIVISION I TROUBLE.
  - MONITORING FOR TRAIN A IS SHOWN. MONITORING FOR TRAIN B IS SIMILAR.
  - ASSOCIATED EQUIPMENT MARK NUMBERS:
- | TRAIN A    | TRAIN B    |
|------------|------------|
| ACU2A      | ACU2B      |
| TE37A      | TE37B      |
| PDIS11A    | PDIS11B    |
| AOD12A     | AOD12B     |
| SD28A      | SD28B      |
| 2HVK-TV22A | 2HVK-TV22B |
- \* INDICATES FURNISHED BY EQUIPMENT VENDOR.
  - COMMON ANNUNCIATOR FOR COMPUTER ROOM VENTILATION SYSTEM TROUBLE. SEE LSK-22-12E, NOTE 6.

SETPOINTS SHOWN ON LOGIC DIAGRAMS ARE FOR LOGIC CLARIFICATION ONLY AND MAY BE ONLY APPROXIMATIONS OF THE ACTUAL PROCESS SETPOINT. REFER TO SETPOINT DATA SHEETS FOR ACTUAL PROCESS SETPOINTS.

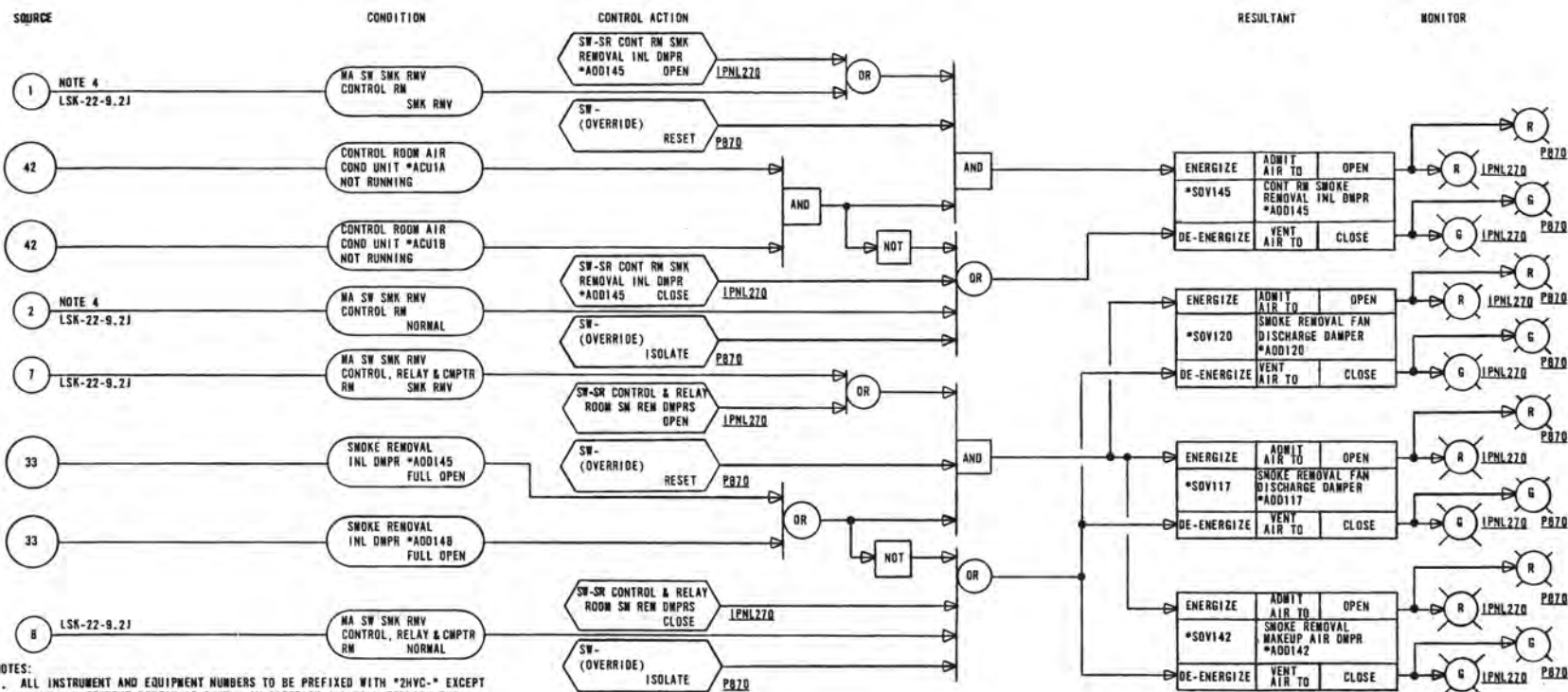
SOURCE: LSK-22-9.2C REV.17

FIGURE 9.4-5

CONTROL BUILDING HVAC SYSTEM-  
RELAY AND COMPUTER ROOMS  
LOGIC DIAGRAM SHEET 3 OF 8

NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT





- NOTES:
- ALL INSTRUMENT AND EQUIPMENT NUMBERS TO BE PREFIXED WITH "2HVC-" EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN. AN ASTERISK (\*) WILL REPLACE THE DASH (-) IN THE PREFIX FOR EQUIPMENT OR INSTRUMENTS WHICH ARE PART OF A NUCLEAR SAFETY FEATURES SYSTEM.
  - LOGIC FOR CONTROL ROOM SMOKE REMOVAL DAMPER \*ADD145 IS SHOWN. LOGIC FOR RELAY ROOM SMOKE REMOVAL DAMPER \*ADD148 IS SIMILAR.
  - ASSOCIATED EQUIPMENT NUMBERS:  
 \*ADD145      \*ADD148  
 \*ACU1A      \*ACU2A  
 \*ACU1B      \*ACU2B
  - FOR \*ADD148 USE CONNECTORS 9 & 10 INSTEAD OF 1 & 2 RESPECTIVELY.

NOTE:  
FOR LATEST SET POINT INFORMATION  
SEE SET POINT DATA SHEET

SOURCE: 12177-LSK-22-9.2F REV.12

FIGURE 9.4-5

CONTROL BUILDING HVAC SYSTEM-  
RELAY AND COMPUTER ROOMS  
LOGIC DIAGRAM SHEET 5 OF 8

NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

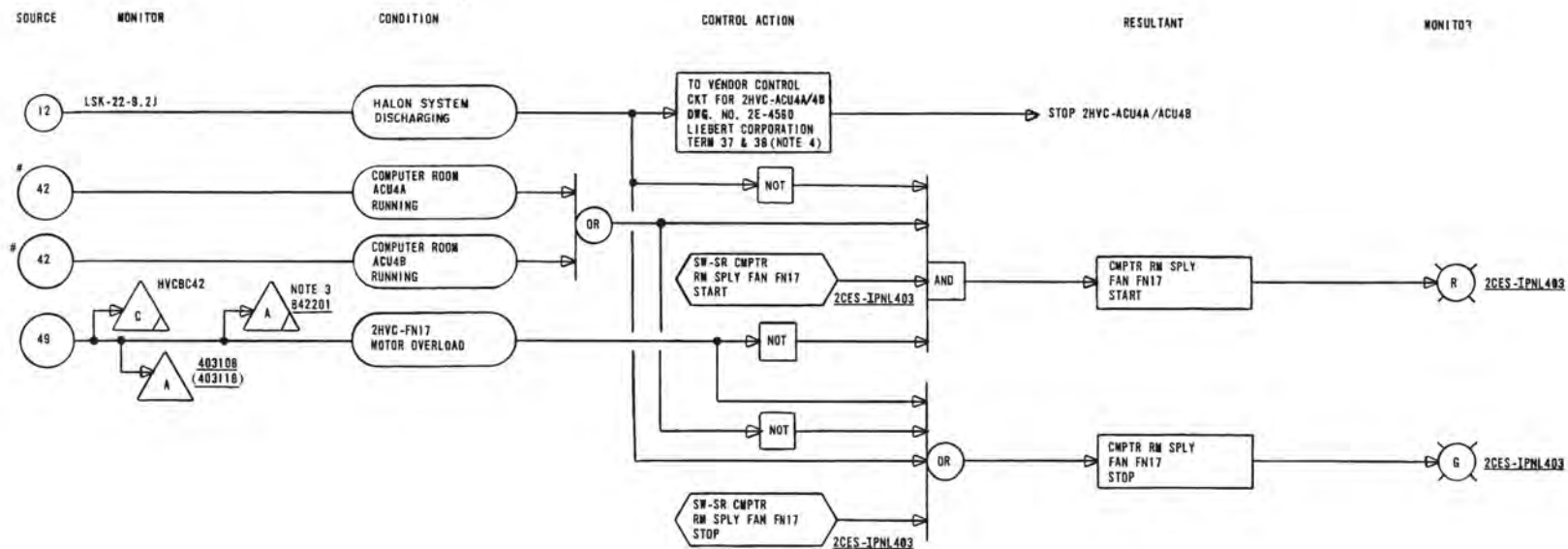
USAR REVISION 0

APRIL 1989









NOTES:

1. ALL INSTRUMENT AND EQUIPMENT NUMBERS TO BE PREFIXED WITH "2HVC-" EXCEPT WHERE NOTED OTHERWISE.
2. LOGIC FOR COMPUTER ROOM SUPPLY FAN 2HVC-FN17 IS SHOWN. LOGIC FOR COMPUTER ROOM SUPPLY FAN 2HVC-FN18 IS SIMILAR.
3. COMMON ANNUNCIATOR WINDOW FOR COMPUTER ROOM VENTILATION SYSTEM TROUBLE. SEE LSK-22-12E, NOTE 6 AND LSK-22-9.2C.
4. S & W FILE NO. 10450-849-093.

NOTE:

FOR LATEST SET POINT INFORMATION  
SEE SET POINT DATA SHEET

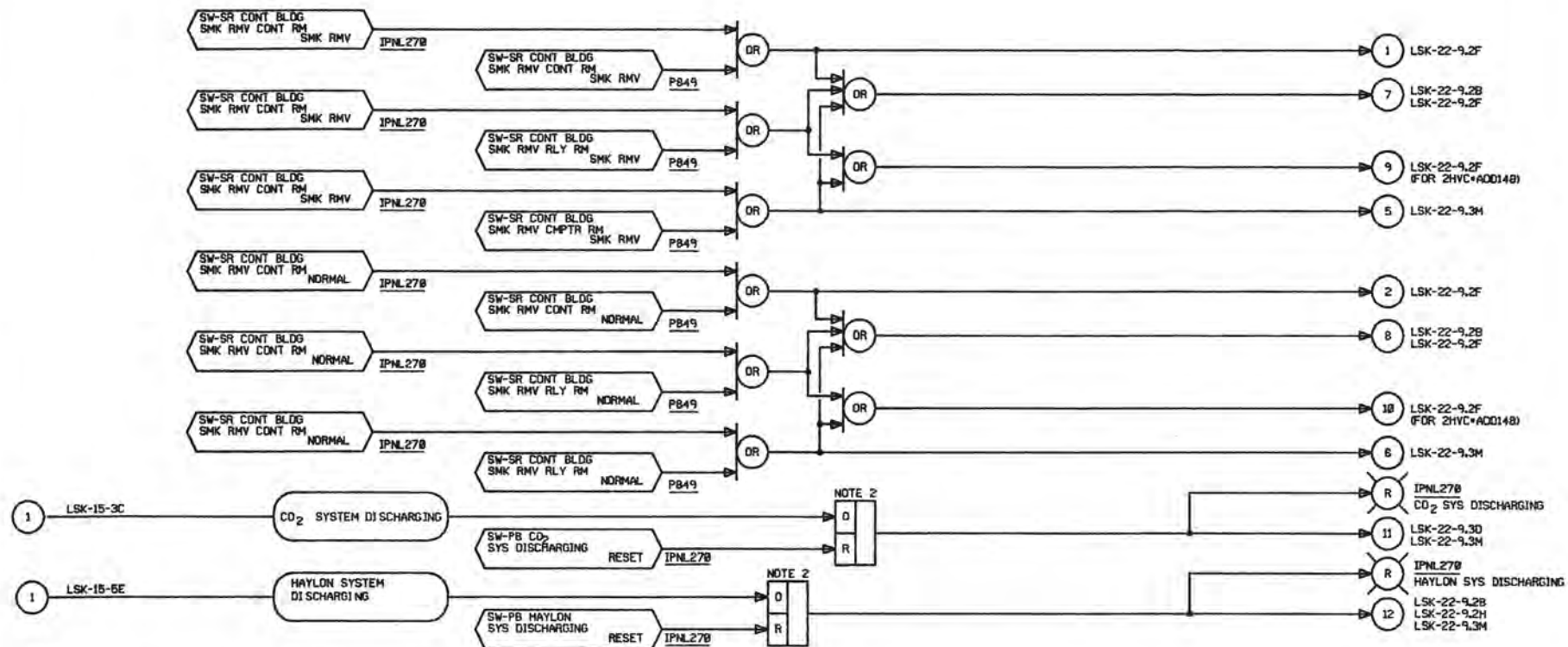
SOURCE: 12177-LSK-22-9.2H REV.12

FIGURE 9.4-5

CONTROL BUILDING HVAC SYSTEM-  
RELAY AND COMPUTER ROOMS  
LOGIC DIAGRAM SHEET 7 OF 8

NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT





NOTES:

1. ALL INSTRUMENT AND EQUIPMENT NUMBERS TO BE PREFIXED WITH '2HVC-' EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN. AN ASTERISK (\*) WILL REPLACE THE DASH (-) IN THE PREFIX FOR EQUIPMENT OR INSTRUMENT WHICH ARE PART OF NUCLEAR SAFETY FEATURE SYSTEM.

2. SIGNAL RESET ON LOSS OF CONTROL POWER.

SETPOINTS SHOWN ON LOGIC DIAGRAMS ARE FOR LOGIC CLARIFICATION ONLY AND MAY BE ONLY APPROXIMATIONS OF THE ACTUAL PROCESS SETPOINT. REFER TO SETPOINT DATA SHEETS FOR ACTUAL PROCESS SETPOINTS.

SOURCE: LSK-22-9.2J REV.13

FIGURE 9.4-5

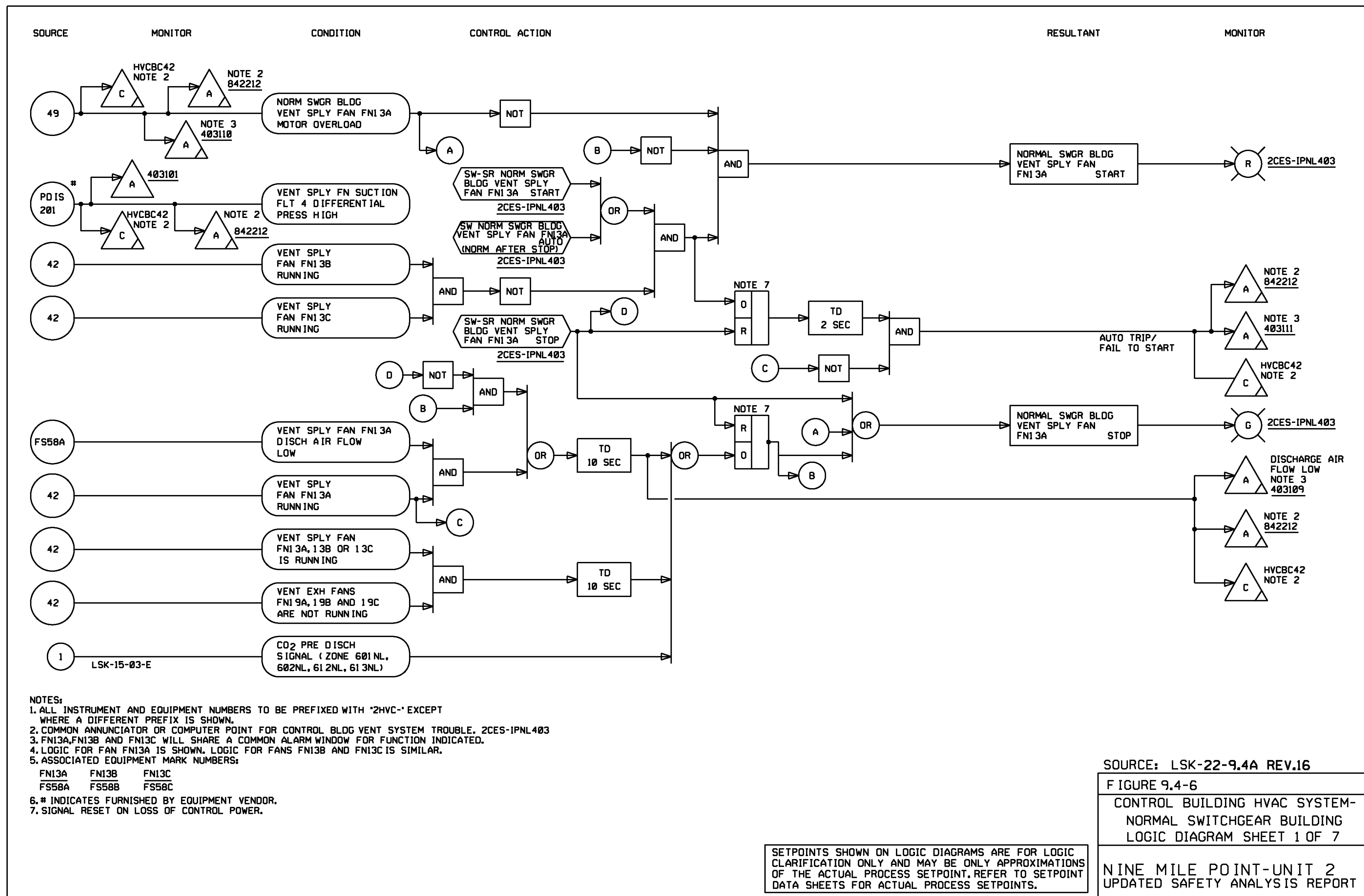
CONTROL BUILDING HVAC SYSTEM-  
RELAY AND COMPUTER ROOMS  
LOGIC DIAGRAM SHEET 8 OF 8

NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

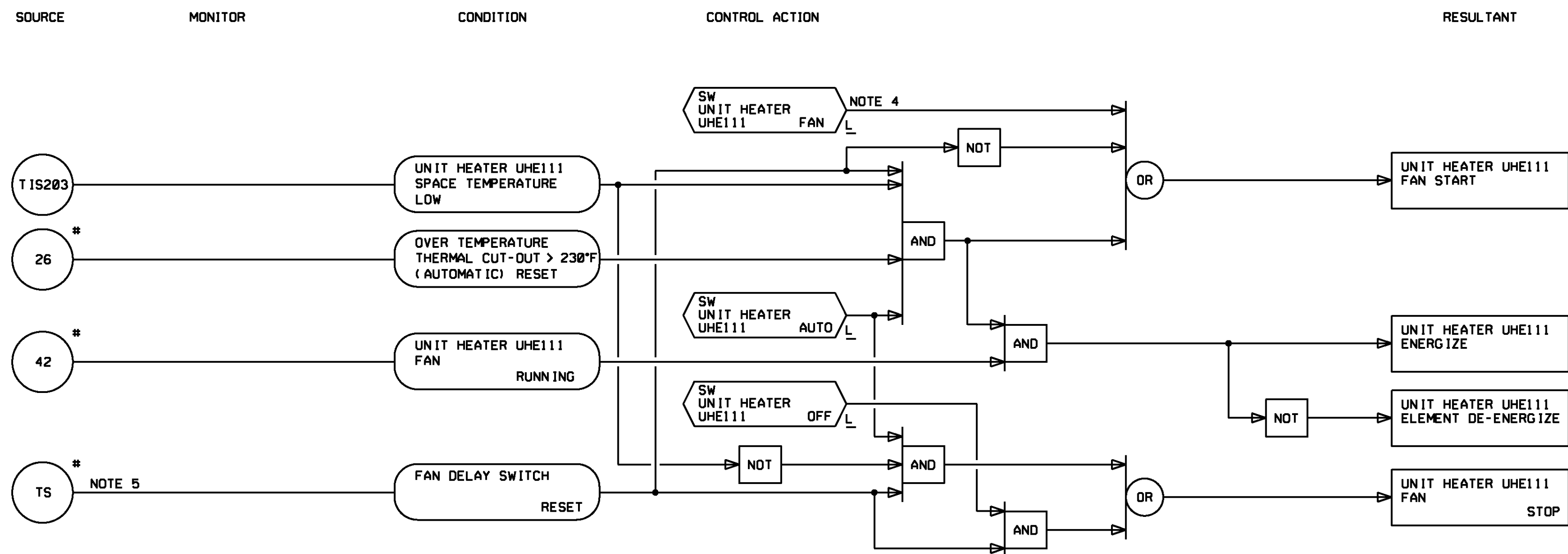
USAR REVISION 1

OCTOBER 1989









- NOTES:
1. ALL INSTRUMENT AND EQUIPMENT NO.'S TO BE PREFIXED WITH "2HVC-" EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN.
  2. LOGIC FOR UNIT HEATER UHE111 IS SHOWN. LOGIC FOR ASSOCIATED EQUIPMENT IS SIMILAR.
  3. ASSOCIATED EQUIPMENT MARK NO.'S:
- | HEATER | SWITCH |
|--------|--------|
| UHE111 | TIS203 |
| UHE112 | TIS204 |
| UHE113 | TIS205 |
| UHE114 | TIS206 |
| UHE115 | TIS207 |
| UHE116 | TIS208 |
| UHE117 | TIS209 |
| UHE118 | TIS210 |
| UHE119 | TIS211 |
| UHE120 | TIS216 |
4. UNIT HEATER CONTROL SWITCH MOUNTED ADJACENT TO THERMOSTAT BASEPLATE.
  5. FAN DELAY SWITCH ALLOWS HEATING ELEMENT AND FAN TO START SIMULTANEOUSLY AND DELAYS FAN STOP WHEN HEATING ELEMENT IS DE-ENERGIZED DUE TO HIGH SPACE TEMPERATURE.

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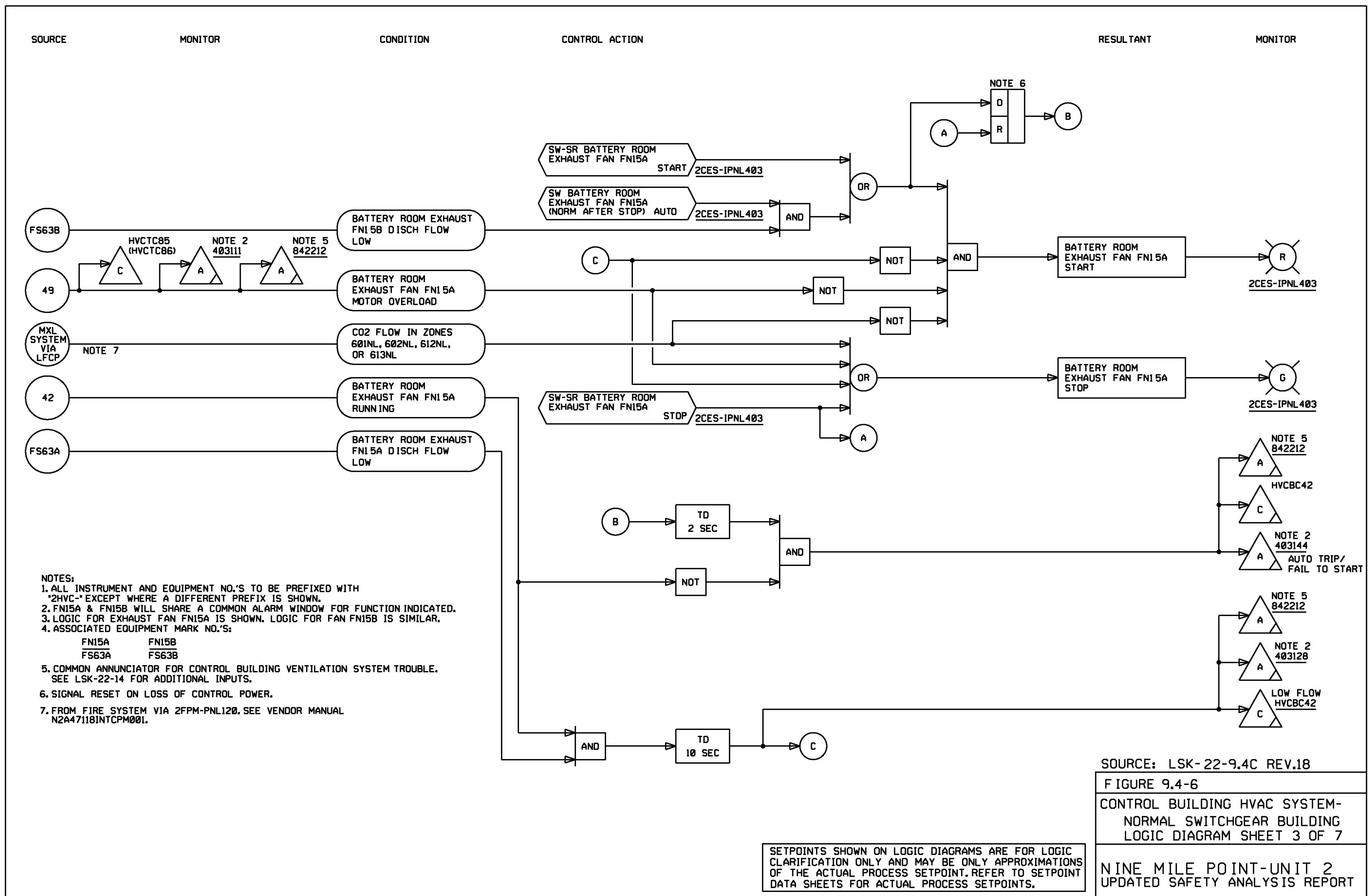
SOURCE: LSK-22-9.4B REV.16

FIGURE 9.4-6

CONTROL BUILDING HVAC SYSTEM-  
NORMAL SWITCHGEAR BUILDING  
LOGIC DIAGRAM SHEET 2 OF 7

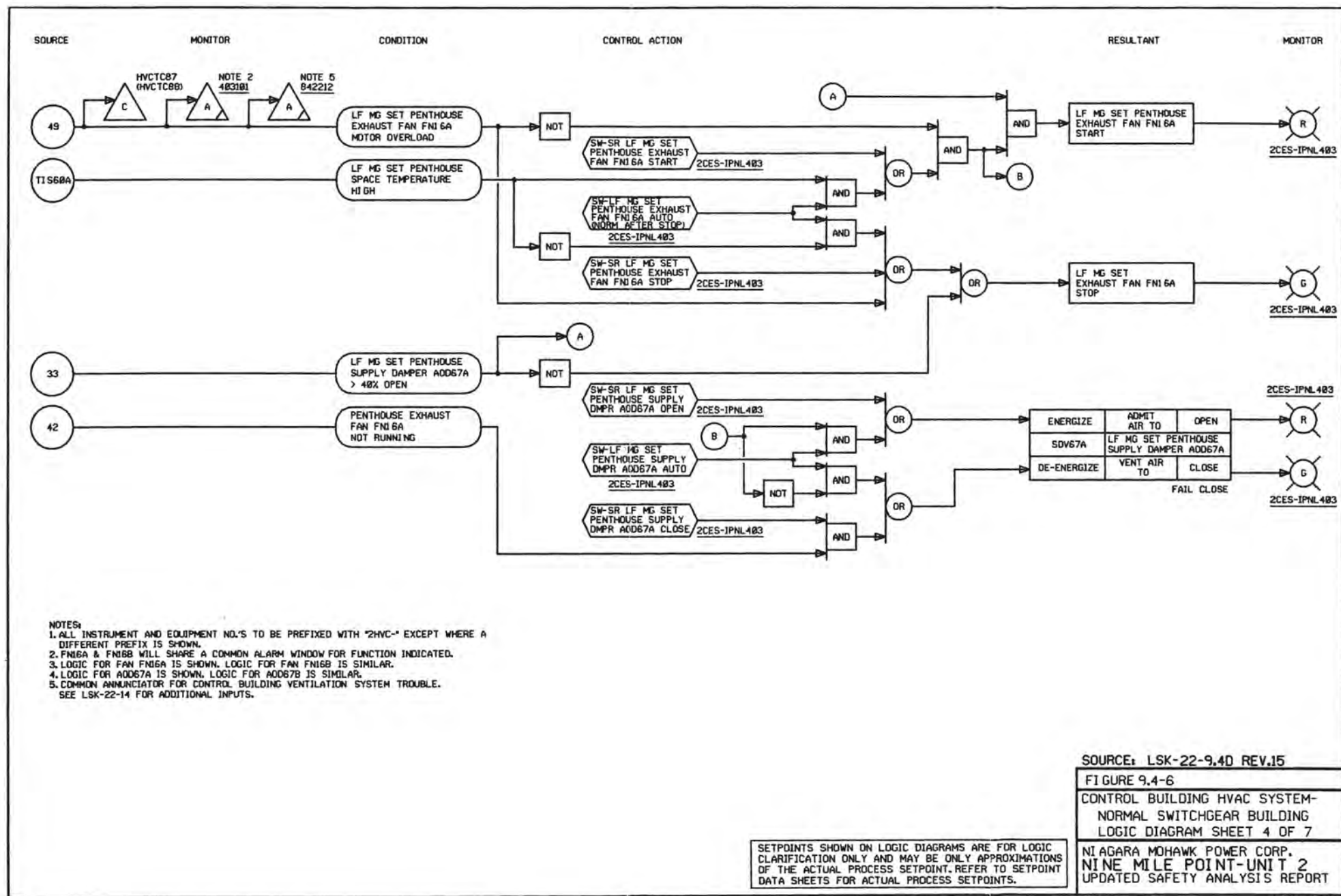
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT



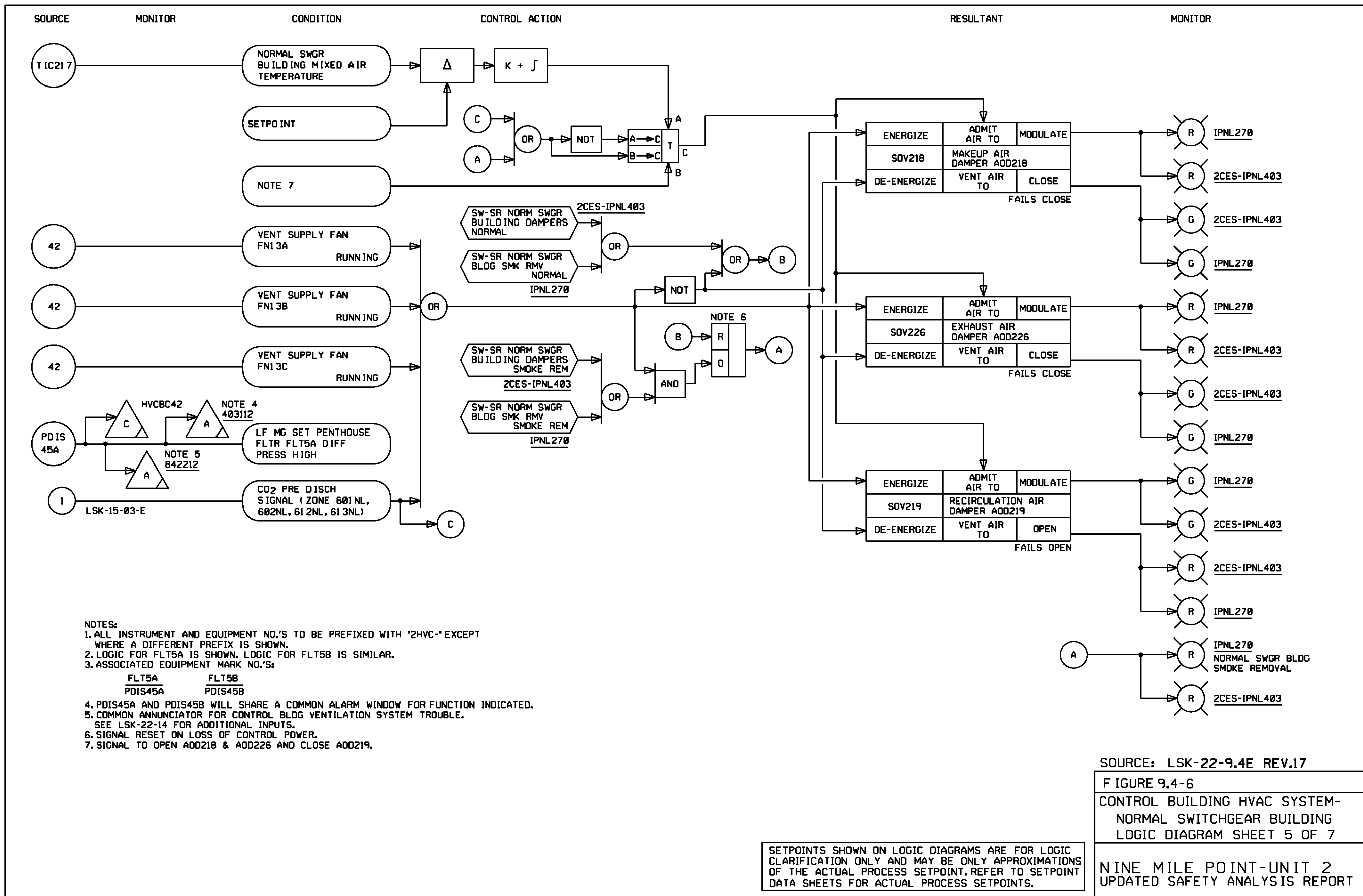


SETPOINTS SHOWN ON LOGIC DIAGRAMS ARE FOR LOGIC CLARIFICATION ONLY AND MAY BE ONLY APPROXIMATIONS OF THE ACTUAL PROCESS SETPOINT. REFER TO SETPOINT DATA SHEETS FOR ACTUAL PROCESS SETPOINTS.

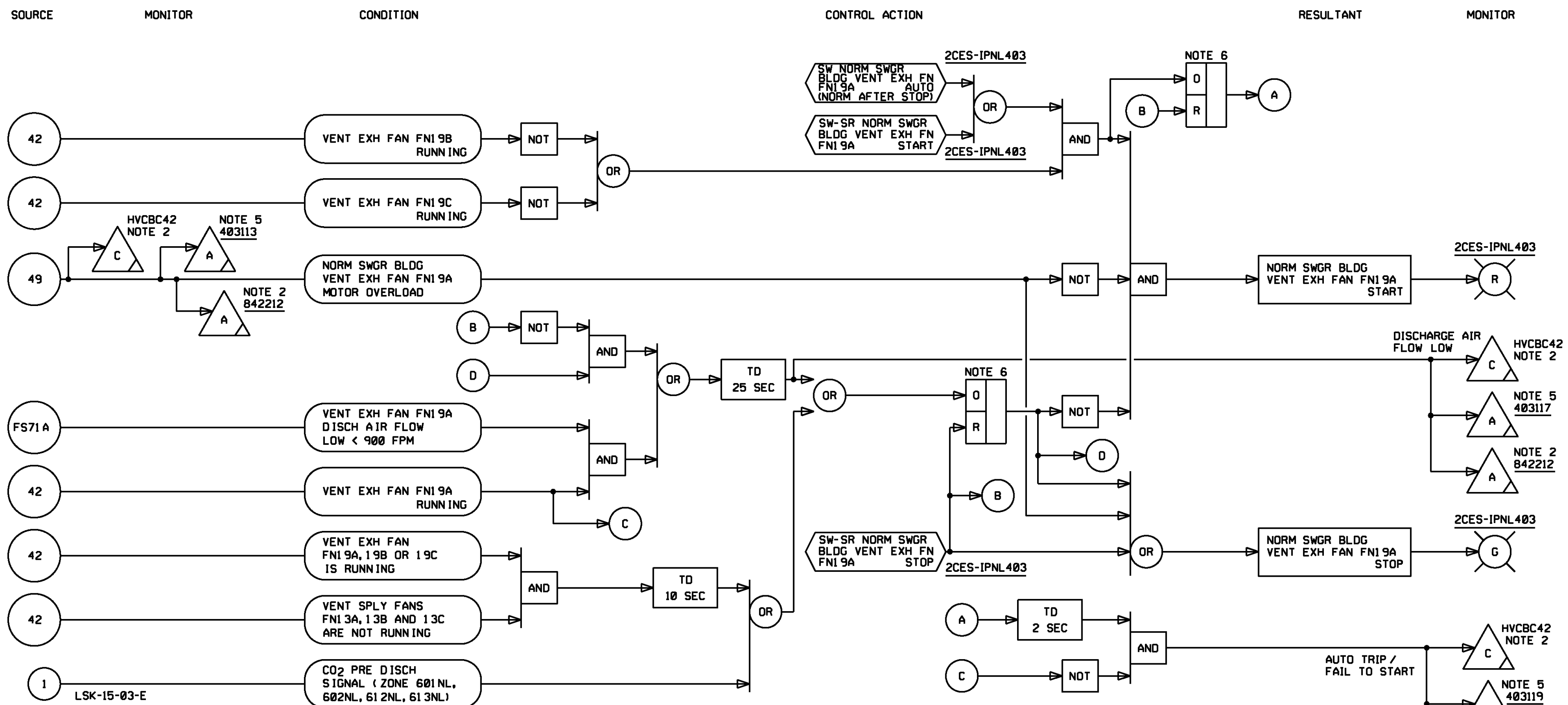












- NOTES:
- ALL INSTRUMENT AND EQUIPMENT NO.'S TO BE PREFIXED WITH "HVC-" EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN.
  - COMMON ANNUNCIATOR OR COMPUTER POINT FOR CONTROL BLDG VENTILATION SYSTEM TROUBLE. 2CES-IPNL403.
  - LOGIC FOR FAN FN19A IS SHOWN. LOGIC FOR FANS FN19B AND FN19C IS SIMILAR.
  - ASSOCIATED EQUIPMENT MARK NO.'S:  
 FN19A FN19B FN19C  
 FS71A FS71B FS71C
  - FN19A, FN19B & FN19C WILL SHARE A COMMON ALARM WINDOW FOR FUNCTION INDICATED.
  - SIGNAL RESET ON LOSS OF CONTROL POWER.

SETPOINTS SHOWN ON LOGIC DIAGRAMS ARE FOR LOGIC CLARIFICATION ONLY AND MAY BE ONLY APPROXIMATIONS OF THE ACTUAL PROCESS SETPOINT. REFER TO SETPOINT DATA SHEETS FOR ACTUAL PROCESS SETPOINTS.

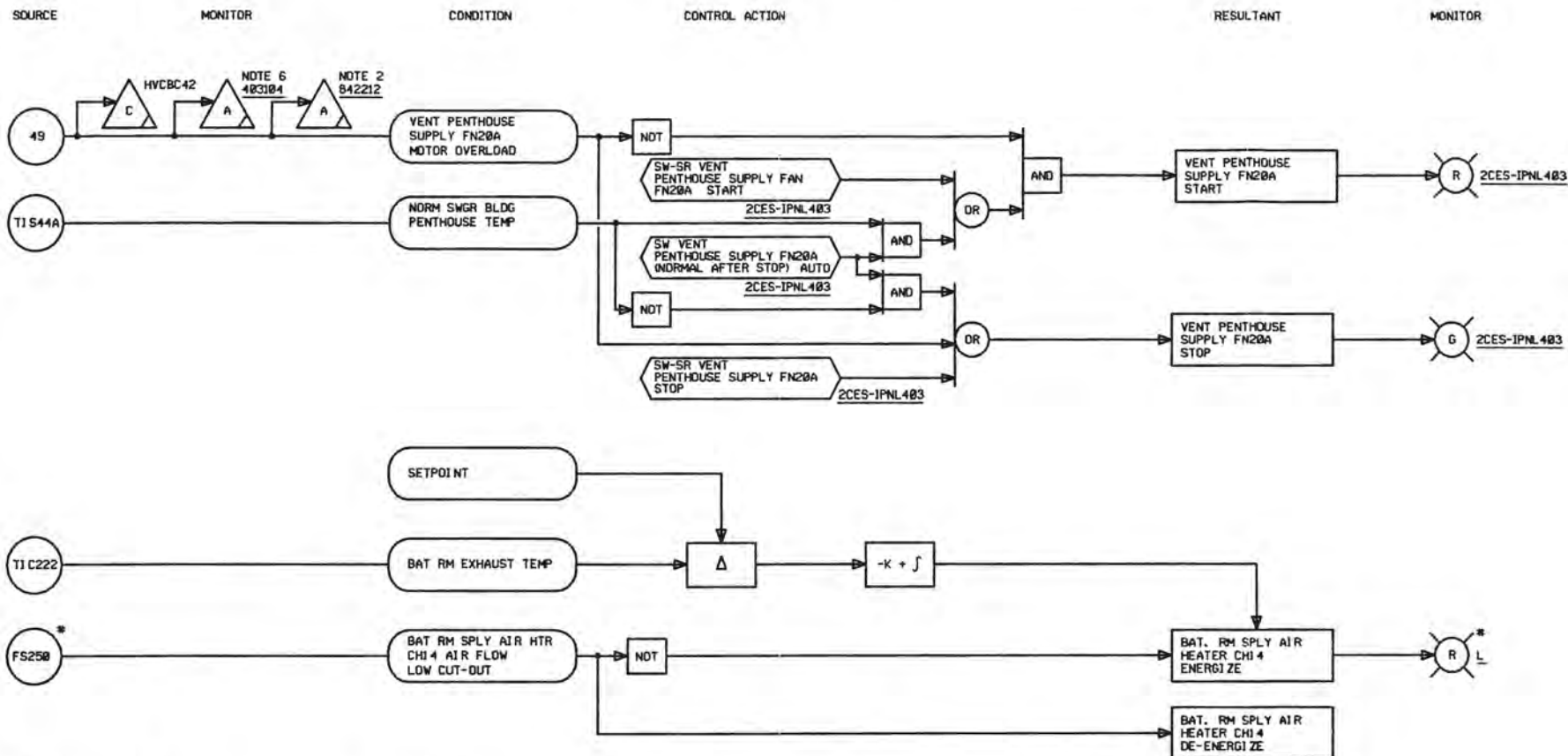
SOURCE: LSK- 22-9.4F, REV.17

FIGURE 9.4-6

CONTROL BUILDING HVAC SYSTEM-  
NORMAL SWITCHGEAR BUILDING  
LOGIC DIAGRAM SHEET 6 OF 7

NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT





#### NOTES:

1. ALL EQUIPMENT AND INSTRUMENT NO.'S TO BE PREFIXED WITH "2HVC-" EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN.
2. COMMON ANNUNCIATOR FOR CONTROL BLDG VENTILATION SYSTEM TROUBLE. SEE LSK-22-14 FOR ADDITIONAL INPUTS.
3. LOGIC FOR FAN 2HVC-FN20A IS SHOWN. LOGIC FOR FANS 2HVC-FN20B AND 2HVC-FN20C IS SIMILAR.
4. ASSOCIATED EQUIPMENT MARK NO.'S:

FN20A	FN20B	FN20C
TIS44A	TIS44B	TIS44C

5. \* - INDICATES EQUIPMENT SUPPLIED BY HEATER VENDOR.
6. FN20A, FN20B AND FN20C WILL SHARE A COMMON ALARM WINDOW FOR FUNCTION INDICATED.

SETPOINTS SHOWN ON LOGIC DIAGRAMS ARE FOR LOGIC CLARIFICATION ONLY AND MAY BE ONLY APPROXIMATIONS OF THE ACTUAL PROCESS SETPOINT. REFER TO SETPOINT DATA SHEETS FOR ACTUAL PROCESS SETPOINTS.

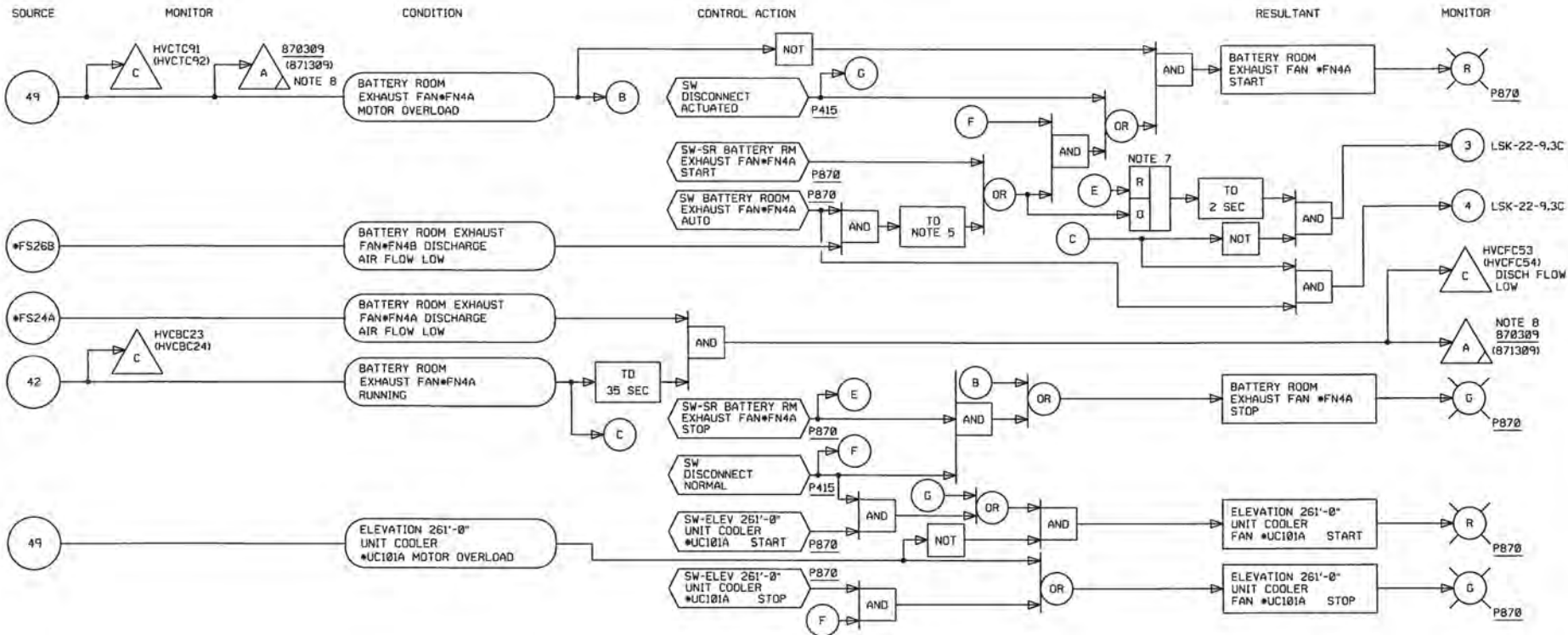
SOURCE: LSK-22-9.4G REV.15

FIGURE 9.4-6

CONTROL BUILDING HVAC SYSTEM-  
NORMAL SWITCHGEAR BUILDING  
LOGIC DIAGRAM SHEET 7 OF 7

NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT





#### NOTES:

1. ALL INSTRUMENT AND EQUIPMENT NUMBERS TO BE PREFIXED WITH "2HVC-" EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN. AN ASTERISK (\*) WILL REPLACE THE DASH (-) IN THE PREFIX FOR EQUIPMENT OR INSTRUMENTS WHICH ARE PART OF NUCLEAR SAFETY FEATURE SYSTEM.
2. LOGIC FOR BATTERY ROOM EXHAUST FAN#FN4A IS SHOWN. LOGIC FOR BATTERY ROOM EXHAUST FAN#FN4B IS SIMILAR.
3. LOGIC FOR STANDBY SWITCHGEAR ROOM UNIT COOLER #UC101A FAN IS SHOWN. LOGIC FOR STANDBY SWITCHGEAR ROOM UNIT COOLER #UC101B, #UC108A AND #UC108B FANS IS SIMILAR.
4. ASSOCIATED EQUIPMENT MARK NUMBERS:

DIV I	DIV II
*FN4A	*FN4B
*FS24A	*FS24B
*FS26B	*FS26A
*UC101A	*UC101B
*UC108A	*UC108B
P870, P415	P871, P416

5. TIME DELAY SETTING:  
\*FN4A=5 SEC  
\*FN4B=12 SEC
6. SEE NOTE 5 ON LSK-22-9.3C.

SOURCE: LSK-22-9.3A REV. 18

FIGURE 9.4-7

CONTROL BUILDING HVAC SYSTEM-  
MISC. ROOMS AND AREAS  
LOGIC DIAGRAM SHEET 1 OF 14

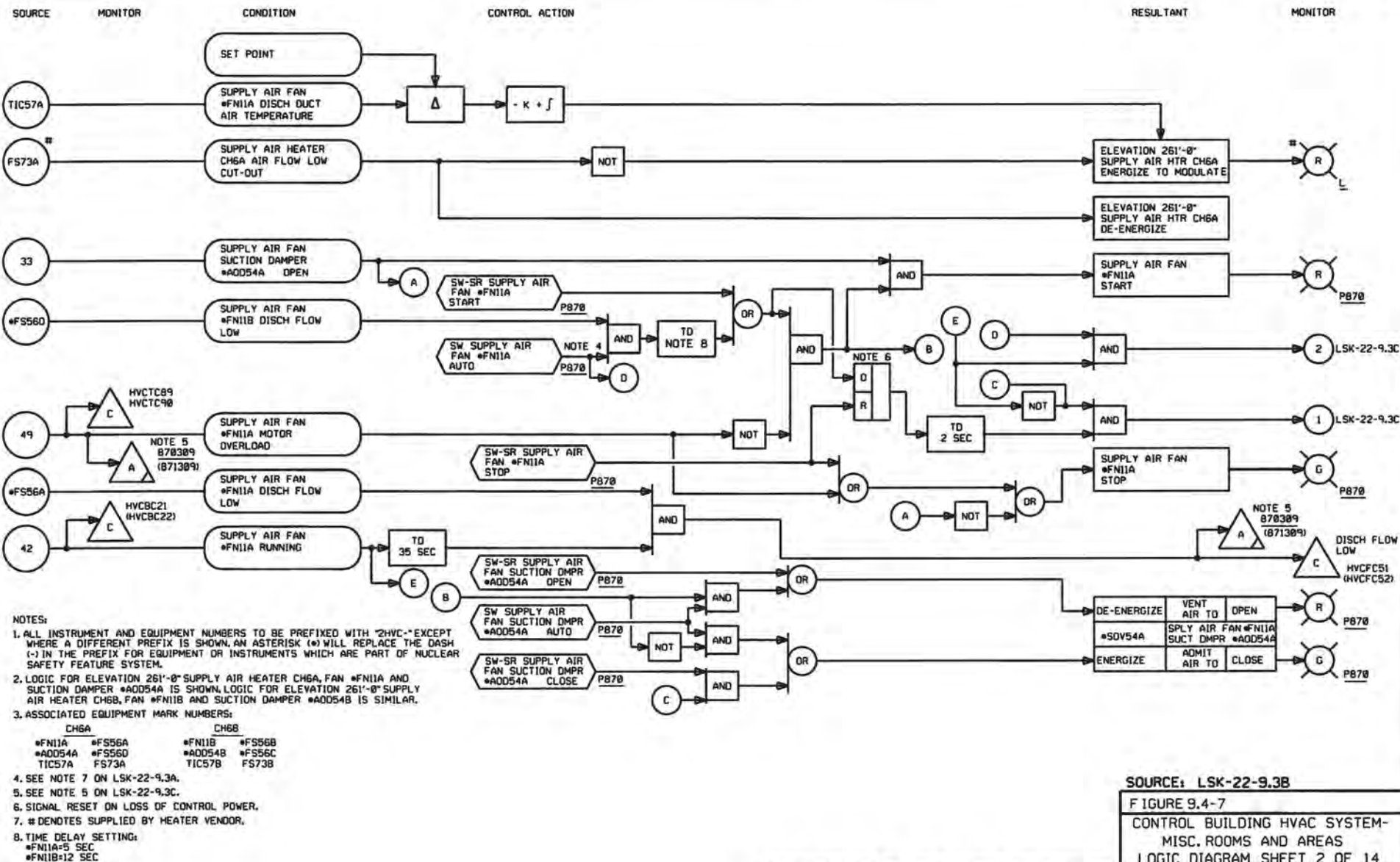
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

SETPOINTS SHOWN ON LOGIC DIAGRAMS ARE FOR LOGIC CLARIFICATION ONLY AND MAY BE ONLY APPROXIMATIONS OF THE ACTUAL PROCESS SETPOINT. REFER TO SETPOINT DATA SHEETS FOR ACTUAL PROCESS SETPOINTS.

USAR REVISION 16

OCTOBER 2004





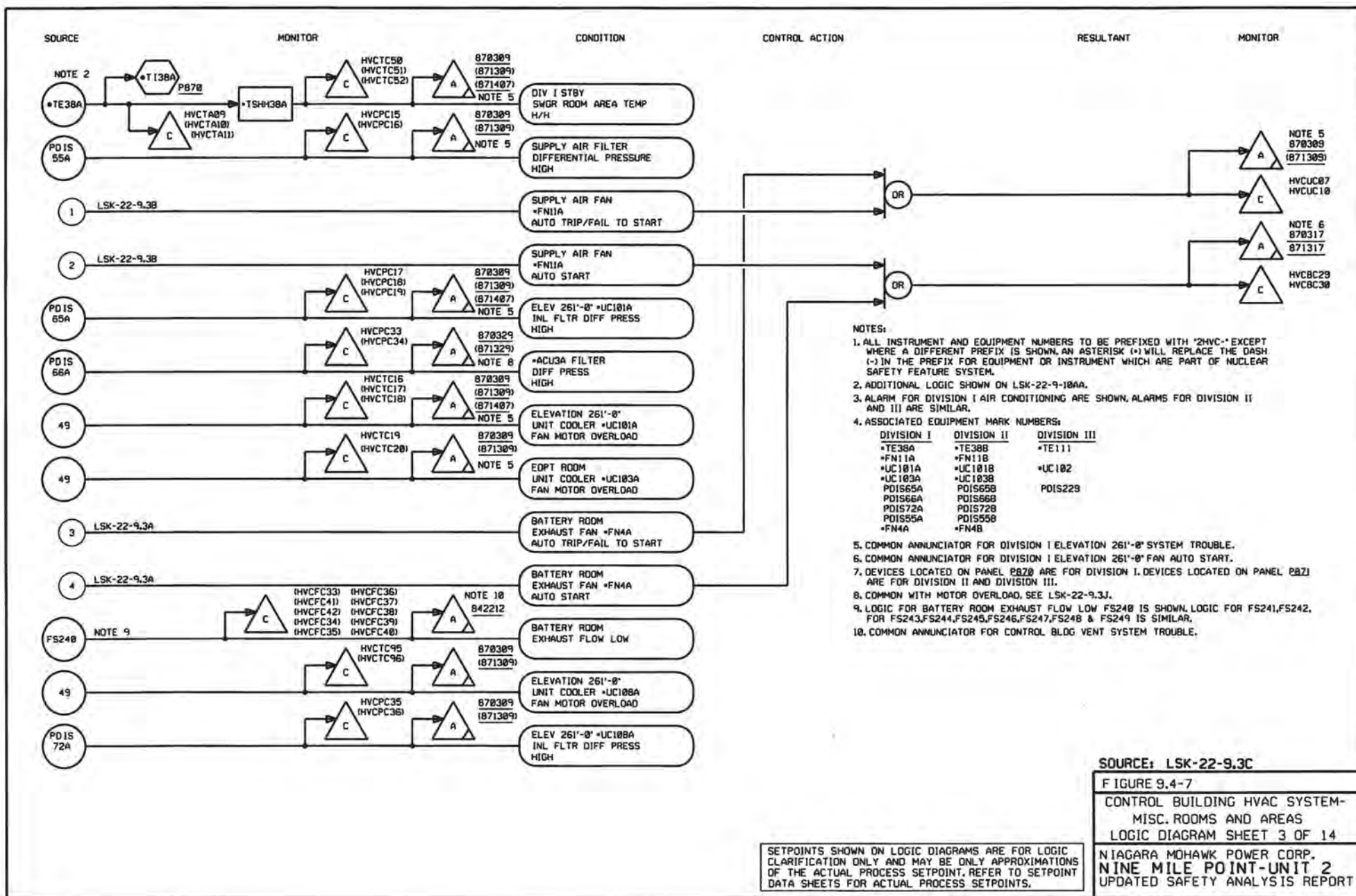
SOURCE: LSK-22-9.3B

FIGURE 9.4-7

CONTROL BUILDING HVAC SYSTEM-  
MISC. ROOMS AND AREAS  
LOGIC DIAGRAM SHEET 2 OF 14

NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT





SOURCE: LSK-22-9.3C

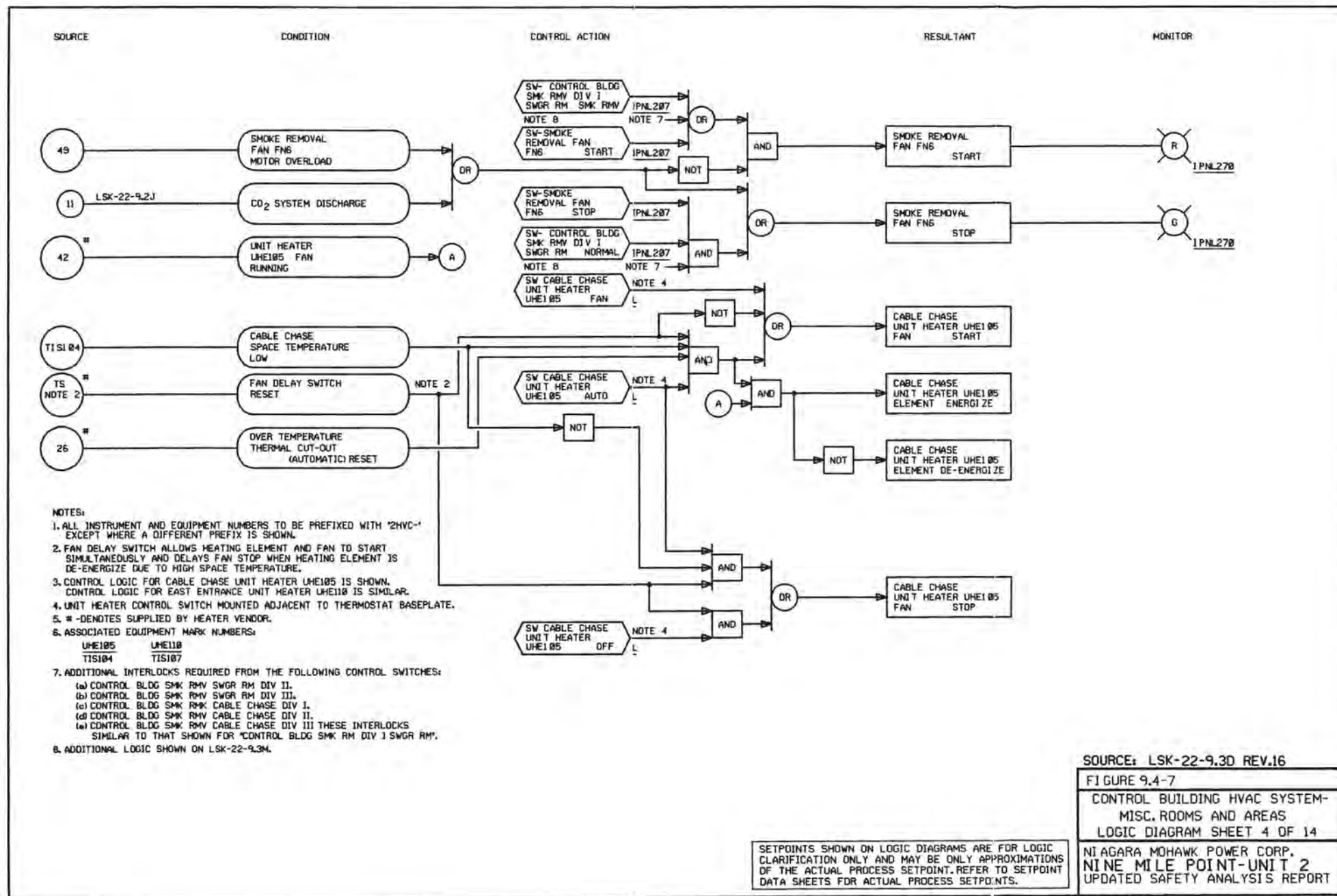
FIGURE 9.4-7

CONTROL BUILDING HVAC SYSTEM-  
MISC. ROOMS AND AREAS  
LOGIC DIAGRAM SHEET 3 OF 14

NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

SETPOINTS SHOWN ON LOGIC DIAGRAMS ARE FOR LOGIC CLARIFICATION ONLY AND MAY BE ONLY APPROXIMATIONS OF THE ACTUAL PROCESS SETPOINT. REFER TO SETPOINT DATA SHEETS FOR ACTUAL PROCESS SETPOINTS.





SOURCE: LSK-22-9.3D REV.16

FIGURE 9.4-7

CONTROL BUILDING HVAC SYSTEM-  
MISC. ROOMS AND AREAS  
LOGIC DIAGRAM SHEET 4 OF 14

NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

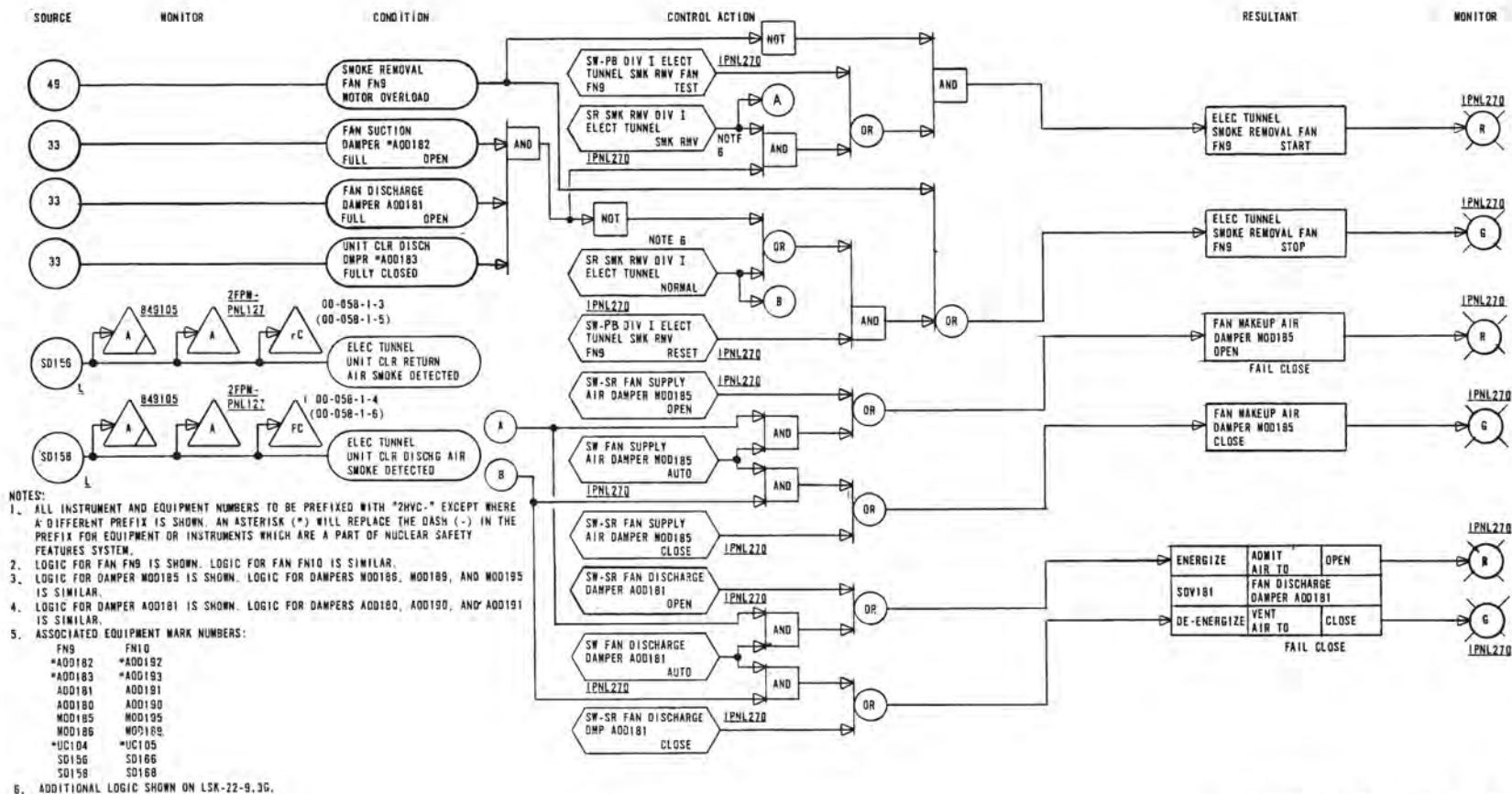
USAR REVISION 3

OCTOBER 1991









NOTE:

FOR LATEST SET POINT INFORMATION  
SEE SET POINT DATA SHEET

SOURCE: 121 77-LSK-22-9.3F REV.15

FIGURE 9.4-7

CONTROL BUILDING HVAC SYSTEM-  
MISC. ROOMS AND AREAS  
LOGIC DIAGRAM SHEET 6 OF 14

NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

USAR REVISION 0

APRIL 1989



SOURCE

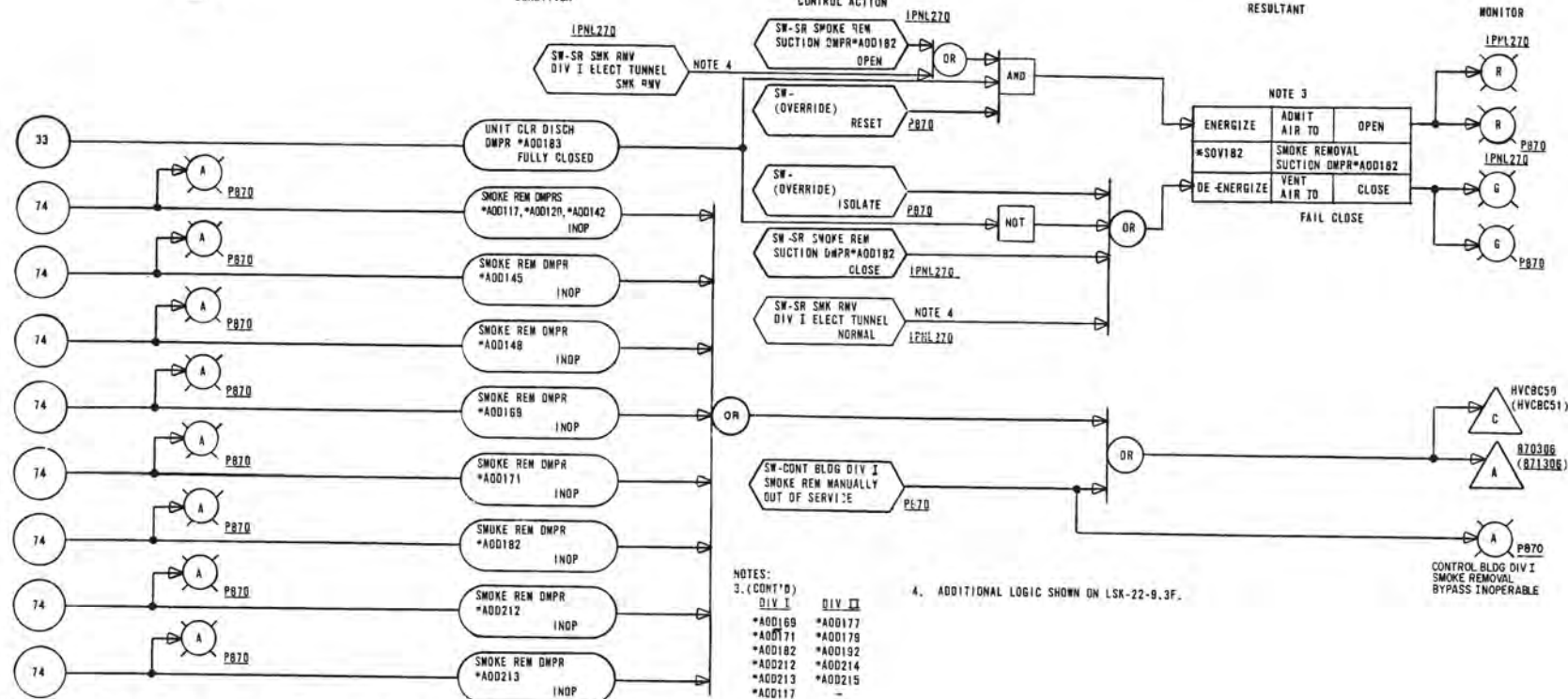
MONITOR

CONDITION

CONTROL ACTION

RESULTANT

MONITOR



## NOTES:

1. ALL INSTRUMENT AND EQUIPMENT NUMBERS TO BE PREFIXED WITH "2HVC-" EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN, AN ASTERISK (\*) WILL REPLACE THE DASH (-) IN THE PREFIX FOR EQUIPMENT OR INSTRUMENTS WHICH ARE A PART OF NUCLEAR SAFETY FEATURES SYSTEM.
2. LOGIC FOR SMOKE REMOVAL SUCTION DAMPER \*ADD182 IS SHOWN. LOGIC FOR \*ADD182 IS SIMILAR.
3. ASSOCIATED EQUIPMENT MARK NUMBERS:  
\*ADD182 \*ADD182  
\*ADD183 \*ADD183

## NOTES:

3. (CONT'D)
4. ADDITIONAL LOGIC SHOWN ON LSK-22-9.3F.

## NOTE:

FOR LATEST SET POINT INFORMATION  
SEE SET POINT DATA SHEET

SOURCE: 121 77-LSK-22-9.3G REV.16

FIGURE 9.4-7

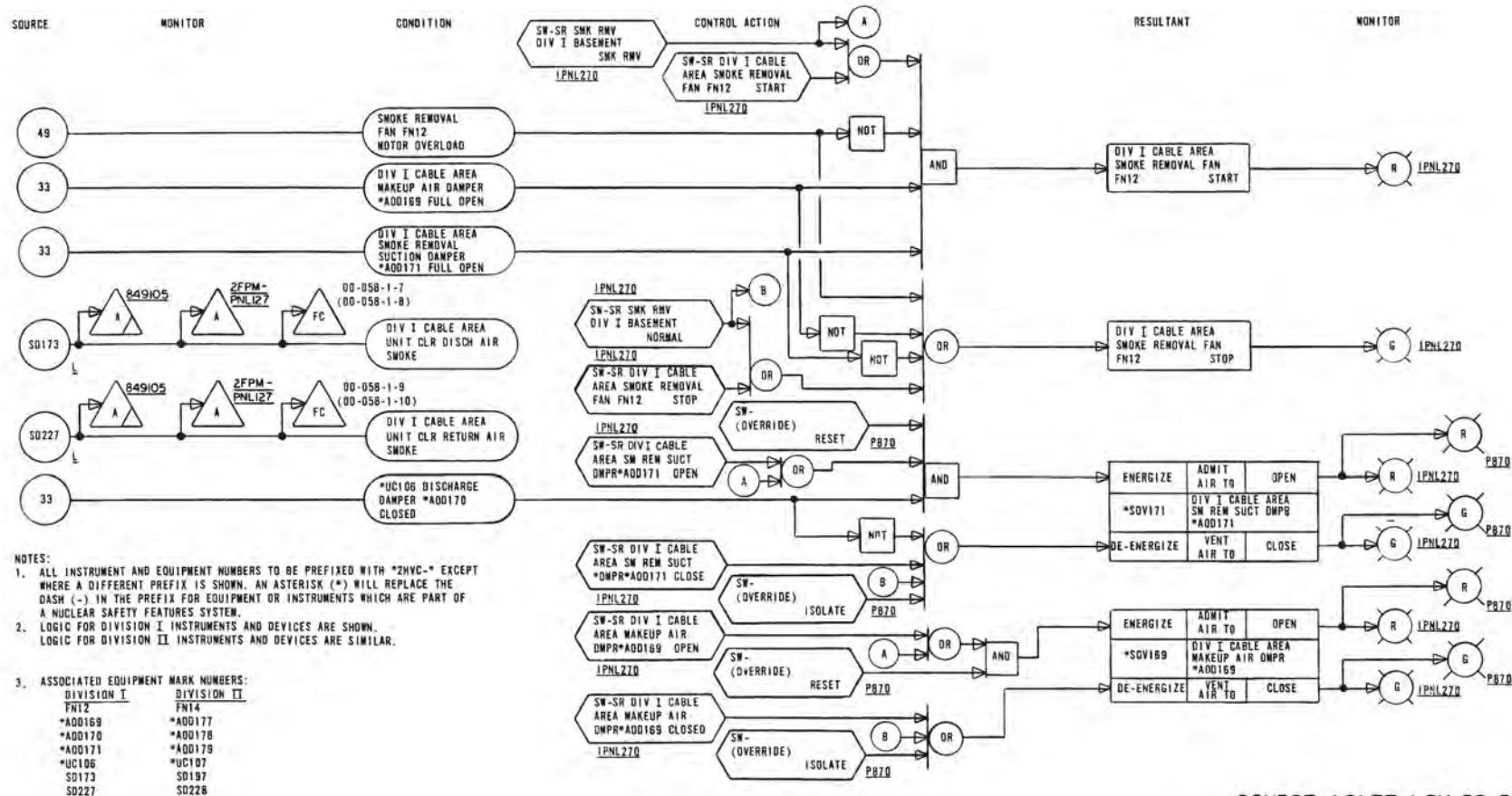
CONTROL BUILDING HVAC SYSTEM-  
MISC. ROOMS AND AREAS  
LOGIC DIAGRAM SHEET 7 OF 14

NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

USAR REVISION 0

APRIL 1989





SOURCE: 12177-LSK-22-9.3H REV.15

FIGURE 9.4-7

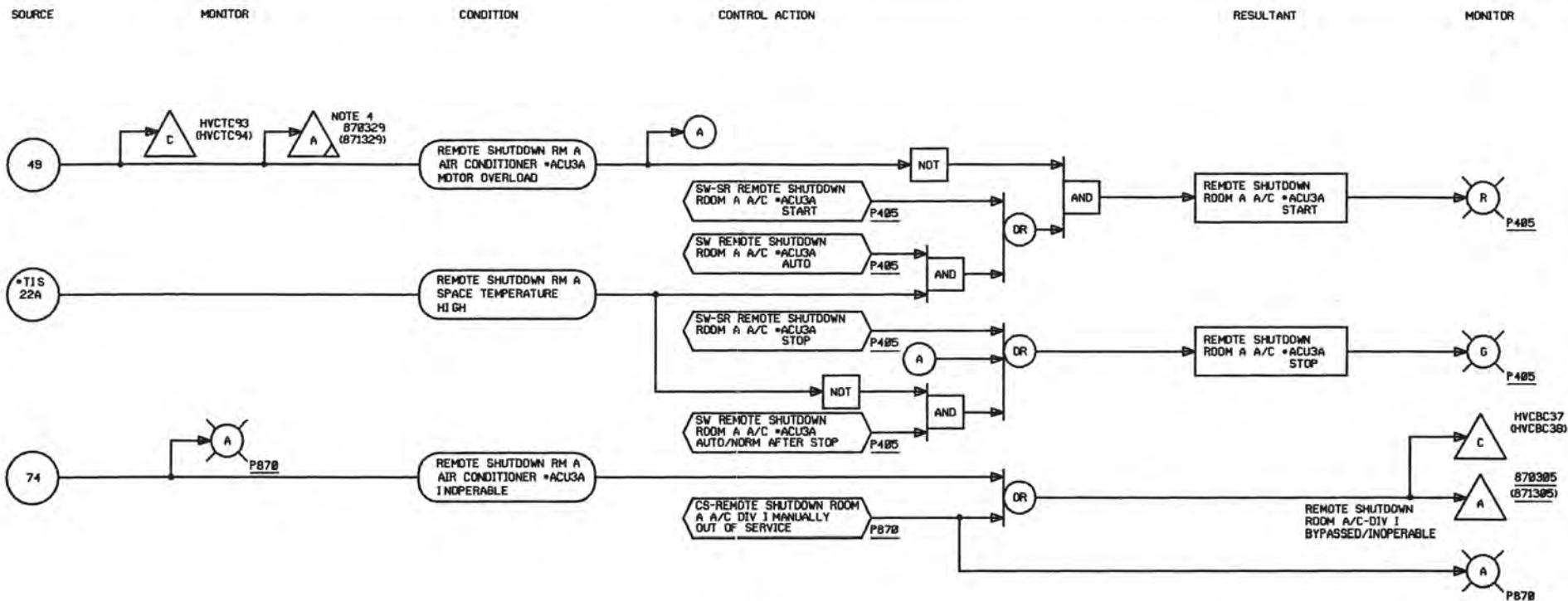
CONTROL BUILDING HVAC SYSTEM-  
MISC. ROOMS AND AREAS  
LOGIC DIAGRAM SHEET 8 OF 14

NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

NOTE:

FOR LATEST SET POINT INFORMATION  
SEE SET POINT DATA SHEET





#### NOTES:

1. ALL INSTRUMENT AND EQUIPMENT NUMBERS TO BE PREFIXED WITH "2HVC-" EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN. AN ASTERISK (\*) WILL REPLACE THE DASH (-) IN THE PREFIX FOR EQUIPMENT OR INSTRUMENTS WHICH ARE PART OF NUCLEAR SAFETY FEATURES SYSTEM.

2. LOGIC FOR AIR CONDITIONER \*ACU3A RM A IS SHOWN. LOGIC FOR AIR CONDITIONER \*ACU3B RM B IS SIMILAR.

3. ASSOCIATED EQUIPMENT MARK NUMBERS:

DIV I	DIV II
*ACU3A	*ACU3B
*TIS22A	*TIS22B
2HVK*P1A	2HVK*P1B

4. REMOTE SHUTDOWN ROOM DIV I SYSTEM TROUBLE.

SETPOINTS SHOWN ON LOGIC DIAGRAMS ARE FOR LOGIC CLARIFICATION ONLY AND MAY BE ONLY APPROXIMATIONS OF THE ACTUAL PROCESS SETPOINT. REFER TO SETPOINT DATA SHEETS FOR ACTUAL PROCESS SETPOINTS.

SOURCE: LSK-22-9.3J REV.16

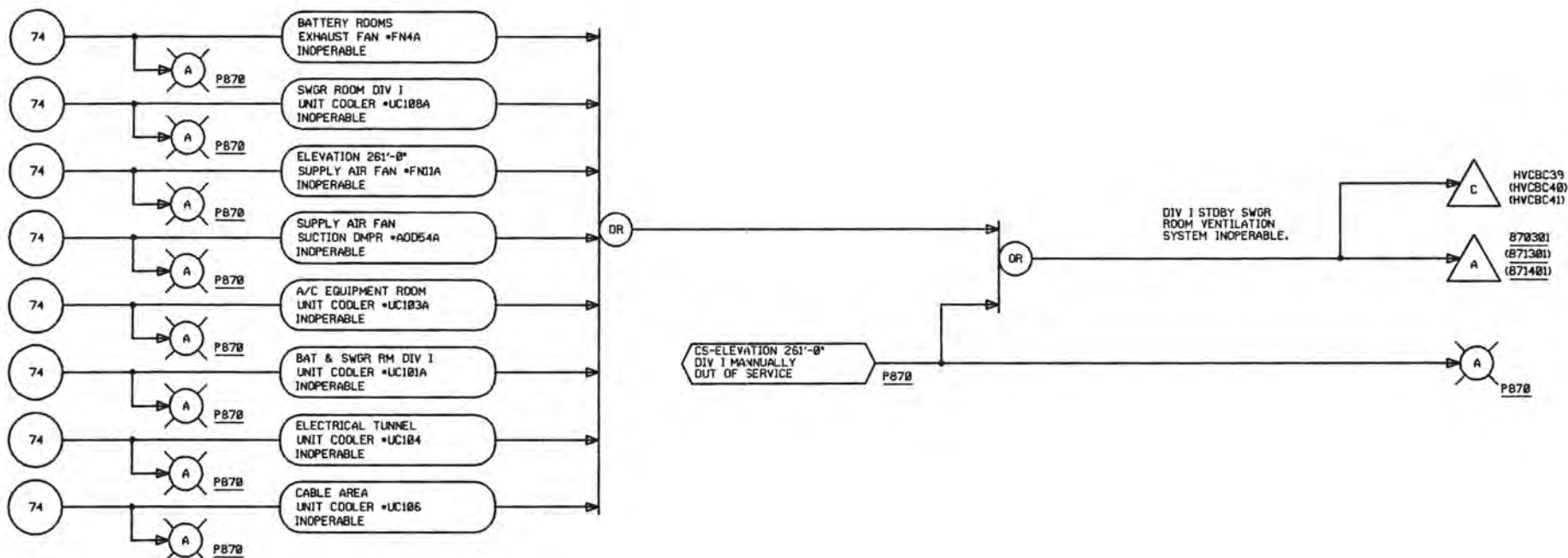
FIGURE 9.4-7

CONTROL BUILDING HVAC SYSTEM-  
MISC. ROOMS AND AREAS  
LOGIC DIAGRAM SHEET 9 OF 14

NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT



SOURCE      MONITOR      CONDITION      CONTROL ACTION      RESULTANT      MONITOR



NOTES:

1. ALL INSTRUMENT AND EQUIPMENT NUMBERS TO BE PREFIXED WITH '2HVC-' EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN. AN ASTERISK (\*) WILL REPLACE THE DASH (-) IN THE PREFIX FOR EQUIPMENT OR INSTRUMENTS WHICH ARE PART OF NUCLEAR SAFETY FEATURES SYSTEM.
2. MONITORING OF DIVISION I ELEVATION 261'-0" A/C SYSTEM OPERABILITY IS SHOWN. MONITORING OF DIVISION II & III SYSTEM OPERABILITY IS SIMILAR.
3. ASSOCIATED EQUIPMENT MARK NUMBERS:

DIV I	DIV II	DIV III
*FN4A	*FN4B	
*A0054A	*A0054B	
*FN01A	*FN01B	
*A0054A	*A0054B	
*UC103A	*UC103B	*UC102
*UC101A	*UC101B	
*UC104	*UC105	
*UC106	*UC107	
P870	P871	P871
*UC108A	*UC108B	

SOURCE: LSK-22-9.3K REV.19

FIGURE 9.4-7

CONTROL BUILDING HVAC SYSTEM-  
MISC. ROOMS AND AREAS  
LOGIC DIAGRAM SHEET 10 OF 14

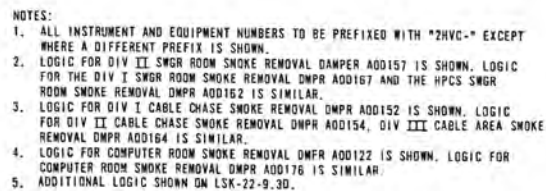
SETPOINTS SHOWN ON LOGIC DIAGRAMS ARE FOR LOGIC CLARIFICATION ONLY AND MAY BE ONLY APPROXIMATIONS OF THE ACTUAL PROCESS SETPOINT. REFER TO SETPOINT DATA SHEETS FOR ACTUAL PROCESS SETPOINTS.

NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT



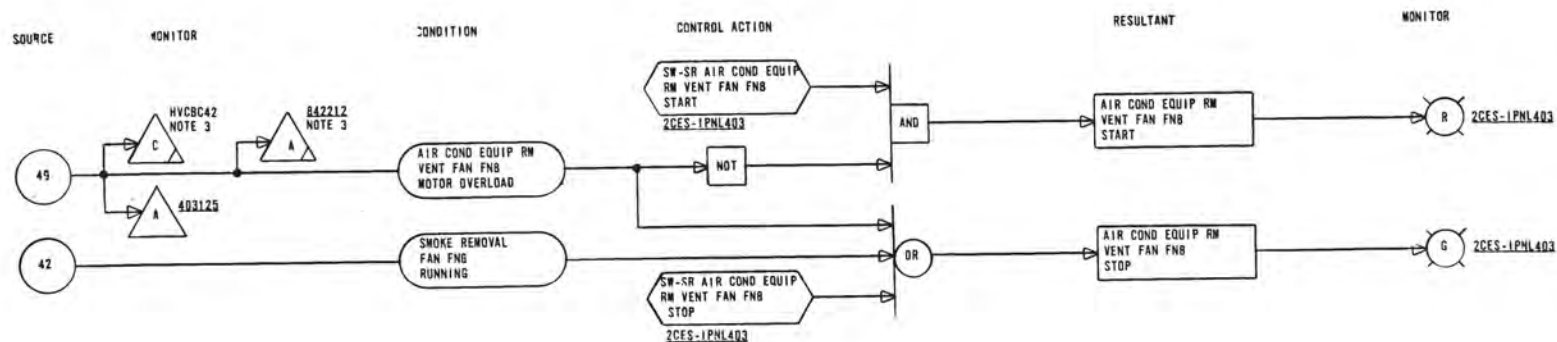






NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT





NOTES:

1. ALL INSTRUMENT AND EQUIPMENT NUMBERS TO BE PREFIXED WITH "2HVC-" EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN.
2. ALARM LOGIC FOR FIRE DAMPER \*DMPF212 IS SHOWN. ALARM LOGIC FOR FIRE DAMPER \*DMPF211 IS SIMILAR.
3. COMMON ANNUNCIATOR WINDOW AND COMPUTER POINT FOR CONTROL BLDG HVC SYSTEM TROUBLE 2CES-1PML403.
4. COMMON COMPUTER INPUT FOR FOUR SECTIONS OF A FIRE DAMPER

NOTE:

FOR LATEST SET POINT INFORMATION  
SEE SET POINT DATA SHEET

SOURCE: 12177-LSK-22-9.3N REV.15

FIGURE 9.4-7

CONTROL BUILDING HVAC SYSTEM-  
MISC. ROOMS AND AREAS  
LOGIC DIAGRAM SHEET 13 OF 14

NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT



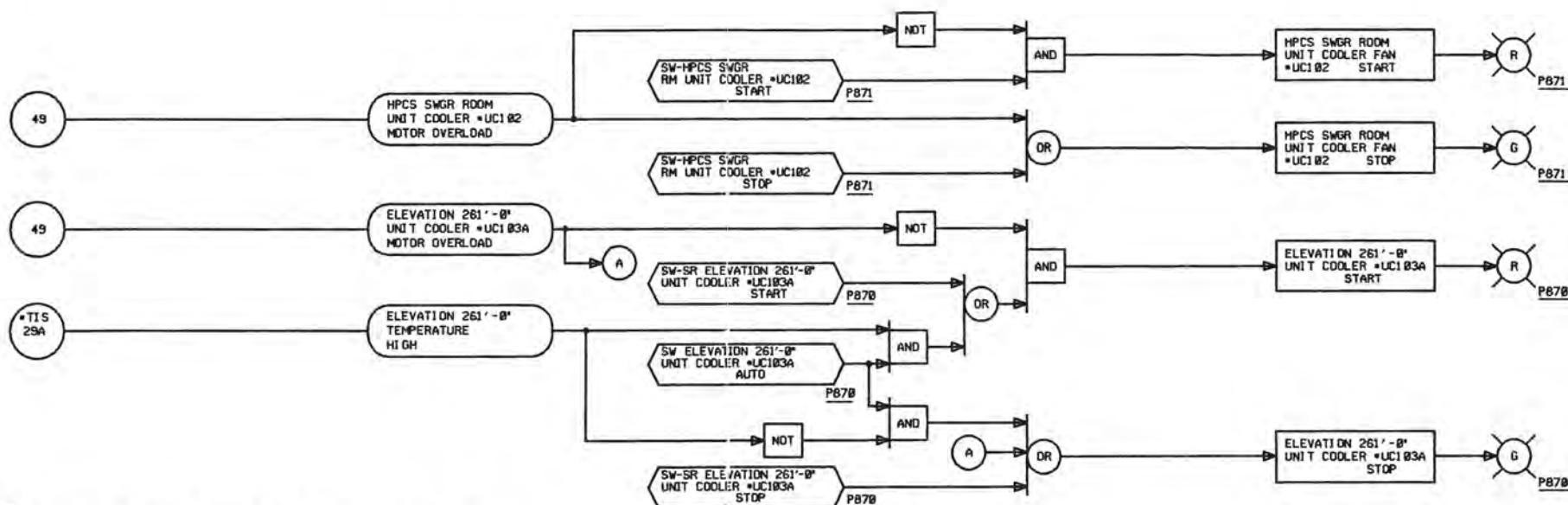
SOURCE

CONDITION

CONTROL ACTION

RESULTANT

MONITOR



## NOTES:

1. ALL INSTRUMENT AND EQUIPMENT NUMBERS TO BE PREFIXED WITH '2HVC-' EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN. AN ASTERISK (\*) WILL REPLACE THE DASH (-) IN THE PREFIX FOR EQUIPMENT OR INSTRUMENT WHICH ARE PART OF NUCLEAR SAFETY FEATURE SYSTEM.
2. LOGIC FOR STANDBY SWITCHGEAR AIR CONDITIONING EQUIPMENT ROOM UNIT COOLER \*UC103A IS SHOWN. LOGIC FOR STANDBY SWITCHGEAR AIR CONDITIONING EQUIPMENT ROOM UNIT COOLER \*UC103B IS SIMILAR.
3. ASSOCIATED EQUIPMENT MARK NUMBERS:

*UC103A	*UC103B
*TIS29A	*TIS29B
P870	P871

SETPOINTS SHOWN ON LOGIC DIAGRAMS ARE FOR LOGIC CLARIFICATION ONLY AND MAY BE ONLY APPROXIMATIONS OF THE ACTUAL PROCESS SETPOINT. REFER TO SETPOINT DATA SHEETS FOR ACTUAL PROCESS SETPOINTS.

SOURCE: LSK-22-9.3P REV.16

FIGURE 9.4-7

CONTROL BUILDING HVAC SYSTEM-  
MISC. ROOMS AND AREAS  
LOGIC DIAGRAM SHEET 14 OF 14

NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

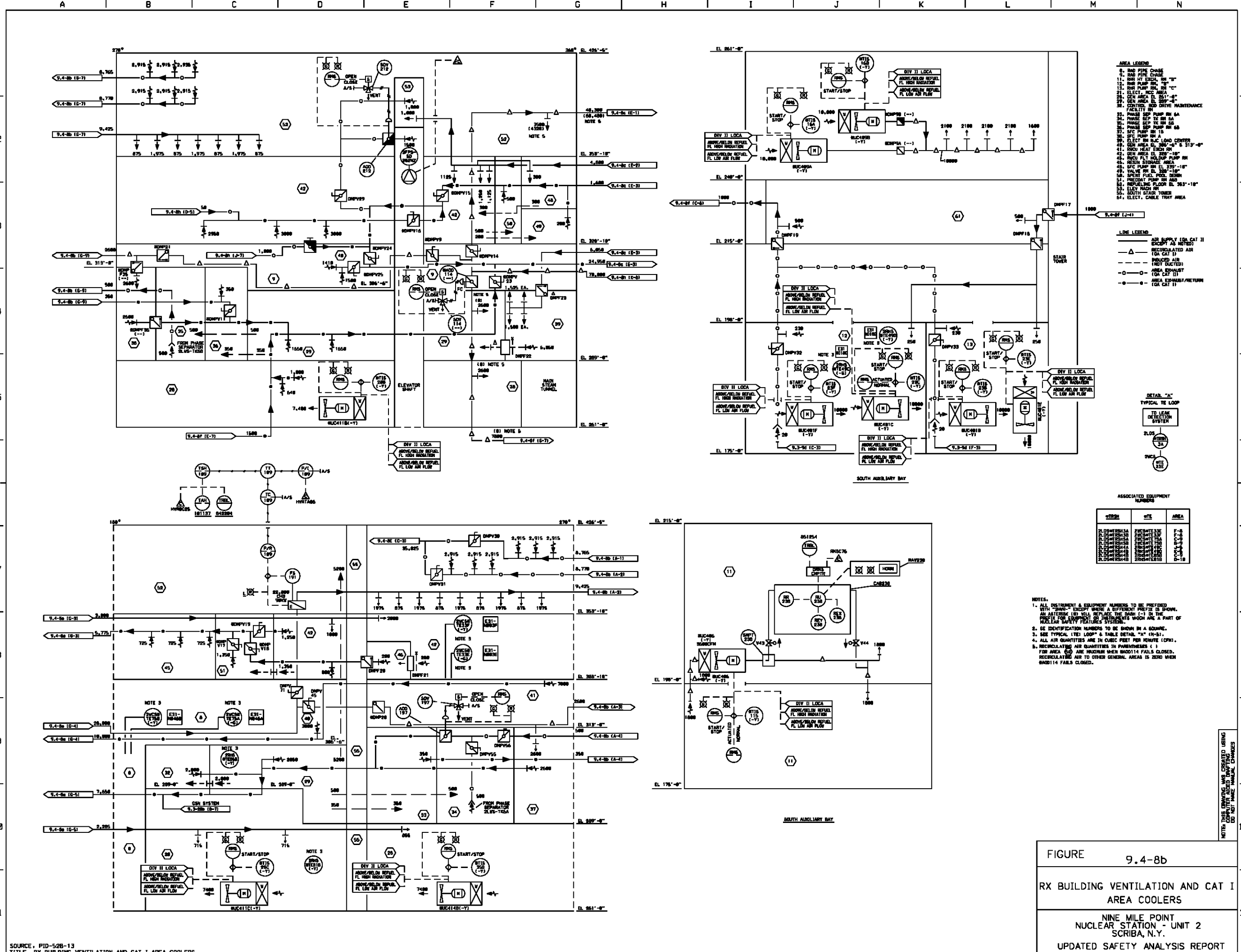
USAR REVISION 3

OCTOBER 1991





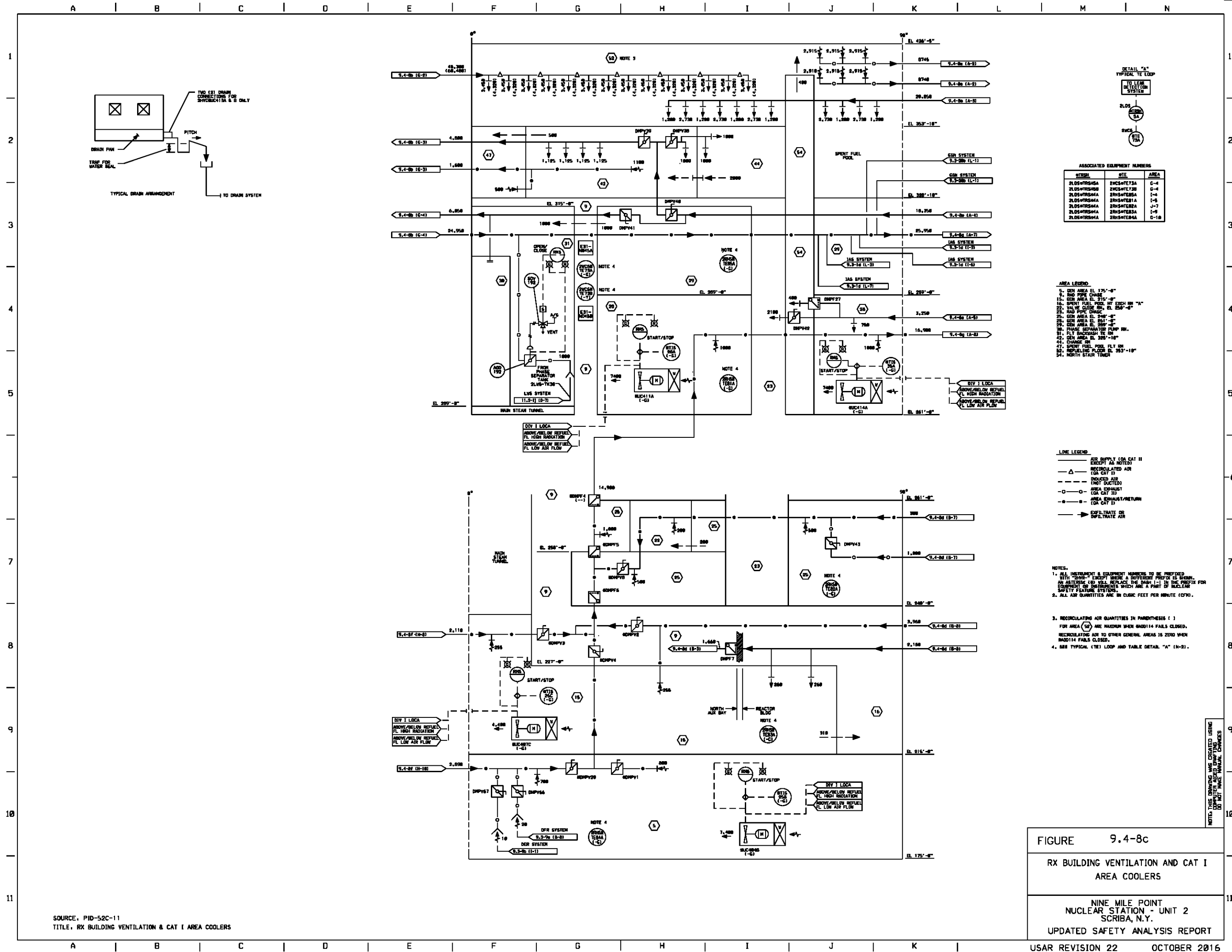




SOURCE: PID-526-13  
TITLE: RX BUILDING VENTILATION AND CAT I AREA COOLERS

NOTE: THIS DRAWING WAS GENERATED USING  
DO NOT MAKE MANUAL CHANGES

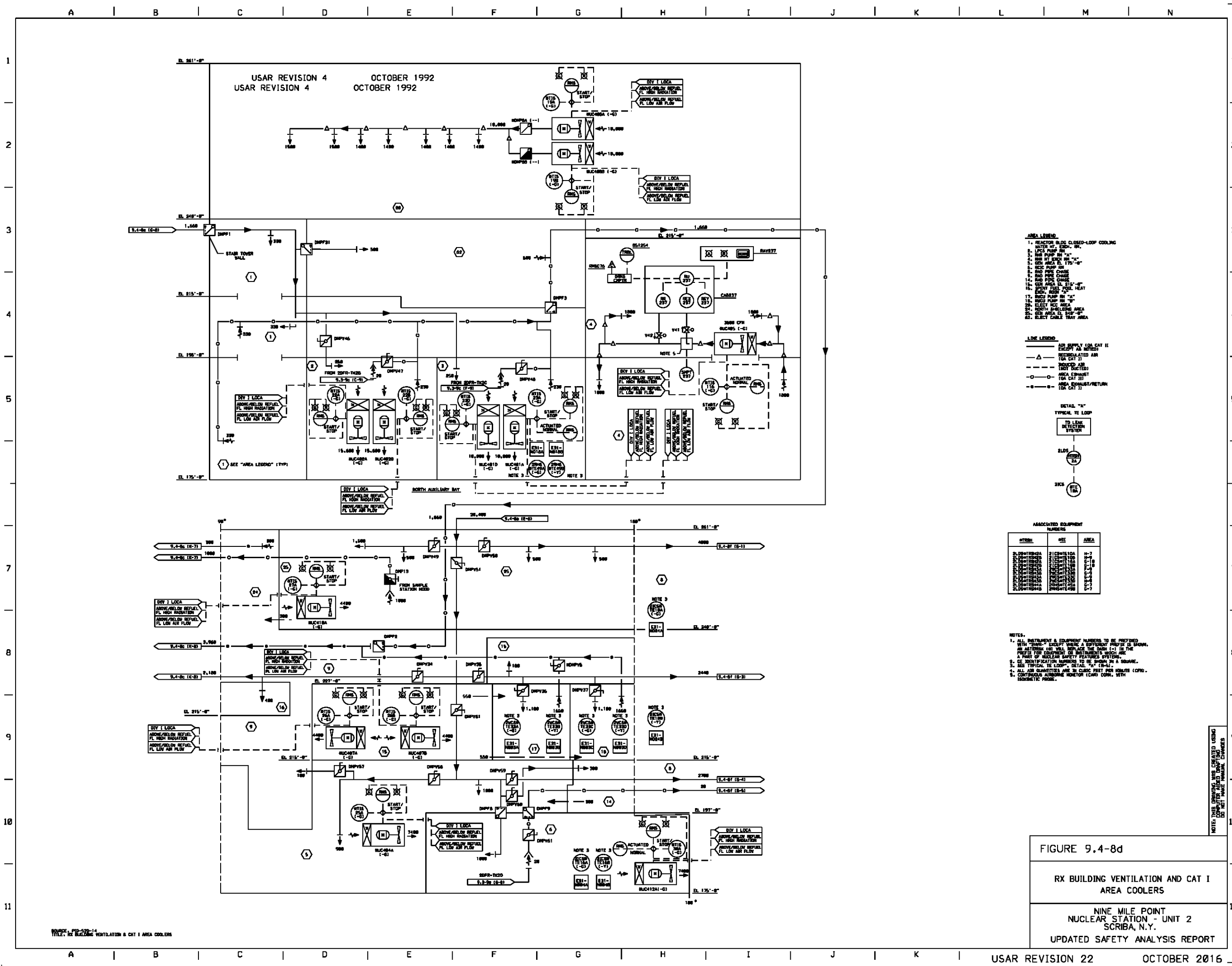




SOURCE: PID-52C-11  
TITLE: RX BUILDING VENTILATION & CAT I AREA COOLERS

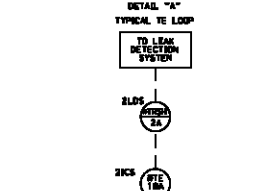
FIGURE 9.4-8c  
RX BUILDING VENTILATION AND CAT I AREA COOLERS  
NINE MILE POINT  
NUCLEAR STATION - UNIT 2  
SCRIBA, N.Y.  
UPDATED SAFETY ANALYSIS REPORT





- AREA LEGEND**
- 1. REACTOR BLOCK CLOSED-LOOP COOLING
  - 2. WATER HT. EXCH. (H)
  - 3. LPS PUMP (H)
  - 4. WWT EXCH. (H)
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  - 100. WWT EXCH. (H)

- LINE LEGEND**
- AIR SUPPLY (LOA CAT II)
  - RECYCLED AIR (LOA CAT II)
  - INDUCED AIR (LOA CAT II)
  - AREA EXHAUST (LOA CAT II)
  - AREA EXHAUST/RETURN (LOA CAT II)



**ASSOCIATED EQUIPMENT**

SYMBOL	NAME	AREA
1	REACTOR BLOCK CLOSED-LOOP COOLING	1
2	WATER HT. EXCH. (H)	2
3	LPS PUMP (H)	3
4	WWT EXCH. (H)	4
5	WWT EXCH. (H)	5
6	WWT EXCH. (H)	6
7	WWT EXCH. (H)	7
8	WWT EXCH. (H)	8
9	WWT EXCH. (H)	9
10	WWT EXCH. (H)	10
11	WWT EXCH. (H)	11
12	WWT EXCH. (H)	12
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76	WWT EXCH. (H)	76
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94	WWT EXCH. (H)	94
95	WWT EXCH. (H)	95
96	WWT EXCH. (H)	96
97	WWT EXCH. (H)	97
98	WWT EXCH. (H)	98
99	WWT EXCH. (H)	99
100	WWT EXCH. (H)	100

- NOTES**
- 1. ALL INSTRUMENT & EQUIPMENT NUMBERS TO BE PREVIEWED WITH "NINE" EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN.
  - 2. ALL INSTRUMENT & EQUIPMENT NUMBERS TO BE SHOWN IN THE PREFIX FOR EQUIPMENT OR INSTRUMENTS WHICH ARE A PART OF A LOCAL SAFETY SYSTEM.
  - 3. ALL IDENTIFICATION NUMBERS TO BE SHOWN IN A SQUARE.
  - 4. ALL INSTRUMENT & EQUIPMENT NUMBERS TO BE SHOWN IN A SQUARE.
  - 5. ALL AIR QUANTITIES ARE IN CUBIC FEET PER MINUTE (CFM).
  - 6. CONTINUOUS AIRFLOW MONITOR (CAFM) CONT. WITH INDUCTIVE PROBE.

NOTE: THIS DRAWING WAS CREATED USING AUTOCAD 2010. IT MAY NOT BE A TRUE REPRESENTATION OF THE ORIGINAL DRAWING. ANY CHANGES TO THE ORIGINAL DRAWING WILL BE MADE TO THIS DRAWING.

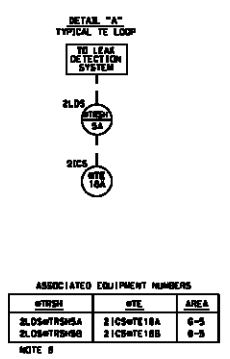
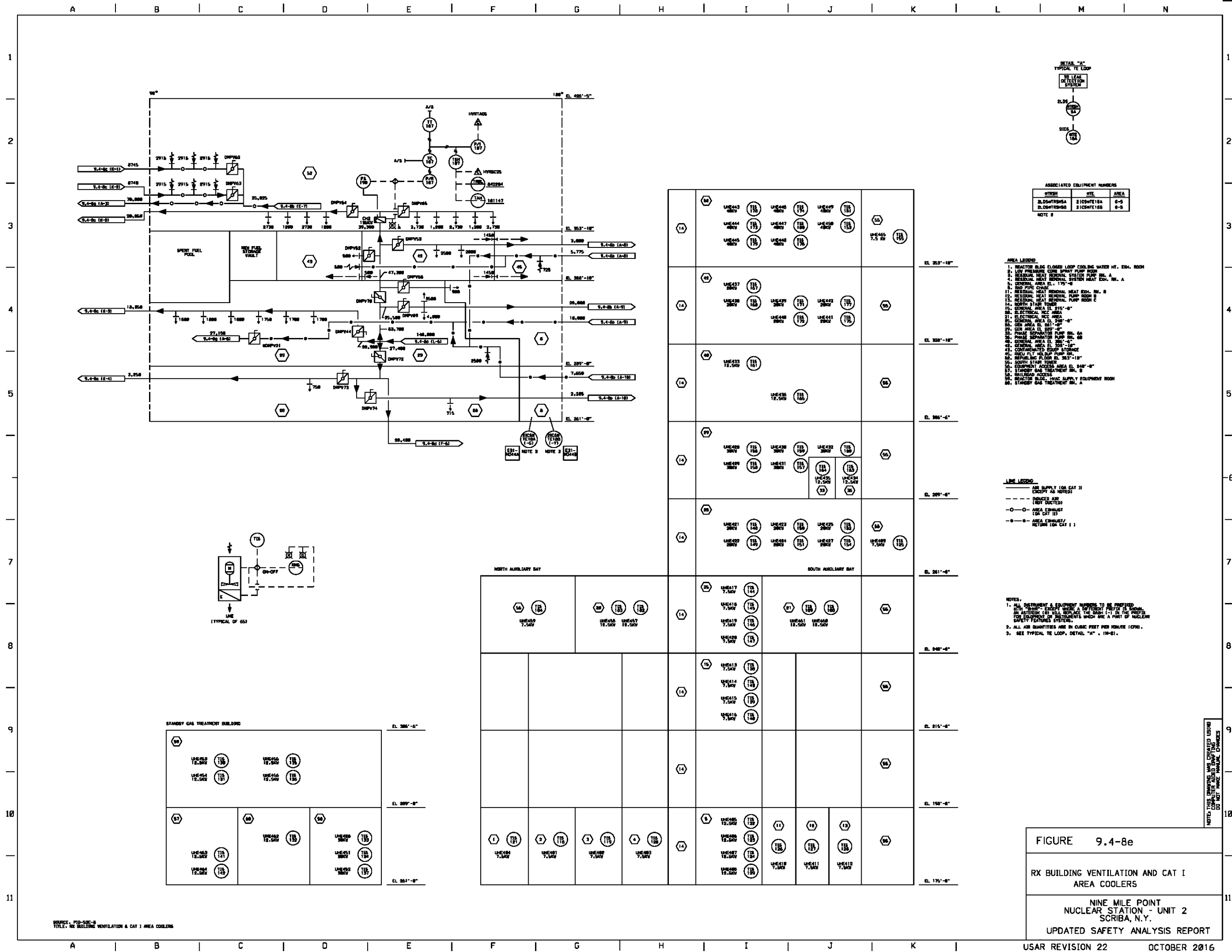
**FIGURE 9.4-8d**

**RX BUILDING VENTILATION AND CAT I AREA COOLERS**

**NINE MILE POINT NUCLEAR STATION - UNIT 2 SCRIBA, N.Y.**

**UPDATED SAFETY ANALYSIS REPORT**





- AREA LEGEND
- 1. REACTOR BLOC CLOSED LOOP COOLING WATER HT. EXH. ROOM
  - 2. LOW PRESSURE CORE SPRAY PUMP ROOM
  - 3. RESIDUAL HEAT REMOVAL SYSTEM PUMP RM. A
  - 4. RESIDUAL HEAT REMOVAL SYSTEM PUMP RM. A
  - 5. GENERAL AREA EL. 175'-0"
  - 6. LOW PRESSURE CORE SPRAY PUMP ROOM
  - 7. RESIDUAL HEAT REMOVAL SYSTEM PUMP RM. B
  - 8. RESIDUAL HEAT REMOVAL SYSTEM PUMP RM. B
  - 9. RESIDUAL HEAT REMOVAL SYSTEM PUMP RM. C
  - 10. RESIDUAL HEAT REMOVAL SYSTEM PUMP RM. C
  - 11. GENERAL AREA EL. 215'-0"
  - 12. ELECTRICAL MCC AREA
  - 13. GENERAL AREA EL. 215'-0"
  - 14. GENERAL AREA EL. 215'-0"
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  - 97. GENERAL AREA EL. 215'-0"
  - 98. GENERAL AREA EL. 215'-0"
  - 99. GENERAL AREA EL. 215'-0"
  - 100. GENERAL AREA EL. 215'-0"

- LINE LEGEND
- AIR SUPPLY (ON CAT II EXCEPT AS NOTED)
  - - - - - INDUCED AIR (NOT DUCTED)
  - O - O - AREA EXHAUST (ON CAT II)
  - O - O - AREA EXHAUST/RETURN (ON CAT I)
- NOTES:
1. ALL DISTANCE & EQUIPMENT NUMBERS TO BE PROVIDED WITH "NINE" EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN. AN "AS SHOWN" (AS) SHALL REPLACE THE DRAWING IN THE PROPER FOR EQUIPMENT OR DISTANCE WHICH ARE A PART OF NUCLEAR SAFETY FEATURES SYSTEMS.
  2. ALL AIR QUANTITIES ARE IN CUBIC FEET PER MINUTE (CFM).
  3. SEE TYPICAL TE LOOP, DETAIL "A", 100-01.

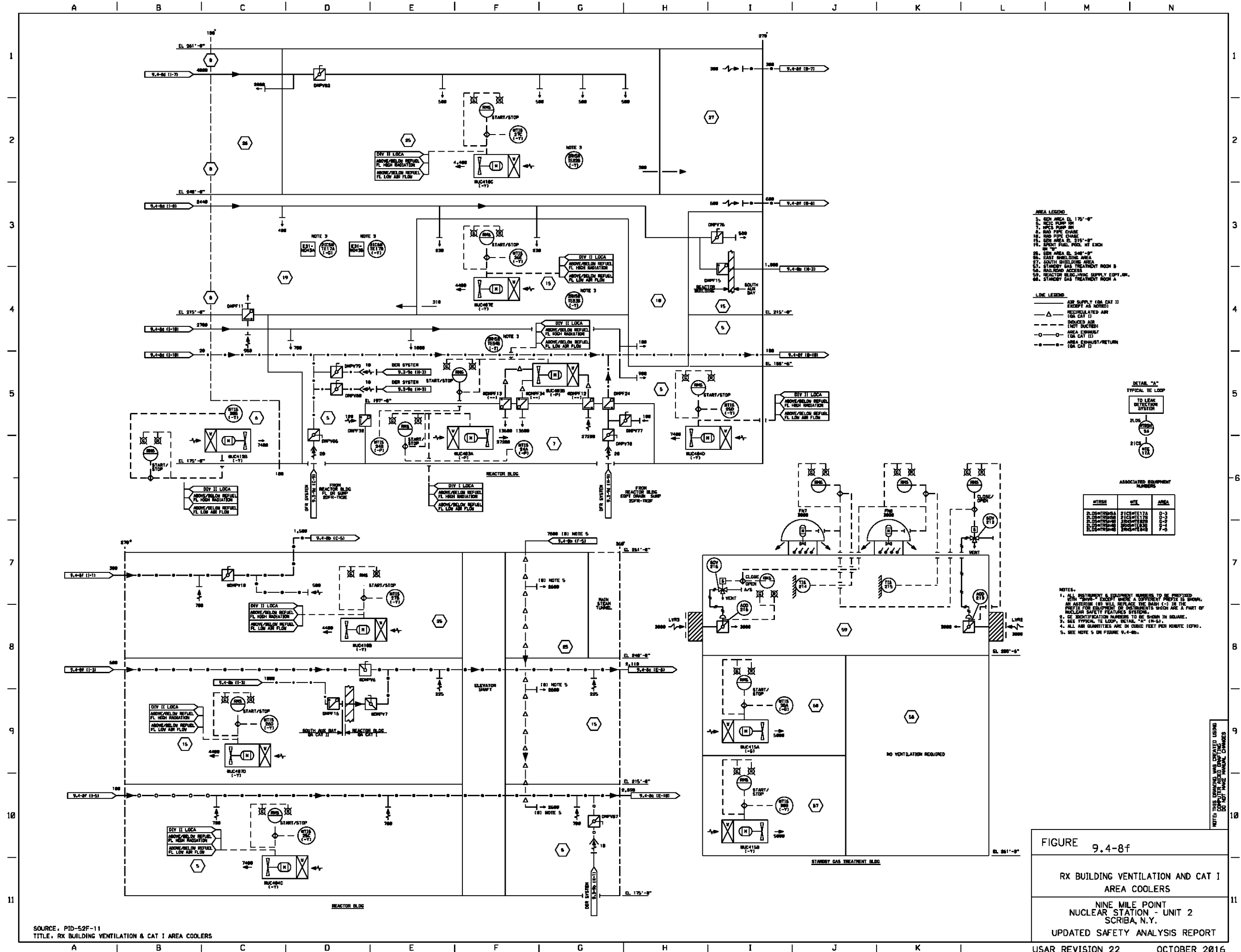
FIGURE 9.4-8e

RX BUILDING VENTILATION AND CAT I AREA COOLERS

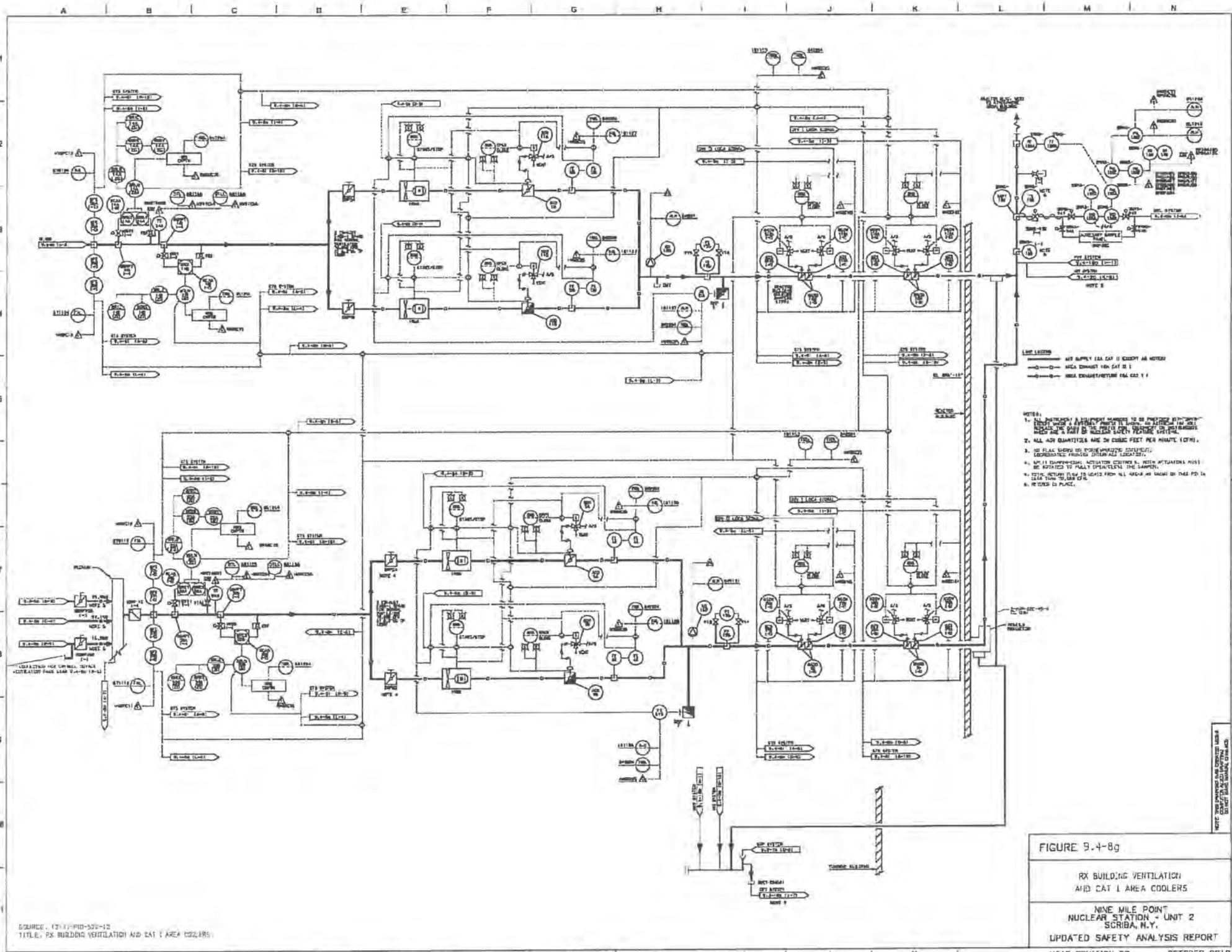
NINE MILE POINT  
NUCLEAR STATION - UNIT 2  
SCRIBA, N.Y.

UPDATED SAFETY ANALYSIS REPORT









SOURCE: 12117-PD-526-12  
TITLE: RX BUILDING VENTILATION AND CAT 1 AREA COOLERS

FIGURE 9.4-8g  
RX BUILDING VENTILATION  
AND CAT 1 AREA COOLERS  
NINE MILE POINT  
NUCLEAR STATION - UNIT 2  
SCRIBA, N.Y.  
UPDATED SAFETY ANALYSIS REPORT



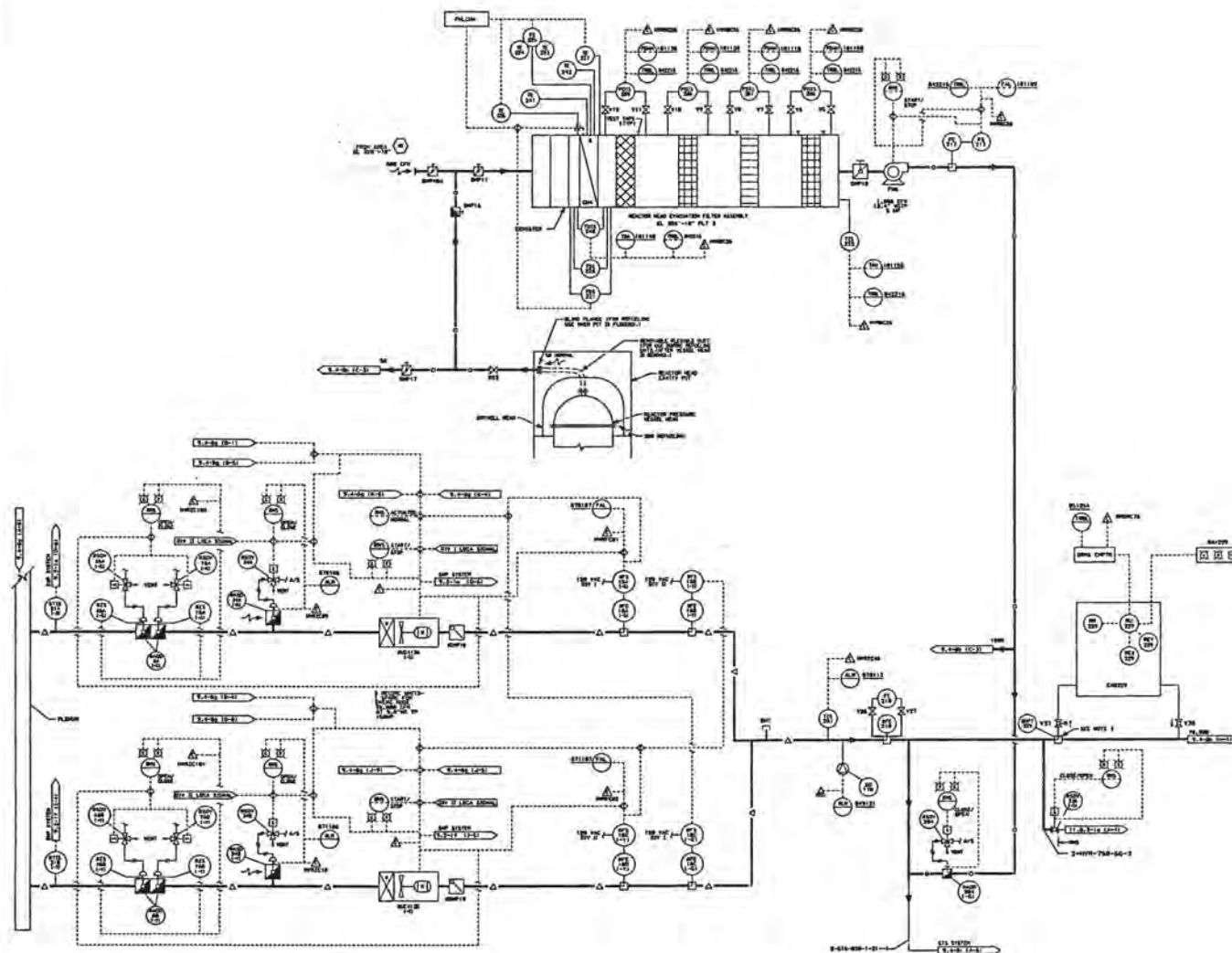


FIGURE 9.4-Bh

RX BUILDING VENTILATION  
AND CAT 1 AREA COOLERS

NIAGARA MOHAWK POWER CORPORATION  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

USAR REVISION 3 OCTOBER 1991



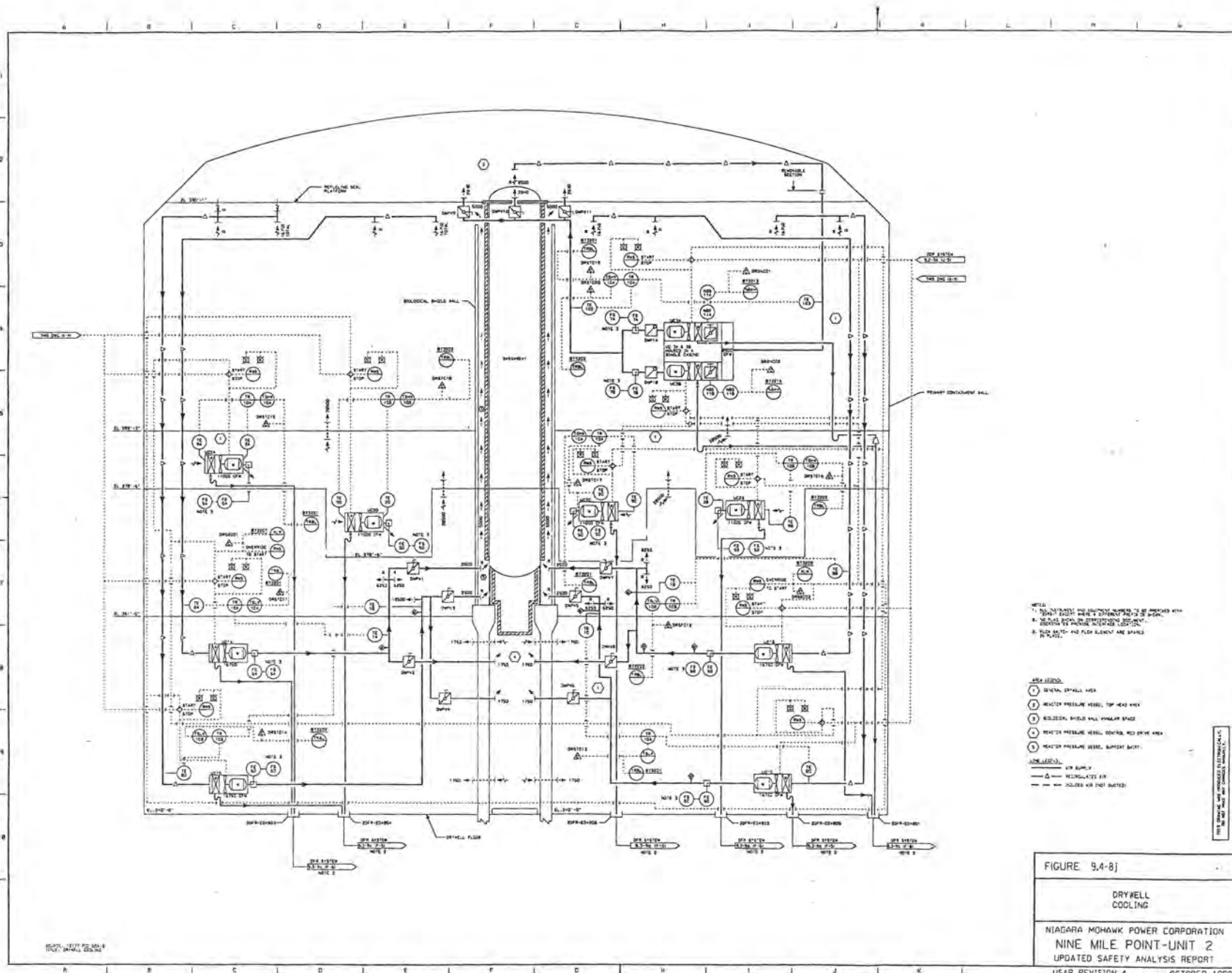
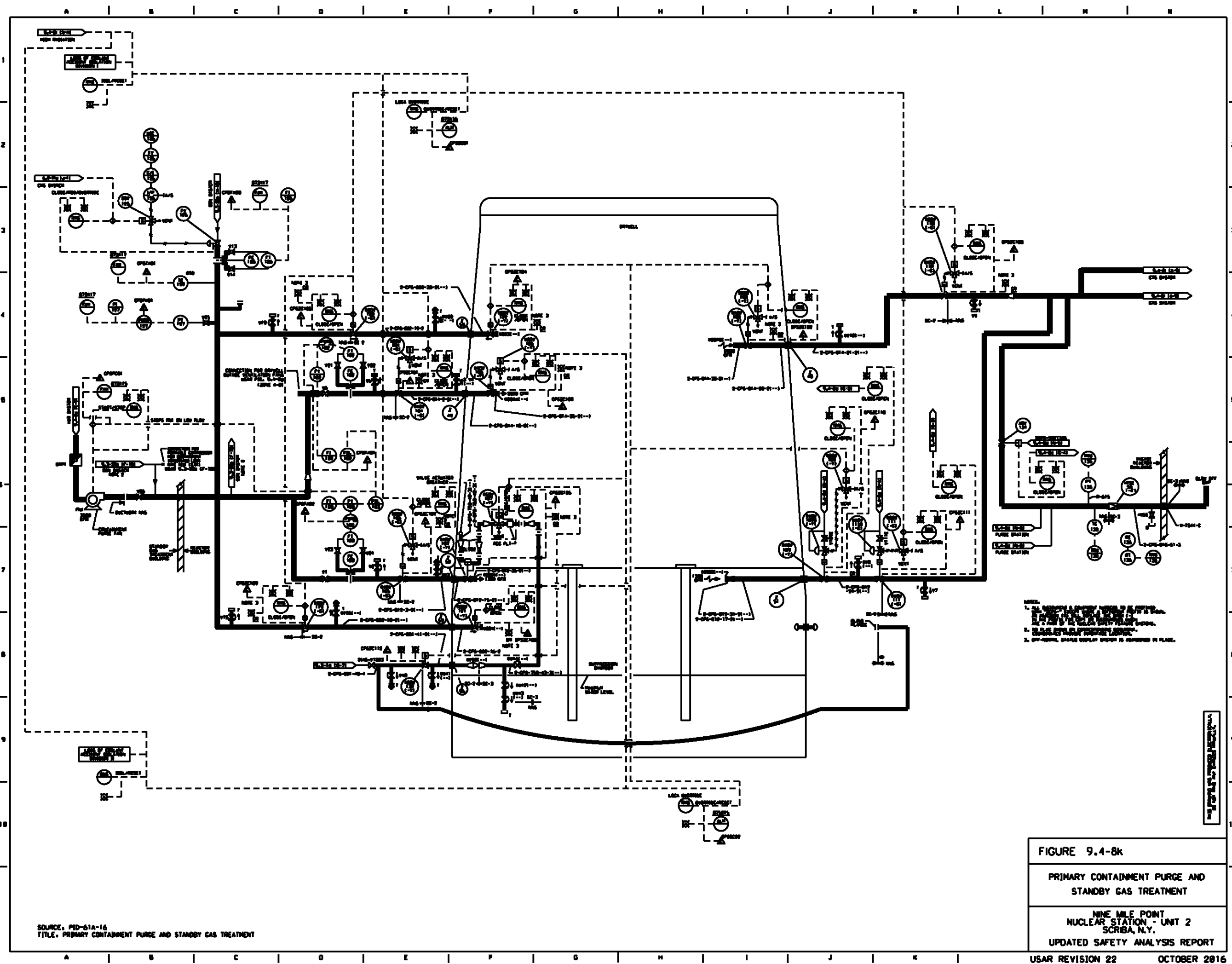


FIGURE 9.4-8J

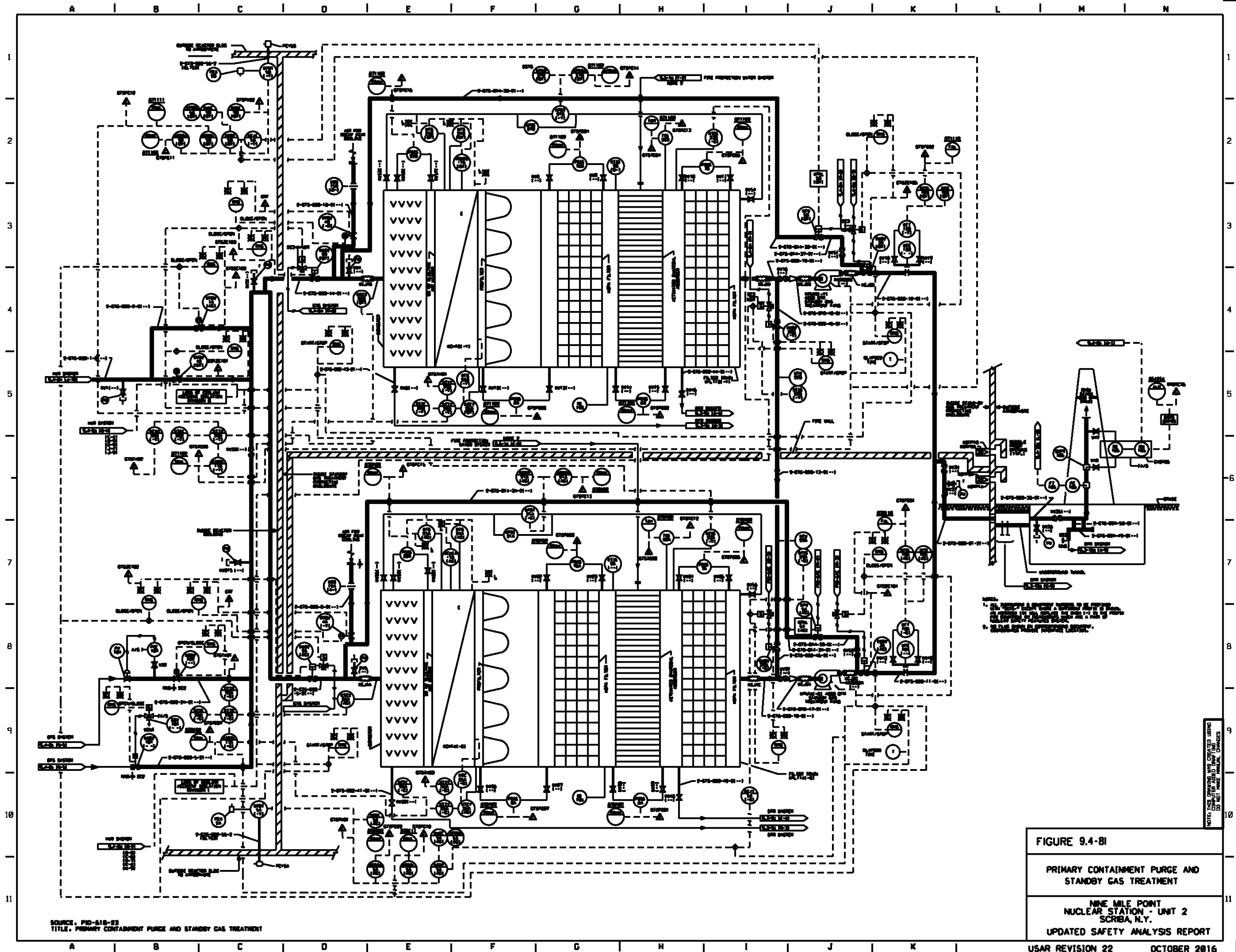
DRYWELL  
COOLING

NIAGARA MOHAWK POWER CORPORATION  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

















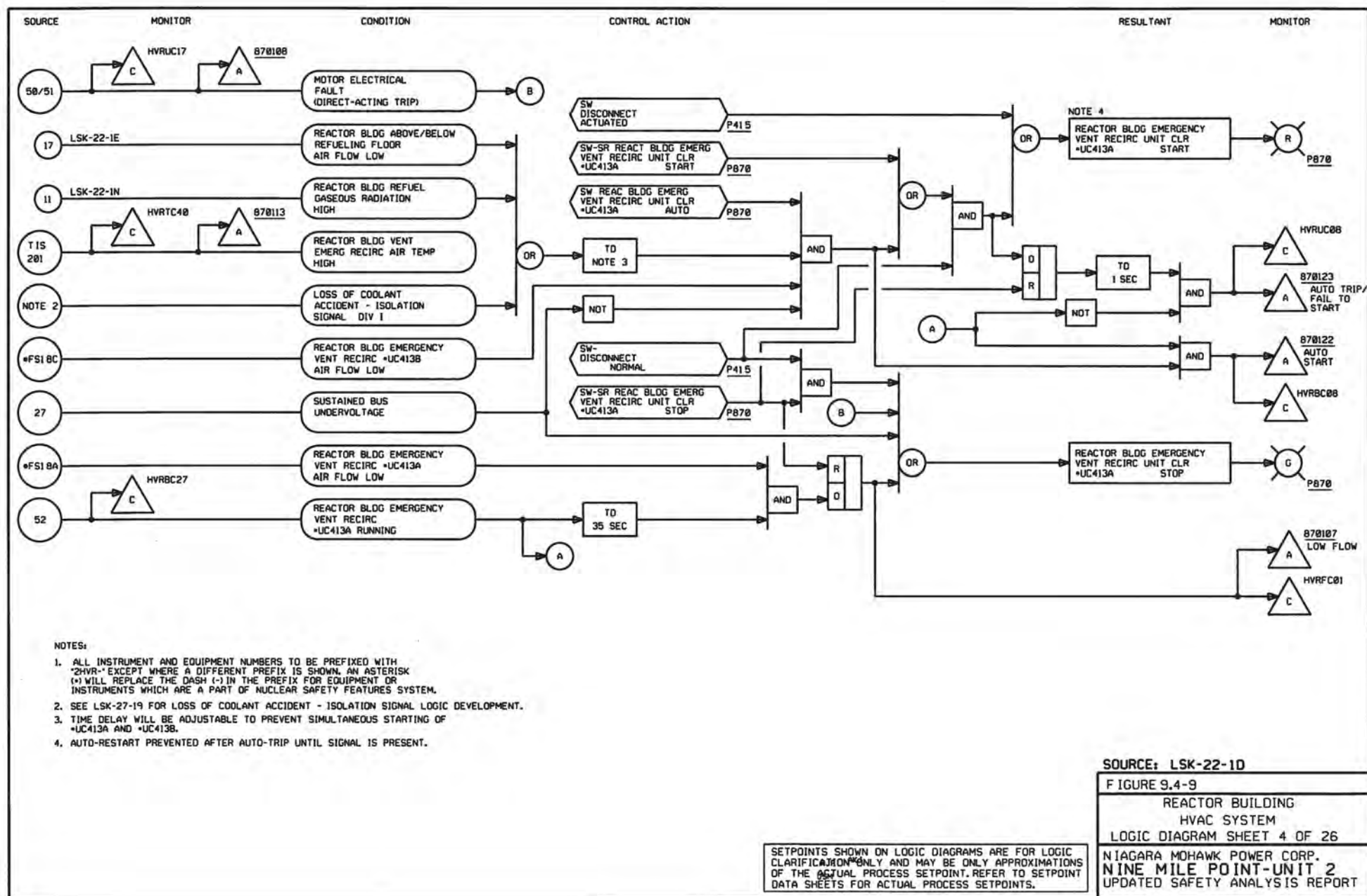




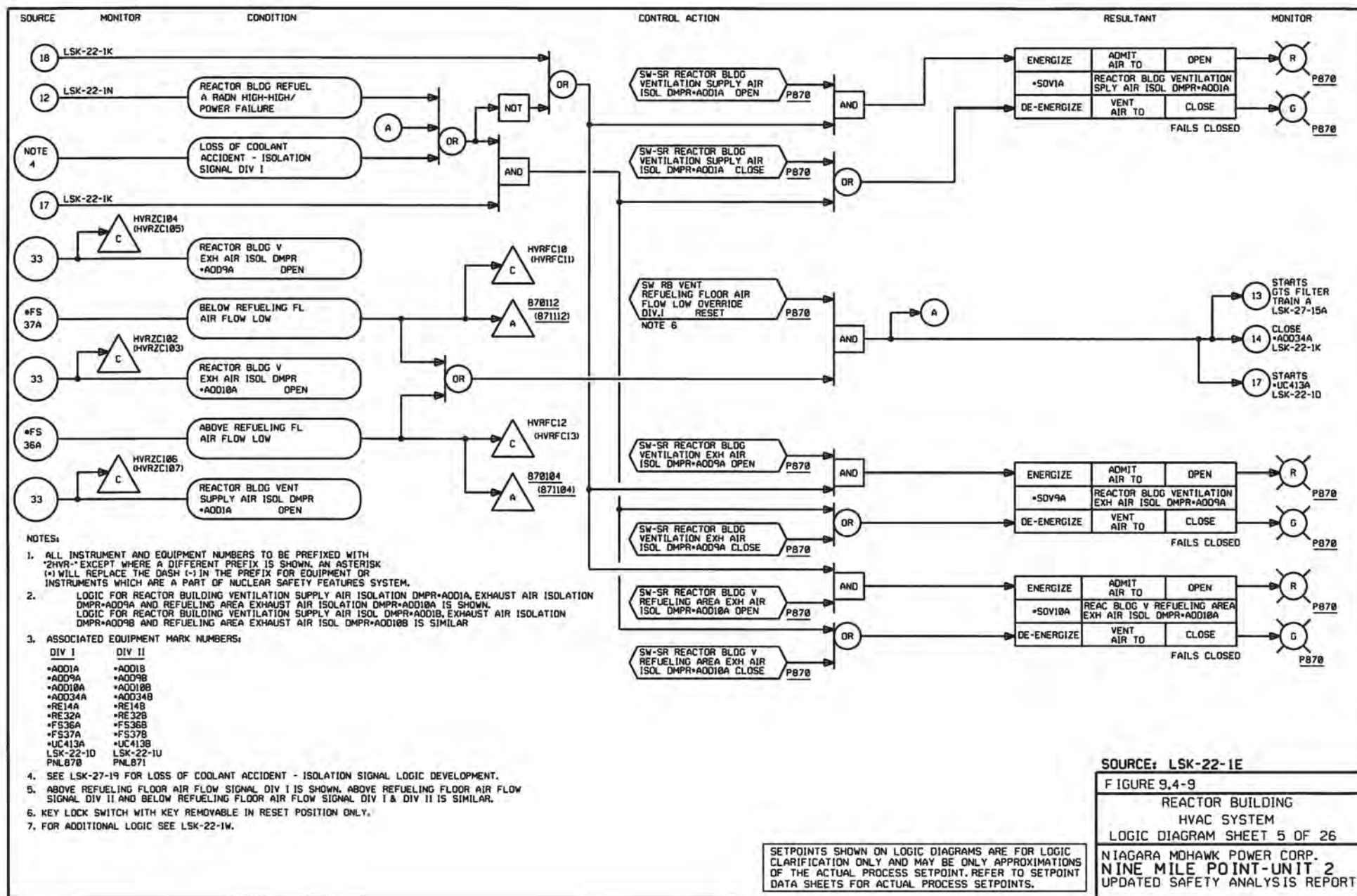




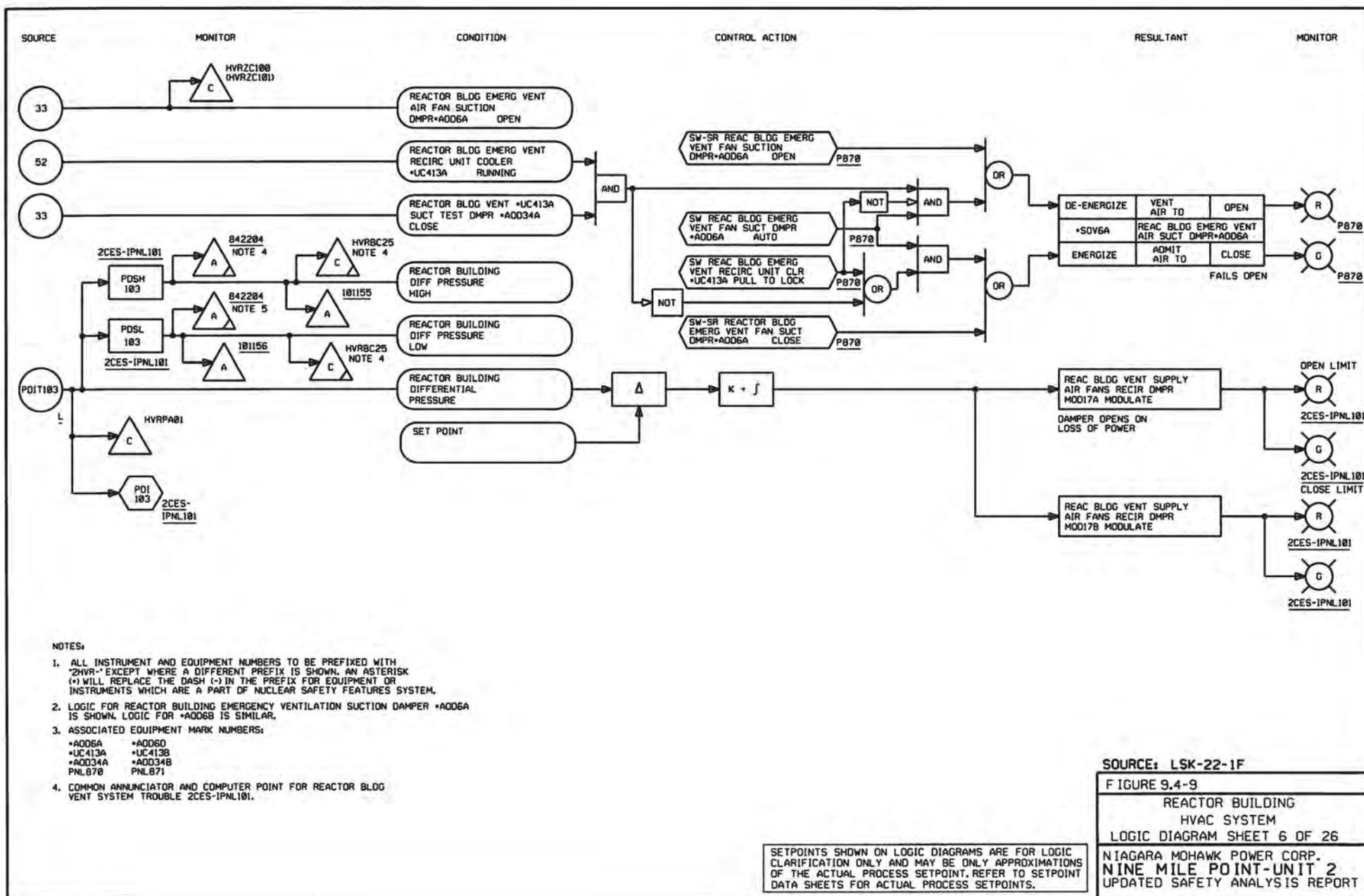












SOURCE: LSK-22-1F

FIGURE 9.4-9

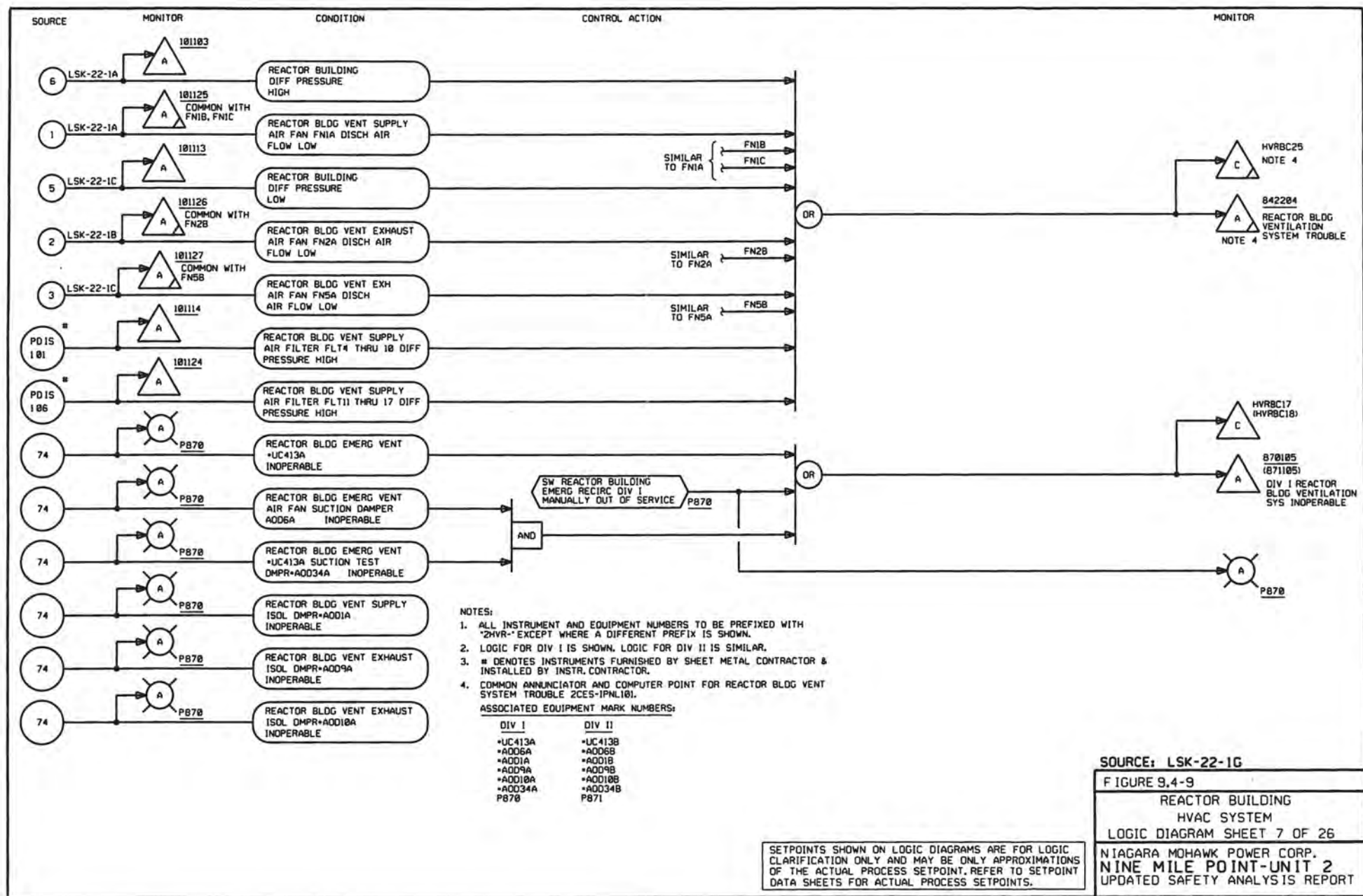
REACTOR BUILDING  
HVAC SYSTEM  
LOGIC DIAGRAM SHEET 6 OF 26

NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

USAR REVISION 10

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SOURCE: LSK-22-1G

FIGURE 9.4-9

REACTOR BUILDING  
HVAC SYSTEM  
LOGIC DIAGRAM SHEET 7 OF 26

NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

USAR REVISION 10

NOVEMBER 1998





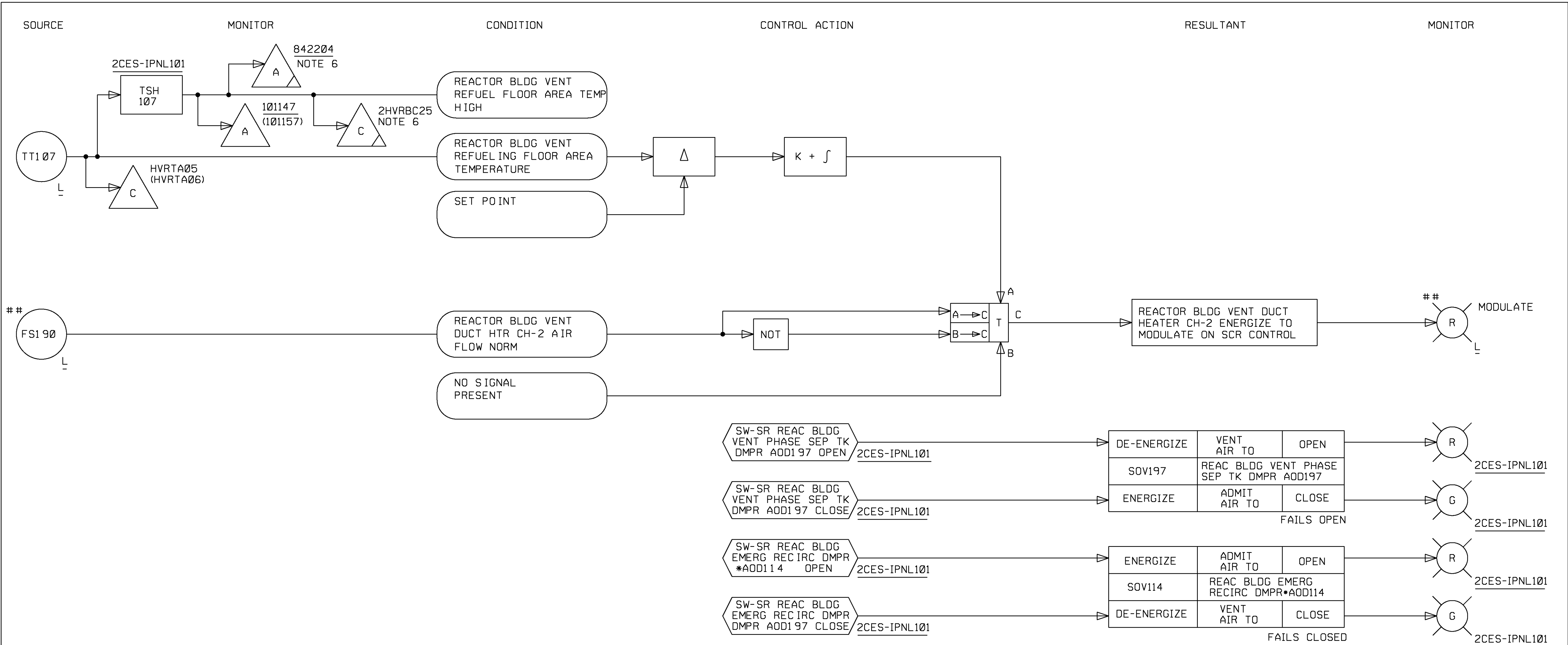












NOTES:

- ALL INSTRUMENT AND EQUIPMENT NUMBERS TO BE PREFIXED WITH "2HVR-" EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN. AN ASTERISK (\*) WILL REPLACE THE DASH (-) IN THE PREFIX FOR EQUIPMENT OR INSTRUMENTS WHICH ARE A PART OF NUCLEAR SAFETY FEATURES SYSTEM.
- LOGIC FOR REACTOR BUILDING VENTILATION DUCT HEATER CH-2 IS SHOWN. LOGIC FOR REACTOR BUILDING VENTILATION DUCT HEATER CH-3 IS SIMILAR.
- ## INDICATES MANUFACTURER SUPPLIED EQUIPMENT.
- LOGIC FOR REACTOR BUILDING VENTILATION PHASE SEPARATOR TANK ISOLATION DAMPER AOD197 IS SHOWN. LOGIC FOR FUEL POOL BACKWASH TANK DAMPER AOD192, IS SIMILAR.
- ASSOCIATED EQUIPMENT MARK NUMBERS:  
CH-2      CH-3  
##FS190    ##FS191  
TT107      TT109  
AOD197     AOD192
- COMMON ANNUNCIATOR AND COMPUTER POINT FOR REACTOR BLDG VENTILATION SYSTEM TROUBLE 2CES-IPNL101.
- NOT USED.
- \*AOD114 CAT I SEISMICALLY ONLY.

SETPOINTS SHOWN ON LOGIC DIAGRAMS ARE FOR LOGIC CLARIFICATION ONLY AND MAY BE ONLY APPROXIMATIONS OF THE ACTUAL PROCESS SETPOINT. REFER TO SETPOINT DATA SHEETS FOR ACTUAL PROCESS SETPOINTS.

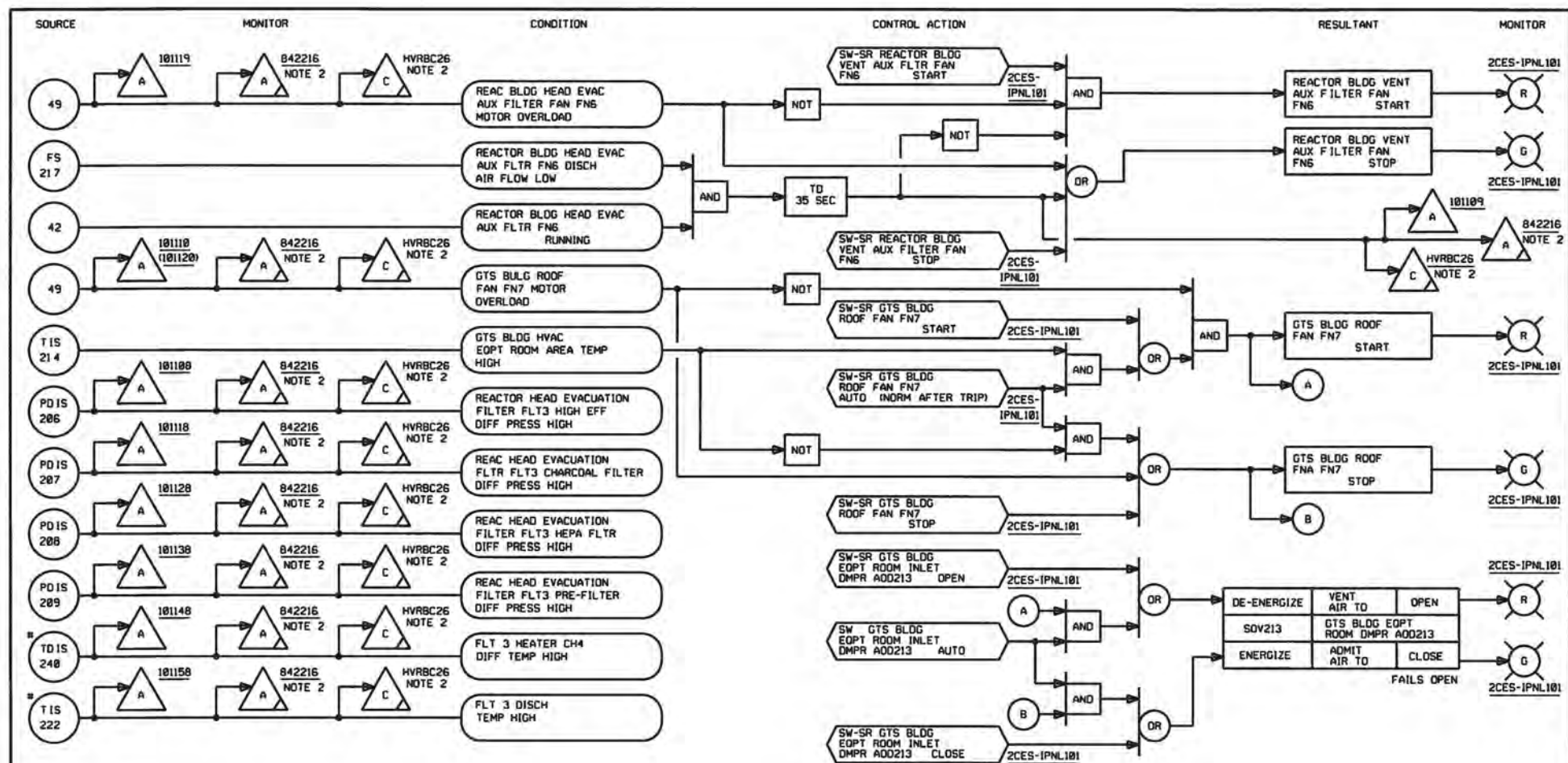
SOURCE: LSK- 22-01-L

FIGURE 9.4-9

REACTOR BUILDING  
HVAC SYSTEM  
LOGIC DIAGRAM SHEET 11 OF 26

NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT





# NOTES:

- ALL INSTRUMENT AND EQUIPMENT NUMBERS TO BE PREFIXED WITH "2HVR-" EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN. AN ASTERISK (\*) WILL REPLACE THE DASH (-) IN THE PREFIX FOR EQUIPMENT OR INSTRUMENTS WHICH ARE A PART OF NUCLEAR SAFETY FEATURES SYSTEM.
- COMMON ANNUNCIATOR AND COMPUTER PT FOR REACTOR HEAD CAVITY EVAC FILTER TROUBLE.
- CONTROL LOGIC FOR GTS BLDG ROOF FAN FN7 AND INLET DMPR A00213 ARE SHOWN. CONTROL LOGIC FOR FN6 AND A00216 IS SIMILAR.
- \* - DENOTES SUPPLIED BY FILTER VENDOR.

SOURCE: LSK-22-1M

FIGURE 9.4-9

REACTOR BUILDING  
HVAC SYSTEM  
LOGIC DIAGRAM SHEET 12 OF 26

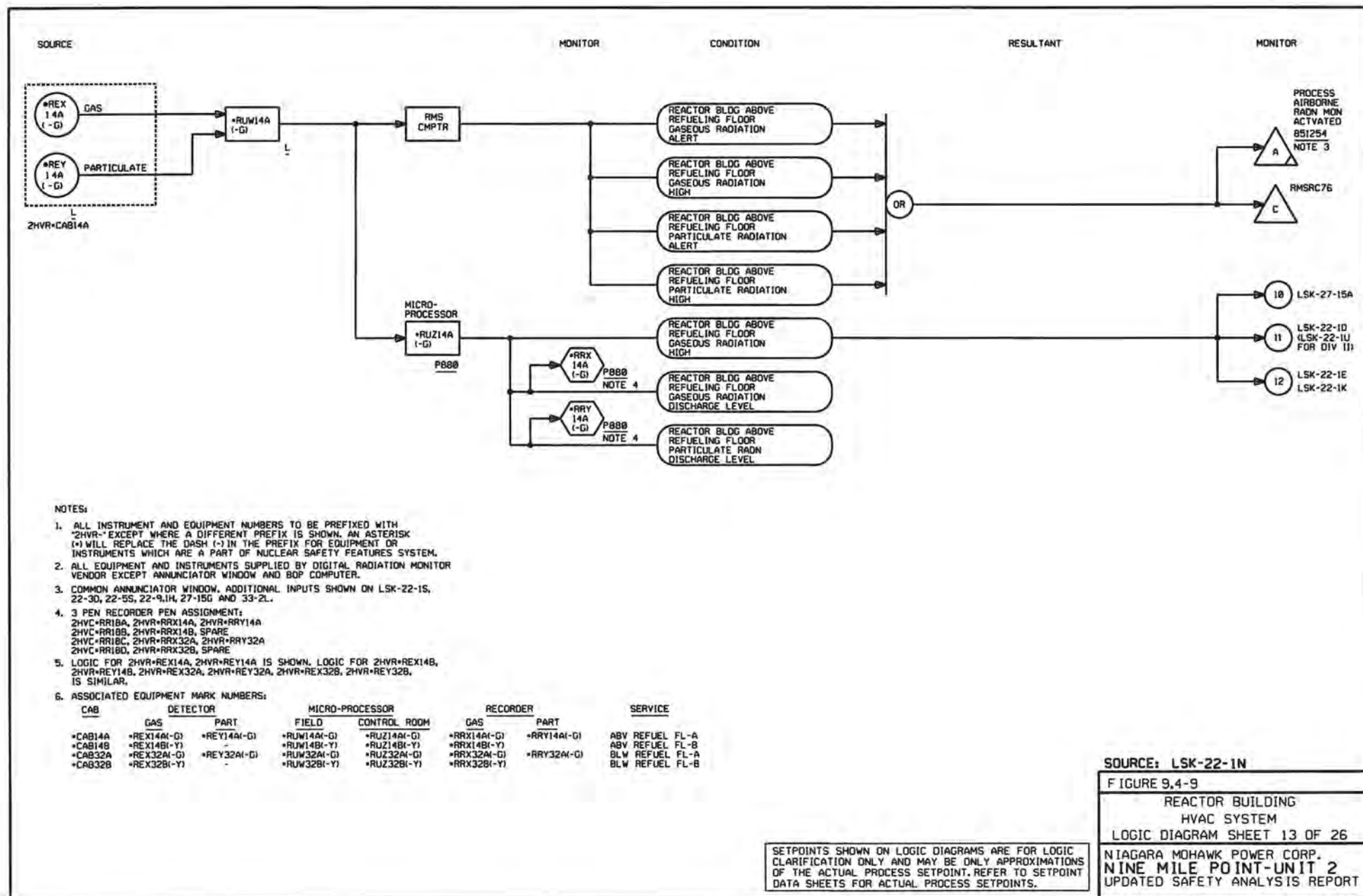
NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

SETPOINTS SHOWN ON LOGIC DIAGRAMS ARE FOR LOGIC CLARIFICATION ONLY AND MAY BE ONLY APPROXIMATIONS OF THE ACTUAL PROCESS SETPOINT. REFER TO SETPOINT DATA SHEETS FOR ACTUAL PROCESS SETPOINTS.

USAR REVISION 10

NOVEMBER 1998









1. ALL INSTRUMENTS AND EQUIPMENT SUPPLIED BY DIGITAL RADIATION MONITOR VENDOR, EXCEPT ANNUNCIATOR WINDOW AND BOP COMPUTER.
2. COMMON ANNUNCIATOR WINDOW "REAC BLDG AREA RADN NON ACTIVATED" FOR CAT I AND II DETECTORS. ADDITIONAL INPUTS SHOWN ON LSK-22-1R.
3. LOGIC FOR 2RMS+RE1A IS SHOWN. LOGIC FOR 2RMS+RE1B, 2RMS+RE1C AND 2RMS+RE1D IS SIMILAR.

4. ASSOCIATED EQUIPMENT MARK NUMBERS:						
DETECTOR	MICRO-PROCESSOR		RECORDER	ALARM UNIT		ERF CMPTR
	FIELD	CONTROL ROOM		NO. 1	NO. 2	
2RMS-REIAI-(G)	2RMS-RWUIAI-(G)	2RMS-RUZIAI-(G)	2RMS-RRIAI-(G)	2RMS-RAWIAI-(G)	2RMS-RAYIAI-(G)	RMSRAI00
2RMS-REIBI-(Y)	2RMS-RWUIBI-(Y)	2RMS-RUZIBI-(Y)	2RMS-RRIBI-(Y)	2RMS-RAWIBI-(Y)	2RMS-RAYIBI-(Y)	RMSRAI01
2RMS-REICI-(G)	2RMS-RWUICI-(G)	2RMS-RUZICI-(G)	2RMS-RRICI-(G)	2RMS-RAWICI-(G)	2RMS-RAYICI-(G)	RMSRAI02
2RMS-REIDI-(Y)	2RMS-RWUIDI-(Y)	2RMS-RUZIDI-(Y)	2RMS-RRIDI-(Y)	2RMS-RAWIDI-(Y)	2RMS-RAYIDI-(Y)	RMSRAI03

SETPOINTS SHOWN ON LOGIC DIAGRAMS ARE FOR LOGIC CLARIFICATION ONLY AND MAY BE ONLY APPROXIMATIONS OF THE ACTUAL PROCESS SETPOINT. REFER TO SETPOINT DATA SHEETS FOR ACTUAL PROCESS SETPOINTS.

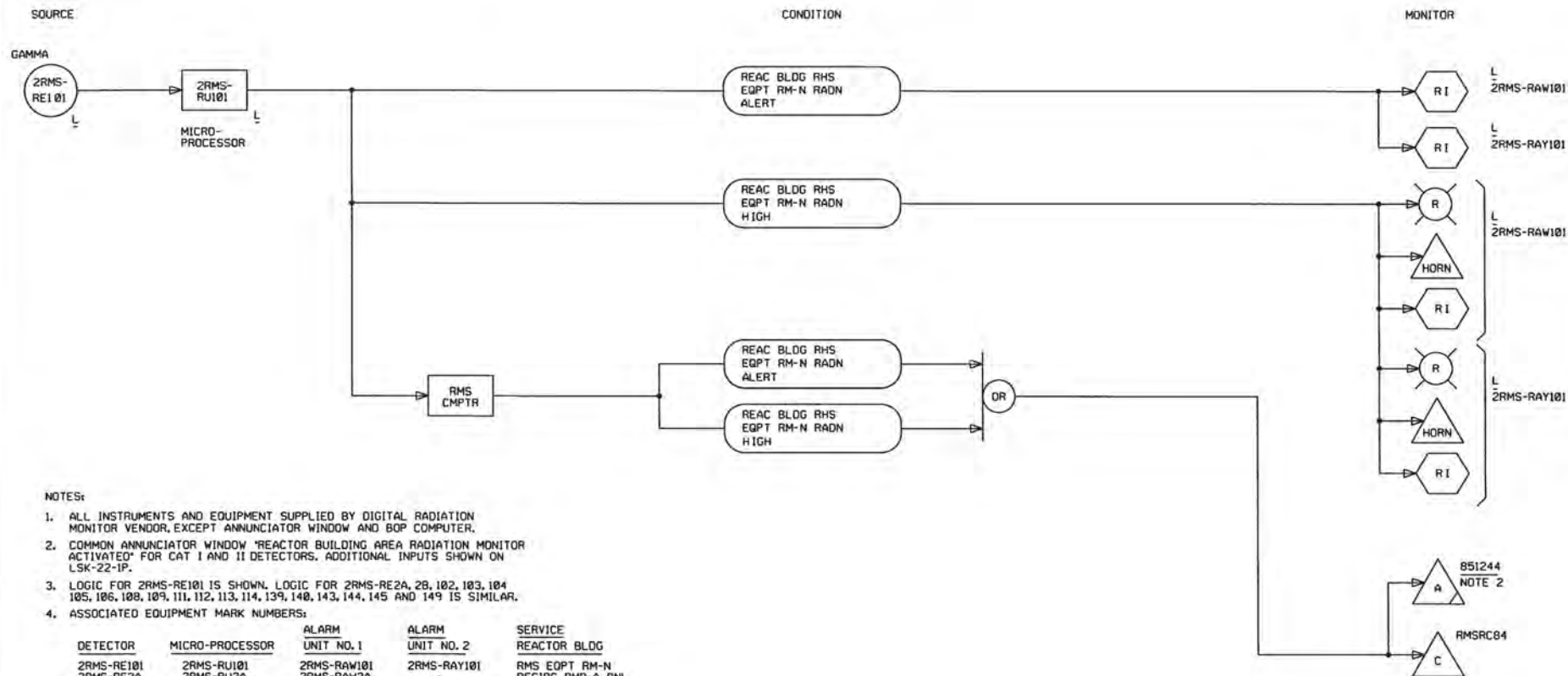
SOURCE: LSK-22-1P, REV.17

FIGURE 9.4-9

REACTOR BUILDING  
HVAC SYSTEM  
LOGIC DIAGRAM SHEET 14 OF 26

NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT





#### NOTES:

1. ALL INSTRUMENTS AND EQUIPMENT SUPPLIED BY DIGITAL RADIATION MONITOR VENDOR, EXCEPT ANNUNCIATOR WINDOW AND BOP COMPUTER.
2. COMMON ANNUNCIATOR WINDOW "REACTOR BUILDING AREA RADIATION MONITOR ACTIVATED" FOR CAT I AND II DETECTORS. ADDITIONAL INPUTS SHOWN ON LSK-22-1P.
3. LOGIC FOR 2RMS-RE101 IS SHOWN. LOGIC FOR 2RMS-RE2A, 2B, 102, 103, 104, 105, 106, 108, 109, 111, 112, 113, 114, 139, 140, 143, 144, 145 AND 149 IS SIMILAR.
4. ASSOCIATED EQUIPMENT MARK NUMBERS:

DETECTOR	MICRO-PROCESSOR	ALARM UNIT NO. 1	ALARM UNIT NO. 2	SERVICE REACTOR BLDG
2RMS-RE101	2RMS-RU101	2RMS-RAW101	2RMS-RAY101	RMS EQPT RM-N
2RMS-RE2A	2RMS-RU2A	2RMS-RAW2A	-	RECIRC PMP-A PNL
2RMS-RE2B	2RMS-RU2B	2RMS-RAW2B	-	RECIRC PMP-B PNL
2RMS-RE102	2RMS-RU102	2RMS-RAW102	-	EQPT DR-E
2RMS-RE103	2RMS-RU103	2RMS-RAW103	2RMS-RAY103	RHS EQPT RM-S
2RMS-RE104	2RMS-RU104	2RMS-RAW104	-	EQPT DR-W
2RMS-RE105	2RMS-RU105	2RMS-RAW105	2RMS-RAY105	TIP EQPT A
2RMS-RE106	2RMS-RU106	2RMS-RAW106	2RMS-RAY106	ENTRANCE A
2RMS-RE108	2RMS-RU108	2RMS-RAW108	-	CRO MAINT FACIL A
2RMS-RE109	2RMS-RU109	2RMS-RAW109	2RMS-RAY109	CONTAM EQPT STOR A
2RMS-RE111	2RMS-RU111	2RMS-RAW111	-	REFUEL PLATF LOW RNG
2RMS-RE112	2RMS-RU112	2RMS-RAW112	-	REFUEL PLATF HI RNG
2RMS-RE113	2RMS-RU113	2RMS-RAW113	-	NEW FUEL VAULT OUTSIDE
2RMS-RE114	2RMS-RU114	2RMS-RAW114	2RMS-RAY114	OPR FL EQPT
2RMS-RE139	2RMS-RU139	2RMS-RAW139	2RMS-RAY139	ABV SUPPR POOL
2RMS-RE140	2RMS-RU140	2RMS-RAW140	2RMS-RAY140	NEW FUEL VAULT INSIDE
2RMS-RE143	2RMS-RU143	2RMS-RAW143	-	CRO MODULE A-N
2RMS-RE144	2RMS-RU144	2RMS-RAW144	-	CRO MODULE A-S
2RMS-RE145	2RMS-RU145	2RMS-RAW145	-	SAMPLE PANEL
2RMS-RE149	2RMS-RU149	2RMS-RAW149	-	RVCU VALVE A

SOURCE: LSK-22-1R, REV.17

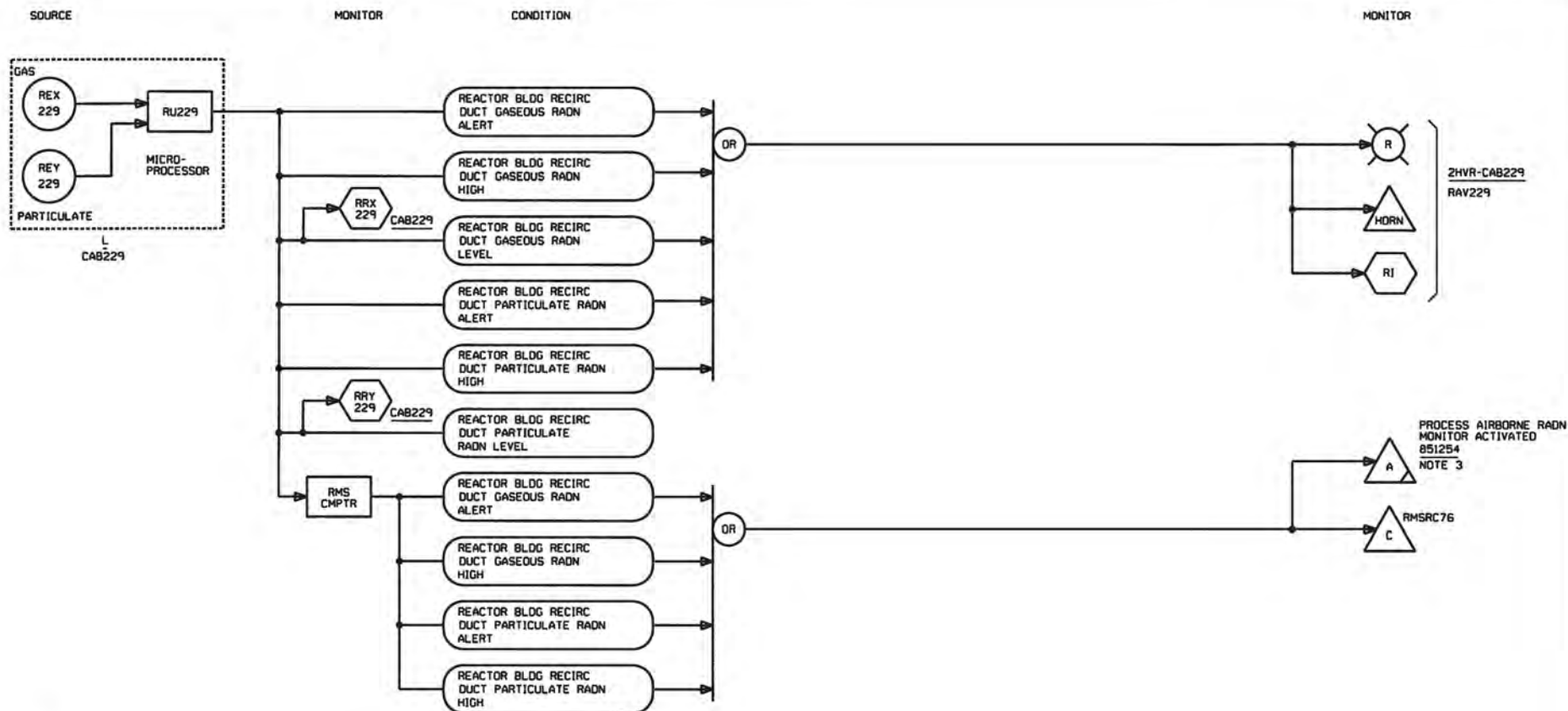
FIGURE 9.4-9

REACTOR BUILDING  
HVAC SYSTEM  
LOGIC DIAGRAM SHEET 15 OF 26

NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

SETPOINTS SHOWN ON LOGIC DIAGRAMS ARE FOR LOGIC CLARIFICATION ONLY AND MAY BE ONLY APPROXIMATIONS OF THE ACTUAL PROCESS SETPOINT. REFER TO SETPOINT DATA SHEETS FOR ACTUAL PROCESS SETPOINTS.





#### NOTES:

1. ALL INSTRUMENT AND EQUIPMENT NUMBERS TO BE PREFIXED WITH "2HVR-" EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN.
2. ALL EQUIPMENT AND INSTRUMENTS SUPPLIED BY DIGITAL RADIATION MONITOR VENDOR EXCEPT ANNUNCIATOR WINDOW AND BOP COMPUTER.
3. COMMON ANNUNCIATOR WINDOW. ADDITIONAL INPUTS SHOWN ON LSK-22-1N, 22-30, 22-5S, 22-9.1H, 27-15G AND 33-2L.
4. LOGIC FOR RE229 IS SHOWN. LOGIC FOR RE237 AND RE238 IS SIMILAR.
5. ASSOCIATED EQUIPMENT MARK NUMBERS:

DETECTORS		MICRO-PROCESSOR	DETECTORS		ALARM UNIT	SERVICE
GAS	PARTICULATE		GAS	PARTICULATE		
REX229	REY229	RU229	RRX229	RRY229	RAV229	RECIRC DUCT
REX237	REY237	RU237	RRX237	RRY237	RAV237	2RHS+E1ACUB
REX238	REY238	RU238	RRX238	RRY238	RAV238	2RHS+E1BCUB

SOURCE: LSK-22-1S

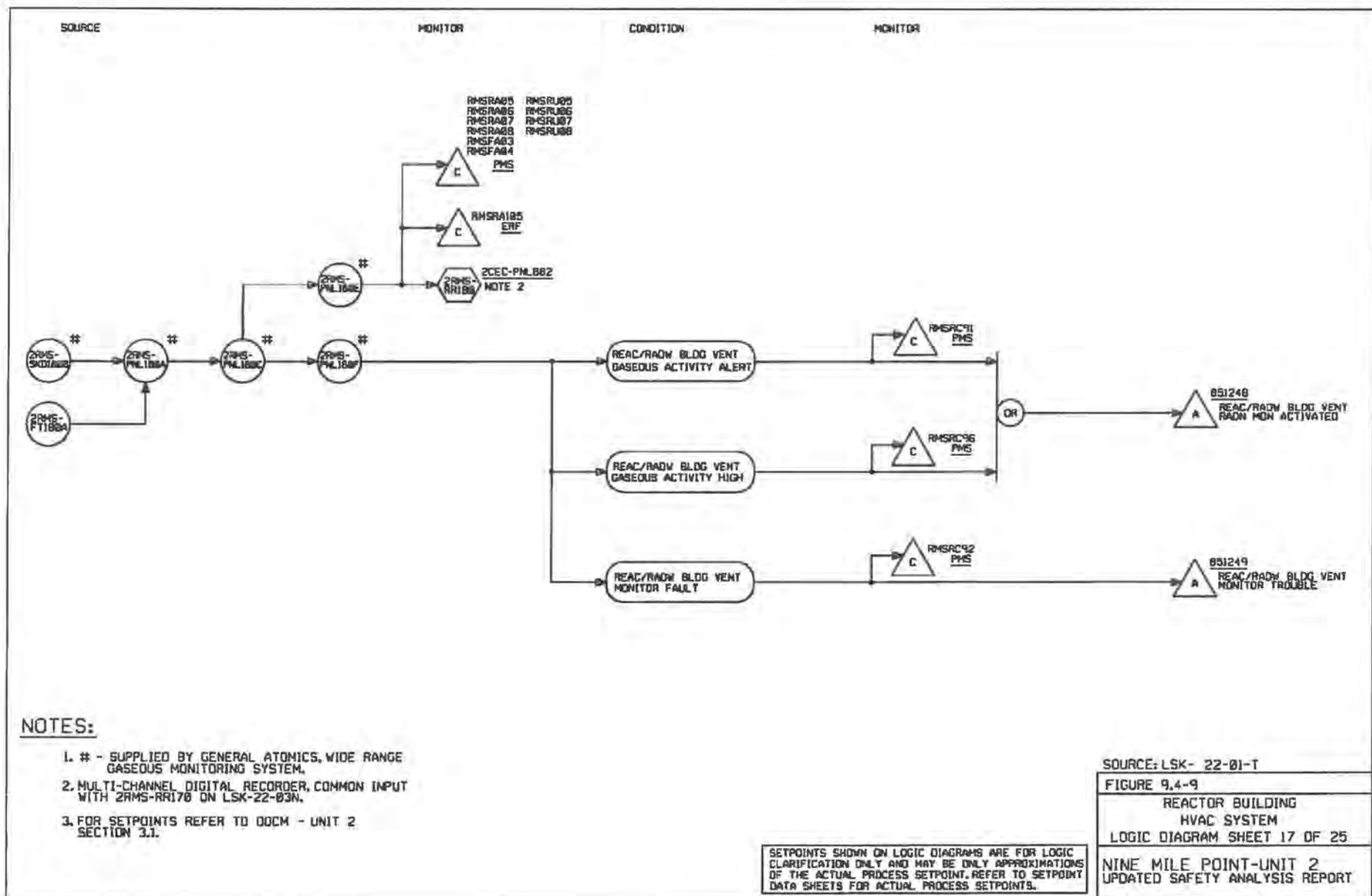
FIGURE 9.4-9

REACTOR BUILDING  
HVAC SYSTEM  
LOGIC DIAGRAM SHEET 16 OF 26

SETPOINTS SHOWN ON LOGIC DIAGRAMS ARE FOR LOGIC CLARIFICATION ONLY AND MAY BE ONLY APPROXIMATIONS OF THE ACTUAL PROCESS SETPOINT. REFER TO SETPOINT DATA SHEETS FOR ACTUAL PROCESS SETPOINTS.

NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

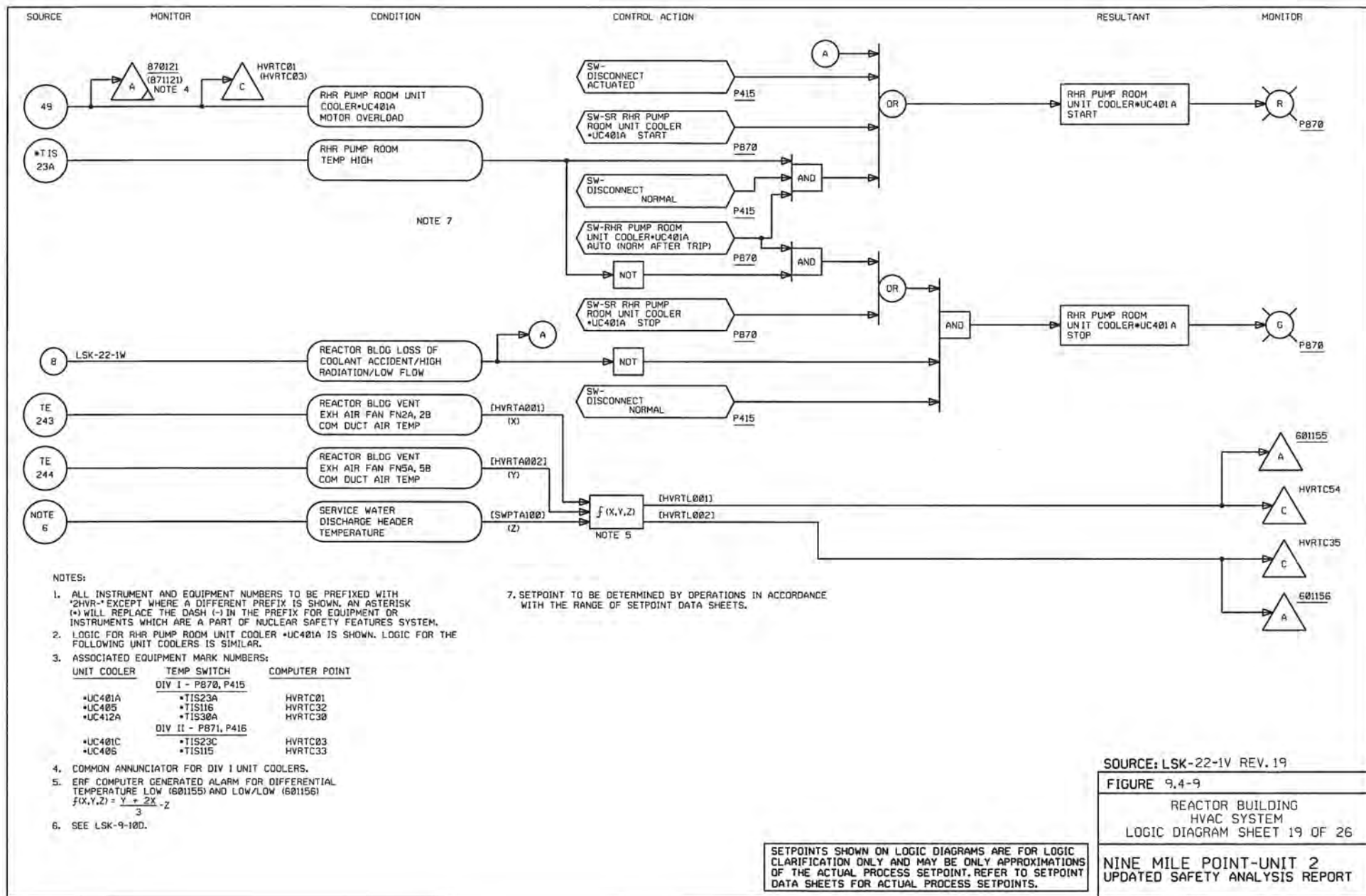




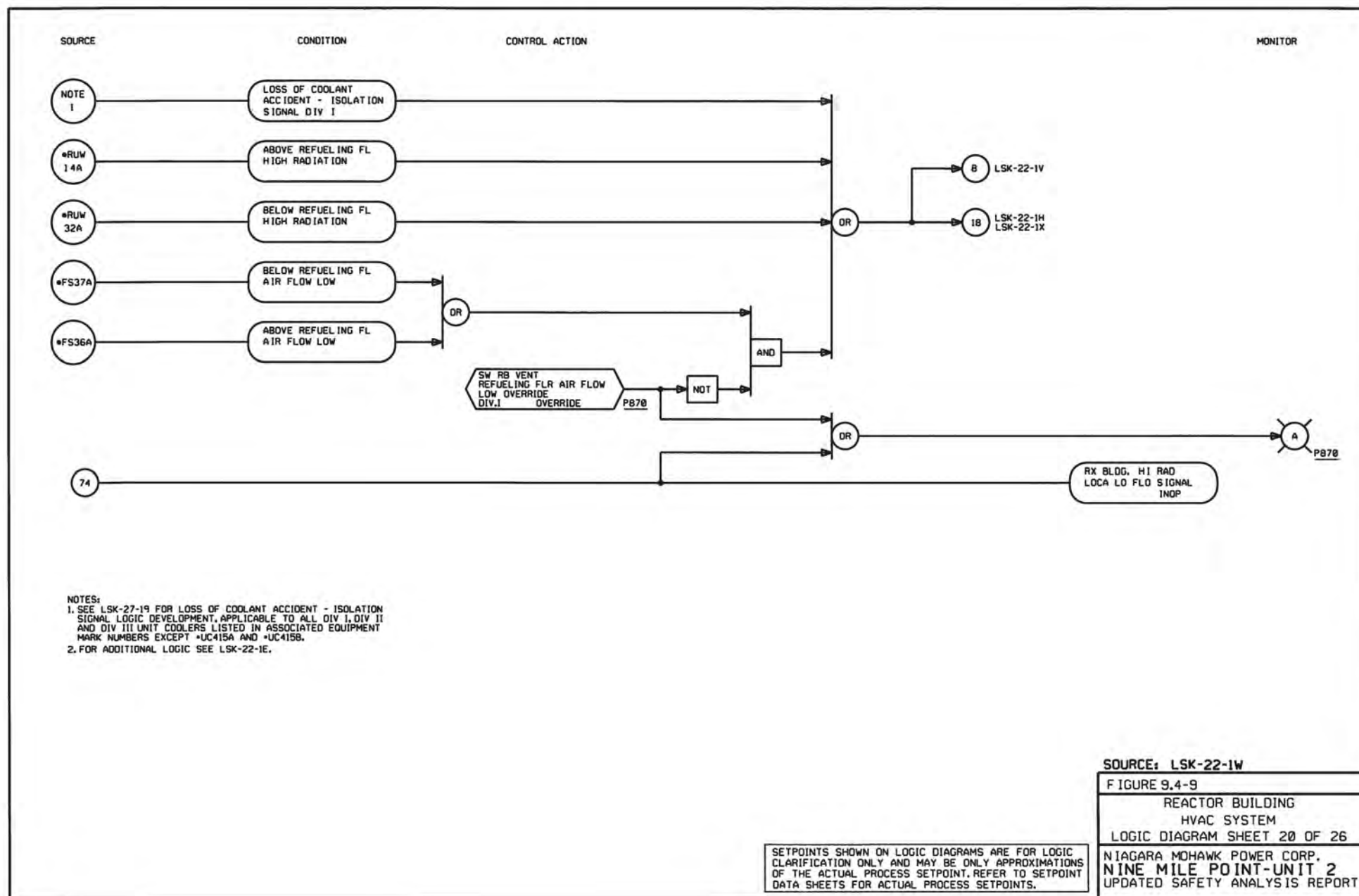




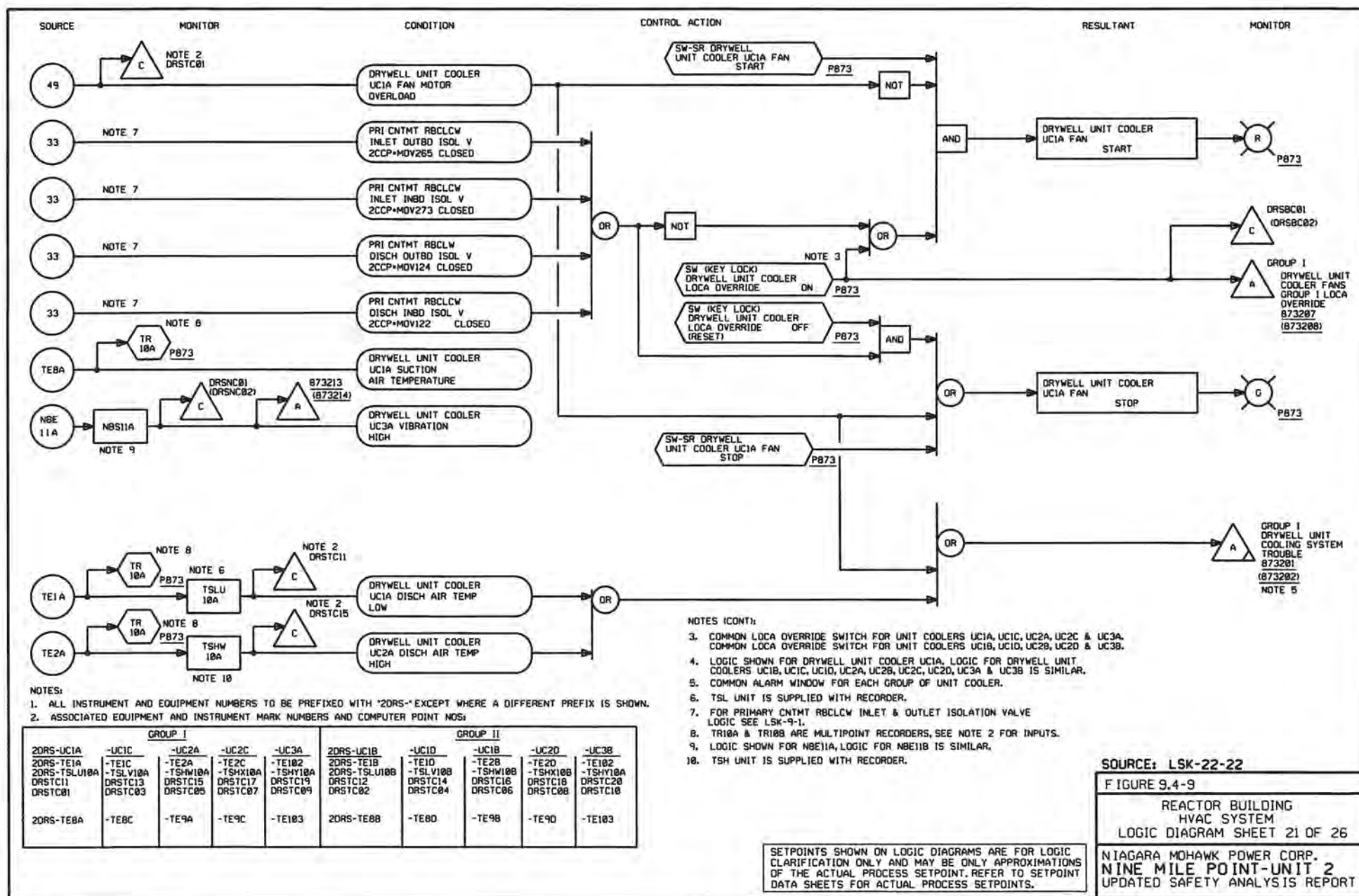








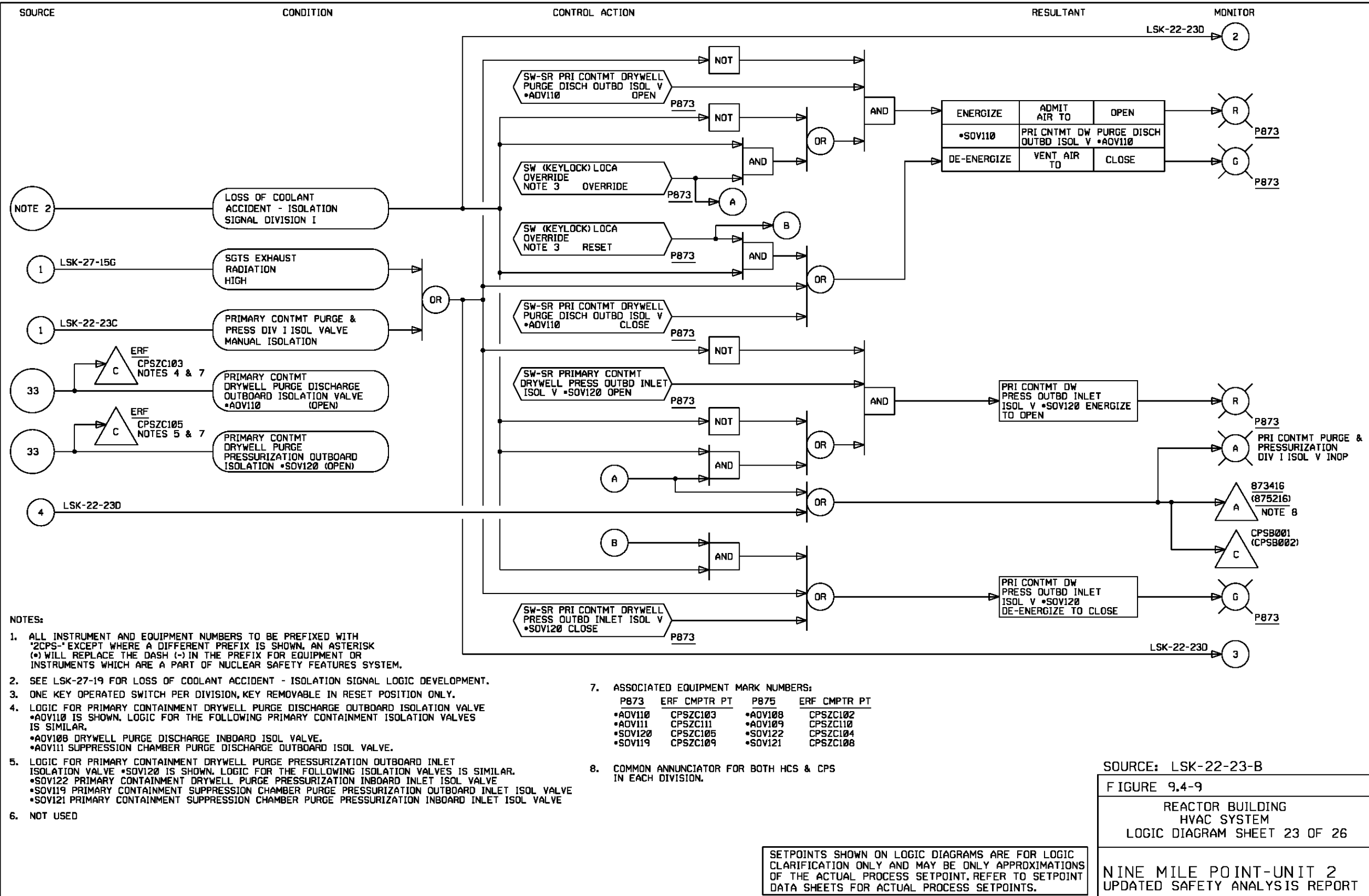






OCTOBER 2004





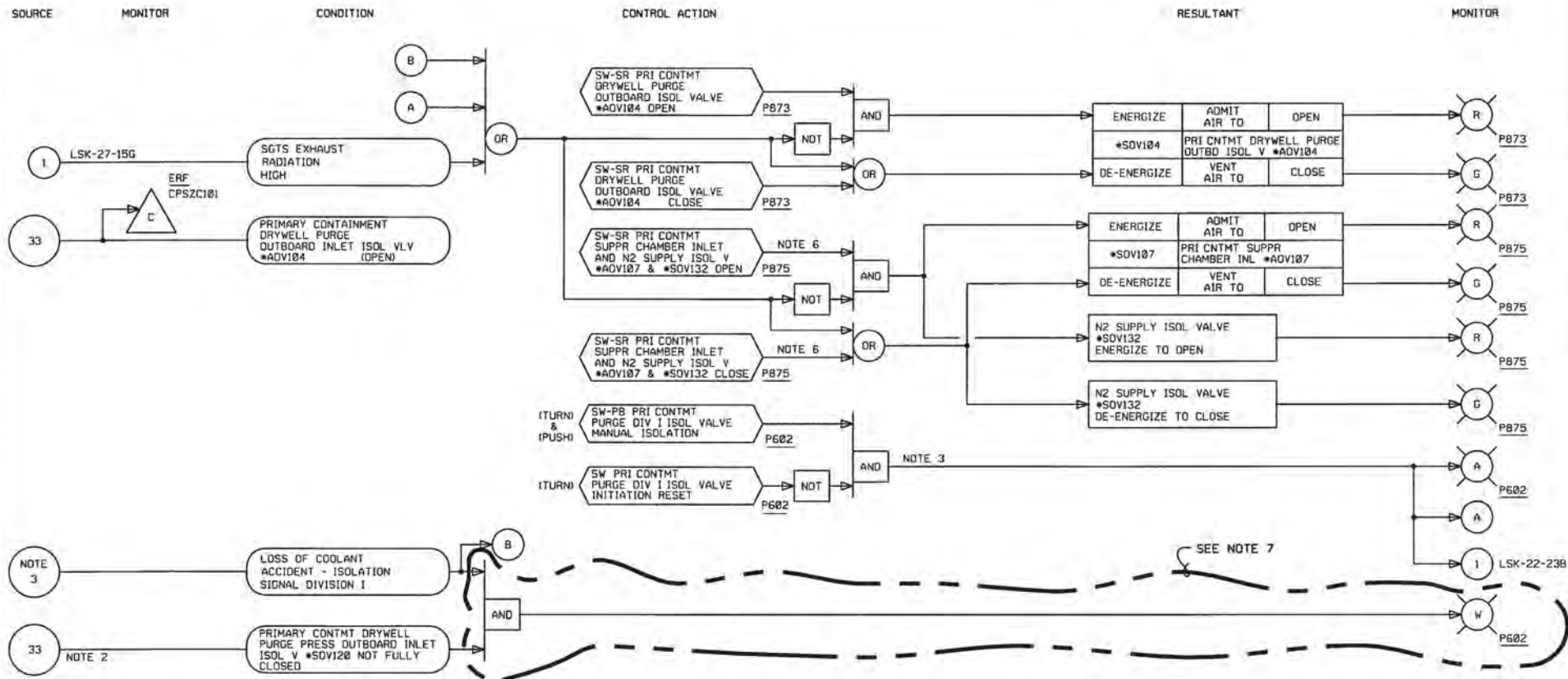
SOURCE: LSK-22-23-B

FIGURE 9.4-9

REACTOR BUILDING  
HVAC SYSTEM  
LOGIC DIAGRAM SHEET 23 OF 26

NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT





#### NOTES:

- ALL INSTRUMENT AND EQUIPMENT NUMBERS TO BE PREFIXED WITH "CPS-" EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN. AN ASTERISK (\*) WILL REPLACE THE DASH (-) IN THE PREFIX FOR EQUIPMENT OR INSTRUMENTS WHICH ARE A PART OF NUCLEAR SAFETY FEATURES SYSTEM.
- OFF NORMAL STATUS MONITORING OF PRIMARY CONTAINMENT DRYWELL PURGE PRESSURIZATION OUTBOARD INLET ISOLATION VALVE \*SOV120 IS SHOWN. OFF NORMAL STATUS MONITORING OF THE FOLLOWING VALVES IS SIMILAR:  
DIV I - \*ADV119, \*ADV110, \*ADV111, \*ADV104, \*ADV105  
DIV II - \*ADV122, \*ADV121, \*ADV108, \*ADV109, \*ADV106, \*ADV107 AND \*SOV132.
- SEE LSK-27-19 FOR LOSS OF COOLANT ACCIDENT - ISOLATION SIGNAL LOGIC DEVELOPMENT.
- LOGIC FOR PRIMARY CONTAINMENT DRYWELL PURGE OUTBOARD ISOLATION VALVE \*ADV104 IS SHOWN. LOGIC FOR \*ADV105 AND \*ADV106 IS SIMILAR.

#### 5. ASSOCIATED EQUIPMENT MARK NUMBERS:

VALVE	SERVICE	CMPTR PT	PANEL NO.
*ADV104	DW INLET OUTBD	CPSZC101	P873
*ADV105	SUPPR INLET OUTBD	CPSZC107	P873
*ADV106	DW INLET OUTBD	CPSZC108	P875
*ADV107	SUPPR INLET INBD	CPSZC106	P875
*SOV132	N2 SUPPLY ISOL	CPSZC112	P875

- PRIMARY CONTAINMENT SUPPRESSION CHAMBER PURGE INBOARD INLET ISOLATION VALVE \*ADV107 AND N2 SUPPLY ISOLATION VALVE \*SOV132 UTILIZE THE SAME CONTROL SWITCH FOR OPEN-CLOSE AND MANUAL ISOLATION OPERATIONS.
- OFF-NORMAL STATUS DISPLAY SYSTEM IS ABANDONED IN PLACE.

SETPOINTS SHOWN ON LOGIC DIAGRAMS ARE FOR LOGIC CLARIFICATION ONLY AND MAY BE ONLY APPROXIMATIONS OF THE ACTUAL PROCESS SETPOINT. REFER TO SETPOINT DATA SHEETS FOR ACTUAL PROCESS SETPOINTS.

SOURCE: LSK-22-23C

FIGURE 9.4-9

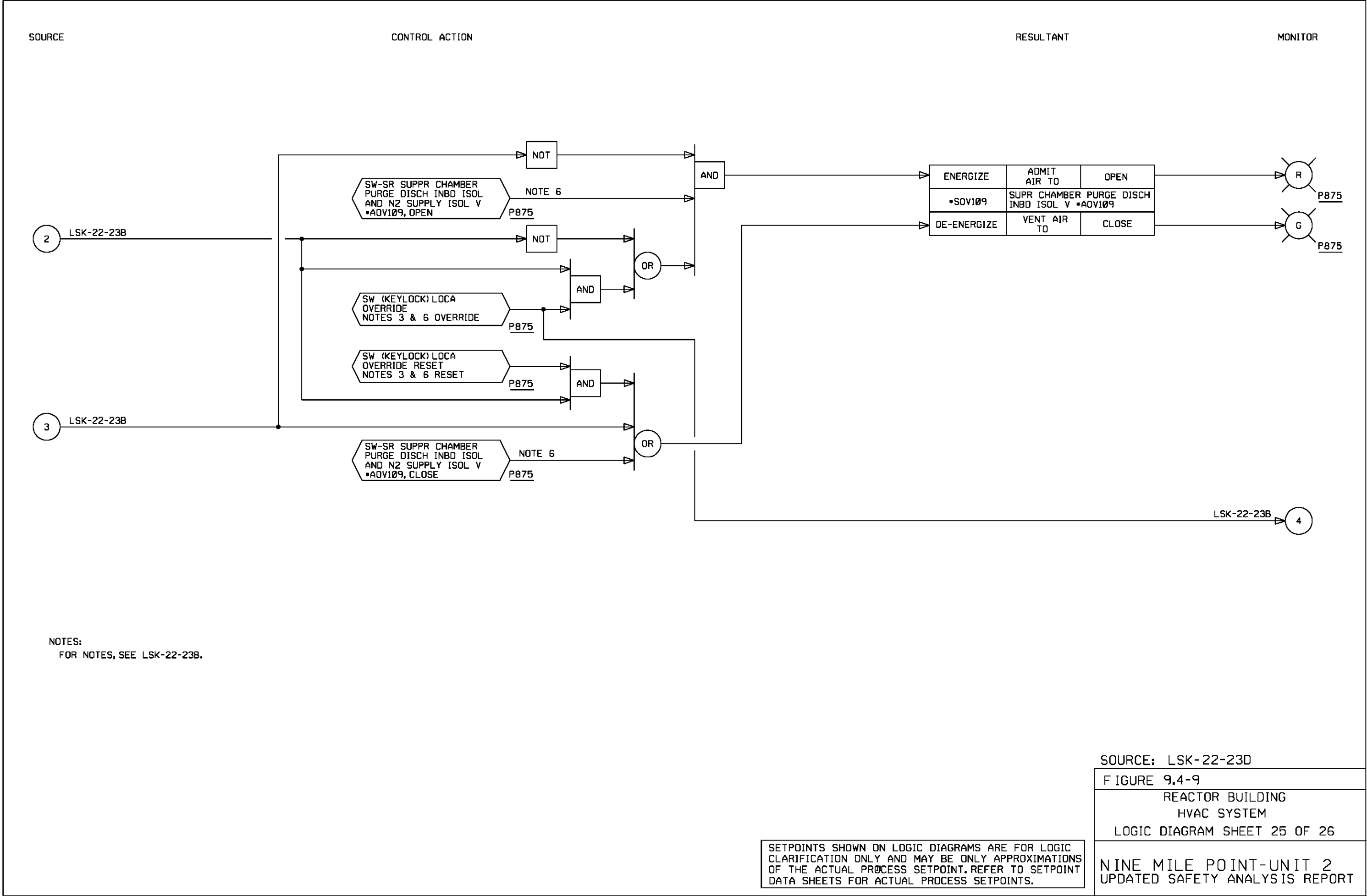
REACTOR BUILDING  
HVAC SYSTEM  
LOGIC DIAGRAM SHEET 24 OF 26

NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

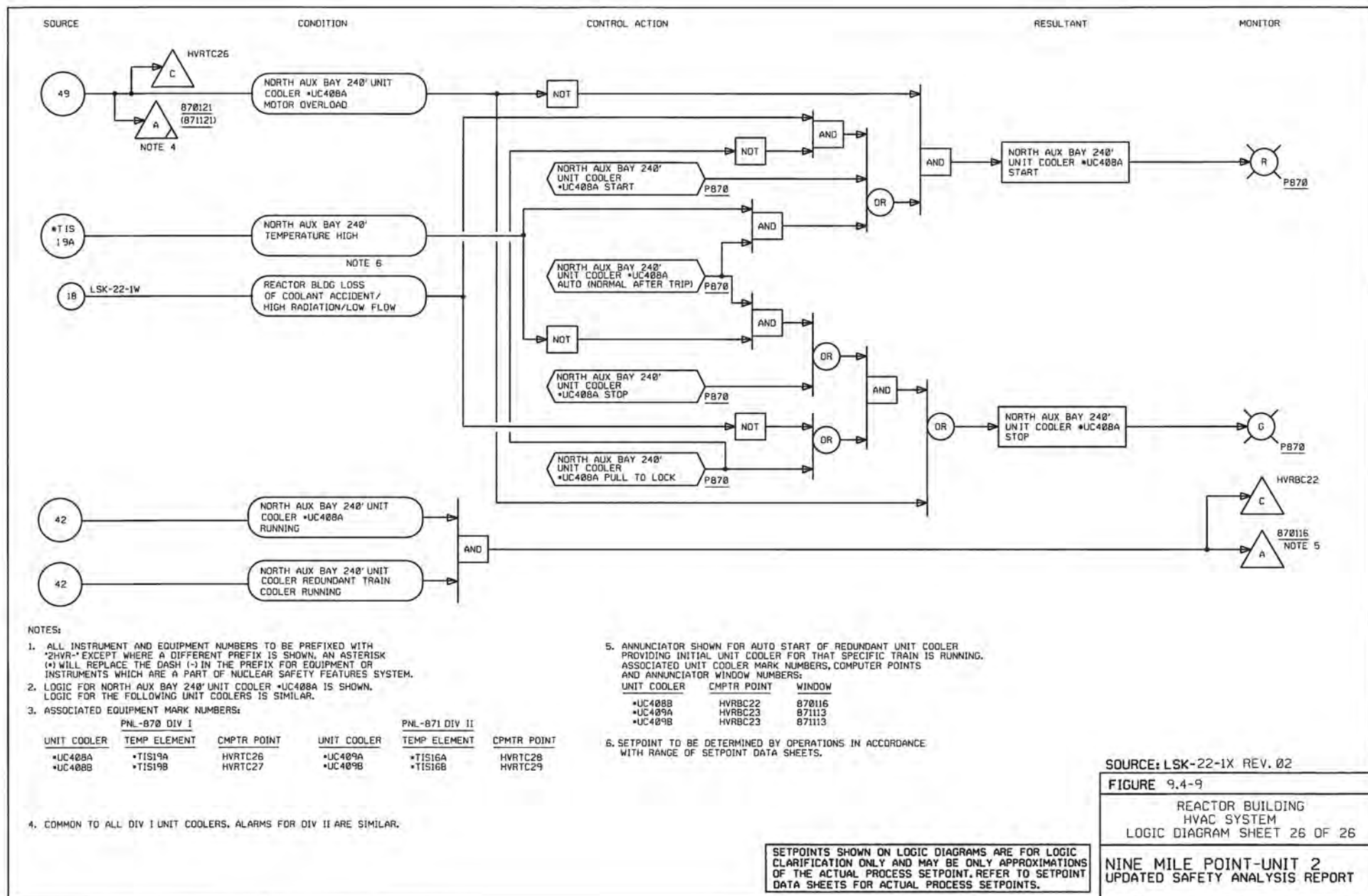
USAR REVISION 13

OCTOBER 2000









SOURCE: LSK-22-1X REV. 02

FIGURE 9.4-9

REACTOR BUILDING  
HVAC SYSTEM  
LOGIC DIAGRAM SHEET 26 OF 26

NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

USAR REVISION 15

OCTOBER 2002

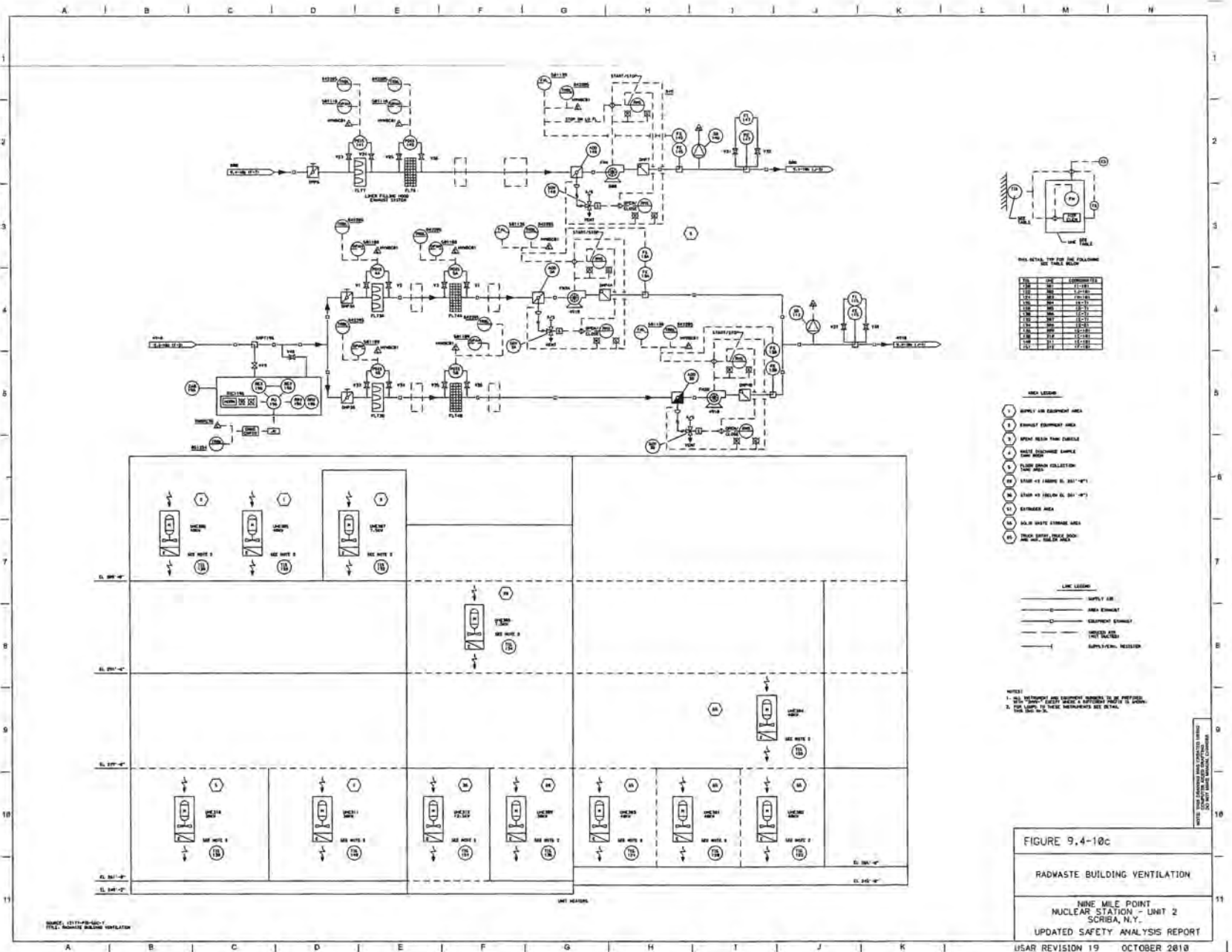


















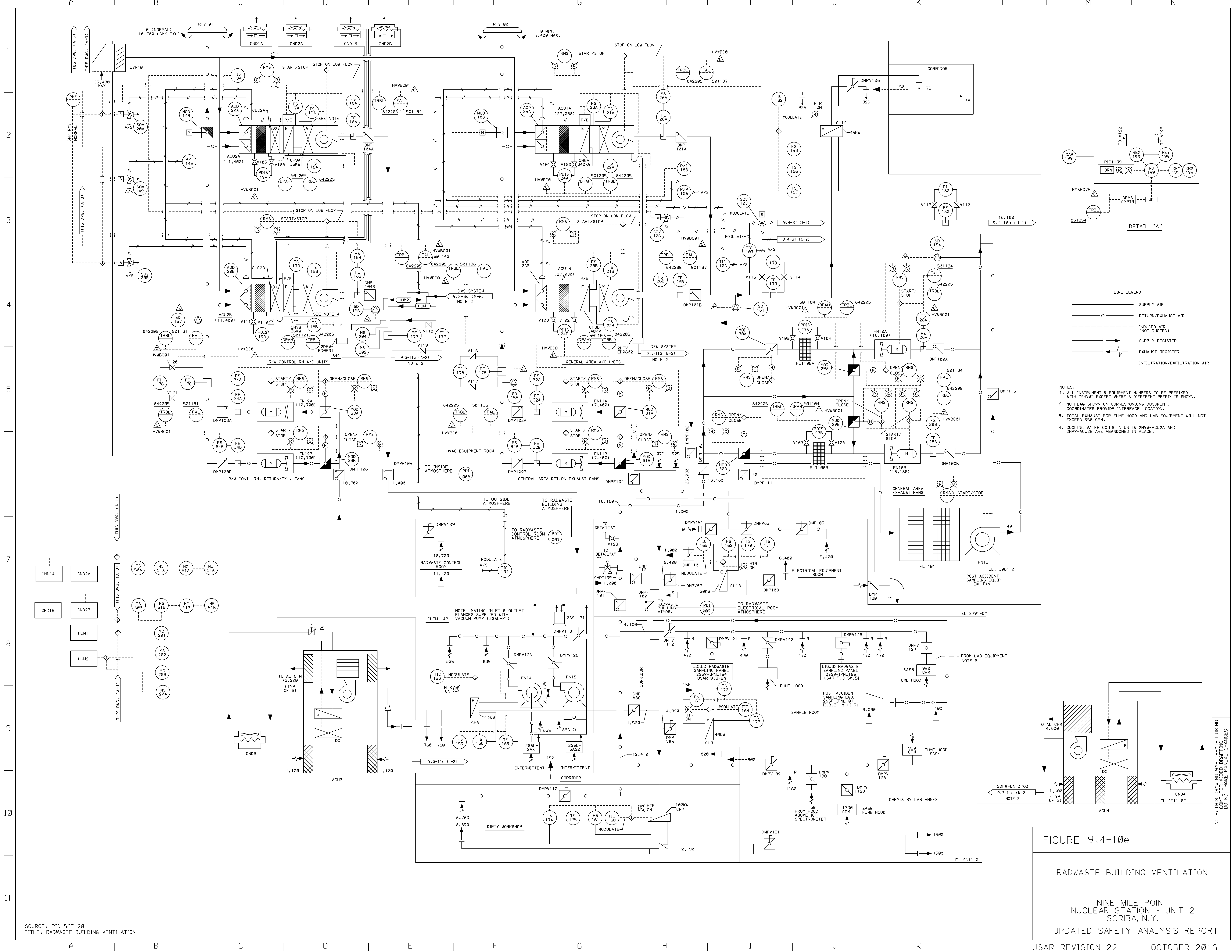


FIGURE 9.4-10e  
RADWASTE BUILDING VENTILATION  
NINE MILE POINT  
NUCLEAR STATION - UNIT 2  
SCRIBA, N.Y.  
UPDATED SAFETY ANALYSIS REPORT

SOURCE: P1D-56E-20  
TITLE: RADWASTE BUILDING VENTILATION

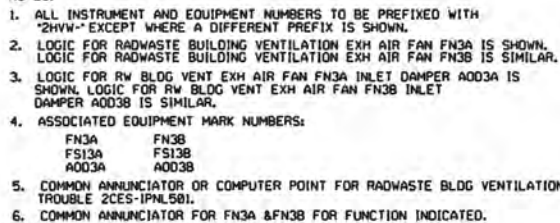






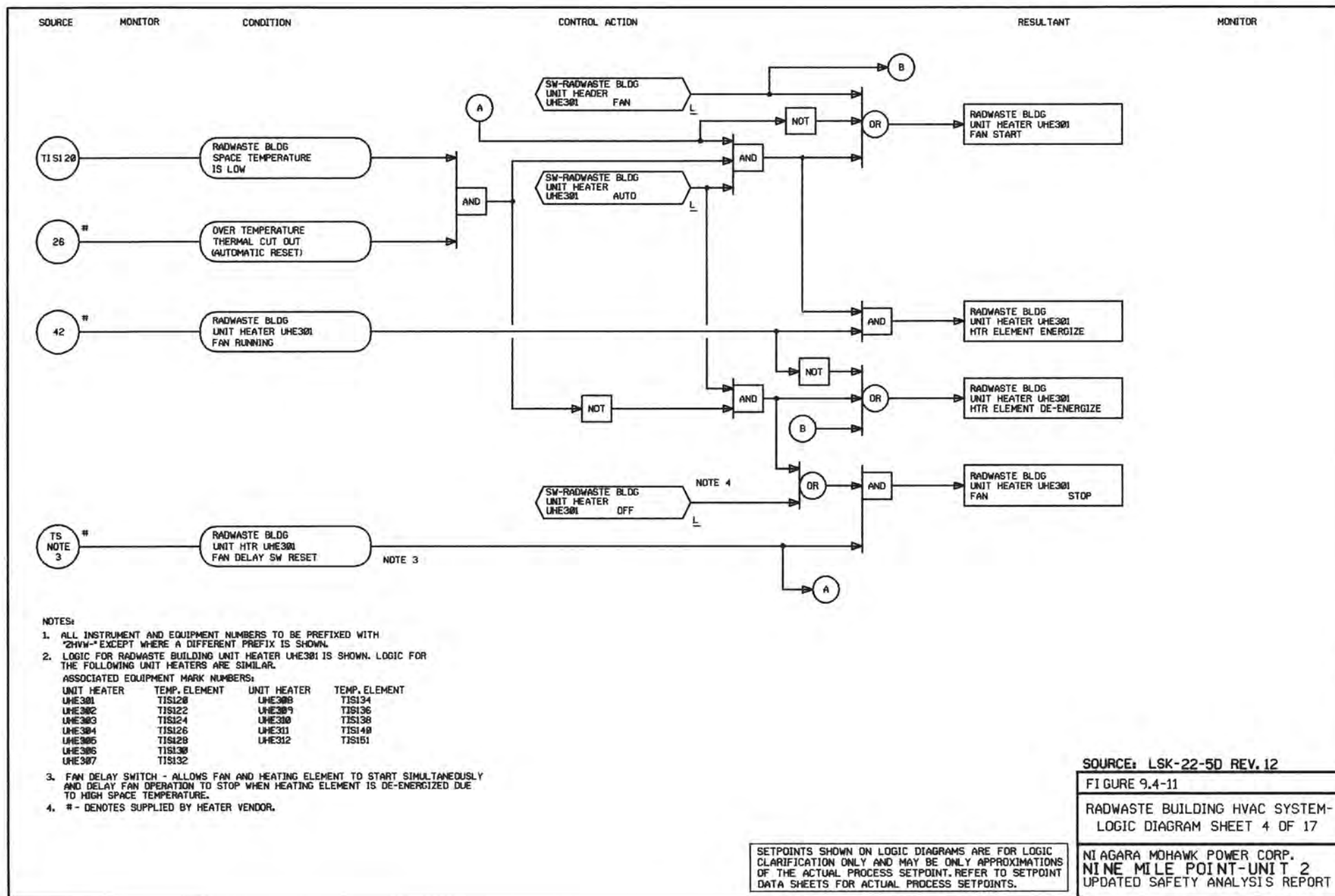






SETPOINTS SHOWN ON LOGIC DIAGRAMS ARE FOR LOGIC CLARIFICATION ONLY AND MAY BE ONLY APPROXIMATIONS OF THE ACTUAL PROCESS SETPOINT. REFER TO SETPOINT DATA SHEETS FOR ACTUAL PROCESS SETPOINTS.





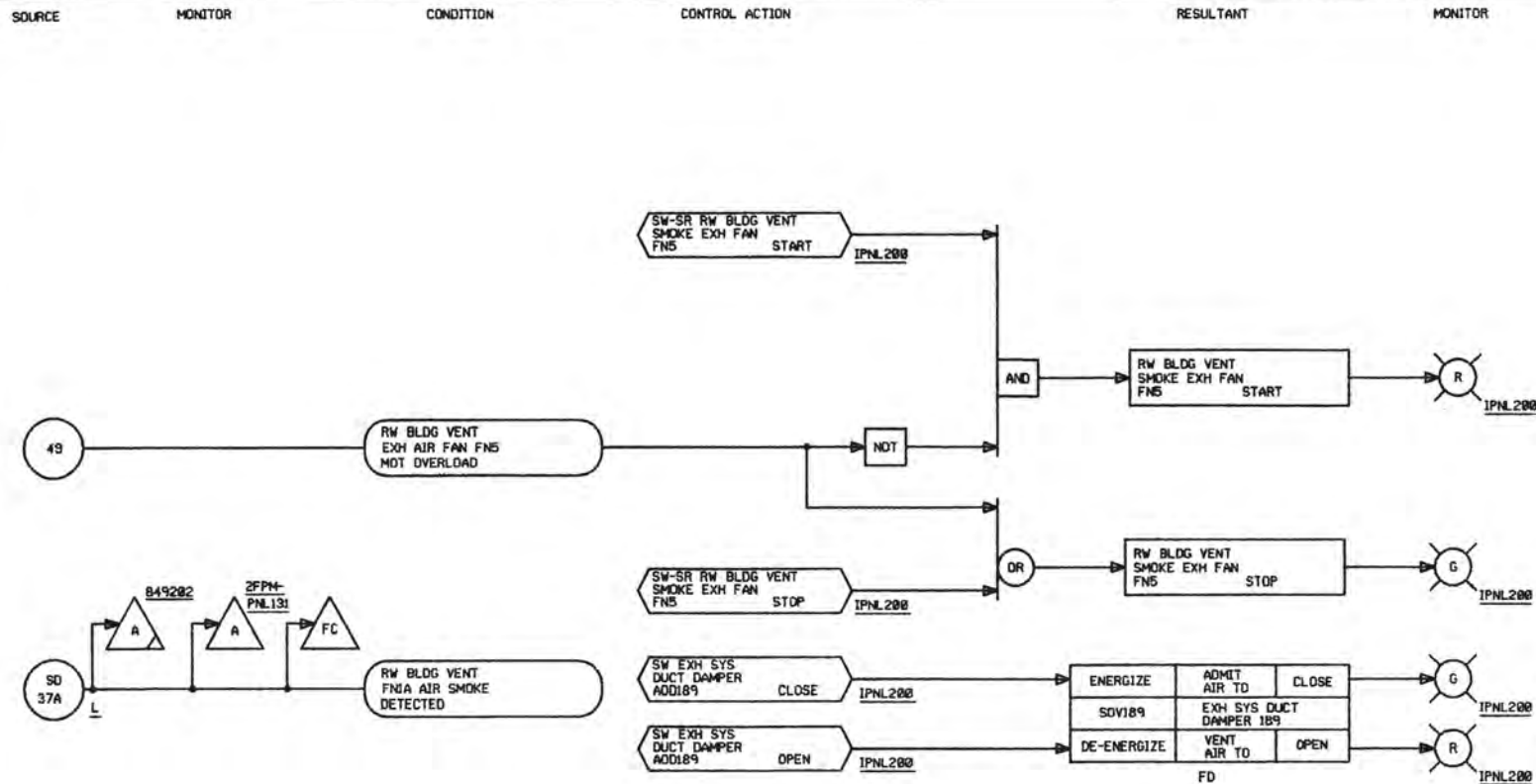
SOURCE: LSK-22-5D REV. 12

FIGURE 9.4-11

RADWASTE BUILDING HVAC SYSTEM-  
LOGIC DIAGRAM SHEET 4 OF 17

NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT





#### NOTES:

- ALL INSTRUMENT AND EQUIPMENT NUMBERS TO BE PREFIXED WITH '2HYW-' EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN.
- LOGIC FOR RW BLDG VENTILATION SMOKE DETECTOR SD37A IS SHOWN. LOGIC FOR RW BLDG VENTILATION SMOKE DETECTOR SD37B, SD38A, SD38B, SD113, SD146, SD154, SD155, SD156, SD157, SD196, SD191 AND SD192 IS SIMILAR.
- LOGIC FOR RW BLDG VENTILATION SMOKE EXHAUST FAN IS SHOWN. LOGIC FOR POST ACCIDENT SAMPLING EDPT EXHAUST FAN FNI3 IS SIMILAR.
- ASSOCIATED EQUIPMENT MARK NUMBERS:

SD37A	FN1A	SD146	FN4	SD181	ACU1A/1B
SD37B	FN1B	SD154	FN10A/10B	SD190	FN2A/2B
SD38A	FN2A	SD155	FN11A/11B	SD191	FN2A/2B
SD38B	FN2B	SD156	FNACU2A/2B	SD192	FN2A/2B
SD113	FN3A/3B	SD157	FN12A/12B		
IPNL200	FN5	2CES-IPNL555	FN13		

SETPOINTS SHOWN ON LOGIC DIAGRAMS ARE FOR LOGIC CLARIFICATION ONLY AND MAY BE ONLY APPROXIMATIONS OF THE ACTUAL PROCESS SETPOINT. REFER TO SETPOINT DATA SHEETS FOR ACTUAL PROCESS SETPOINTS.

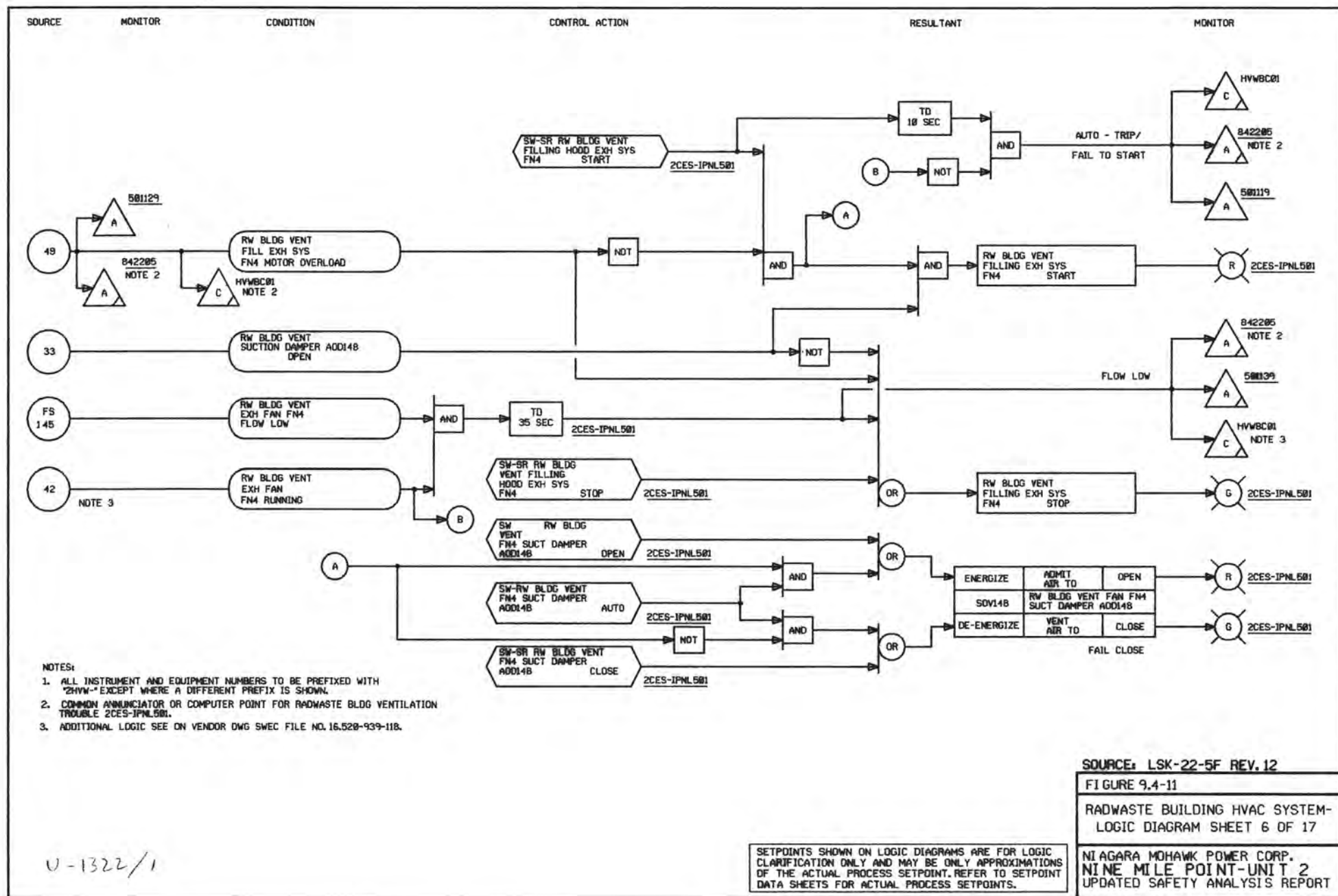
SOURCE: LSK-22-5E REV.12

FIGURE 9.4-11

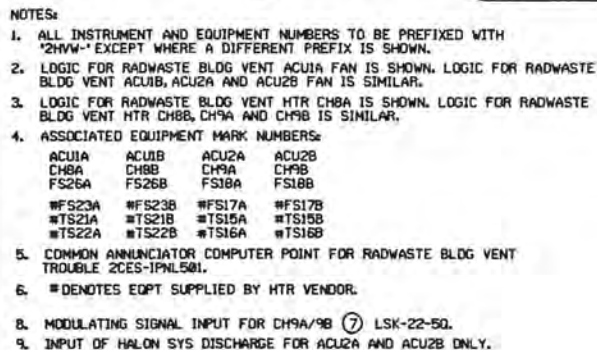
RADWASTE BUILDING HVAC SYSTEM-  
LOGIC DIAGRAM SHEET 5 OF 17

NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT



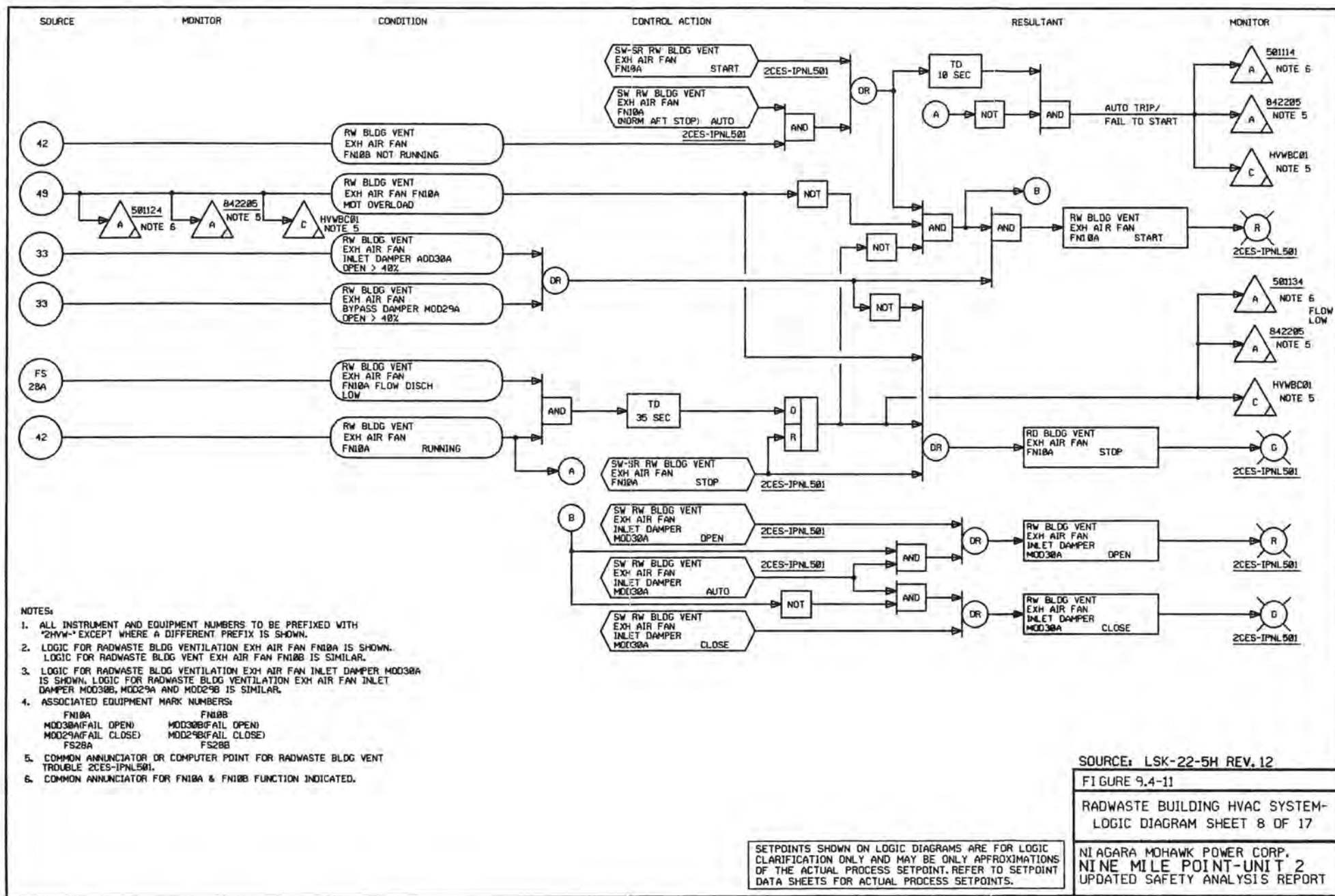






NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT





SOURCE: LSK-22-5H REV.12

FIGURE 9.4-11

RADWASTE BUILDING HVAC SYSTEM-  
LOGIC DIAGRAM SHEET 8 OF 17

NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

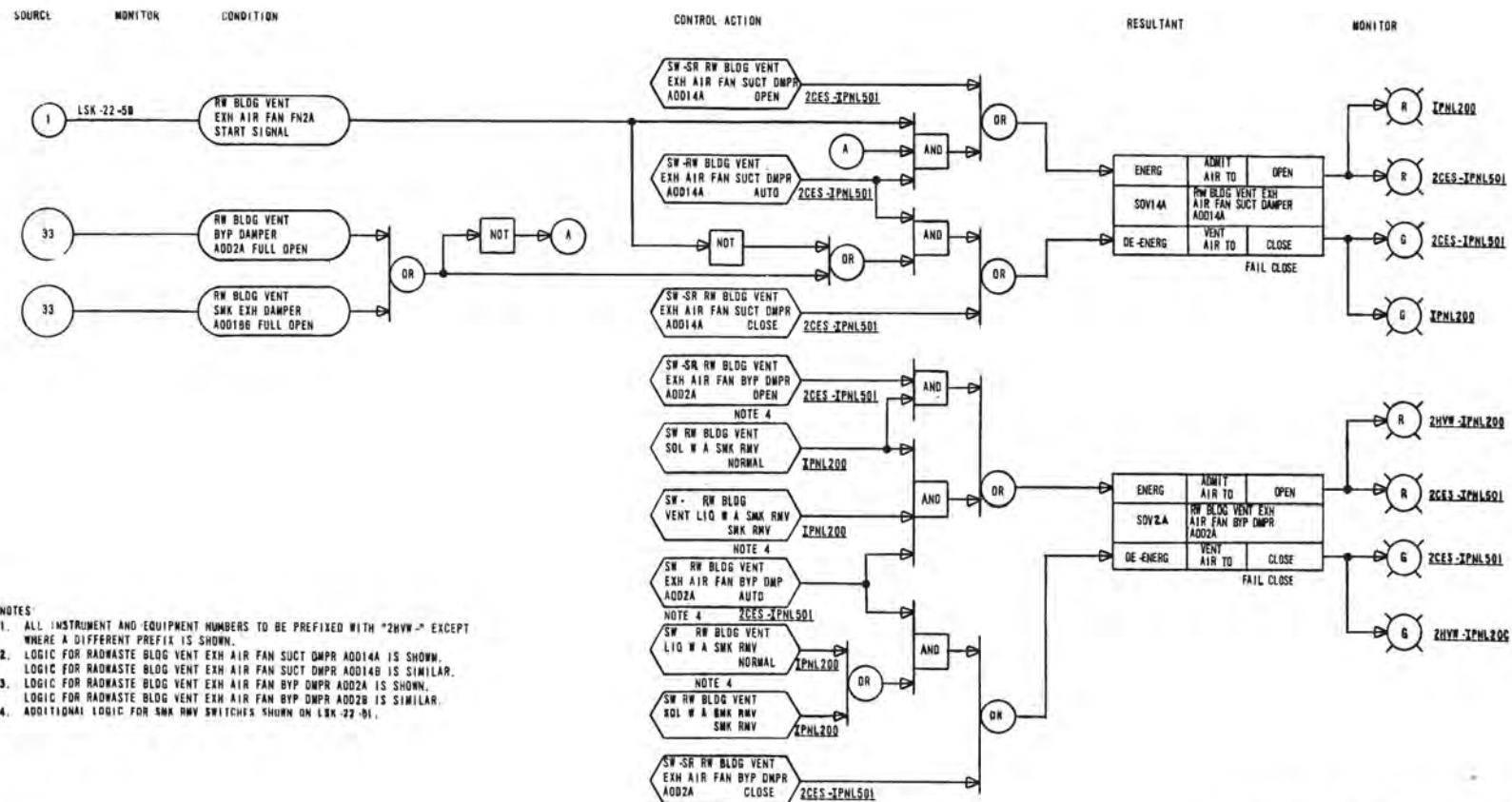
USAR REVISION 3

OCTOBER 1991









- NOTES:
1. ALL INSTRUMENT AND EQUIPMENT NUMBERS TO BE PREFIXED WITH "2HYW-" EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN.
  2. LOGIC FOR RADWASTE BLDG VENT EXH AIR FAN SUCT DMPR ADD14A IS SHOWN.
  3. LOGIC FOR RADWASTE BLDG VENT EXH AIR FAN SUCT DMPR ADD14B IS SIMILAR.
  4. LOGIC FOR RADWASTE BLDG VENT EXH AIR FAN BYP DMPR ADD2A IS SHOWN.
  5. LOGIC FOR RADWASTE BLDG VENT EXH AIR FAN BYP DMPR ADD2B IS SIMILAR.
  6. ADDITIONAL LOGIC FOR SMK RMV SWITCHES SHOWN ON LSK-22-91.

NOTE:  
 FOR LATEST SET POINT INFORMATION  
 SEE SET POINT DATA SHEET

SOURCE: 121 77-LSK-22-5K REV.11

FIGURE 9.4-11

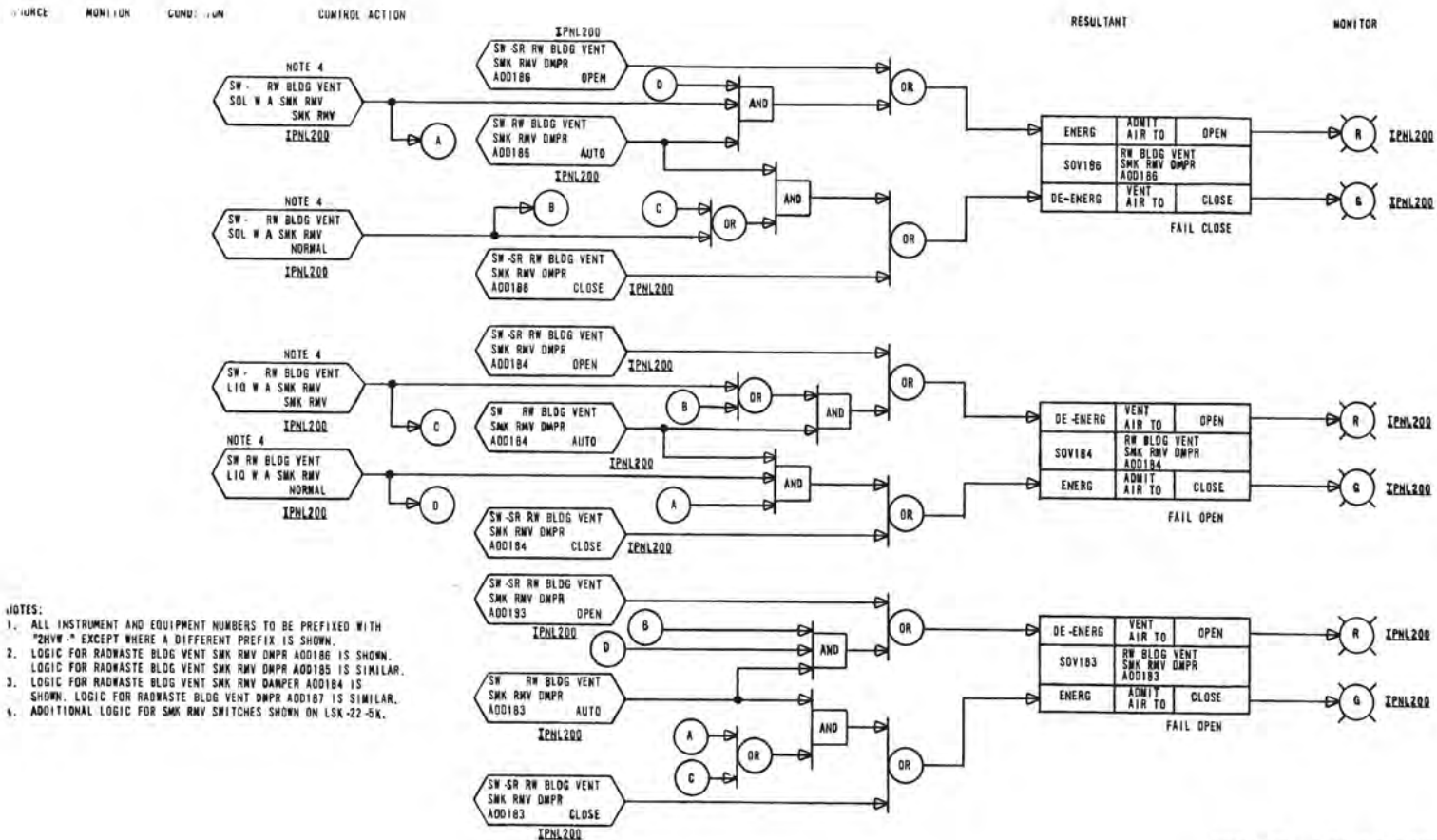
RADWASTE BUILDING HVAC SYSTEM-  
 LOGIC DIAGRAM SHEET 10 OF 17

NIAGARA MOHAWK POWER CORP.  
 NINE MILE POINT-UNIT 2  
 UPDATED SAFETY ANALYSIS REPORT

USAR REVISION 0

APRIL 1989

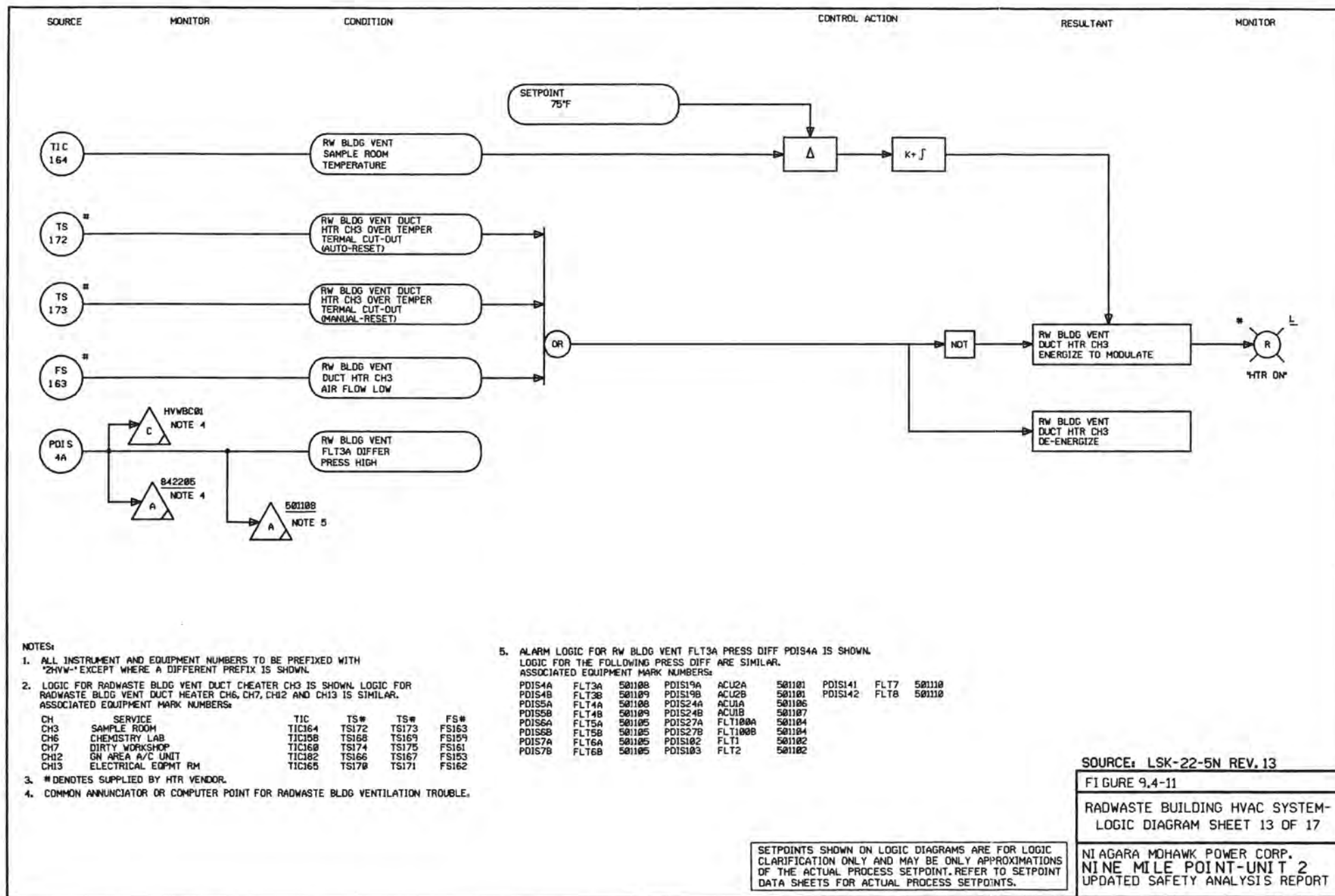




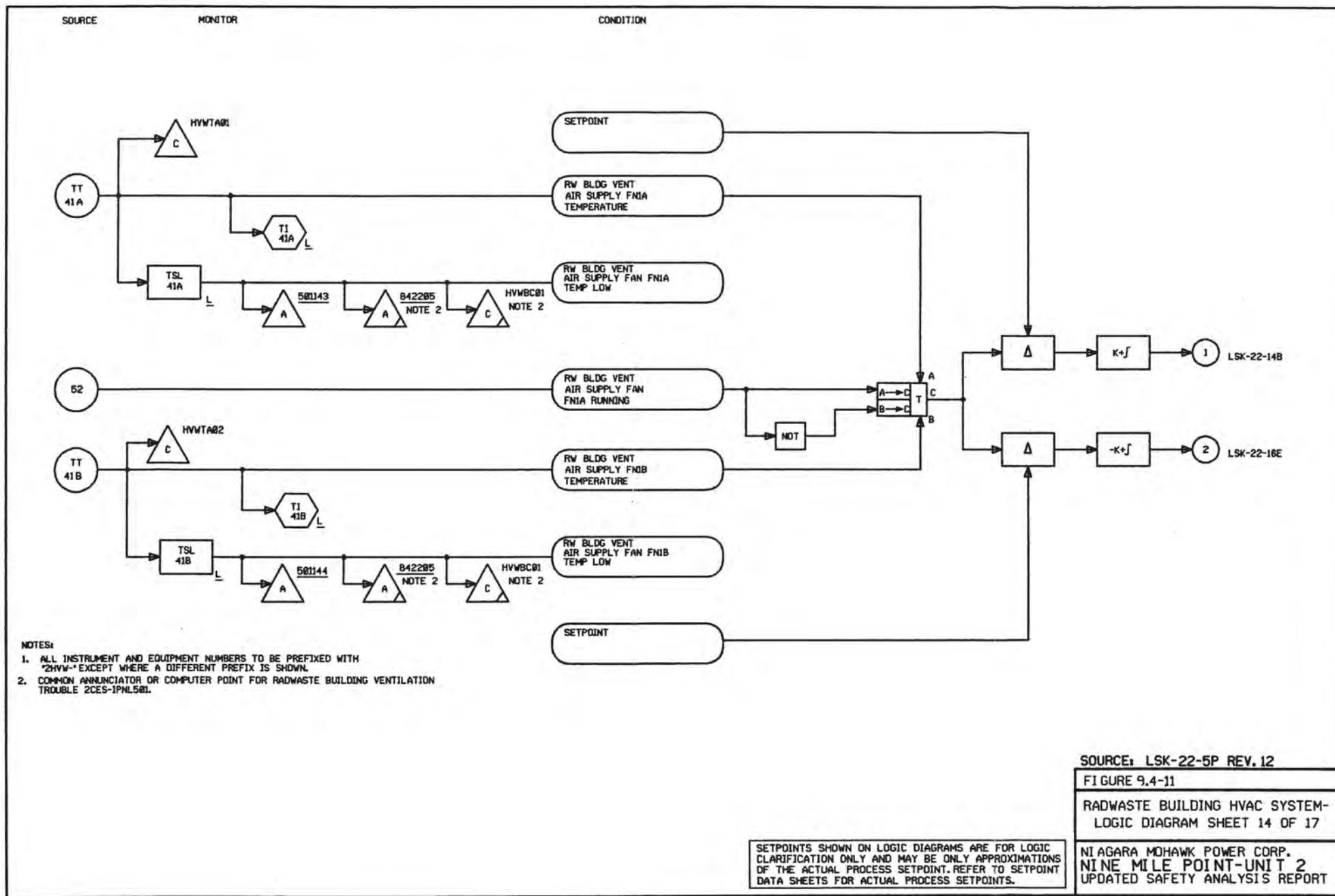












SOURCE: LSK-22-5P REV. 12

FIGURE 9.4-11

RADWASTE BUILDING HVAC SYSTEM-  
LOGIC DIAGRAM SHEET 14 OF 17

NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

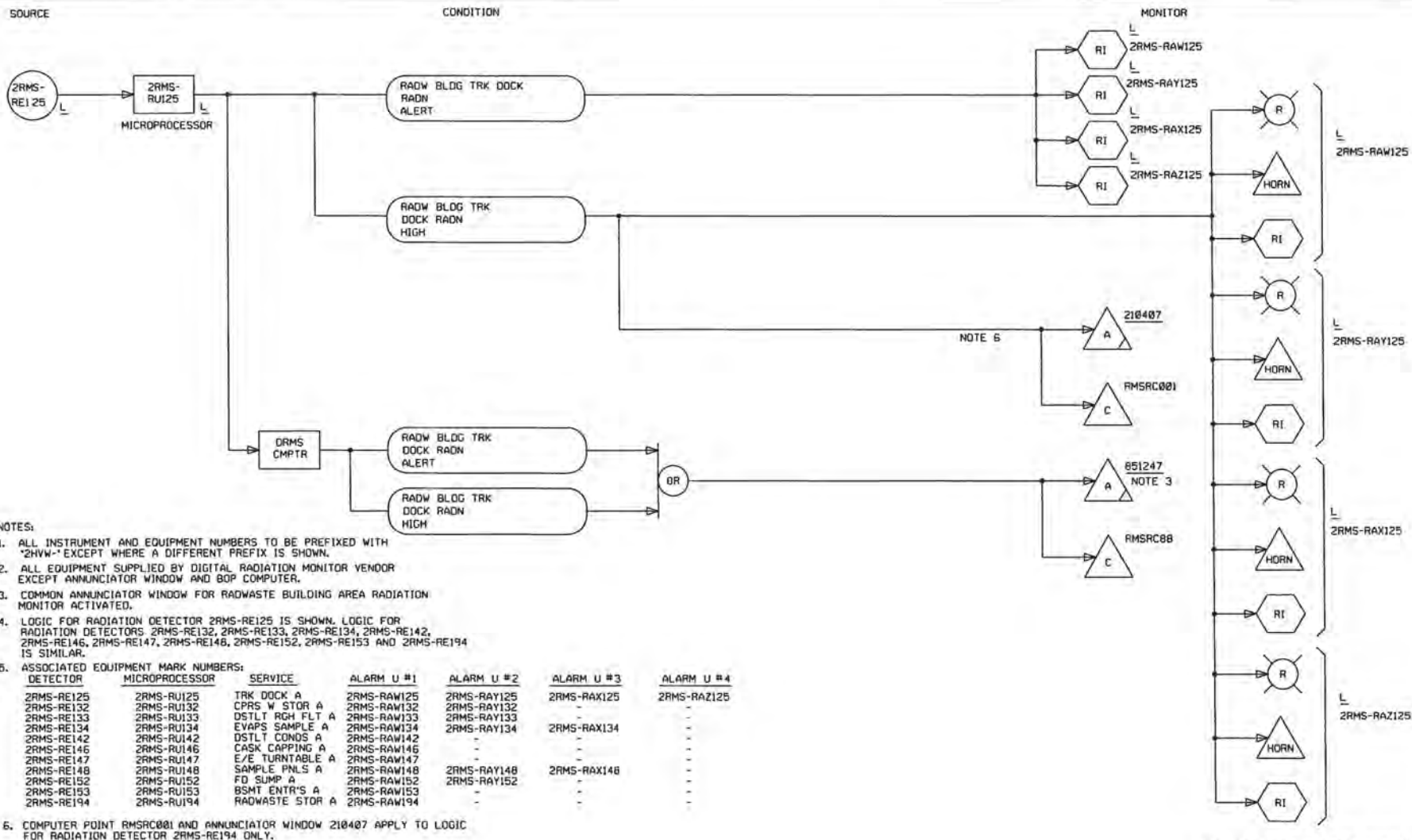
USAR REVISION 3

OCTOBER 1991









SOURCE: LSK-22-5R, REV.14

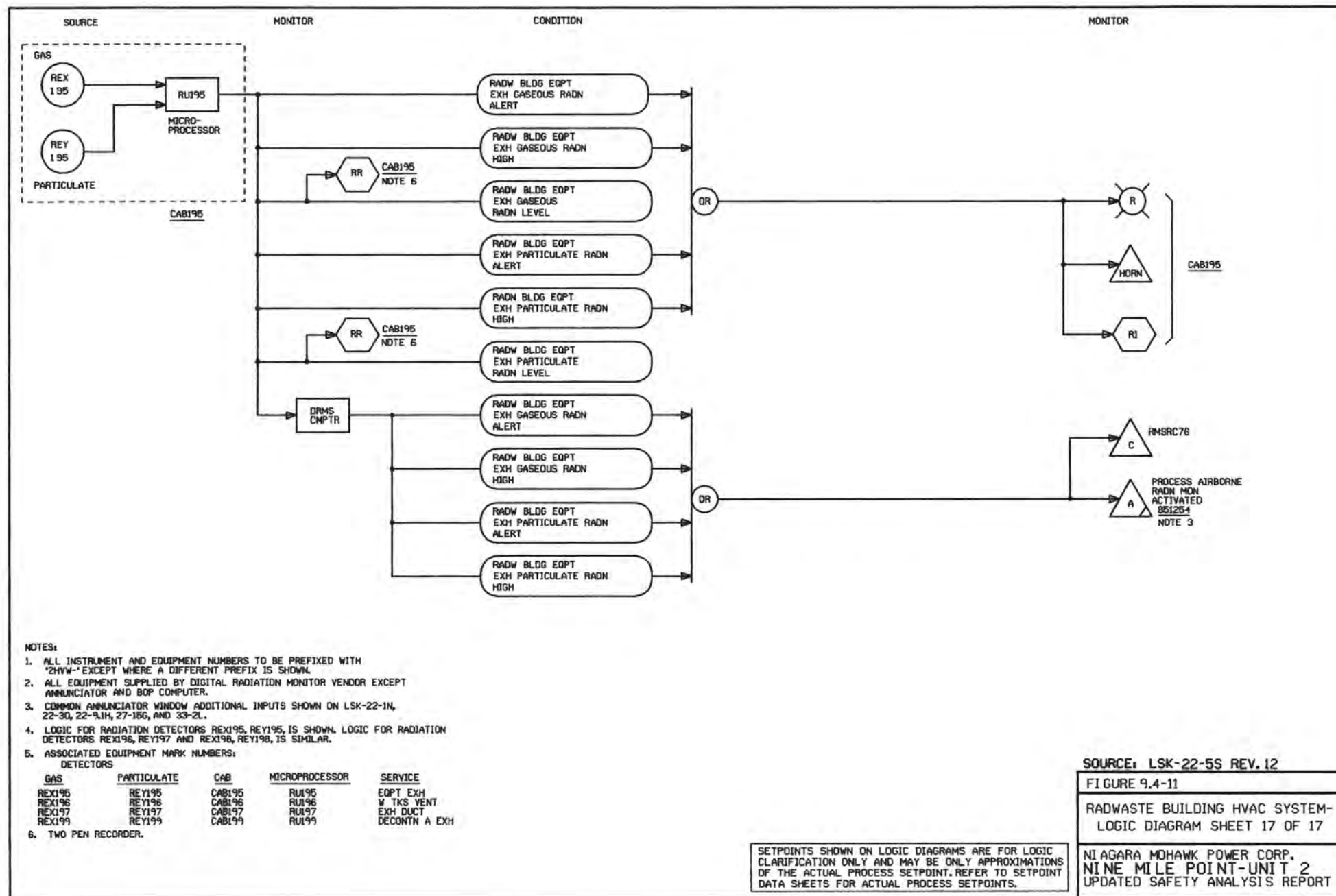
FIGURE 9.4-11

RADWASTE BUILDING HVAC SYSTEM-  
LOGIC DIAGRAM SHEET 16 OF 17

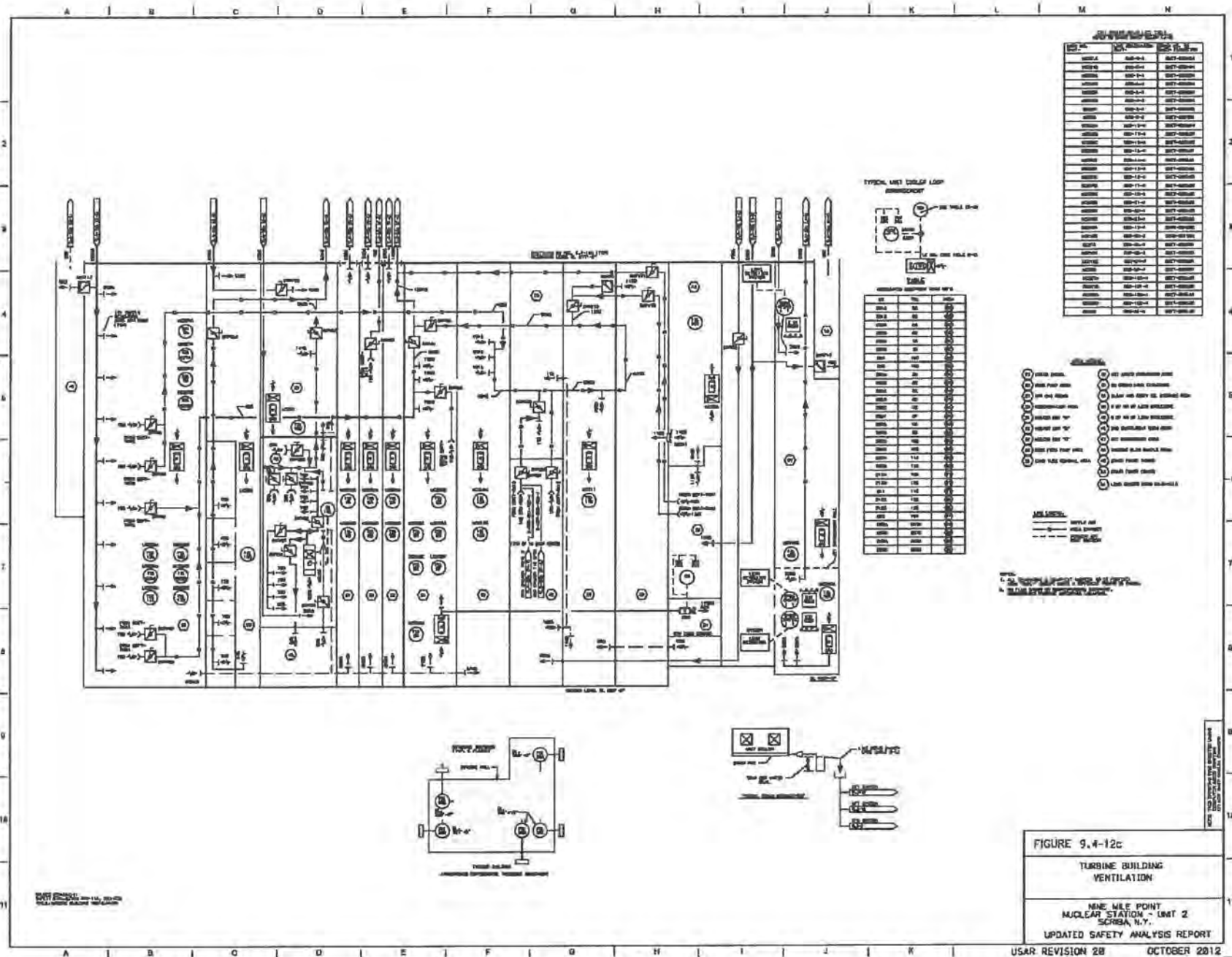
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

SETPOINTS SHOWN ON LOGIC DIAGRAMS ARE FOR LOGIC CLARIFICATION ONLY AND MAY BE ONLY APPROXIMATIONS OF THE ACTUAL PROCESS SETPOINT. REFER TO SETPOINT DATA SHEETS FOR ACTUAL PROCESS SETPOINTS.

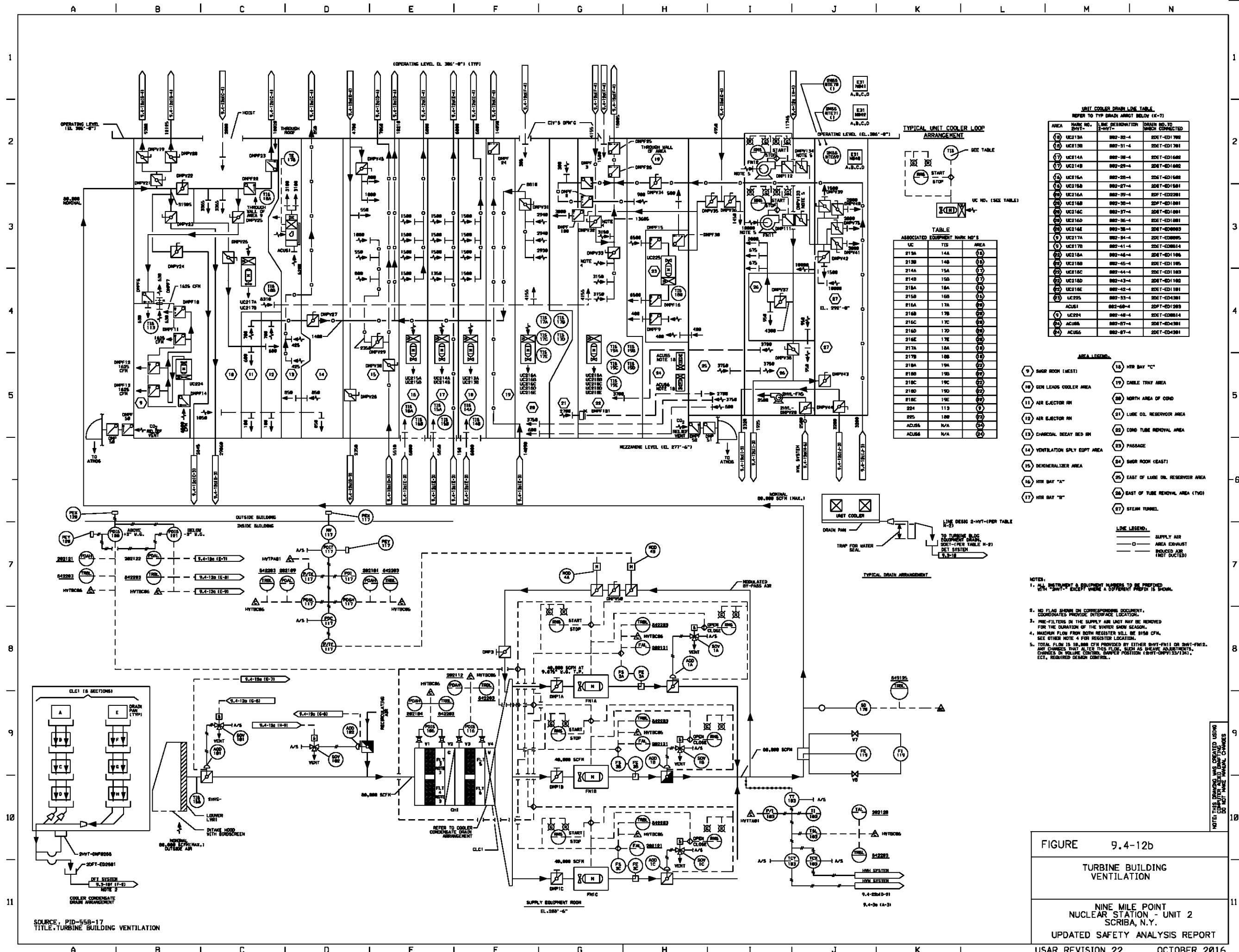














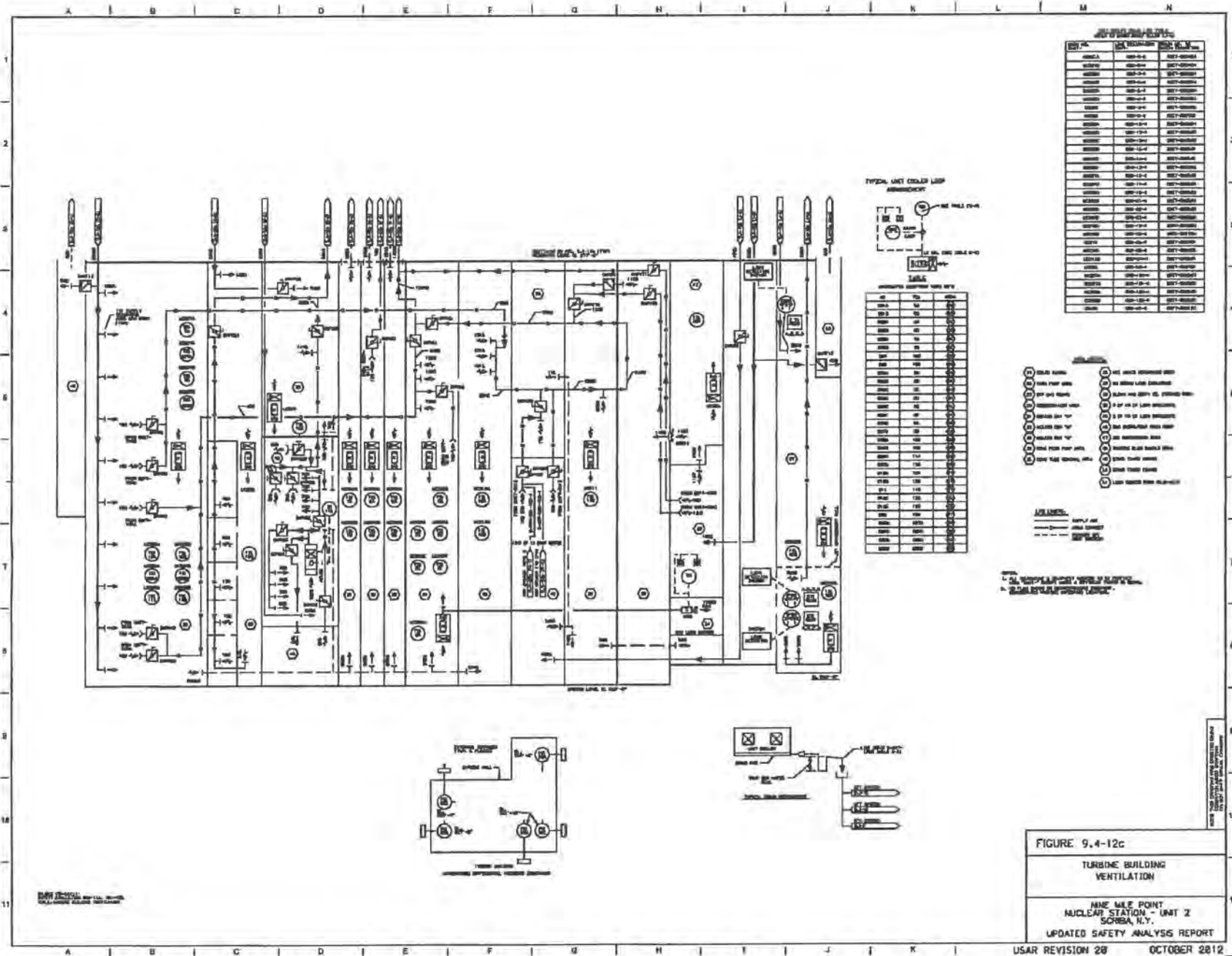


FIGURE 9.4-12c

TURBINE BUILDING VENTILATION

NINE MILE POINT NUCLEAR STATION - UNIT Z

SCHUBA, N.Y.

UPDATED SAFETY ANALYSIS REPORT



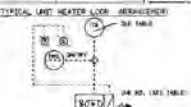
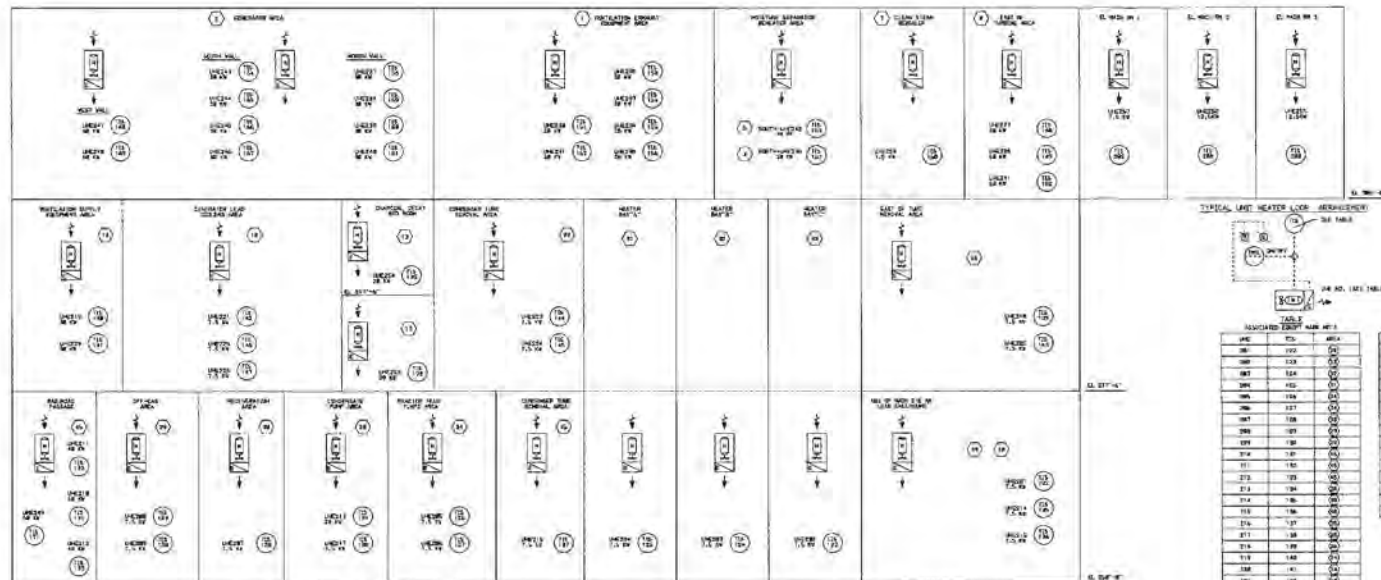


TABLE 1  
VENTILATION ROOM AIR FLOW

NO.	TO	FROM
101	102	103
104	105	106
107	108	109
110	111	112
113	114	115
116	117	118
119	120	121
122	123	124
125	126	127
128	129	130
131	132	133
134	135	136
137	138	139
140	141	142
143	144	145
146	147	148
149	150	151
152	153	154
155	156	157
158	159	160
161	162	163
164	165	166
167	168	169
170	171	172
173	174	175
176	177	178
179	180	181
182	183	184
185	186	187
188	189	190
191	192	193
194	195	196
197	198	199
200	201	202
203	204	205
206	207	208
209	210	211
212	213	214
215	216	217
218	219	220
221	222	223
224	225	226
227	228	229
230	231	232
233	234	235
236	237	238
239	240	241
242	243	244
245	246	247
248	249	250
251	252	253
254	255	256
257	258	259
260	261	262
263	264	265
266	267	268
269	270	271
272	273	274
275	276	277
278	279	280
281	282	283
284	285	286
287	288	289
290	291	292
293	294	295
296	297	298
299	300	301
302	303	304
305	306	307
308	309	310
311	312	313
314	315	316
317	318	319
320	321	322
323	324	325
326	327	328
329	330	331
332	333	334
335	336	337
338	339	340
341	342	343
344	345	346
347	348	349
350	351	352
353	354	355
356	357	358
359	360	361
362	363	364
365	366	367
368	369	370
371	372	373
374	375	376
377	378	379
380	381	382
383	384	385
386	387	388
389	390	391
392	393	394
395	396	397
398	399	400
401	402	403
404	405	406
407	408	409
410	411	412
413	414	415
416	417	418
419	420	421
422	423	424
425	426	427
428	429	430
431	432	433
434	435	436
437	438	439
440	441	442
443	444	445
446	447	448
449	450	451
452	453	454
455	456	457
458	459	460
461	462	463
464	465	466
467	468	469
470	471	472
473	474	475
476	477	478
479	480	481
482	483	484
485	486	487
488	489	490
491	492	493
494	495	496
497	498	499
500	501	502
503	504	505
506	507	508
509	510	511
512	513	514
515	516	517
518	519	520
521	522	523
524	525	526
527	528	529
530	531	532
533	534	535
536	537	538
539	540	541
542	543	544
545	546	547
548	549	550
551	552	553
554	555	556
557	558	559
560	561	562
563	564	565
566	567	568
569	570	571
572	573	574
575	576	577
578	579	580
581	582	583
584	585	586
587	588	589
590	591	592
593	594	595
596	597	598
599	600	601
602	603	604
605	606	607
608	609	610
611	612	613
614	615	616
617	618	619
620	621	622
623	624	625
626	627	628
629	630	631
632	633	634
635	636	637
638	639	640
641	642	643
644	645	646
647	648	649
650	651	652
653	654	655
656	657	658
659	660	661
662	663	664
665	666	667
668	669	670
671	672	673
674	675	676
677	678	679
680	681	682
683	684	685
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689	690	691
692	693	694
695	696	697
698	699	700
701	702	703
704	705	706
707	708	709
710	711	712
713	714	715
716	717	718
719	720	721
722	723	724
725	726	727
728	729	730
731	732	733
734	735	736
737	738	739
740	741	742
743	744	745
746	747	748
749	750	751
752	753	754
755	756	757
758	759	760
761	762	763
764	765	766
767	768	769
770	771	772
773	774	775
776	777	778
779	780	781
782	783	784
785	786	787
788	789	790
791	792	793
794	795	796
797	798	799
800	801	802
803	804	805
806	807	808
809	810	811
812	813	814
815	816	817
818	819	820
821	822	823
824	825	826
827	828	829
830	831	832
833	834	835
836	837	838
839	840	841
842	843	844
845	846	847
848	849	850
851	852	853
854	855	856
857	858	859
860	861	862
863	864	865
866	867	868
869	870	871
872	873	874
875	876	877
878	879	880
881	882	883
884	885	886
887	888	889
890	891	892
893	894	895
896	897	898
899	900	901
902	903	904
905	906	907
908	909	910
911	912	913
914	915	916
917	918	919
920	921	922
923	924	925
926	927	928
929	930	931
932	933	934
935	936	937
938	939	940
941	942	943
944	945	946
947	948	949
950	951	952
953	954	955
956	957	958
959	960	961
962	963	964
965	966	967
968	969	970
971	972	973
974	975	976
977	978	979
980	981	982
983	984	985
986	987	988
989	990	991
992	993	994
995	996	997
998	999	1000

NOTES:  
1. ALL EQUIPMENT & SUPPLIES SHOWN TO BE PROVIDED BY THE USER.  
2. THE USER MUST HAVE A CURRENT COPY OF THIS.

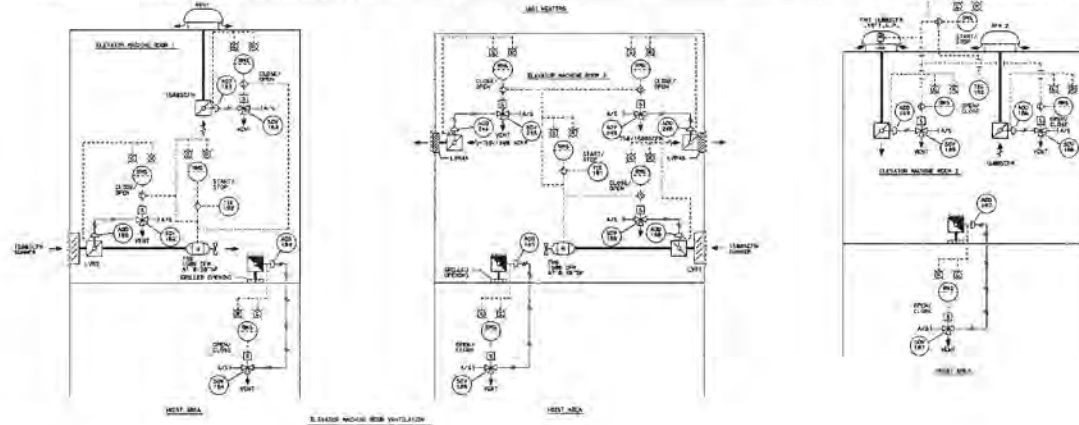


FIGURE 9.4-12d  
TURBINE BUILDING  
VENTILATION  
NINE MILE POINT  
NUCLEAR STATION UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

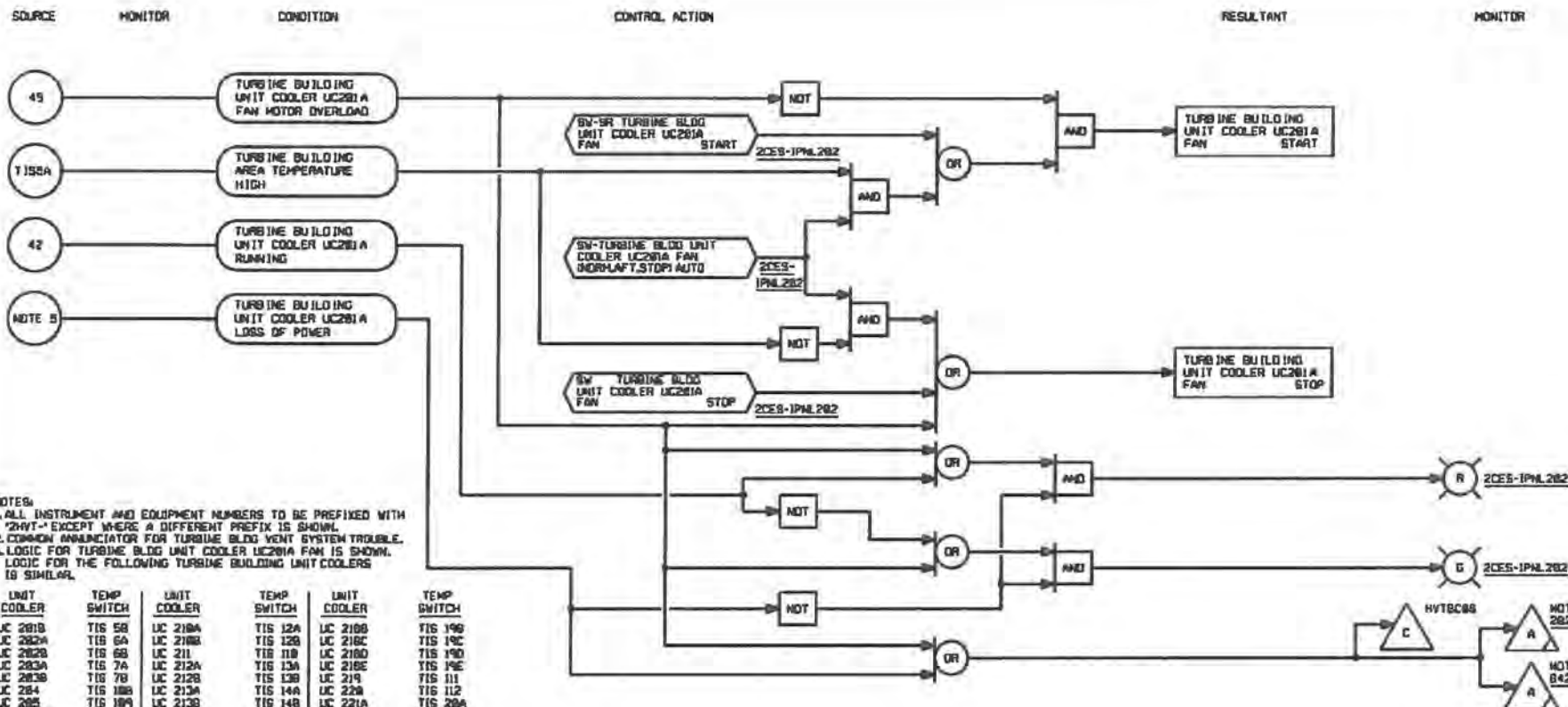












NOTES:  
 1. ALL INSTRUMENT AND EQUIPMENT NUMBERS TO BE PREFIXED WITH "281" EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN.  
 2. COMMON ANNUNCIATOR FOR TURBINE BLDG VENT SYSTEM TROUBLE.  
 3. LOGIC FOR TURBINE BLDG UNIT COOLER UC281A FAN IS SHOWN. LOGIC FOR THE FOLLOWING TURBINE BUILDING UNIT COOLERS IS SIMILAR.

UNIT COOLER	TEMP SWITCH	UNIT COOLER	TEMP SWITCH	UNIT COOLER	TEMP SWITCH
UC 281B	TIS 58	UC 218A	TIS 12A	UC 218B	TIS 198
UC 282A	TIS 6A	UC 218B	TIS 12B	UC 218C	TIS 19C
UC 282B	TIS 6B	UC 211	TIS 11B	UC 218D	TIS 19D
UC 283A	TIS 7A	UC 212A	TIS 13A	UC 218E	TIS 19E
UC 283B	TIS 7B	UC 212B	TIS 13B	UC 219	TIS 111
UC 284	TIS 18B	UC 213A	TIS 14A	UC 228	TIS 112
UC 285	TIS 18A	UC 213B	TIS 14B	UC 221A	TIS 28A
UC 285A	TIS 8A	UC 214A	TIS 15A	UC 221B	TIS 28B
UC 285B	TIS 8B	UC 214B	TIS 15B	UC 222A	TIS 21A
UC 285C	TIS 8C	UC 215A	TIS 15A	UC 222B	TIS 21B
UC 285D	TIS 8D	UC 215B	TIS 15B	UC 222C	TIS 21C
UC 285E	TIS 8E	UC 216A	TIS 17A	UC 222D	TIS 21D
UC 285F	TIS 8F	UC 216B	TIS 17B	UC 222E	TIS 21E
UC 287A	TIS 9A	UC 216C	TIS 17C	UC 222F	TIS 21F
UC 287B	TIS 9B	UC 216D	TIS 17D	UC 223A	TIS 22A
UC 288A	TIS 18A	UC 216E	TIS 17E	UC 223B	TIS 22B
UC 288B	TIS 18B	UC 217A	TIS 18A	UC 224	TIS 113
UC 289A	TIS 11A	UC 217B	TIS 18B	UC 225	TIS 18D
UC 289B	TIS 11B	UC 218A	TIS 19A	UC 226	TIS 19A
				UC 227A	TIS 227A
				UC 227B	TIS 227B
				UC 228A	TIS 228A
				UC 228B	TIS 228B

4. ALL TURBINE BLDG UNIT COOLERS, EXCEPT FOR THE FOLLOWING, WILL REFLASH WINDOW 282188 FOR MOTOR OVERLOAD OR LOSS OF POWER. UC 227A, UC 227B, UC 228A, AND UC 228B WILL REFLASH WINDOW 282128 FOR MOTOR OVERLOAD OR LOSS OF POWER.  
 5. LOSS OF 675 OR 120 VAC POWER SUPPLY.

SETPOINTS SHOWN ON LOGIC DIAGRAMS ARE FOR LOGIC CLARIFICATION ONLY AND MAY BE ONLY APPROXIMATIONS OF THE ACTUAL PROCESS SETPOINT. REFER TO SETPOINT DATA SHEETS FOR ACTUAL PROCESS SETPOINTS.

SOURCE: LSK-22-3C REV.16

FIGURE 9.4-13

HVAC SYSTEM- LOGIC DIAGRAM  
 TURBINE BUILDING  
 SHEET 3 OF 12

NINE MILE POINT-UNIT 2  
 UPDATED SAFETY ANALYSIS REPORT

USAR REVISION 28

OCTOBER 2012







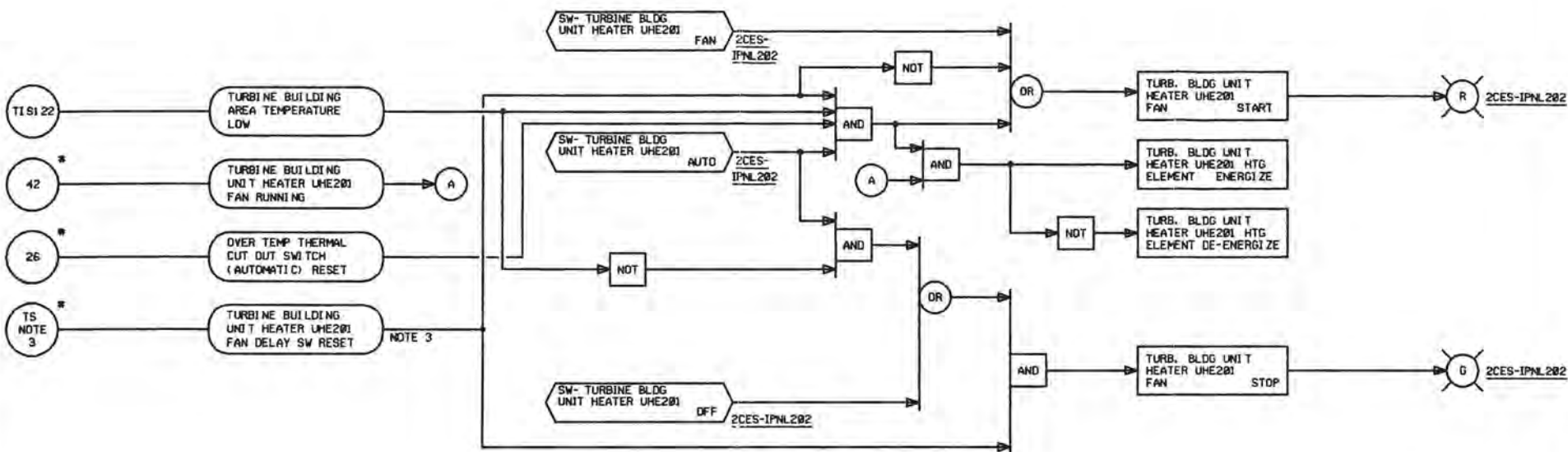
SOURCE

CONDITION

CONTROL ACTION

RESULTANT

MONITOR



## NOTES:

1. ALL INSTRUMENT AND EQUIPMENT NUMBERS TO BE PREFIXED WITH "2HVT" EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN.
2. LOGIC FOR TURBINE BUILDING UNIT HEATER UHE 201 IS SHOWN. LOGIC FOR THE FOLLOWING TURBINE BUILDING UNIT HEATERS IS SIMILAR.

UNIT HEATER	TEMP SWITCH	UNIT HEATER	TEMP SWITCH	UNIT HEATER	TEMP SWITCH
UHE 202	TIS 123	UHE 221	TIS 142	UHE 240	TIS 181
UHE 203	TIS 124	UHE 222	TIS 143	UHE 241	TIS 182
UHE 204	TIS 125	UHE 223	TIS 144	UHE 242	TIS 183
UHE 205	TIS 126	UHE 224	TIS 145	UHE 243	TIS 184
UHE 206	TIS 127	UHE 225	TIS 146	UHE 244	TIS 185
UHE 207	TIS 128	UHE 226	TIS 147	UHE 245	TIS 186
UHE 208	TIS 129	UHE 227	TIS 148	UHE 246	TIS 187
UHE 209	TIS 130	UHE 228	TIS 149	UHE 247	TIS 188
UHE 210	TIS 131	UHE 229	TIS 150	UHE 248	TIS 189
UHE 211	TIS 132	UHE 230	TIS 151	UHE 249	TIS 190
UHE 212	TIS 133	UHE 231	TIS 152	UHE 250	TIS 191
UHE 213	TIS 134	UHE 232	TIS 153	UHE 251	TIS 192
UHE 214	TIS 135	UHE 233	TIS 154	UHE 252	TIS 193
UHE 215	TIS 136	UHE 234	TIS 155	UHE 253	TIS 194
UHE 216	TIS 137	UHE 235	TIS 156	UHE 254	TIS 195
UHE 217	TIS 138	UHE 236	TIS 157	UHE 255	TIS 196
UHE 218	TIS 139	UHE 237	TIS 158	UHE 256	TIS 197
UHE 219	TIS 140	UHE 238	TIS 159	UHE 257	TIS 198
UHE 220	TIS 141	UHE 239	TIS 160	UHE 258	TIS 199

3. FAN DELAY SWITCH- ALLOWS FAN AND HEATING ELEMENT TO START SIMULTANEOUSLY AND DELAY FAN OPERATION TO STOP WHEN HEATING ELEMENT IS DE-ENERGIZED DUE TO HIGH TEMPERATURE.
4. \* -DENOTES SUPPLIED BY HEATER VENDOR.

SETPOINTS SHOWN ON LOGIC DIAGRAMS ARE FOR LOGIC CLARIFICATION ONLY AND MAY BE ONLY APPROXIMATIONS OF THE ACTUAL PROCESS SETPOINT. REFER TO SETPOINT DATA SHEETS FOR ACTUAL PROCESS SETPOINTS.

SOURCE: LSK-22-3E REV.15

FIGURE 9.4-13

TURBINE BUILDING  
HVAC SYSTEM- LOGIC DIAGRAM  
SHEET 5 OF 12

NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

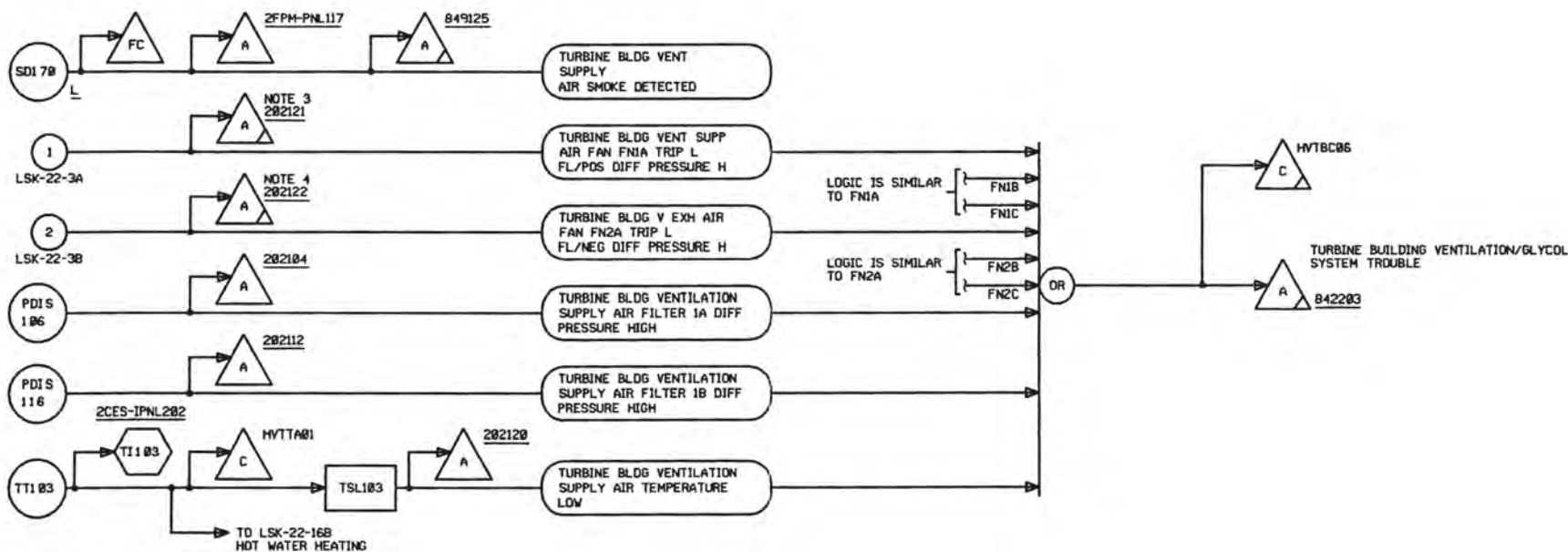


SOURCE

MONITOR

CONDITION

MONITOR



## NOTES:

1. ALL INSTRUMENT AND EQUIPMENT NUMBERS TO BE PREFIXED WITH "HVT-" EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN.
2. LOGIC FOR SD170 IS SHOWN.
3. LOGIC FOR SD172 IS SIMILAR.
4. FN1A, FN1B AND FN1C WILL REFLASH A COMMON ALARM WINDOW FOR FUNCTION INDICATED.
5. FN2A, FN2B AND FN2C WILL REFLASH A COMMON ALARM WINDOW FOR FUNCTION INDICATED.

SOURCE: LSK-22-3F REV.15

FIGURE 9.4-13

TURBINE BUILDING  
HVAC SYSTEM- LOGIC DIAGRAM  
SHEET 6 OF 12

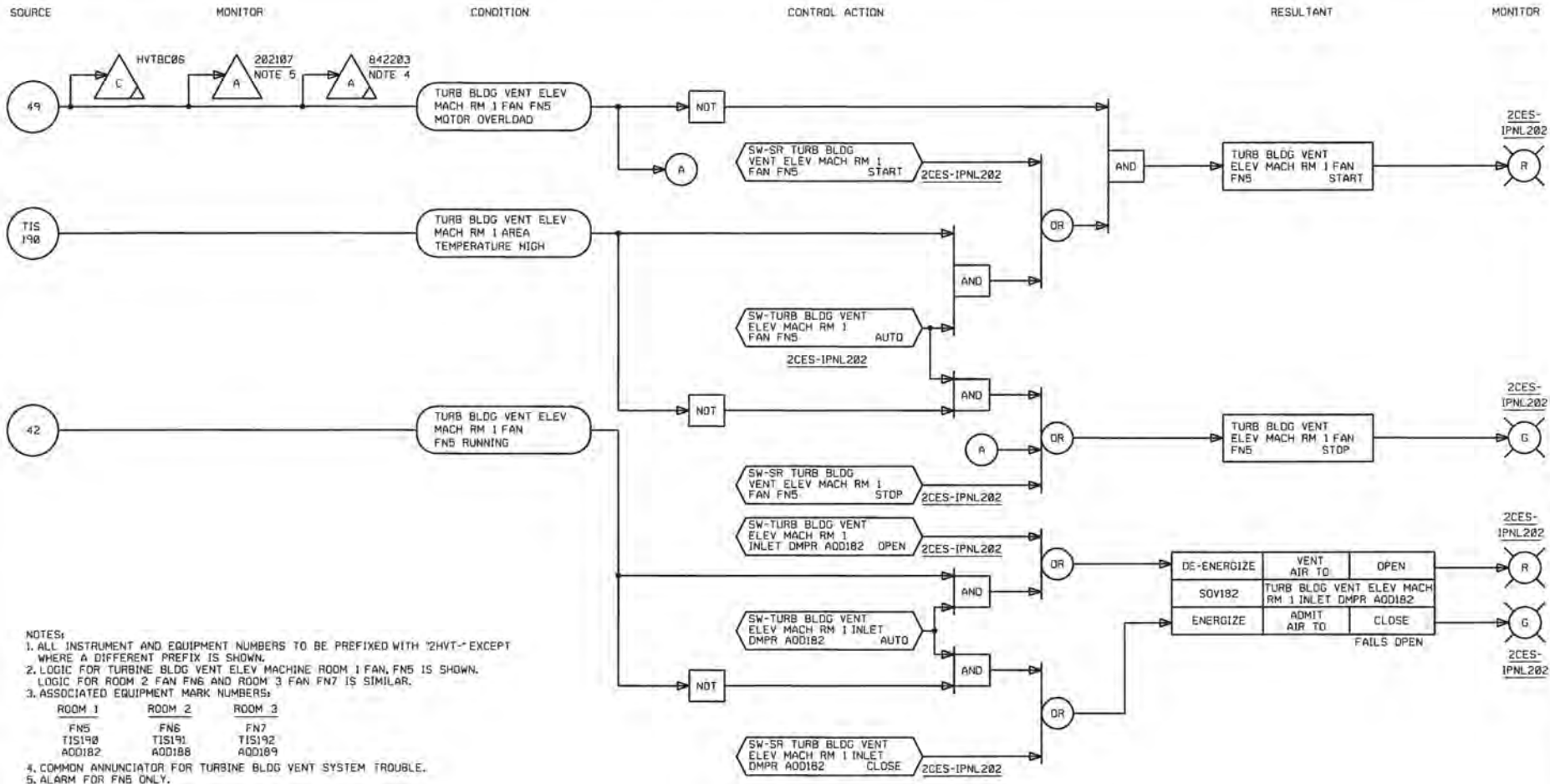
SETPOINTS SHOWN ON LOGIC DIAGRAMS ARE FOR LOGIC CLARIFICATION ONLY AND MAY BE ONLY APPROXIMATIONS OF THE ACTUAL PROCESS SETPOINT. REFER TO SETPOINT DATA SHEETS FOR ACTUAL PROCESS SETPOINTS.

NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

USAR REVISION 3

OCTOBER 1991





SOURCE: LSK-22-3G REV.15

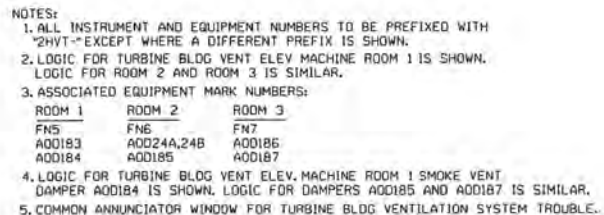
FIGURE 9.4-13

TURBINE BUILDING HVAC SYSTEM  
LOGIC DIAGRAM SHEET 7 OF 12

SETPOINTS SHOWN ON LOGIC DIAGRAMS ARE FOR LOGIC CLARIFICATION ONLY AND MAY BE ONLY APPROXIMATIONS OF THE ACTUAL PROCESS SETPOINT. REFER TO SETPOINT DATA SHEETS FOR ACTUAL PROCESS SETPOINTS.

NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT





SETPOINTS SHOWN ON LOGIC DIAGRAMS ARE FOR LOGIC CLARIFICATION ONLY AND MAY BE ONLY APPROXIMATIONS OF THE ACTUAL PROCESS SETPOINT. REFER TO SETPOINT DATA SHEETS FOR ACTUAL PROCESS SETPOINTS.

TURBINE BUILDING HVAC SYSTEM-  
LOGIC DIAGRAM SHEET 8 OF 12

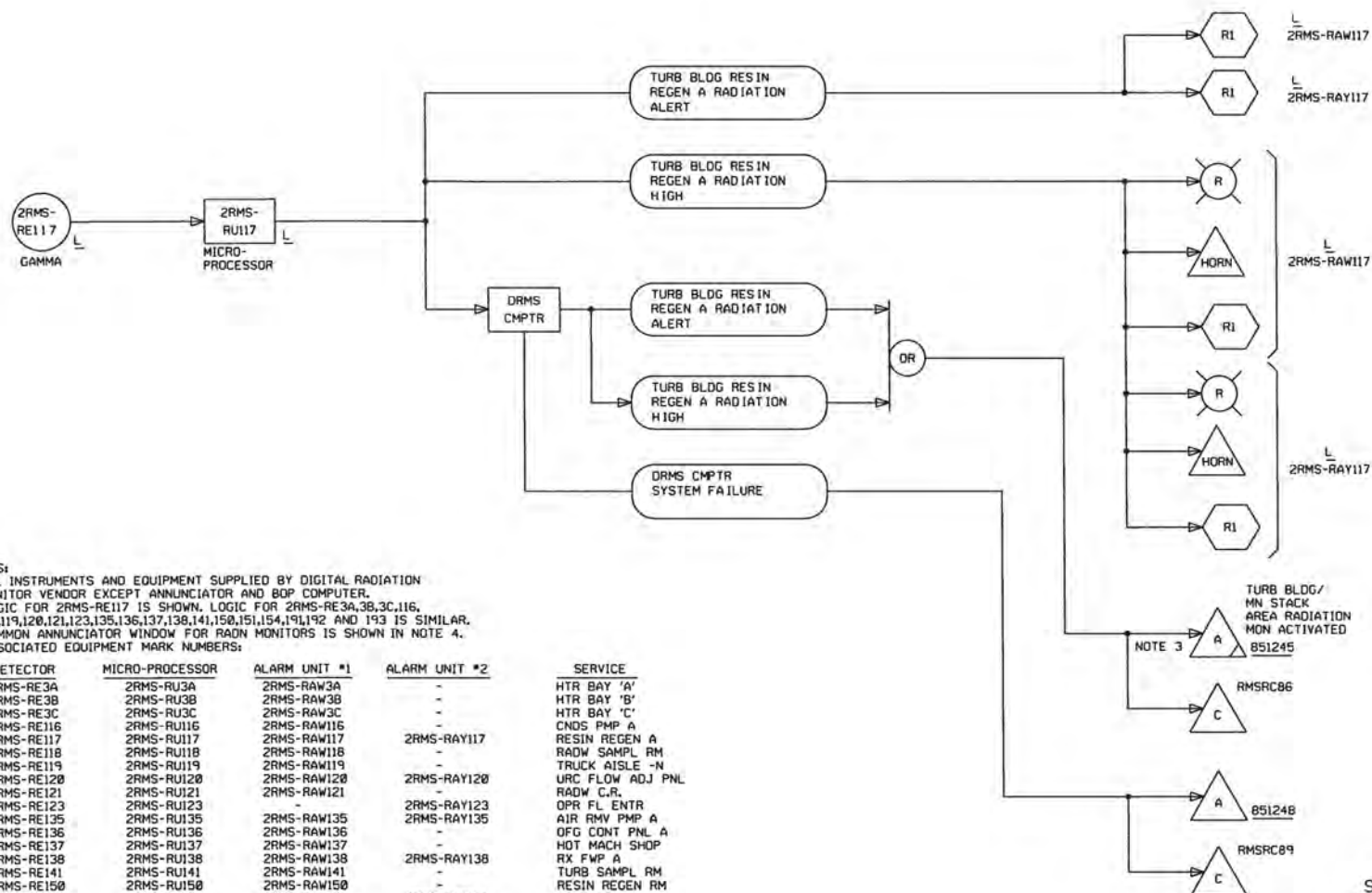
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT



SOURCE

CONDITION

MONITOR



## NOTES:

1. ALL INSTRUMENTS AND EQUIPMENT SUPPLIED BY DIGITAL RADIATION MONITOR VENDOR EXCEPT ANNUNCIATOR AND BOP COMPUTER.
2. LOGIC FOR 2RMS-RE117 IS SHOWN. LOGIC FOR 2RMS-RE3A,3B,3C,116, 118,119,120,121,123,135,136,137,138,141,150,151,154,191,192 AND 193 IS SIMILAR.
3. COMMON ANNUNCIATOR WINDOW FOR RADN MONITORS IS SHOWN IN NOTE 4.
4. ASSOCIATED EQUIPMENT MARK NUMBERS:

DETECTOR	MICRO-PROCESSOR	ALARM UNIT #1	ALARM UNIT #2	SERVICE
2RMS-RE3A	2RMS-RU3A	2RMS-RAW3A	-	HTR BAY 'A'
2RMS-RE3B	2RMS-RU3B	2RMS-RAW3B	-	HTR BAY 'B'
2RMS-RE3C	2RMS-RU3C	2RMS-RAW3C	-	HTR BAY 'C'
2RMS-RE116	2RMS-RU116	2RMS-RAW116	-	CNDS PMP A
2RMS-RE117	2RMS-RU117	2RMS-RAW117	2RMS-RAY117	RESIN REGEN A
2RMS-RE118	2RMS-RU118	2RMS-RAW118	-	RADW SAMPL RM
2RMS-RE119	2RMS-RU119	2RMS-RAW119	-	TRUCK AISLE -N
2RMS-RE120	2RMS-RU120	2RMS-RAW120	2RMS-RAY120	URC FLOW ADJ PNL
2RMS-RE121	2RMS-RU121	2RMS-RAW121	-	RADW C.R.
2RMS-RE123	2RMS-RU123	2RMS-RAW123	2RMS-RAY123	OPR FL ENTR
2RMS-RE135	2RMS-RU135	2RMS-RAW135	2RMS-RAY135	AIR RMV PMP A
2RMS-RE136	2RMS-RU136	2RMS-RAW136	-	OFC CONT PNL A
2RMS-RE137	2RMS-RU137	2RMS-RAW137	-	HOT MACH SHOP
2RMS-RE138	2RMS-RU138	2RMS-RAW138	2RMS-RAY138	RX FWP A
2RMS-RE141	2RMS-RU141	2RMS-RAW141	-	TURB SAMPL RM
2RMS-RE150	2RMS-RU150	2RMS-RAW150	-	RESIN REGEN RM
2RMS-RE151	2RMS-RU151	2RMS-RAW151	2RMS-RAY151	LP TURB A
2RMS-RE154	2RMS-RU154	2RMS-RAW154	2RMS-RAY154	MN CONO A
2RMS-RE191	2RMS-RU191	2RMS-RAW191	-	H-P COUNTING RM
2RMS-RE192	2RMS-RU192	2RMS-RAW192	-	RX/RADW MON A
2RMS-RE193	2RMS-RU193	2RMS-RAW193	-	MN STACK MON A

SETPOINTS SHOWN ON LOGIC DIAGRAMS ARE FOR LOGIC CLARIFICATION ONLY AND MAY BE ONLY APPROXIMATIONS OF THE ACTUAL PROCESS SETPOINT. REFER TO SETPOINT DATA SHEETS FOR ACTUAL PROCESS SETPOINTS.

SOURCE: LSK-22-3M REV.16

FIGURE 9.4-13

TURBINE BUILDING  
HVAC SYSTEM- LOGIC DIAGRAM  
SHEET 9 OF 12

NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

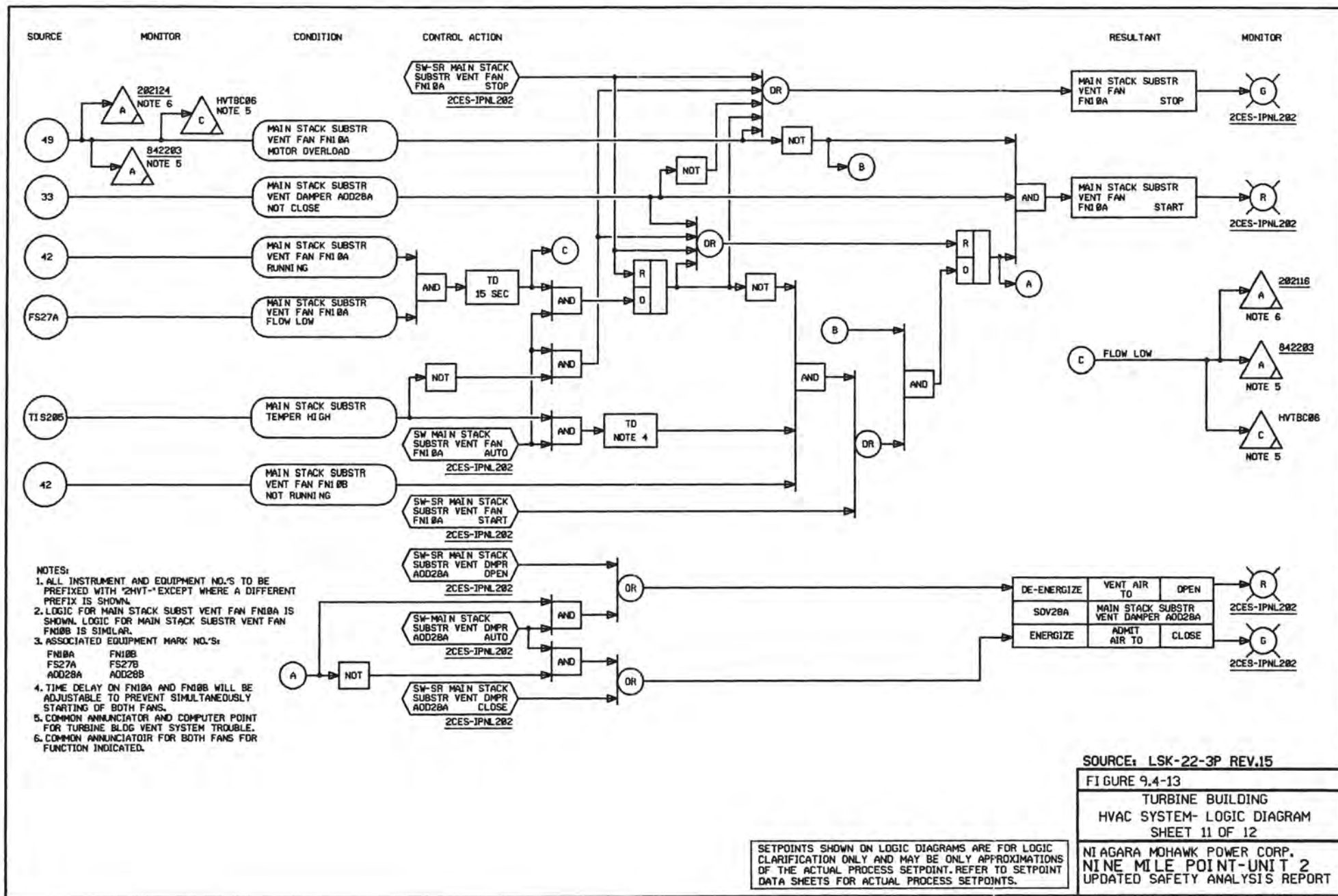
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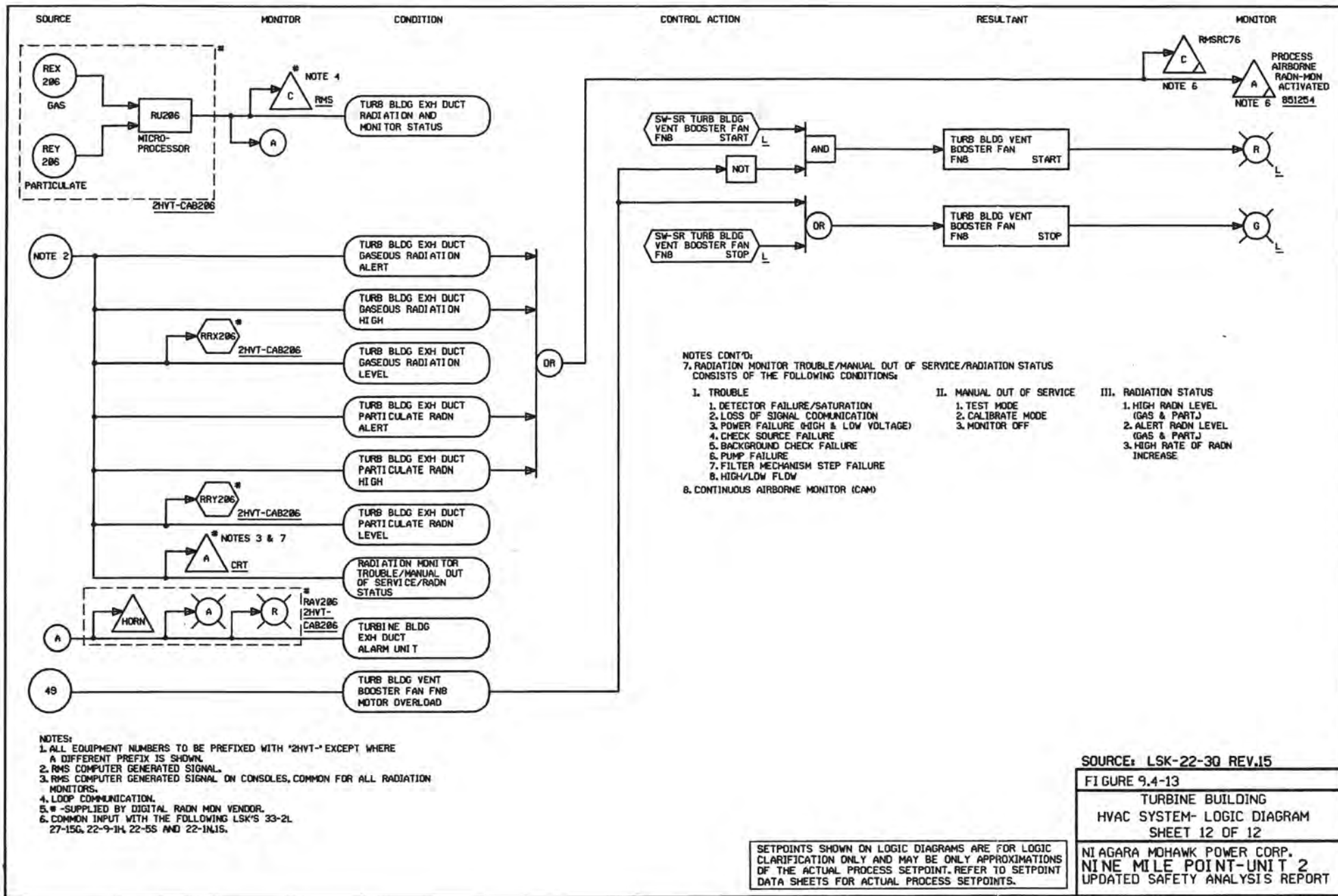




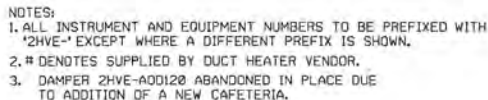








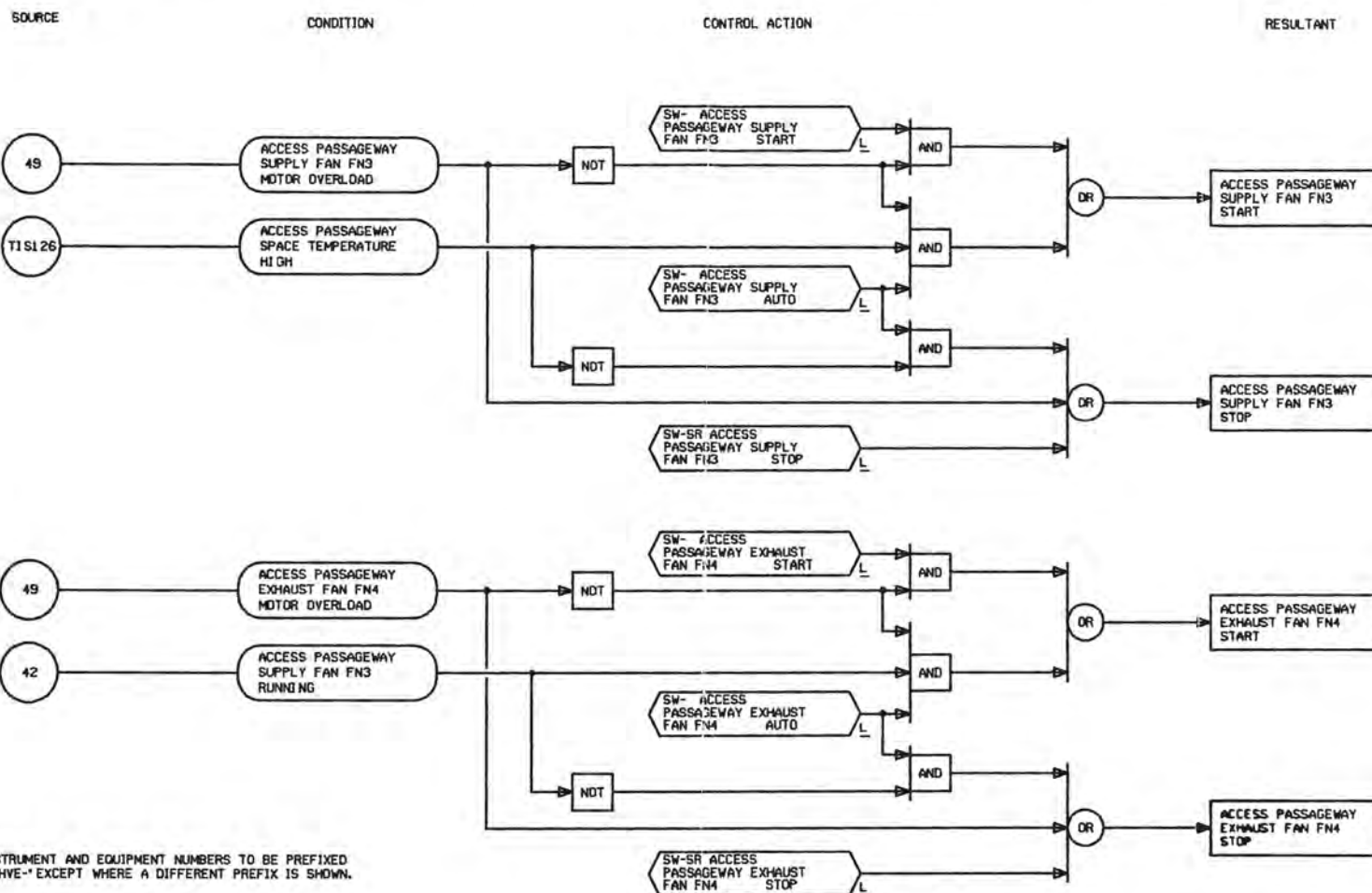




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OCTOBER 1993





NOTES:  
1. ALL INSTRUMENT AND EQUIPMENT NUMBERS TO BE PREFIXED WITH "2HVE-" EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN.

SETPOINTS SHOWN ON LOGIC DIAGRAMS ARE FOR LOGIC CLARIFICATION ONLY AND MAY BE ONLY APPROXIMATIONS OF THE ACTUAL PROCESS SETPOINT. REFER TO SETPOINT DATA SHEETS FOR ACTUAL PROCESS SETPOINTS.

SOURCE: LSK-22-28 REV.7

FIGURE 9.4-14

SERVICE BUILDING HEATING AND VENTILATING SYSTEM  
LOGIC DIAGRAM SHEET 2 OF 3

NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

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OCTOBER 1991

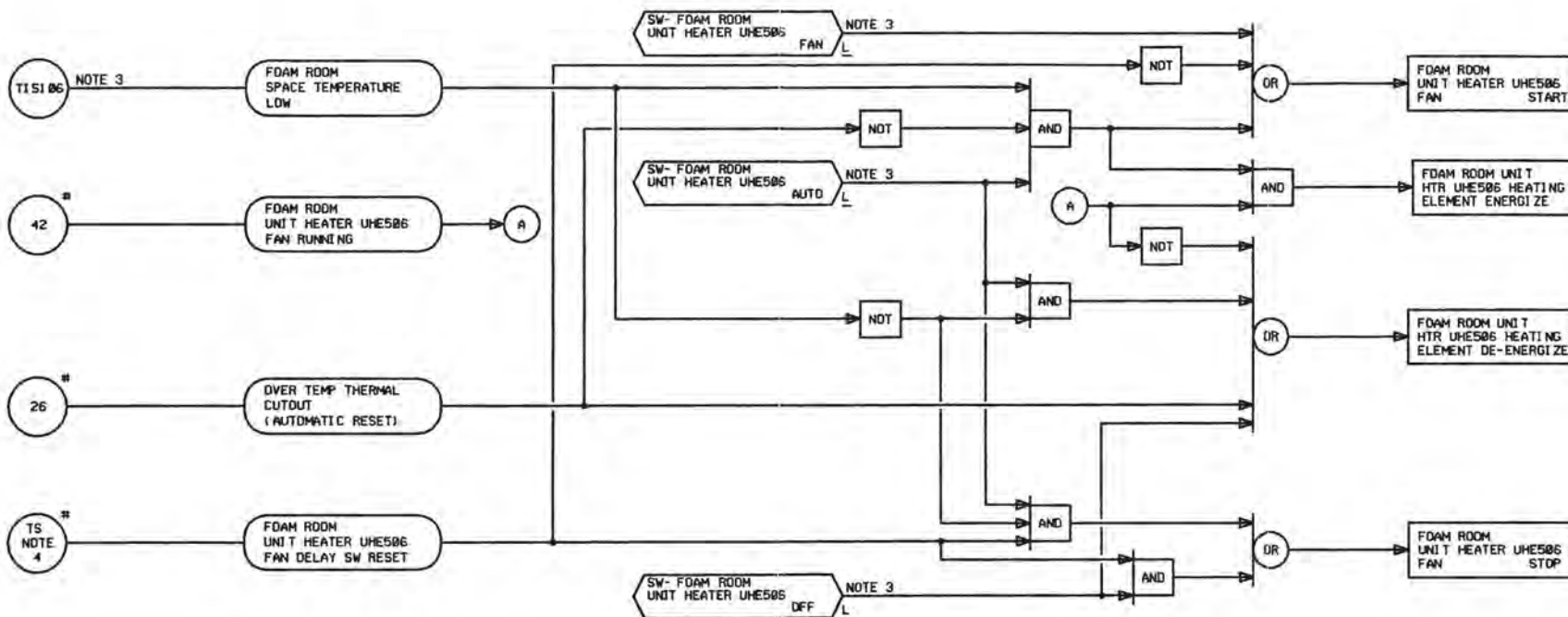


SOURCE

CONDITION

CONTROL ACTION

RESULTANT



## NOTES:

1. ALL INSTRUMENT AND EQUIPMENT NUMBERS TO BE PREFIXED WITH '2HVE-' EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN.
2. LOGIC FOR FOAM ROOM UNIT HEATER UHE506 IS SHOWN. LOGIC FOR THE FOLLOWING UNIT HEATERS IS SIMILAR:

AREA	UNIT HTR	TEMP SW
FOAM ROOM	UHE506	TISI06
	UHE507	TISI07
	UHE508	TISI08
	UHE509	TISI09
	UHE511	TISI11
ENTRANCE CORRIDOR	UHE512	TISI12
	UHE513	TISI19
ACCESS PASSAGEWAY	UHE514	TISI25
VALVE PIT	UHE515	TISI21
	UHE516	TISI22
	UHE517	TISI23
	UHE518	TISI18

3. UNIT HEATER CONTROL SWITCH LOCATED ADJACENT TO THERMOSTAT.

4. FAN DELAY SWITCH ALLOWS FAN AND HEATING ELEMENT TO START SIMULTANEOUSLY AND DELAY FAN OPERATION TO STOP WHEN HEATING ELEMENT IS DE-ENERGIZED DUE TO HIGH SPACE TEMPERATURE.
5. \* - DENOTES SUPPLIED BY HEATER VENDOR.

SETPOINTS SHOWN ON LOGIC DIAGRAMS ARE FOR LOGIC CLARIFICATION ONLY AND MAY BE ONLY APPROXIMATIONS OF THE ACTUAL PROCESS SETPOINT. REFER TO SETPOINT DATA SHEETS FOR ACTUAL PROCESS SETPOINTS.

SOURCE: LSK-22-2C REV.8

FIGURE 9.4-14

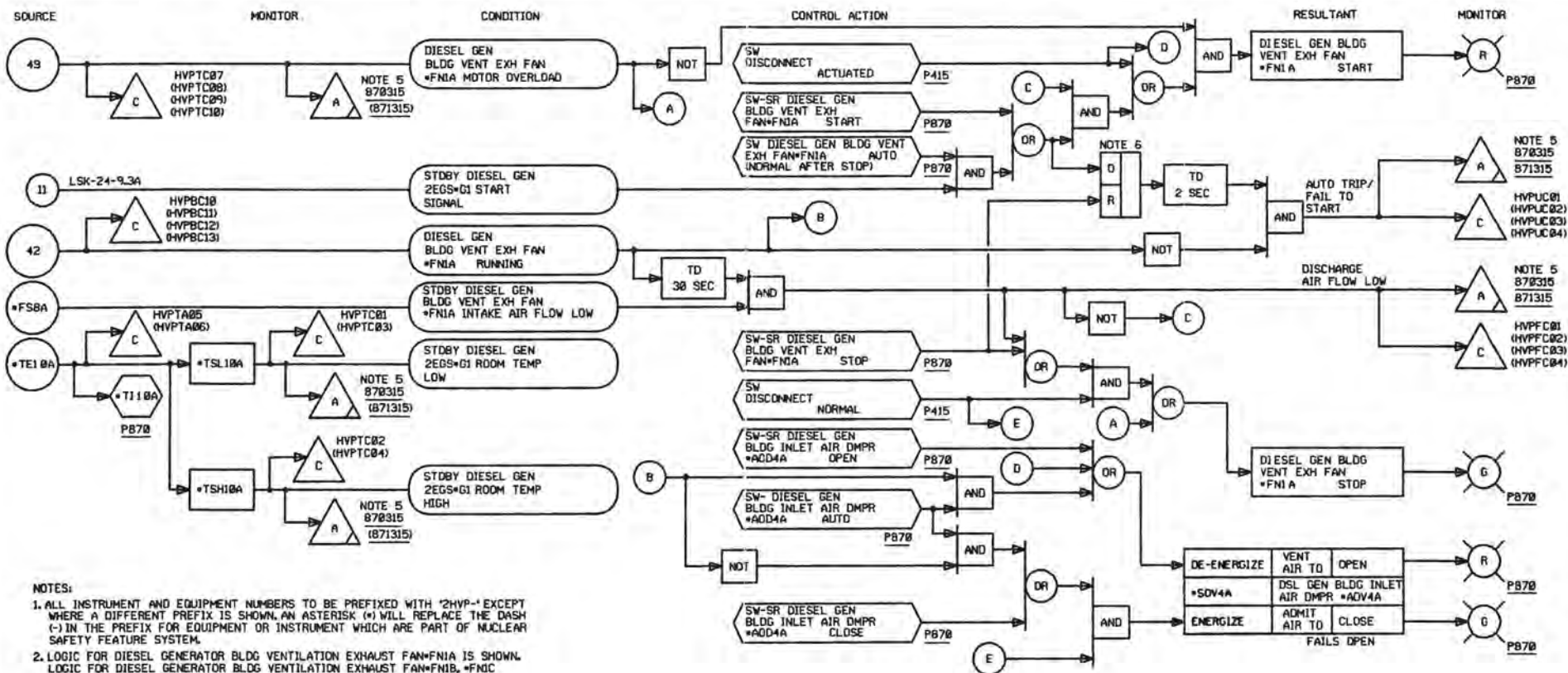
SERVICE BUILDING HEATING AND  
VENTILATING SYSTEM  
LOGIC DIAGRAM SHEET 3 OF 3

NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT









#### NOTES:

1. ALL INSTRUMENT AND EQUIPMENT NUMBERS TO BE PREFIXED WITH "HVP-" EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN. AN ASTERISK (\*) WILL REPLACE THE DASH (-) IN THE PREFIX FOR EQUIPMENT OR INSTRUMENT WHICH ARE PART OF NUCLEAR SAFETY FEATURE SYSTEM.
2. LOGIC FOR DIESEL GENERATOR BLDG VENTILATION EXHAUST FAN\*FNIA, \*FNC AND \*FND IS SIMILAR.
3. LOGIC FOR DIESEL GENERATOR BLDG INLET AIR DAMPER \*ADD4A IS SHOWN. LOGIC FOR DIESEL GENERATOR BLDG INLET AIR DAMPERS \*ADD4B, \*ADD4C, AND \*ADD4D IS SIMILAR.
4. ASSOCIATED EQUIPMENT MARK NUMBERS:

2EGS\*G1(P870, P415)

\*FNIA \*FNIC

\*TE10A \*TE10B

\*FS8A \*FS8C

\*ADD4A \*ADD4C

2EGS\*G3(P871, P415)

\*FNIB \*FNID

\*TE10B \*TE10D

\*FS8B \*FS8D

\*ADD4B \*ADD4D

5. COMMON ALARM WINDOW FOR DIV 1 SYSTEM TROUBLE.

6. SIGNAL RESET ON LOSS OF CONTROL POWER.

SOURCE: LSK-22-7A REV.11

FIGURE 9.4-16

DIESEL GENERATION BUILDING HVAC  
SYSTEM  
LOGIC DIAGRAM SHEET 1 OF 9

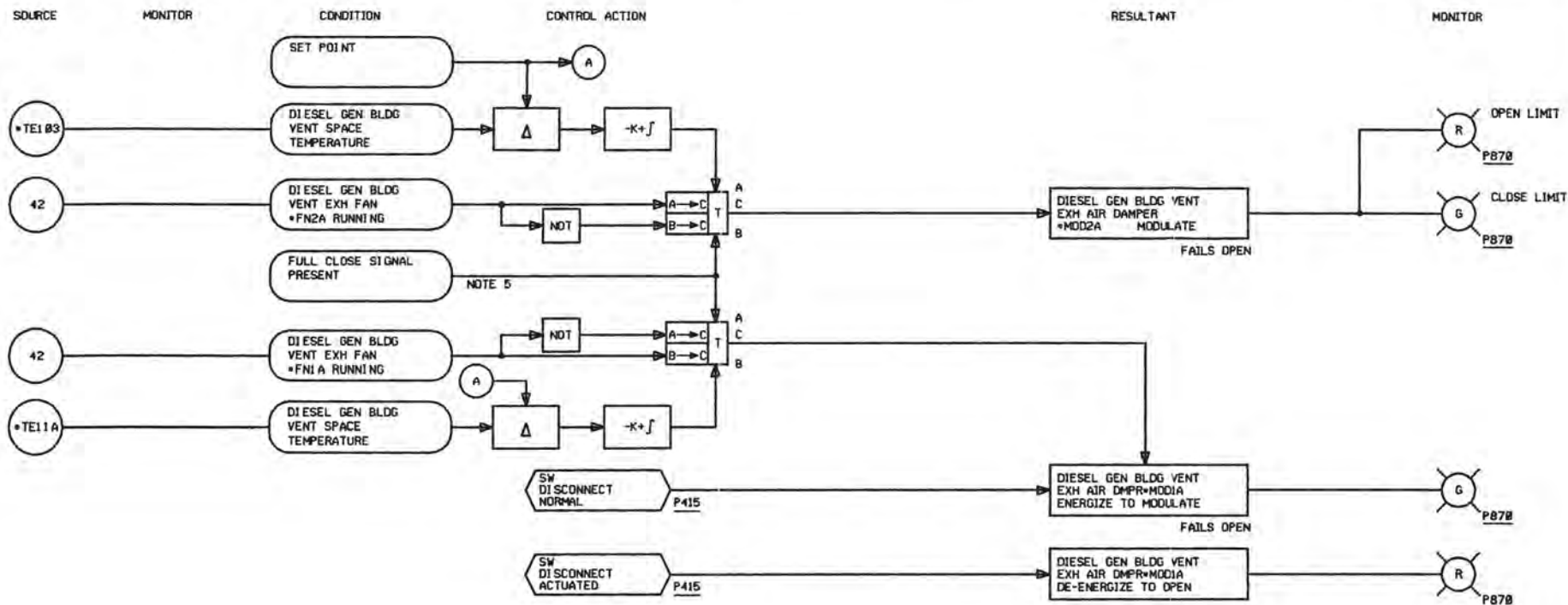
SETPOINTS SHOWN ON LOGIC DIAGRAMS ARE FOR LOGIC CLARIFICATION ONLY AND MAY BE ONLY APPROXIMATIONS OF THE ACTUAL PROCESS SETPOINT. REFER TO SETPOINT DATA SHEETS FOR ACTUAL PROCESS SETPOINTS.

NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

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#### NOTES:

- ALL INSTRUMENT AND EQUIPMENT NUMBERS TO BE PREFIXED WITH "2HVP-" EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN. AN ASTERISK (\*) WILL REPLACE THE DASH (-) IN THE PREFIX FOR EQUIPMENT OR INSTRUMENT WHICH ARE PART OF NUCLEAR SAFETY FEATURE SYSTEM.
- LOGIC FOR DIESEL GENERATOR BLDG VENTILATION EXHAUST AIR DAMPER \*MOD2A IS SHOWN. LOGIC FOR DIESEL GENERATOR BLDG VENTILATION EXHAUST AIR DAMPER \*MOD2B, RECIRCULATION AIR DAMPER \*MOD6A, \*MOD6B, \*MOD6C, \*MOD6D, \*MOD7A AND \*MOD7B IS SIMILAR.
- LOGIC FOR DIESEL GENERATOR BLDG VENTILATION EXHAUST AIR DAMPER \*MOD1A IS SHOWN. LOGIC FOR DIESEL GENERATOR BLDG VENTILATION EXHAUST AIR DAMPER \*MOD1B, \*MOD1C AND \*MOD1D IS SIMILAR.
- ASSOCIATED EQUIPMENT MARK NUMBERS:
 

*TE11A	FAIL POSITION	*TE11B	FAIL POSITION	*TE103	FAIL POSITION
*MOD1A	FAIL OPEN	*MOD1B	FAIL OPEN	*MOD2A	FAIL OPEN
*MOD1C	FAIL OPEN	*MOD1D	FAIL OPEN	*MOD2B	FAIL OPEN
*MOD6A	FAIL CLOSE	*MOD6B	FAIL CLOSE	*MOD7A	FAIL CLOSE
*MOD6C	FAIL CLOSE	*MOD6D	FAIL CLOSE	*MOD7B	FAIL CLOSE
P415		P416			

5. FULL OPEN SIGNAL PRESENT FOR FAIL CLOSE DAMPERS.

SETPOINTS SHOWN ON LOGIC DIAGRAMS ARE FOR LOGIC CLARIFICATION ONLY AND MAY BE ONLY APPROXIMATIONS OF THE ACTUAL PROCESS SETPOINT. REFER TO SETPOINT DATA SHEETS FOR ACTUAL PROCESS SETPOINTS.

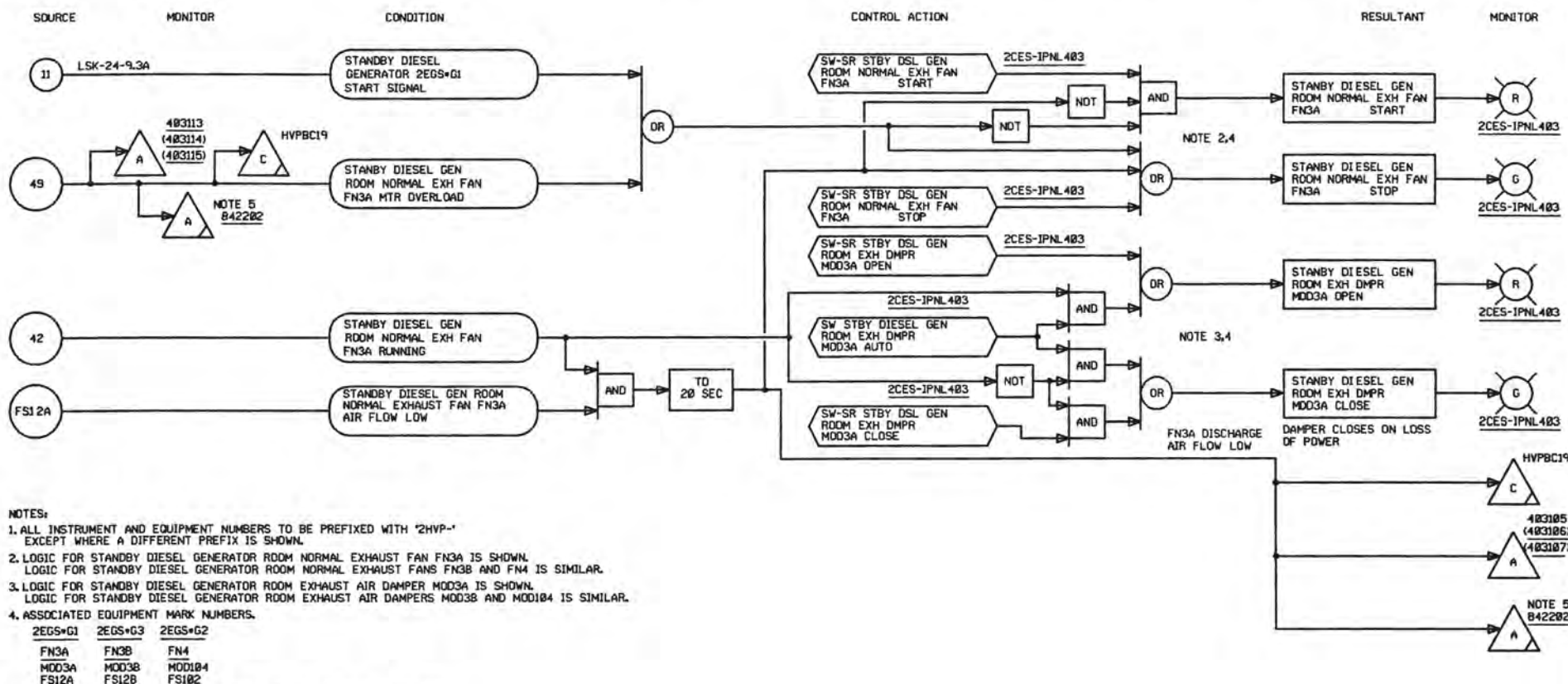
SOURCE: LSK-22-7B REV.11

FIGURE 9.4-16

DIESEL GENERATION BUILDING HVAC  
SYSTEM  
LOGIC DIAGRAM SHEET 2 OF 9

NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT





#### NOTES:

1. ALL INSTRUMENT AND EQUIPMENT NUMBERS TO BE PREFIXED WITH '2HVP-' EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN.
2. LOGIC FOR STANDBY DIESEL GENERATOR ROOM NORMAL EXHAUST FAN FN3A IS SHOWN. LOGIC FOR STANDBY DIESEL GENERATOR ROOM NORMAL EXHAUST FANS FN3B AND FN4 IS SIMILAR.
3. LOGIC FOR STANDBY DIESEL GENERATOR ROOM EXHAUST AIR DAMPER MOD3A IS SHOWN. LOGIC FOR STANDBY DIESEL GENERATOR ROOM EXHAUST AIR DAMPERS MOD3B AND MOD3C IS SIMILAR.
4. ASSOCIATED EQUIPMENT MARK NUMBERS.
 

2EGS+G1	2EGS+G3	2EGS+G2
FN3A	FN3B	FN4
MOD3A	MOD3B	MOD3C
FS12A	FS12B	FS102
5. COMMON ANNUNCIATOR DIESEL GEN ROOM NORMAL VENTILATION TROUBLE.

SOURCE: LSK-22-7C REV.11

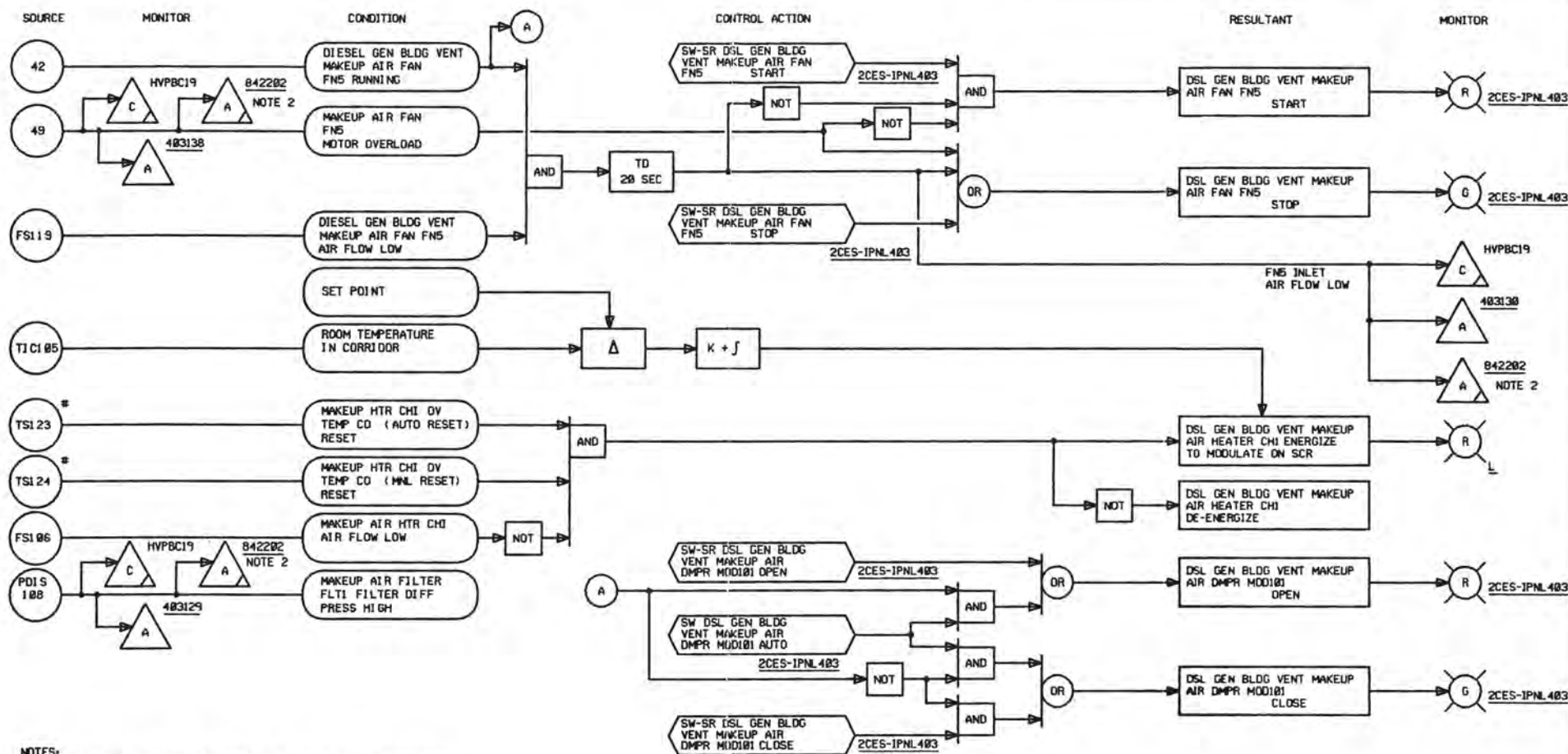
FIGURE 9.4-16

DIESEL GENERATION BUILDING HVAC SYSTEM  
LOGIC DIAGRAM SHEET 3 OF 9

SETPOINTS SHOWN ON LOGIC DIAGRAMS ARE FOR LOGIC CLARIFICATION ONLY AND MAY BE ONLY APPROXIMATIONS OF THE ACTUAL PROCESS SETPOINT. REFER TO SETPOINT DATA SHEETS FOR ACTUAL PROCESS SETPOINTS.

NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT





# NOTES:

1. ALL INSTRUMENT AND EQUIPMENT NUMBERS TO BE PREFIXED WITH '2HVP-' EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN.
2. COMMON ANNUNCIATOR DIESEL GEN ROOM NORMAL VENTILATION TROUBLE.
3. # - DENOTES SUPPLIED BY HEATER VENDOR.

SOURCE: LSK-22-7D REV.11

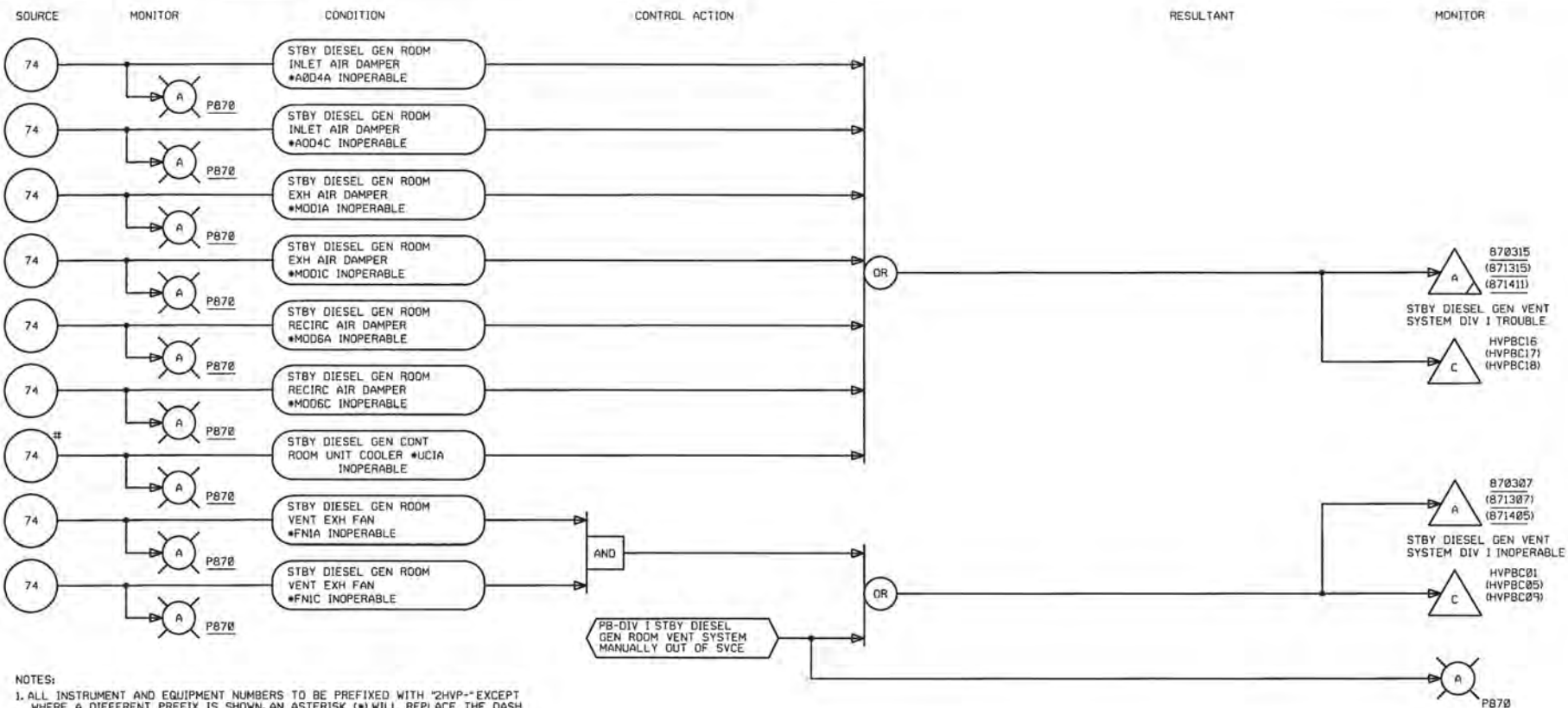
FIGURE 9.4-16

DIESEL GENERATION BUILDING HVAC  
SYSTEM  
LOGIC DIAGRAM SHEET 4 OF 9

SETPOINTS SHOWN ON LOGIC DIAGRAMS ARE FOR LOGIC CLARIFICATION ONLY AND MAY BE ONLY APPROXIMATIONS OF THE ACTUAL PROCESS SETPOINT. REFER TO SETPOINT DATA SHEETS FOR ACTUAL PROCESS SETPOINTS.

NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT





#### NOTES:

1. ALL INSTRUMENT AND EQUIPMENT NUMBERS TO BE PREFIXED WITH "2HVP-" EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN. AN ASTERISK (\*) WILL REPLACE THE DASH (-) IN THE PREFIX FOR EQUIPMENT OR INSTRUMENT WHICH ARE PART OF NUCLEAR SAFETY FEATURE SYSTEM.
2. LOGIC FOR STANDBY DIESEL GENERATOR VENTILATION SYSTEM DIVISION I TROUBLE AND INOPERABLE MONITORING IS SHOWN. DIVISION II AND III IS SIMILAR.
3. ASSOCIATED EQUIPMENT MARK NUMBERS:

DIV I (P870)	DIV II (P871)	DIV III (871)
*FN1A	*FN1B	*FN2A
*FN1C	*FN1D	*FN2B
*A004A	*A004B	*A005A
*A004C	*A004D	*A005B
*MOD1A	*MOD1B	*MOD2A
*MOD1C	*MOD1D	*MOD2B
*MOD6A	*MOD6B	*MOD7A
*MOD6C	*MOD6D	*MOD7B
*UC1A	*UC1B	*UC2

4. # DENOTES SUPPLIED BY UNIT COOLER VENDOR.

SOURCE: LSK-22-7E REV.11

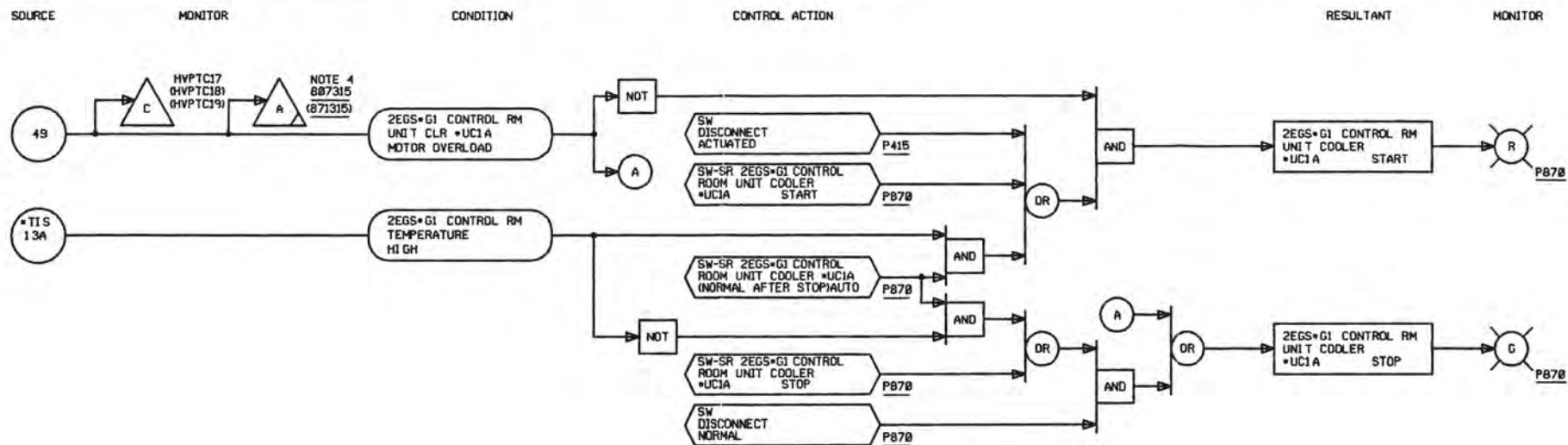
FIGURE 9.4-16

DIESEL GENERATION BUILDING HVAC  
SYSTEM  
LOGIC DIAGRAM SHEET 5 OF 9

SETPOINTS SHOWN ON LOGIC DIAGRAMS ARE FOR LOGIC CLARIFICATION ONLY AND MAY BE ONLY APPROXIMATIONS OF THE ACTUAL PROCESS SETPOINT. REFER TO SETPOINT DATA SHEETS FOR ACTUAL PROCESS SETPOINTS.

NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT





# NOTES:

1. ALL INSTRUMENT AND EQUIPMENT NUMBERS TO BE PREFIXED WITH "2HVP-" EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN.

2. LOGIC FOR 2EGS\*G1 CONTROL ROOM UNIT COOLER \*UC1A IS SHOWN. LOGIC FOR 2EGS\*G3 CONTROL ROOM UNIT COOLER \*UC1B IS SIMILAR.

3. ASSOCIATED EQUIPMENT MARK NUMBERS:

2EGS*G1 (870)	2EGS*G3 (871)
*UC1A	*UC1B
*TIS13A	*TIS13B

4. COMMON ANNUNCIATOR FOR DIV I SYSTEM TROUBLE.

SOURCE: LSK-22-7F REV.11

FIGURE 9.4-16

DIESEL GENERATION BUILDING HVAC SYSTEM  
LOGIC DIAGRAM SHEET 6 OF 9

SETPOINTS SHOWN ON LOGIC DIAGRAMS ARE FOR LOGIC CLARIFICATION ONLY AND MAY BE ONLY APPROXIMATIONS OF THE ACTUAL PROCESS SETPOINT. REFER TO SETPOINT DATA SHEETS FOR ACTUAL PROCESS SETPOINTS.

NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

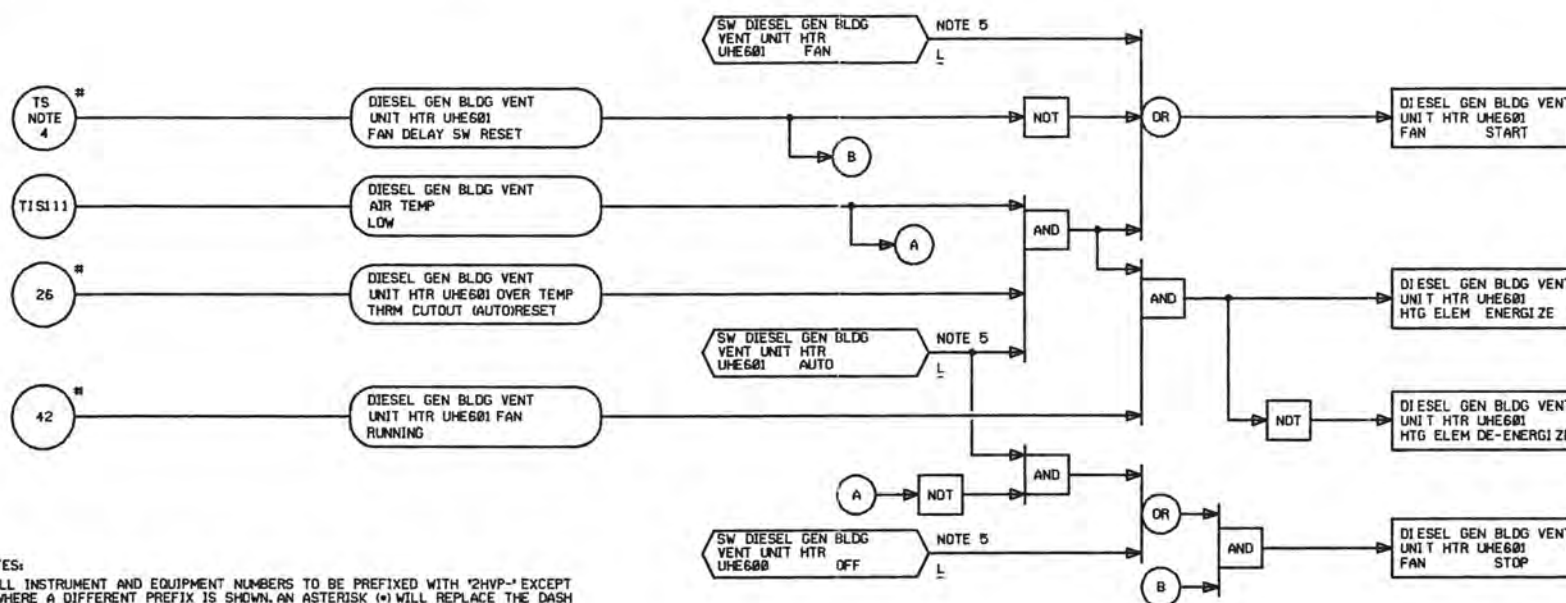


SOURCE

CONDITION

CONTROL ACTION

RESULTANT



## NOTES:

1. ALL INSTRUMENT AND EQUIPMENT NUMBERS TO BE PREFIXED WITH '2HVP-' EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN. AN ASTERISK (\*) WILL REPLACE THE DASH (-) IN THE PREFIX FOR EQUIPMENT OR INSTRUMENT WHICH ARE PART OF NUCLEAR SAFETY FEATURE SYSTEM.
2. LOGIC FOR DSL GEN BLDG VENT UNIT HTR UHE601 IS SHOWN. LOGIC FOR DSL GEN BLDG VENT UNIT HTR UHE602, UHE603, UHE604, UHE605, UHE606, UHE607, AND UHE608 IS SIMILAR.
3. ASSOCIATED EQUIPMENT MARK NUMBERS:
 

UHE601	T1S111	UHE605	T1S115
UHE602	T1S112	UHE606	T1S116
UHE603	T1S113	UHE607	T1S117
UHE604	T1S114	UHE608	T1S118
4. FAN DELAY SWITCH ALLOWS FAN AND HTG ELEMENT TO START SIMULTANEOUSLY AND DELAYS FAN STOP WHEN HTG ELEMENT IS DE-ENERGIZED DUE TO HIGH SPACE TEMPERATURE.
5. UNIT HTR CONTROL SWITCH LOCATED ADJACENT TO THERMOSTAT.
6. \* DENOTES SUPPLIED BY UNIT HEATER VENDOR.

SOURCE: LSK-22-7G REV.11

FIGURE 9.4-16

DIESEL GENERATION BUILDING HVAC  
SYSTEM  
LOGIC DIAGRAM SHEET 7 OF 9

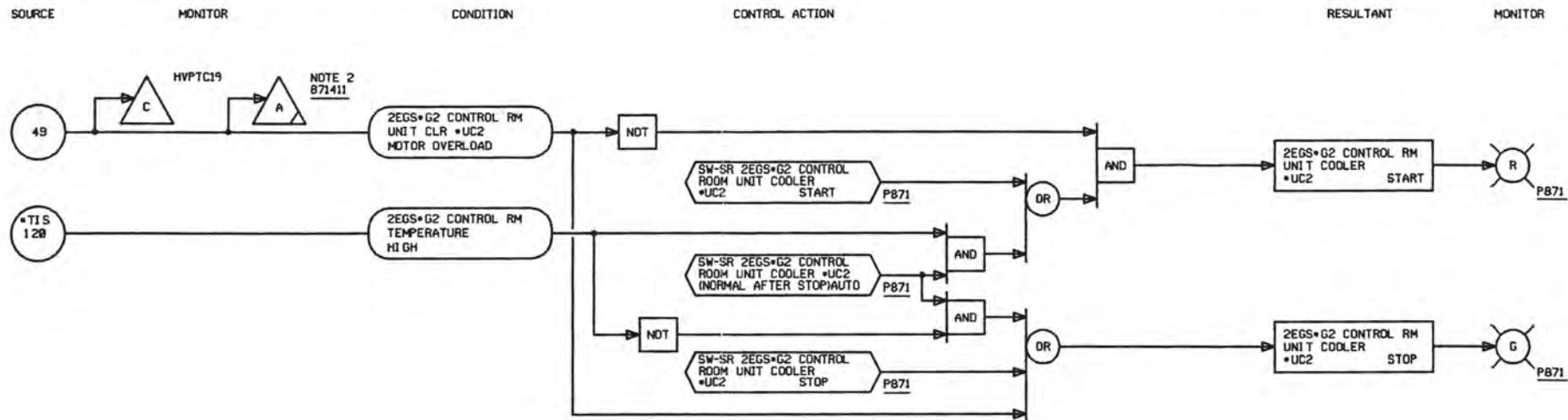
SETPOINTS SHOWN ON LOGIC DIAGRAMS ARE FOR LOGIC CLARIFICATION ONLY AND MAY BE ONLY APPROXIMATIONS OF THE ACTUAL PROCESS SETPOINT. REFER TO SETPOINT DATA SHEETS FOR ACTUAL PROCESS SETPOINTS.

NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

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NOTES:

1. ALL INSTRUMENT AND EQUIPMENT NUMBERS TO BE PREFIXED WITH "2HYP-" EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN.
2. COMMON ANNUNCIATOR FOR DIV III SYSTEM TROUBLE.

SETPOINTS SHOWN ON LOGIC DIAGRAMS ARE FOR LOGIC CLARIFICATION ONLY AND MAY BE ONLY APPROXIMATIONS OF THE ACTUAL PROCESS SETPOINT. REFER TO SETPOINT DATA SHEETS FOR ACTUAL PROCESS SETPOINTS.

SOURCE: LSK-22-7H REV.11

FIGURE 9.4-16

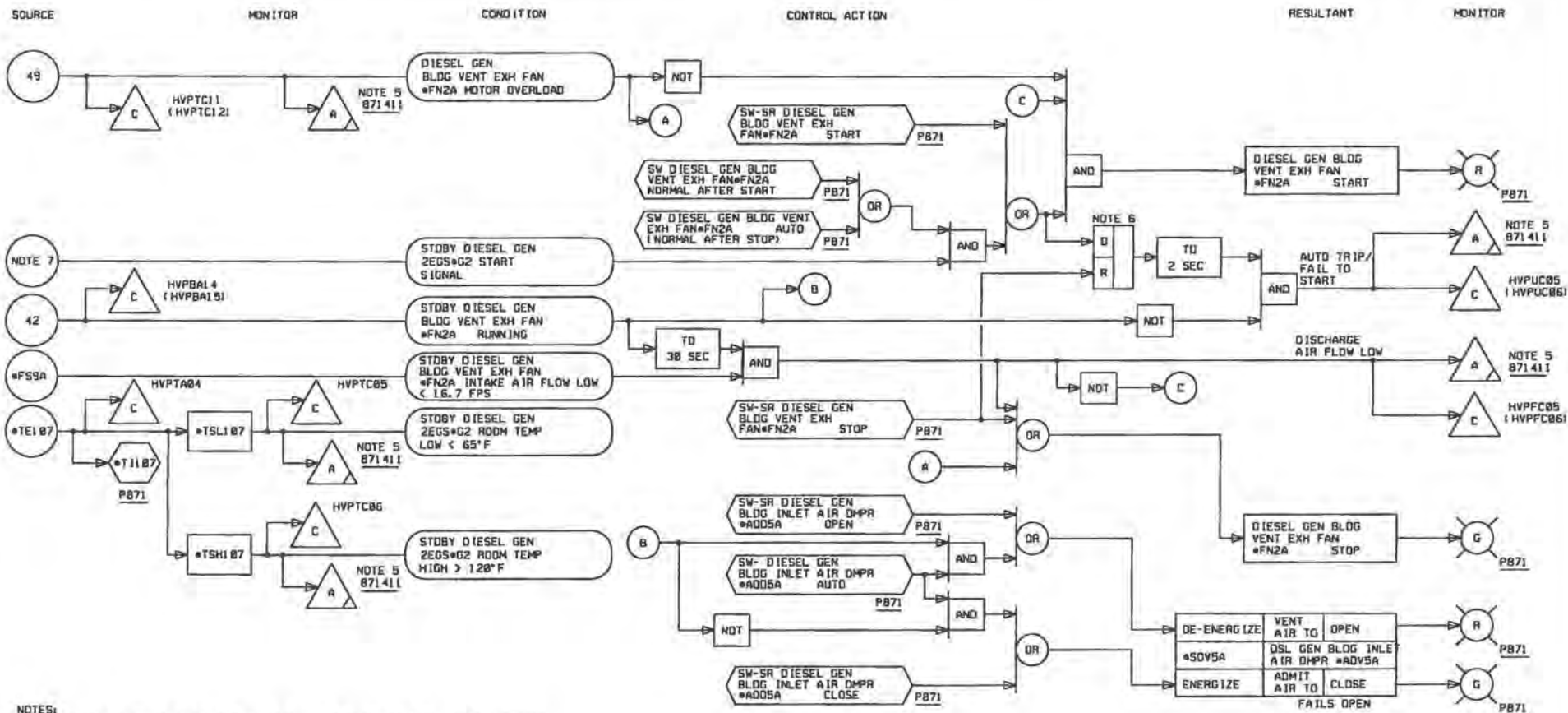
DIESEL GENERATION BUILDING HVAC  
SYSTEM  
LOGIC DIAGRAM SHEET 8 OF 9

NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

USAR REVISION 3

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#### NOTES:

- ALL INSTRUMENT AND EQUIPMENT NUMBERS TO BE PREFIXED WITH \*2HVP-\* EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN. AN ASTERISK (\*) WILL REPLACE THE DASH (-) IN THE PREFIX FOR EQUIPMENT OR INSTRUMENT WHICH ARE PART OF NUCLEAR SAFETY FEATURE SYSTEM.
- LOGIC FOR DIESEL GENERATOR BLDG VENTILATION EXHAUST FAN#FN2A IS SHOWN. LOGIC FOR DIESEL GENERATOR BLDG VENTILATION EXHAUST FAN#FN2B IS SIMILAR.
- LOGIC FOR DIESEL GENERATOR BLDG INLET AIR DAMPER #A005A IS SHOWN. LOGIC FOR DIESEL GENERATOR BLDG INLET AIR DAMPER #A005B IS SIMILAR.
- ASSOCIATED EQUIPMENT MARK NUMBERS:  
ZEGS#G2: P8711  
\*FN2A    \*FN2B  
\*FS9A    \*FS9B  
\*A005A    \*A005B
- COMMON ALARM WINDOW FOR DIV III SYSTEM TROUBLE.
- SIGNAL RESET ON LOSS OF CONTROL POWER.
- SEE VENDOR DWG SWEC FILE NO. 7,243-001-015.

SETPOINTS SHOWN ON LOGIC DIAGRAMS ARE FOR LOGIC CLARIFICATION ONLY AND MAY BE ONLY APPROXIMATIONS OF THE ACTUAL PROCESS SETPOINT. REFER TO SETPOINT DATA SHEETS FOR ACTUAL PROCESS SETPOINTS.

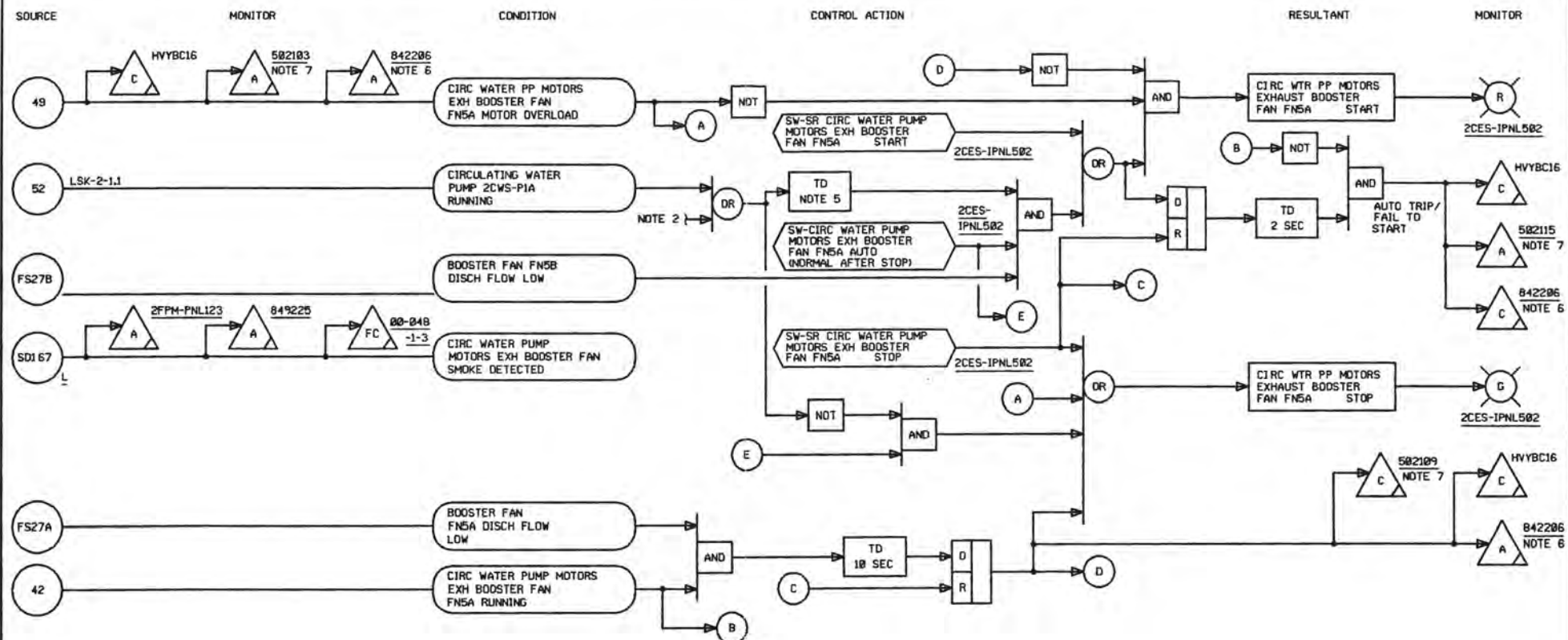
SOURCE: LSK-22-7J

FIGURE 9.4-16

DIESEL GENERATION BUILDING HVAC SYSTEM  
LOGIC DIAGRAM SHEET 9 OF 9

NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT





#### NOTES:

1. ALL INSTRUMENT AND EQUIPMENT NUMBERS TO BE PREFIXED WITH "2HVV-" EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN.
2. LOGIC FROM ALL OTHER CIRCULATING WATER PUMPS (SIMILAR TO CONDITION SHOWN).
3. LOGIC FOR CIRCULATING WATER PUMP MOTORS EXHAUST BOOSTER FAN FN5A IS SHOWN. LOGIC FOR FAN FN5B IS SIMILAR.
4. ASSOCIATED EQUIPMENT MARK NUMBERS:  
 2HVV-FN5A    2HVV-FN5B  
 2HVV-FS27A    2HVV-FS27B  
 2HVV-FS27B    2HVV-FS27A
5. TIME DELAY IS ADJUSTABLE ("0" TO "15" SECONDS) TO PREVENT SIMULTANEOUS STARTING OF BOTH BOOSTER FANS.
6. COMMON ANNUNCIATOR FOR SCREENWELL BLDG VENT SYSTEM TROUBLE.
7. FN5A AND FN5B WILL REFLASH A COMMON ALARM WINDOW FOR FUNCTION INDICATED.

SOURCE: LSK-22-8A REV.13

FIGURE 9.4-17

MISC. BUILDINGS HVAC SYSTEMS  
LOGIC DIAGRAM SHEET 1 OF 13

SETPOINTS SHOWN ON LOGIC DIAGRAMS ARE FOR LOGIC CLARIFICATION ONLY AND MAY BE ONLY APPROXIMATIONS OF THE ACTUAL PROCESS SETPOINT. REFER TO SETPOINT DATA SHEETS FOR ACTUAL PROCESS SETPOINTS.

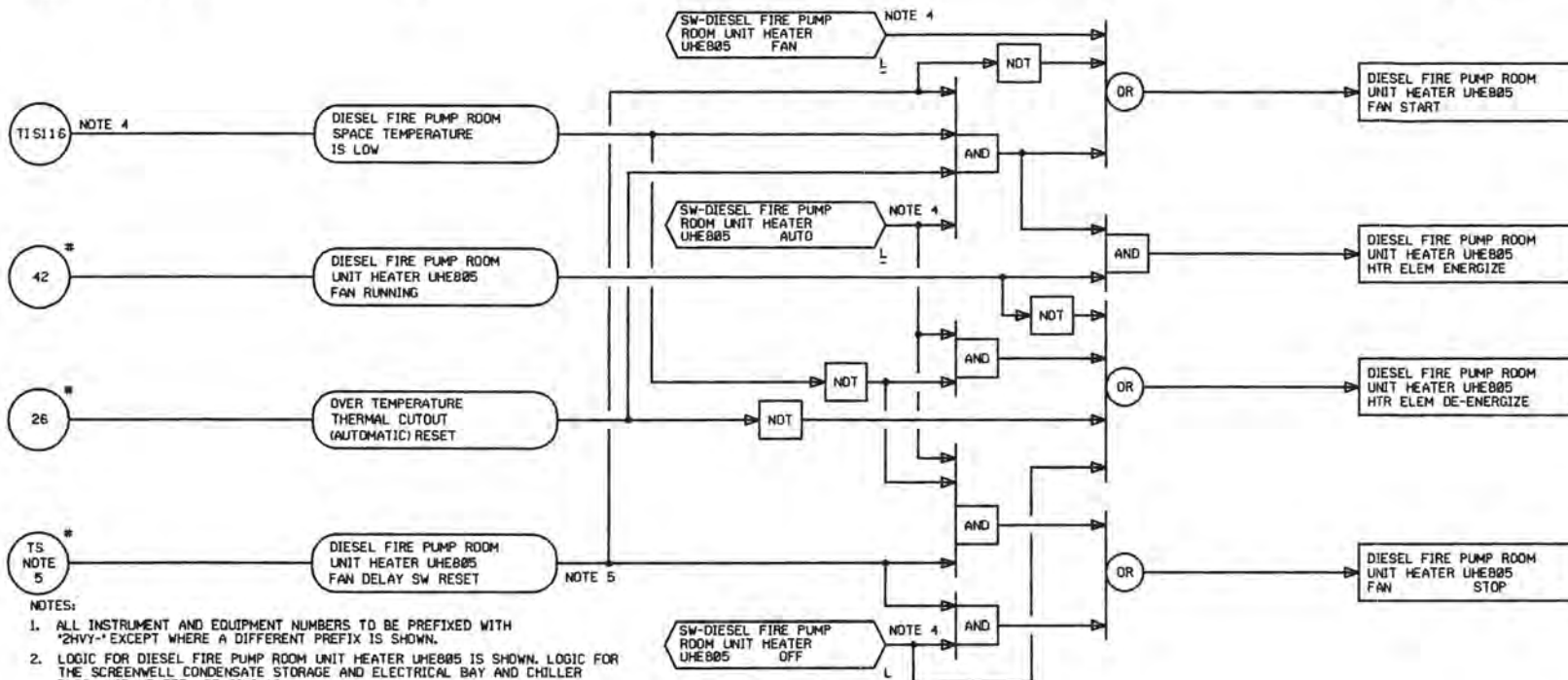
NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT







SOURCE MONITOR CONDITION CONTROL ACTION RESULTANT MONITOR



#### NOTES:

1. ALL INSTRUMENT AND EQUIPMENT NUMBERS TO BE PREFIXED WITH "2HYV-" EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN.
2. LOGIC FOR DIESEL FIRE PUMP ROOM UNIT HEATER UHE805 IS SHOWN. LOGIC FOR THE SCREENWELL CONDENSATE STORAGE AND ELECTRICAL BAY AND CHILLER BLDG UNIT HEATER ARE SIMILAR.
3. ASSOCIATED EQUIPMENT MARK NUMBERS:

UNIT HEATER	TEMPERATURE SWITCH
(1) DIESEL FIRE PUMP ROOM	
UHE805	TIS116
(2) SCREENWELL BUILDING	
UHE807	TIS118
UHE808	TIS119
UHE809	TIS120
UHE810	TIS121
UHE811	TIS122
UHE812	TIS123
UHE813	TIS124
UHE814	TIS125
UHE815	TIS126
UHE816	TIS127
UHE817	TIS128
UHE818	TIS129
UHE819	TIS130
UHE820	TIS131
UHE821	TIS132
UHE822	TIS133
UHE823	TIS134

UNIT HEATER	TEMPERATURE SWITCH
(3) ELECTRICAL BAY BUILDING	
UHE841	TIS131
UHE842	TIS132
UHE843	TIS133
UHE844	TIS134
UHE845	TIS135
UHE846	TIS136
UHE847	TIS137
UHE848	TIS138
UHE849	TIS139
(4) CONDENSATE STORAGE TANK BUILDING	
UHE801	TIS141
UHE802	TIS142
UHE803	TIS143
UHE804	TIS144
UHE805	TIS145
UHE806	TIS146
(6) CHILLER BUILDING	
UHE900	TIS175
UHE901	TIS176
UHE902	TIS177
(7) SCREEN HOUSE	
UHE903	TIS178
UHE904	TIS179
UHE905	TIS180
UHE906	TIS181

4. CONTROL SWITCH AND THERMOSTAT ARE MOUNTED SIDE BY SIDE.
5. FAN DELAY SWITCH - ALLOWS FAN AND HEATING ELEMENT TO START SIMULTANEOUSLY AND DELAY FAN OPERATION TO STOP WHEN HEATING ELEMENT IS DE-ENERGIZED DUE TO HIGH SPACE TEMPERATURE.
6. \* - DENOTES SUPPLIED BY HEATER VENDOR.

SETPOINTS SHOWN ON LOGIC DIAGRAMS ARE FOR LOGIC CLARIFICATION ONLY AND MAY BE ONLY APPROXIMATIONS OF THE ACTUAL PROCESS SETPOINT. REFER TO SETPOINT DATA SHEETS FOR ACTUAL PROCESS SETPOINTS.

SOURCE: LSK-22-8C REV.13

FIGURE 9.4-17

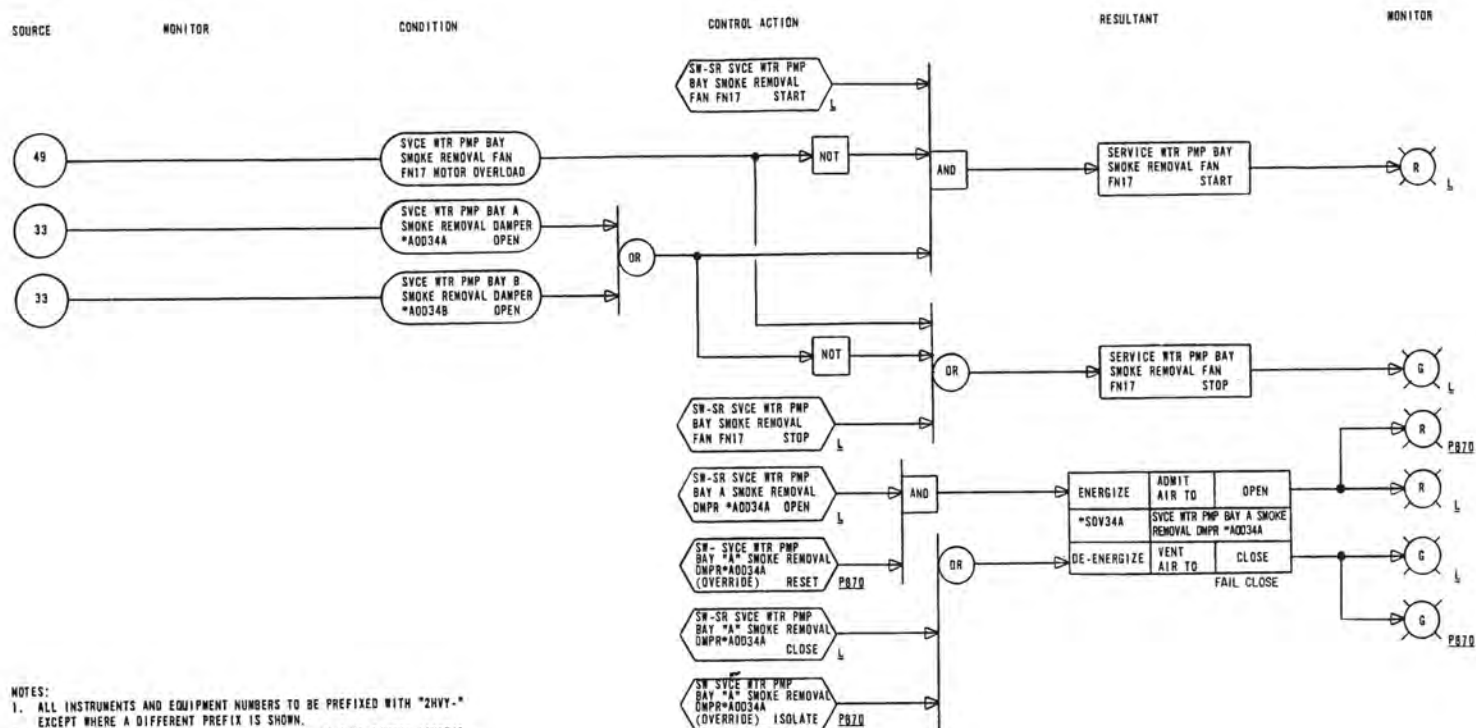
MISC. BUILDINGS HVAC SYSTEMS  
LOGIC DIAGRAM SHEET 3 OF 13

NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

USAR REVISION 3

OCTOBER 1991





NOTES:

1. ALL INSTRUMENTS AND EQUIPMENT NUMBERS TO BE PREFIXED WITH "2HVY-" EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN.
2. CONTROL LOGIC FOR SERVICE PUMP BAY A SMOKE REMOVAL DAMPER \*A0034A IS SHOWN. LOGIC FOR SERVICE PUMP BAY B SMOKE REMOVAL DAMPER \*A0034B IS SIMILAR.

ASSOCIATED EQUIPMENT MARK NUMBERS:

- \*A0034A PNL870
- \*A0034B PNL871

NOTE:

FOR LATEST SET POINT INFORMATION  
SEE SET POINT DATA SHEET

SOURCE: 12177-LSK-22-8D REV. 12

FIGURE 9.4-17

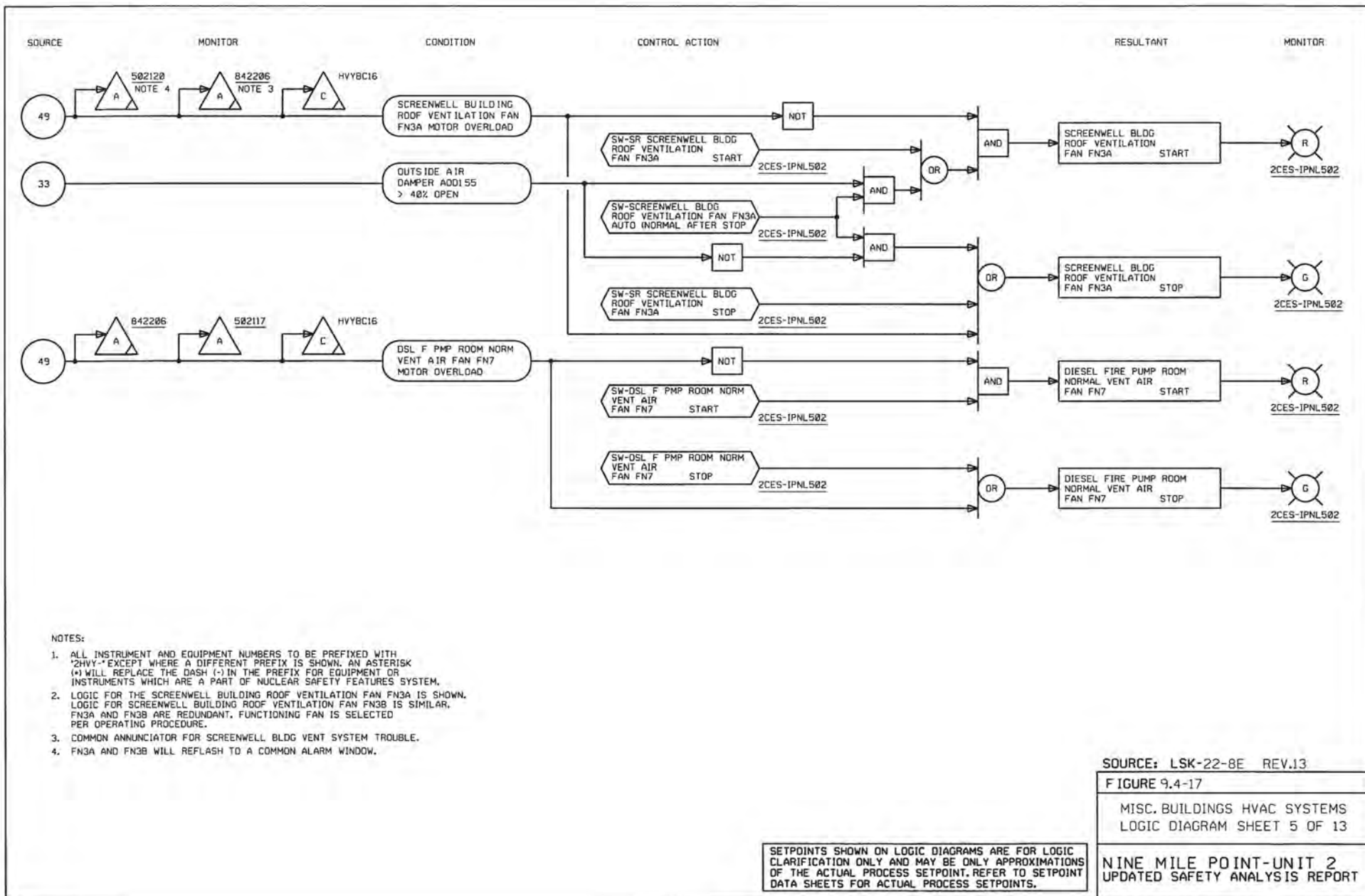
MISC. BUILDINGS HVAC SYSTEMS  
LOGIC DIAGRAM SHEET 4 OF 13

NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

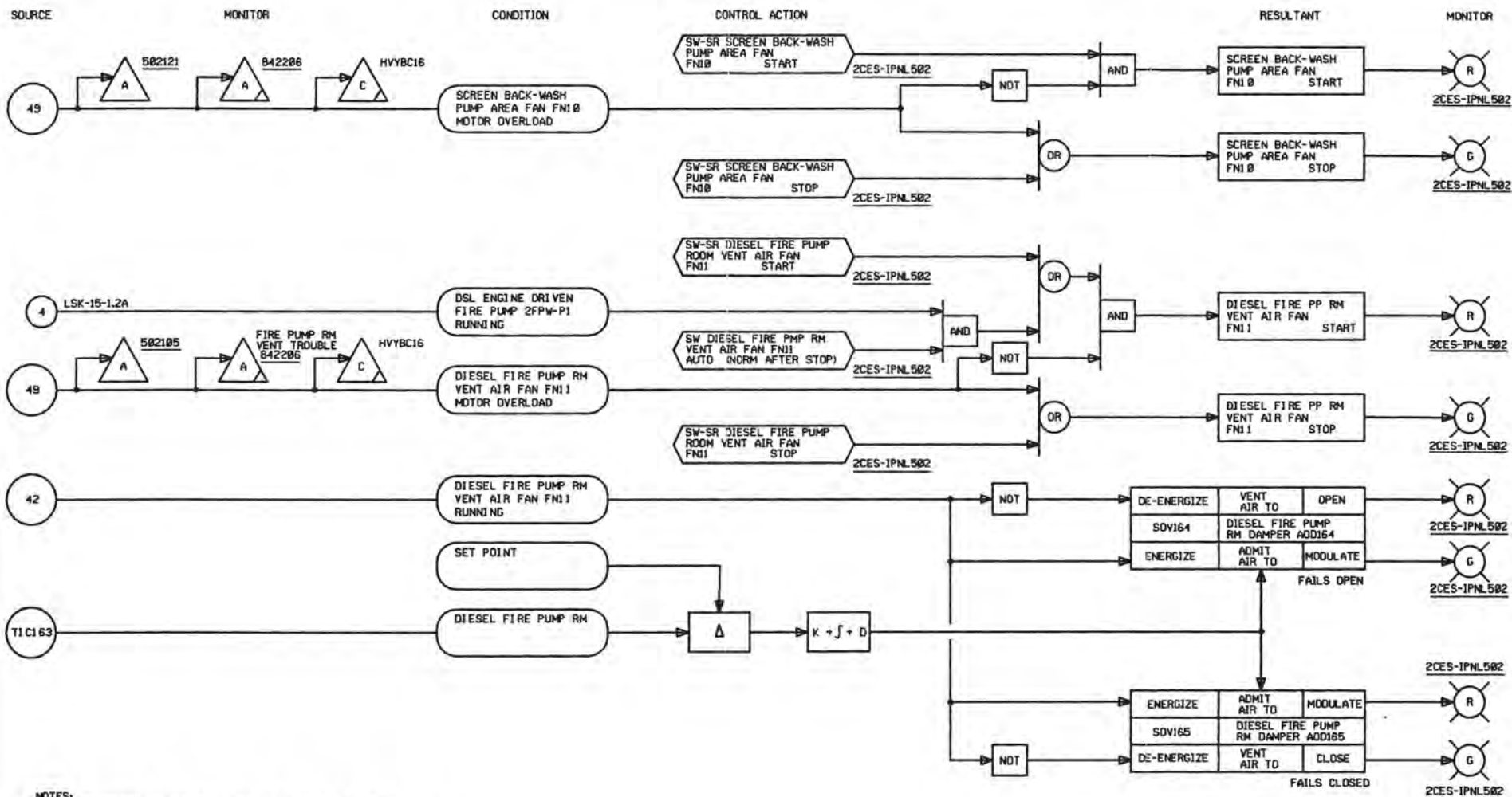
USAR REVISION 0

APRIL 1989









NOTES:

1. ALL INSTRUMENT AND EQUIPMENT NUMBERS TO BE PREFIXED WITH '2HVY-' EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN.

SOURCE: LSK-22-8F REV. 13

FIGURE 9.4-17

MISC. BUILDINGS HVAC SYSTEMS  
LOGIC DIAGRAM SHEET 6 OF 13

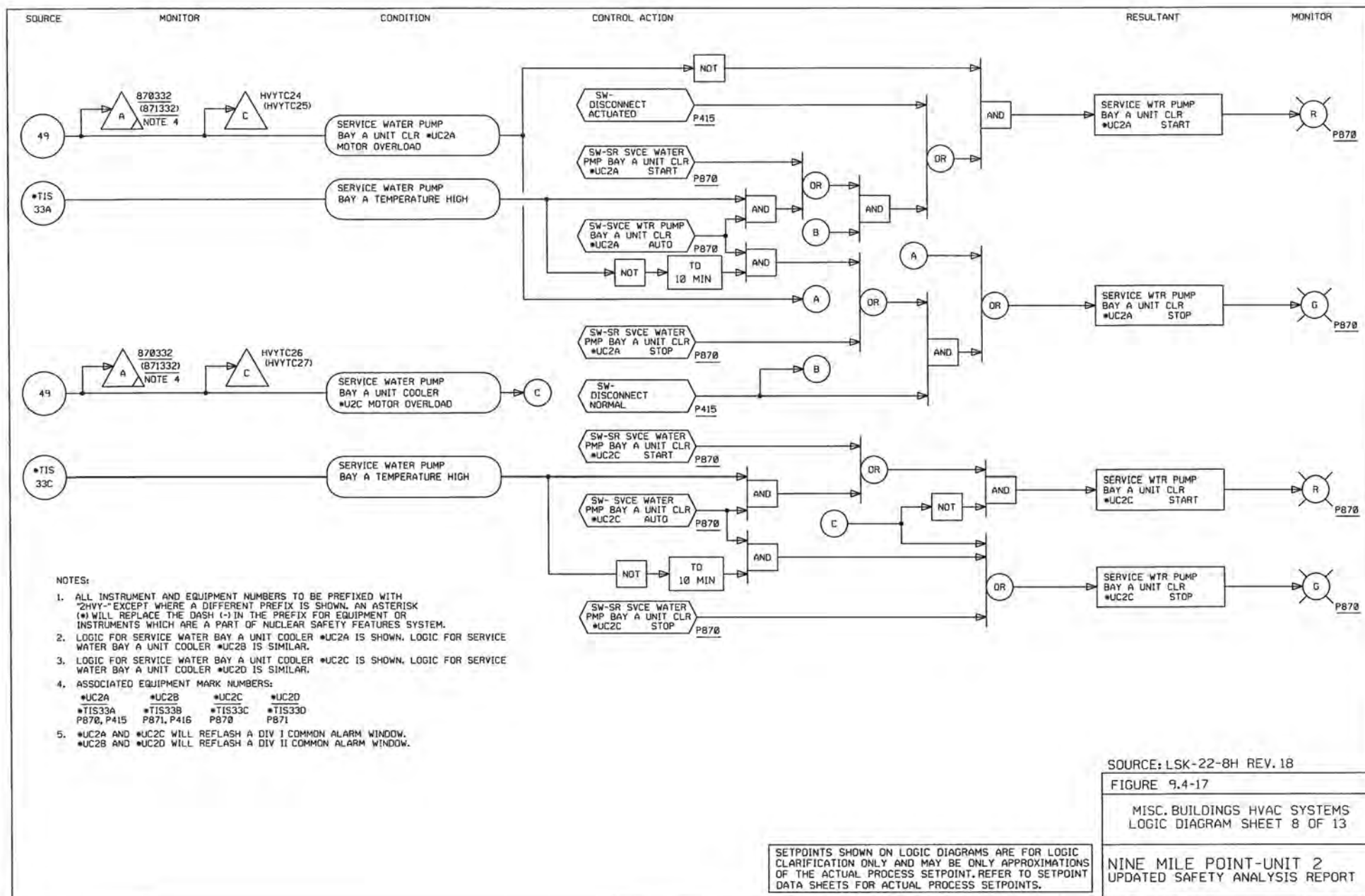
SETPOINTS SHOWN ON LOGIC DIAGRAMS ARE FOR LOGIC CLARIFICATION ONLY AND MAY BE ONLY APPROXIMATIONS OF THE ACTUAL PROCESS SETPOINT. REFER TO SETPOINT DATA SHEETS FOR ACTUAL PROCESS SETPOINTS.

NI AGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT









SOURCE: LSK-22-8H REV. 18

FIGURE 9.4-17

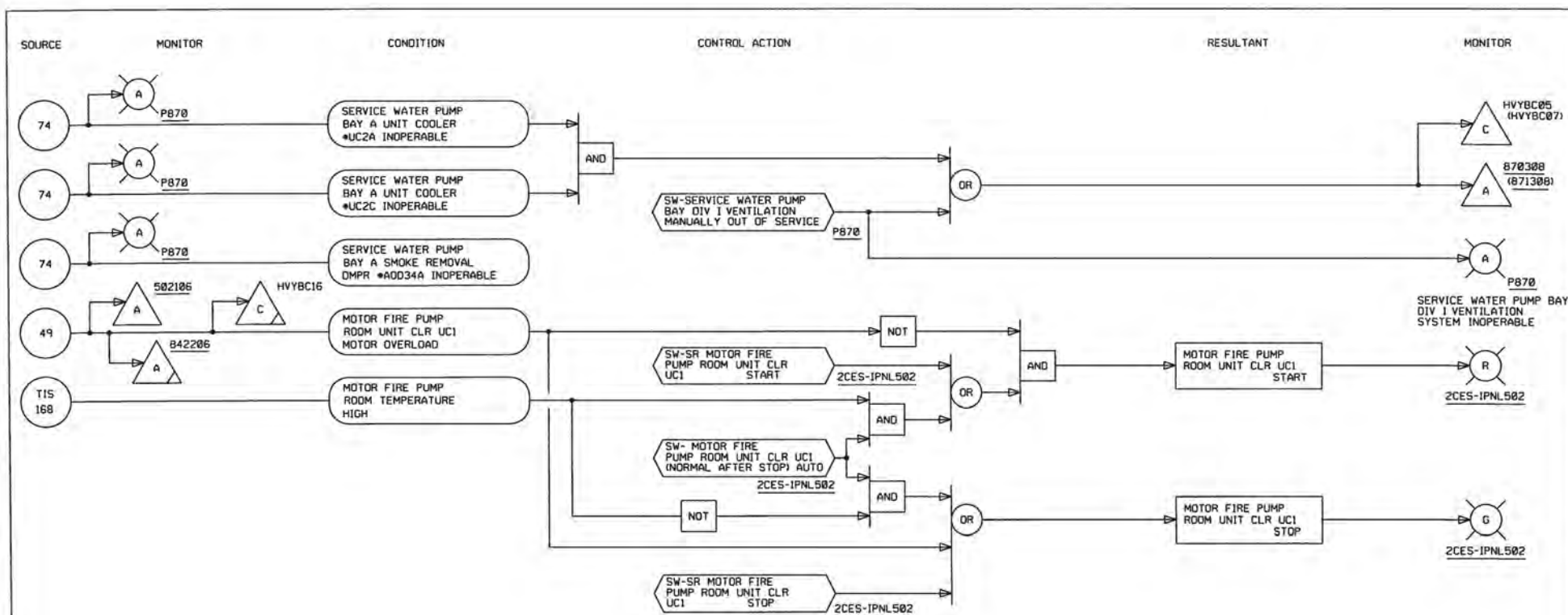
MISC. BUILDINGS HVAC SYSTEMS  
LOGIC DIAGRAM SHEET 8 OF 13

NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

USAR REVISION 16

OCTOBER 2004





# NOTES:

- ALL INSTRUMENT AND EQUIPMENT NUMBERS TO BE PREFIXED WITH "2HVY-" EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN. AN ASTERISK (\*) WILL REPLACE THE DASH (-) IN THE PREFIX FOR EQUIPMENT OR INSTRUMENTS WHICH ARE A PART OF NUCLEAR SAFETY FEATURES SYSTEM.
- ALARM LOGIC FOR SERVICE WATER PUMP BAY DIV I VENTILATION SYSTEM INOPERABLE IS SHOWN. ALARM LOGIC FOR SERVICE WATER PUMP BAY DIV II VENTILATION SYSTEM INOPERABLE IS SIMILAR.
- ASSOCIATED EQUIPMENT MARK NUMBERS:  

DIV I	DIV II
*UC2A	*UC2B
*UC2C	*UC2D
*AOD34A	*AOD34B
P870	P871

SETPOINTS SHOWN ON LOGIC DIAGRAMS ARE FOR LOGIC CLARIFICATION ONLY AND MAY BE ONLY APPROXIMATIONS OF THE ACTUAL PROCESS SETPOINT. REFER TO SETPOINT DATA SHEETS FOR ACTUAL PROCESS SETPOINTS.

SOURCE: LSK-22-8J REV. 16

FIGURE 9.4-17

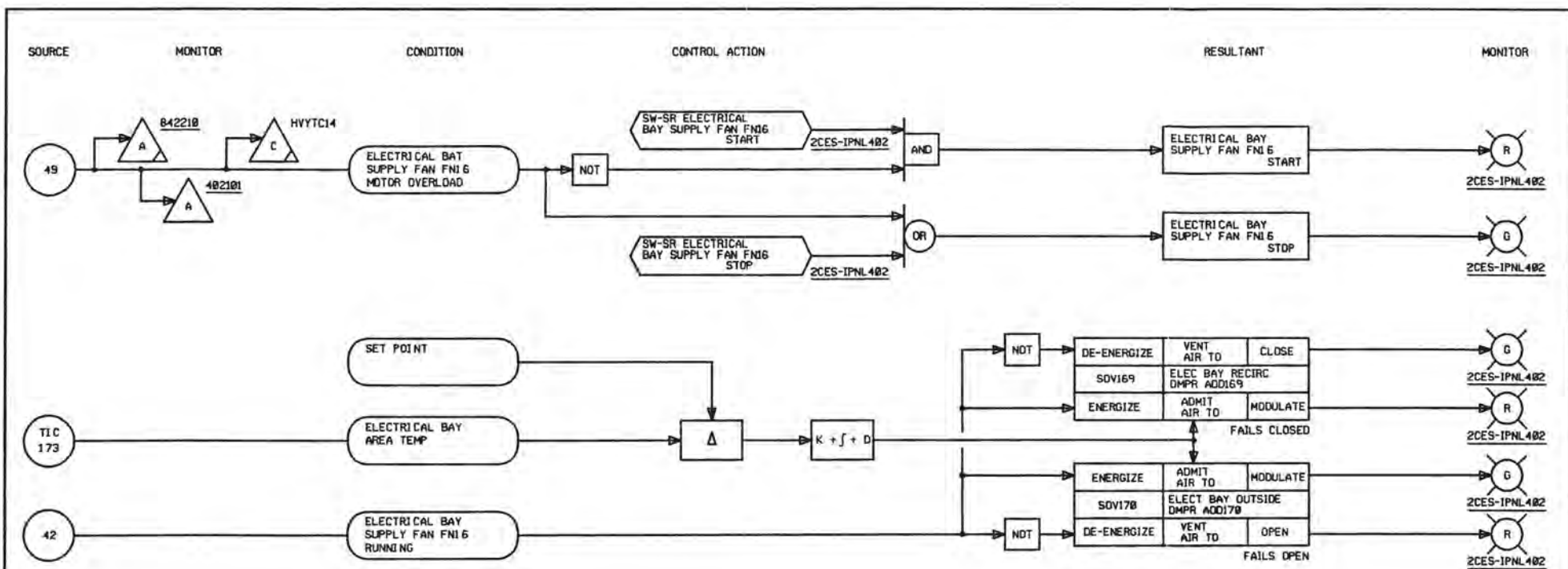
MISC. BUILDINGS HVAC SYSTEMS  
LOGIC DIAGRAM SHEET 9 OF 13

NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

USAR REVISION 16

OCTOBER 2004





**NOTES:**

1. ALL INSTRUMENT AND EQUIPMENT NUMBERS TO BE PREFIXED WITH "HVY-" EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN.

SETPOINTS SHOWN ON LOGIC DIAGRAMS ARE FOR LOGIC CLARIFICATION ONLY AND MAY BE ONLY APPROXIMATIONS OF THE ACTUAL PROCESS SETPOINT. REFER TO SETPOINT DATA SHEETS FOR ACTUAL PROCESS SETPOINTS.

SOURCE: LSK-22-8K REV. 13

FIGURE 9.4-17

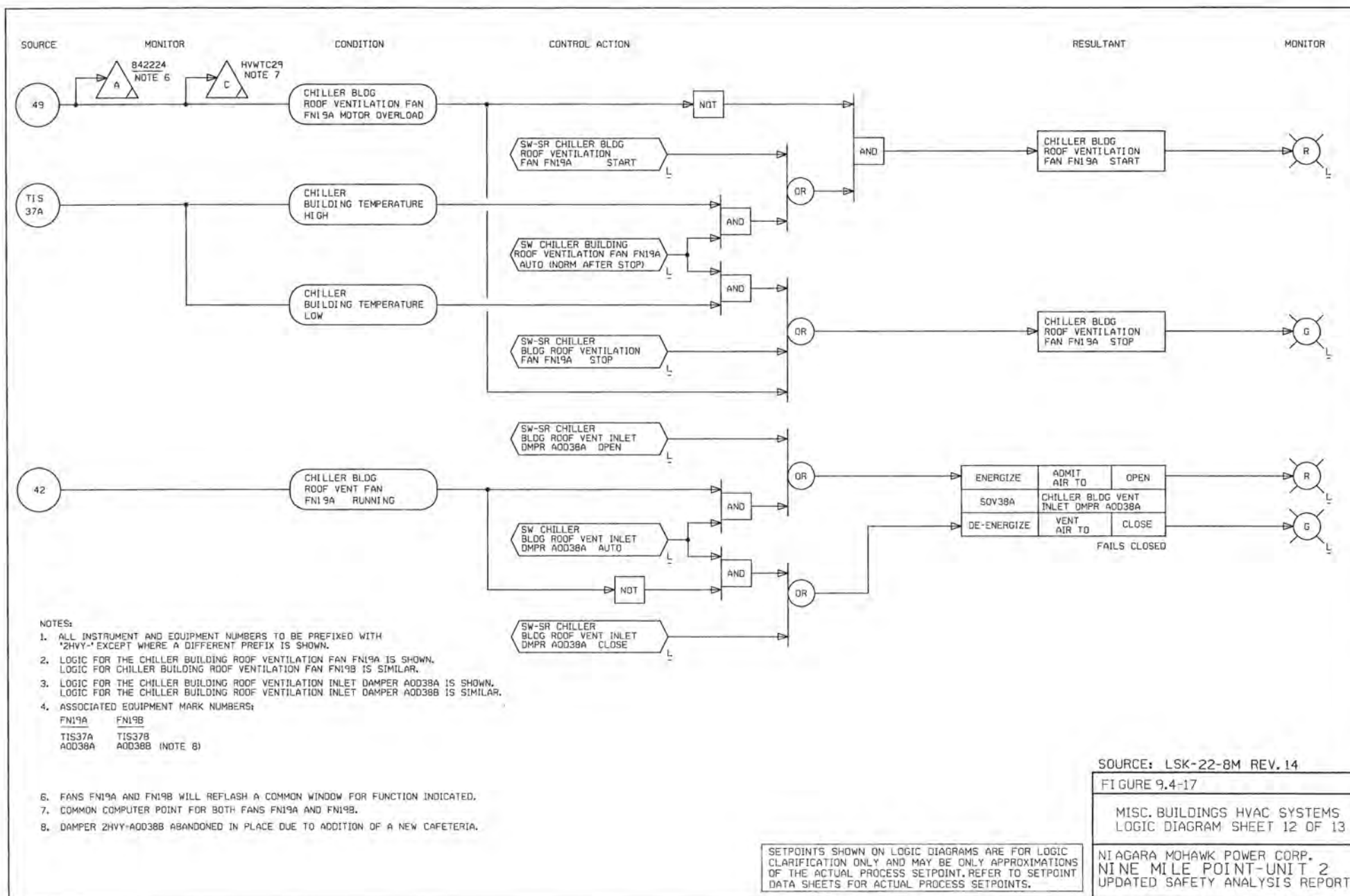
MISC. BUILDINGS HVAC SYSTEMS  
LOGIC DIAGRAM SHEET 10 OF 13

NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

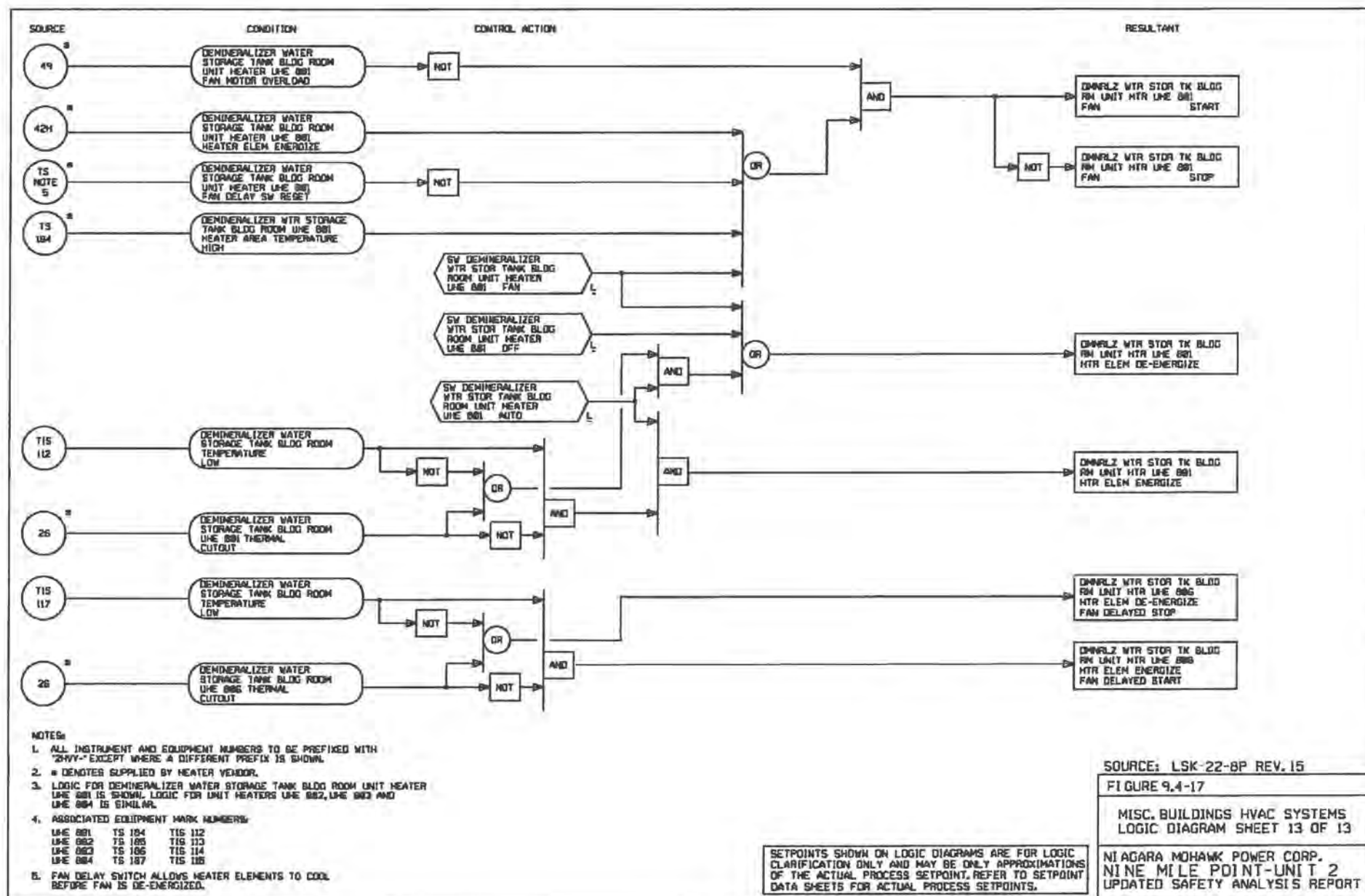




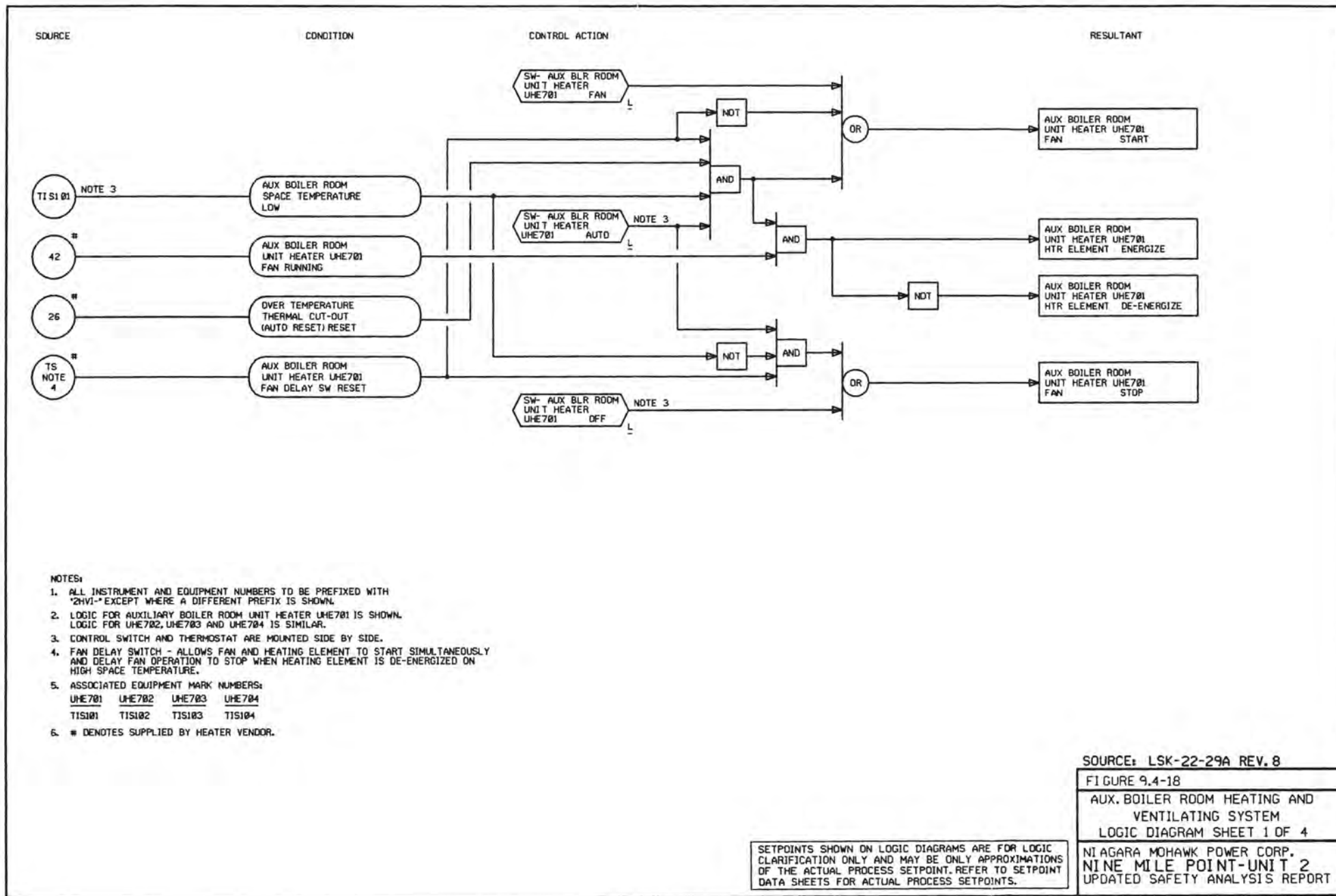












SOURCE: LSK-22-29A REV. 8

FIGURE 9.4-18

AUX. BOILER ROOM HEATING AND  
VENTILATING SYSTEM  
LOGIC DIAGRAM SHEET 1 OF 4

NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

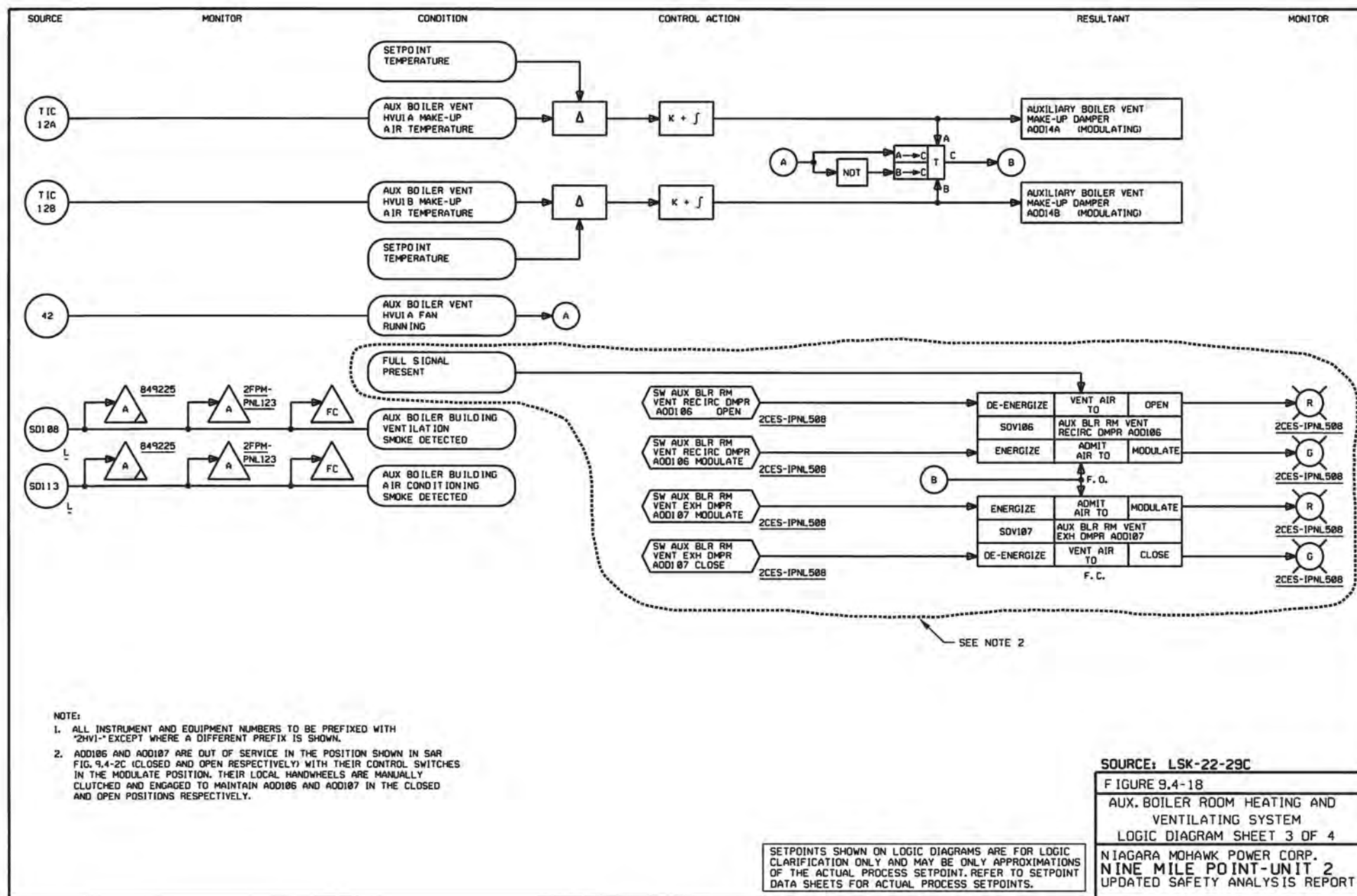
USAR REVISION 3

OCTOBER 1991

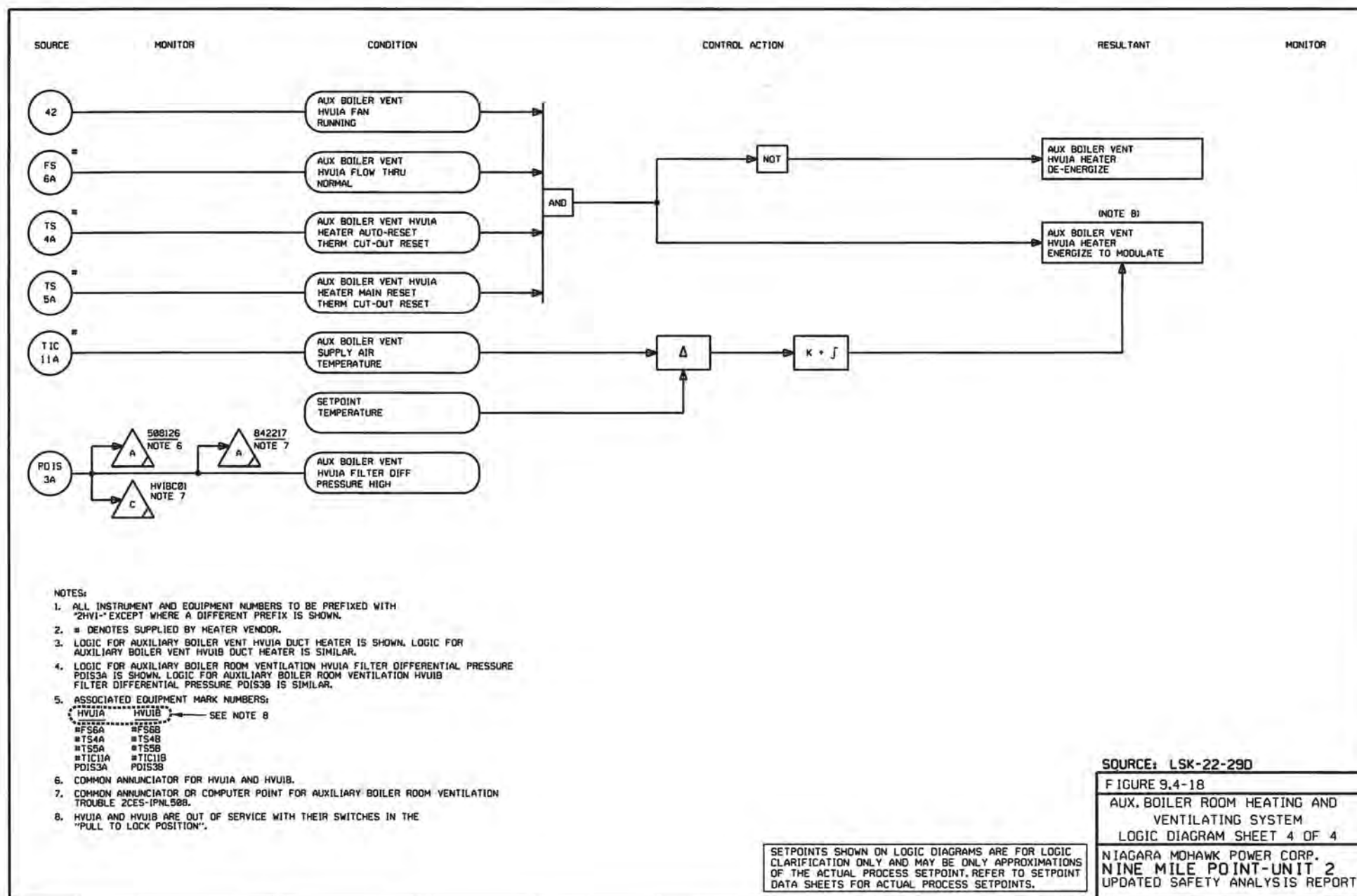




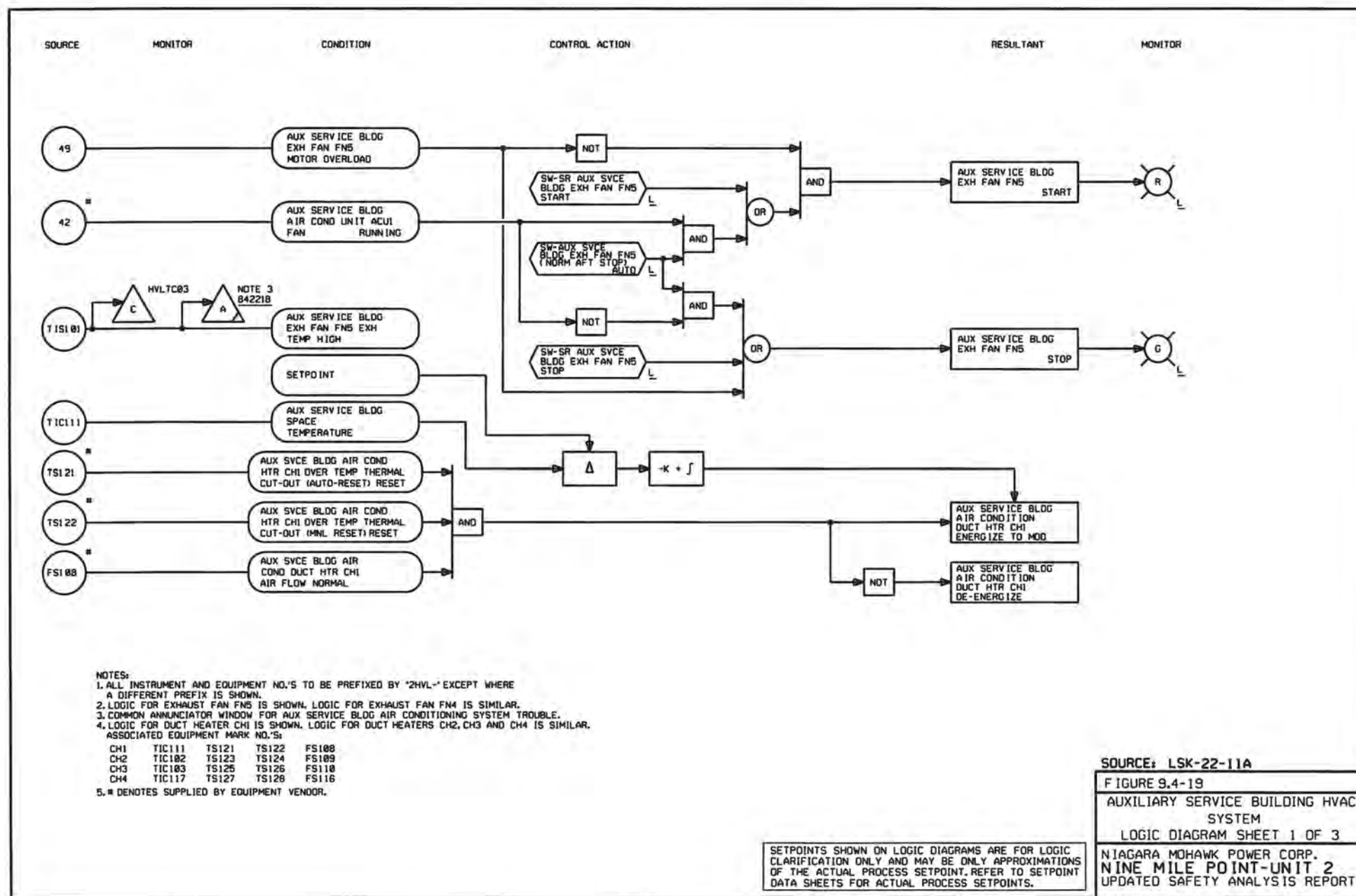












SOURCE: LSK-22-11A

FIGURE 9.4-19

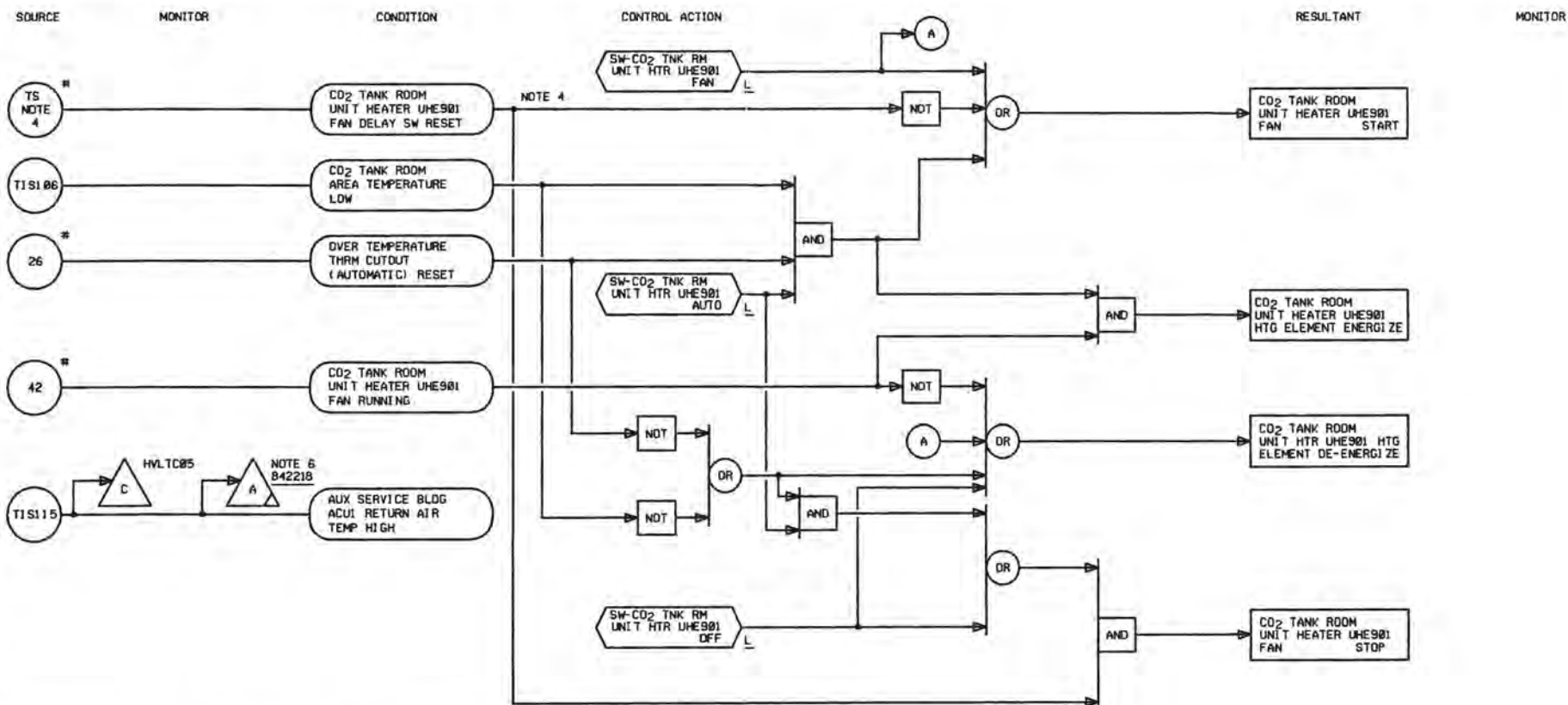
AUXILIARY SERVICE BUILDING HVAC  
SYSTEM  
LOGIC DIAGRAM SHEET 1 OF 3

NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

USAR REVISION 10

NOVEMBER 1998





NOTES:

1. ALL INSTRUMENT AND EQUIPMENT NUMBERS TO BE PREFIXED BY '2HVL-' EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN.
2. LOGIC FOR CO<sub>2</sub> TANK ROOM UNIT HEATER UHE901 IS SHOWN. LOGIC FOR CO<sub>2</sub> TANK ROOM UNIT HEATER UHE902 IS SIMILAR.
3. ASSOCIATED EQUIPMENT MARK NUMBERS:

UHE	TIS
UHE901	TIS106
UHE902	TIS107

4. FAN DELAY SWITCH ALLOWS FAN AND HEATING ELEMENT TO START SIMULTANEOUSLY AND DELAYS FAN STOP WHEN HEATING ELEMENT IS DE-ENERGIZED DUE TO HIGH SPACE TEMPERATURE.
5. # DENOTES SUPPLIED BY UNIT HEATER VENDOR.
6. COMMON ANNUNCIATOR WINDOW FOR AUX SERVICE BLDG AIR CONDITIONING SYSTEM TROUBLE.

SETPOINTS SHOWN ON LOGIC DIAGRAMS ARE FOR LOGIC CLARIFICATION ONLY AND MAY BE ONLY APPROXIMATIONS OF THE ACTUAL PROCESS SETPOINT. REFER TO SETPOINT DATA SHEETS FOR ACTUAL PROCESS SETPOINTS.

SOURCE: LSK-22-11B REV.5

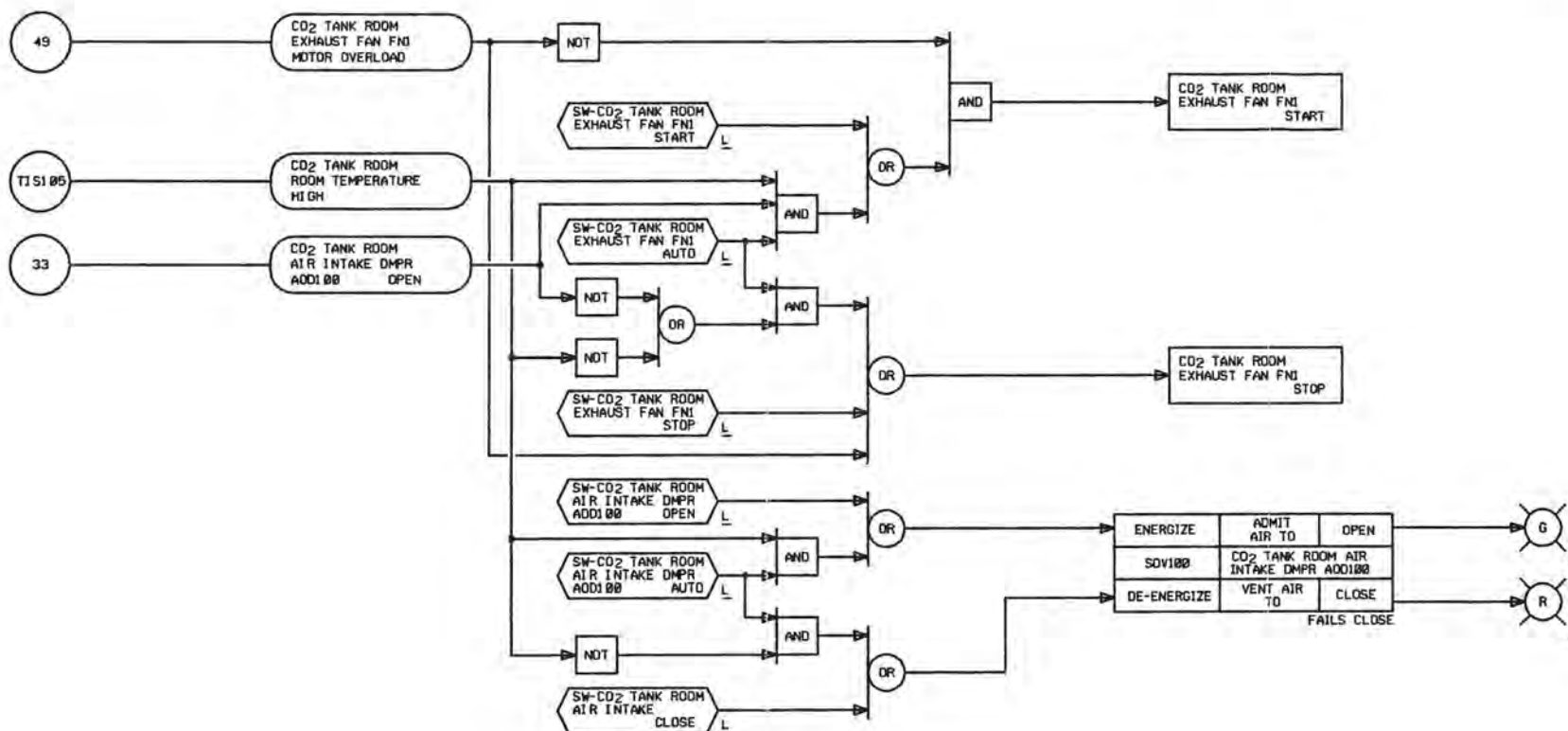
FIGURE 9.4-19

AUXILIARY SERVICE BUILDING  
HVAC SYSTEM  
LOGIC DIAGRAM SHEET 2 OF 3

NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT



SOURCE                      CONDITION                      CONTROL ACTION                      RESULTANT                      MONITOR



NOTES:  
1. ALL INSTRUMENT AND EQUIPMENT NUMBERS TO BE PREFIXED BY "2HVL-"  
EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN.

SETPOINTS SHOWN ON LOGIC DIAGRAMS ARE FOR LOGIC CLARIFICATION ONLY AND MAY BE ONLY APPROXIMATIONS OF THE ACTUAL PROCESS SETPOINT. REFER TO SETPOINT DATA SHEETS FOR ACTUAL PROCESS SETPOINTS.

SOURCE: LSK-22-IIC REV.5

FIGURE 9.4-19

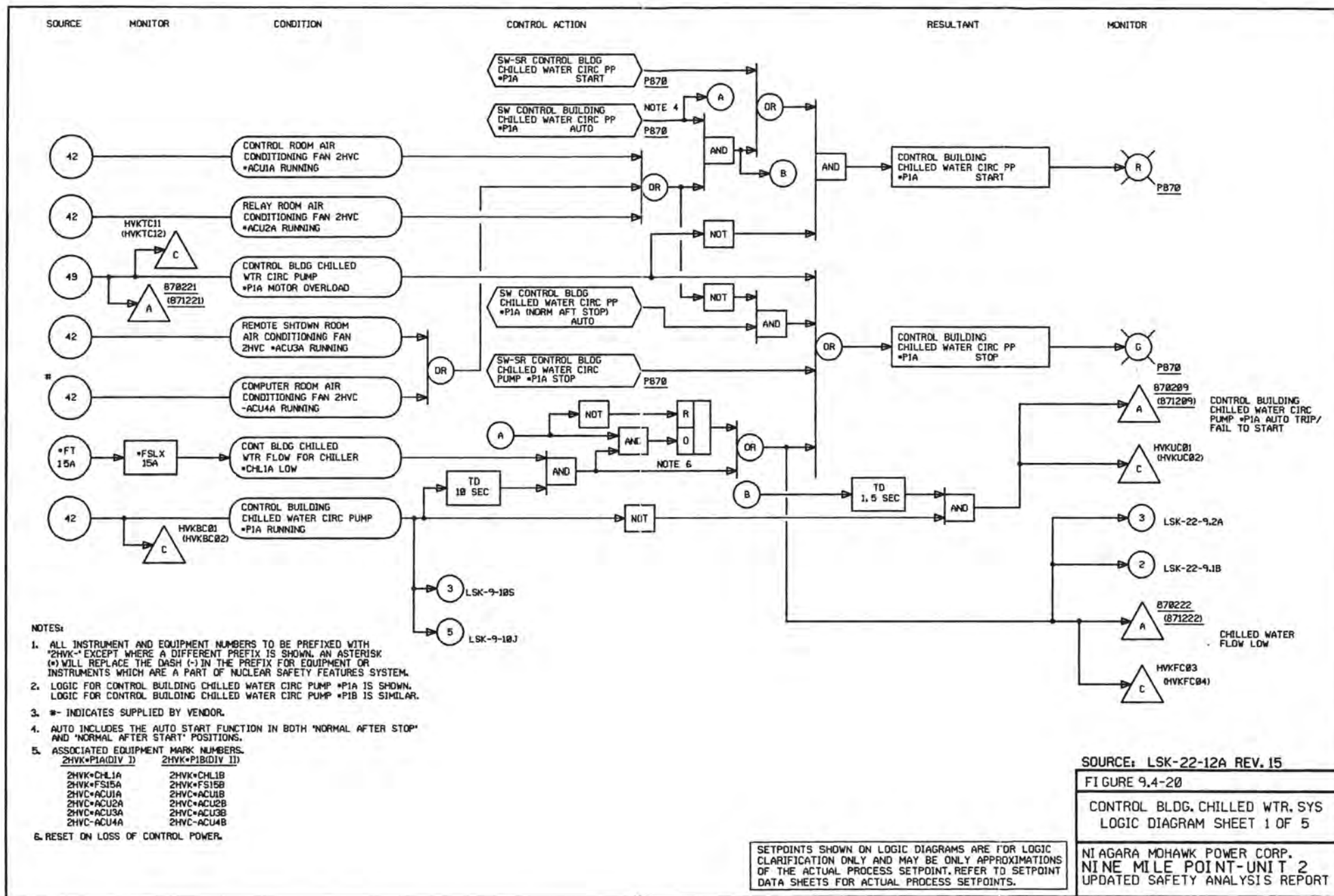
AUXILIARY SERVICE BUILDING  
HVAC SYSTEM  
LOGIC DIAGRAM SHEET 3 OF 3

NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

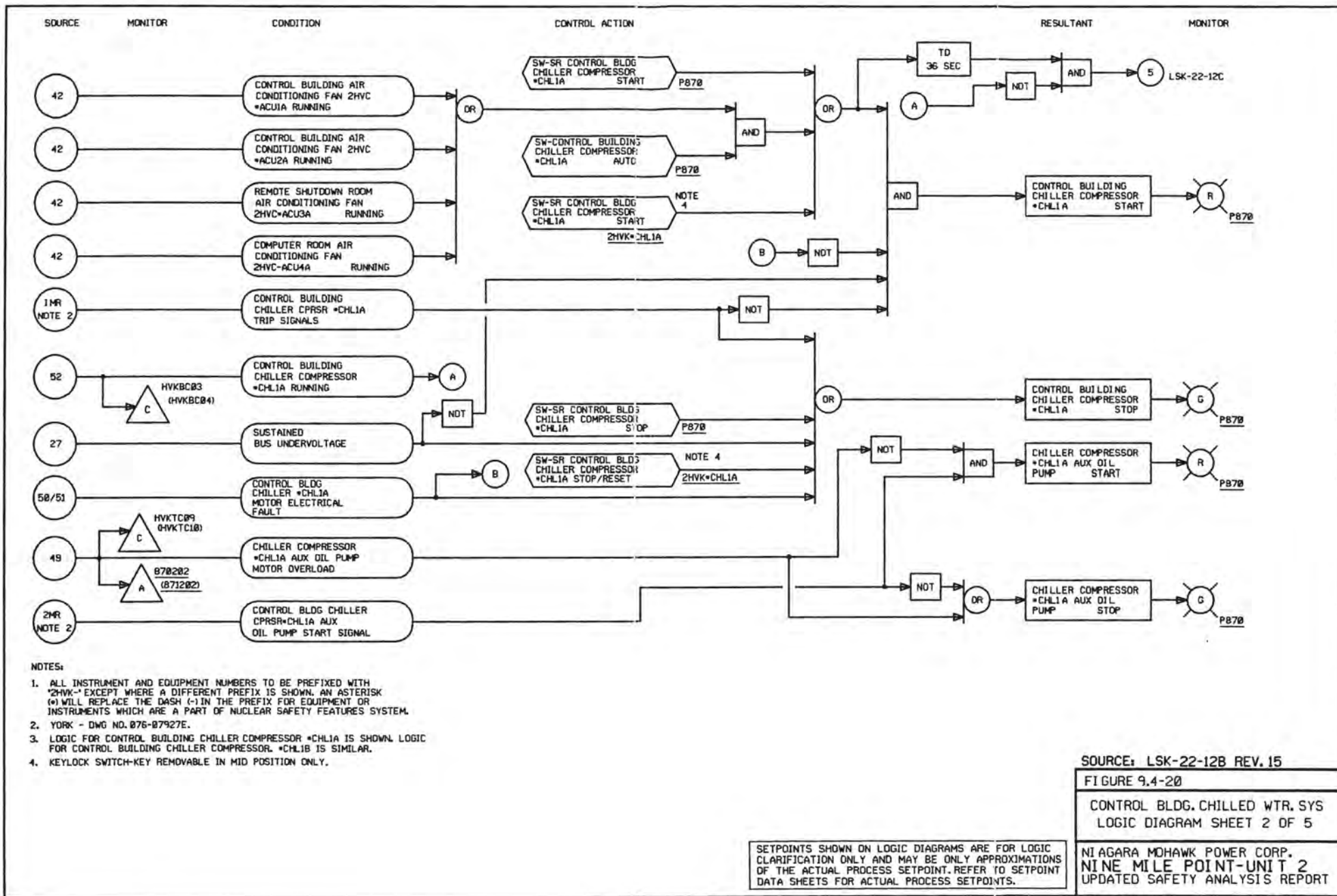
USAR REVISION 3

OCTOBER 1991









SOURCE: LSK-22-12B REV. 15

FIGURE 9.4-20

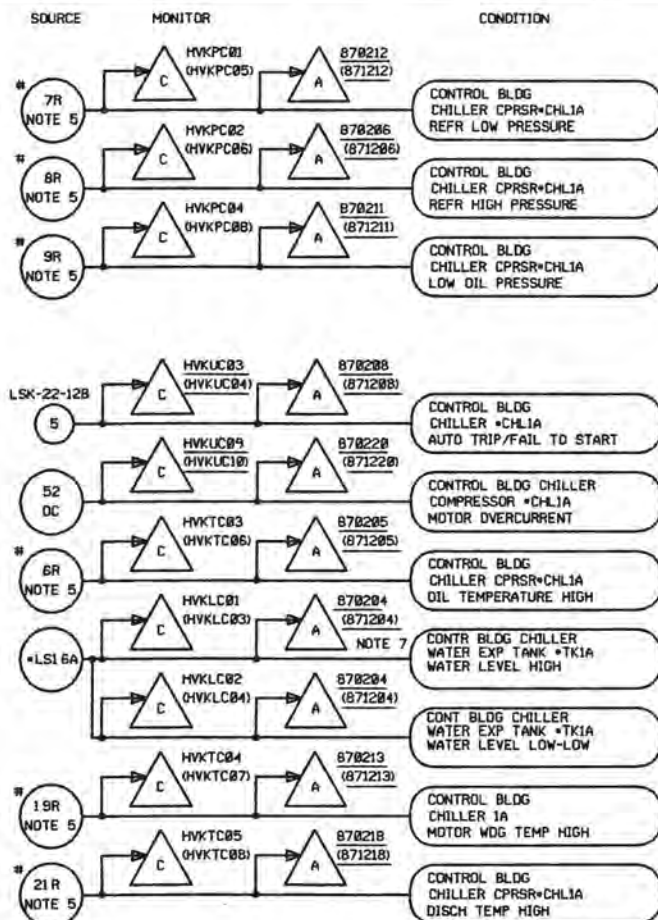
CONTROL BLDG. CHILLED WTR. SYS  
LOGIC DIAGRAM SHEET 2 OF 5

NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

USAR REVISION 3

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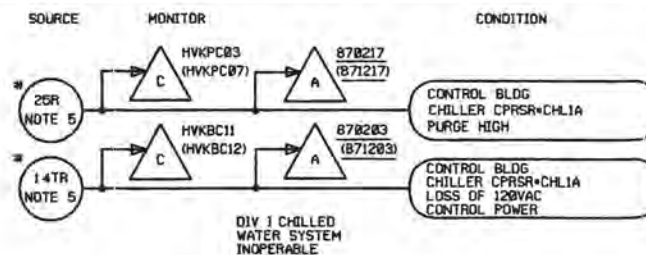




#### NOTES:

- ALL INSTRUMENT AND EQUIPMENT NUMBERS TO BE PREFIXED WITH "2HVK-" EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN. AN ASTERISK (\*) WILL REPLACE THE DASH (-) IN THE PREFIX FOR EQUIPMENT OR INSTRUMENTS WHICH ARE PART OF NUCLEAR SAFETY FEATURE SYSTEM.
- MONITORING OF CONTROL BUILDING CHILLED WATER DIV I IS SHOWN. MONITORING OF CONTROL BUILDING CHILLED WATER DIV II IS SIMILAR.
- ASSOCIATED EQUIPMENT MARK NUMBERS:  

DIVISION I	DIVISION II
*TK1A	*TK1B
*LS16A	*LS16B
- COMMON ANNUNCIATOR WINDOW FOR HIGH & LOW ALARM CONDITIONS.
- YORK - DWG NO. 076-07927E.
- # INDICATES INSTRUMENT SUPPLIED BY VENDOR.



SETPOINTS SHOWN ON LOGIC DIAGRAMS ARE FOR LOGIC CLARIFICATION ONLY AND MAY BE ONLY APPROXIMATIONS OF THE ACTUAL PROCESS SETPOINT. REFER TO SETPOINT DATA SHEETS FOR ACTUAL PROCESS SETPOINTS.

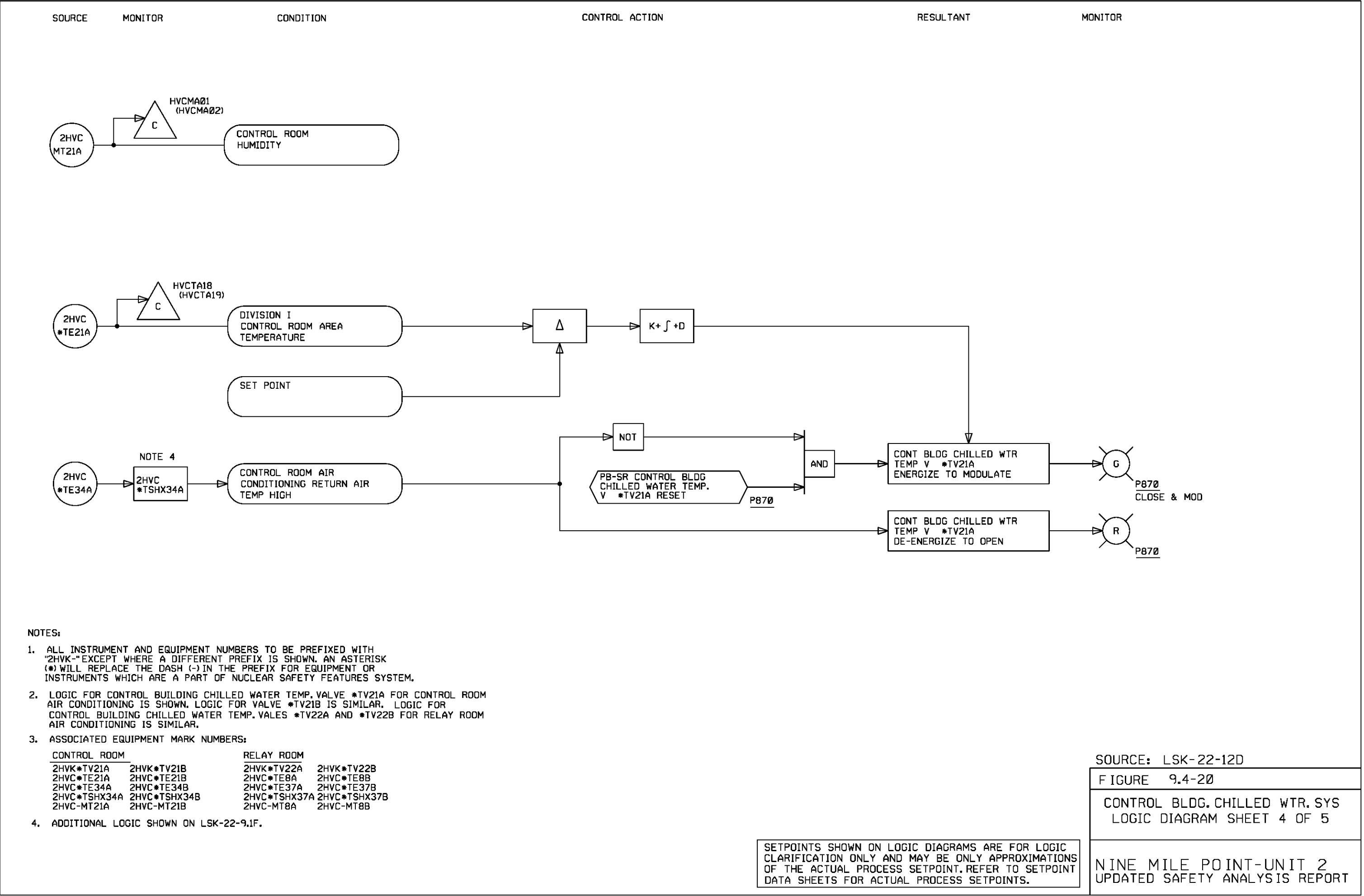
SOURCE: LSK-22-12C REV. 15

FIGURE 9.4-20

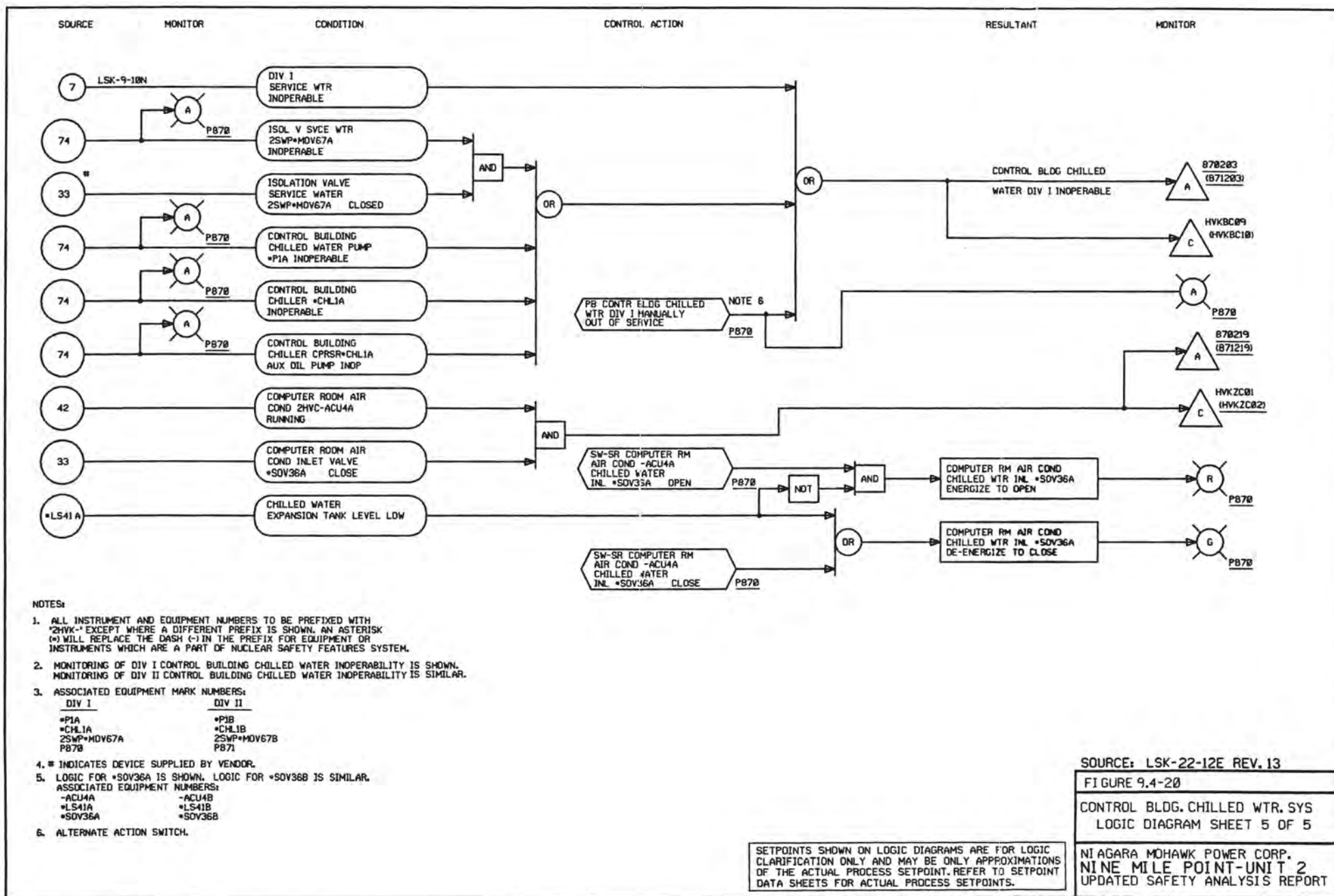
CONTROL BLDG. CHILLED WTR. SYS  
LOGIC DIAGRAM SHEET 3 OF 5

NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT









SOURCE: LSK-22-12E REV.13

FIGURE 9.4-20

CONTROL BLDG. CHILLED WTR. SYS  
LOGIC DIAGRAM SHEET 5 OF 5

NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT





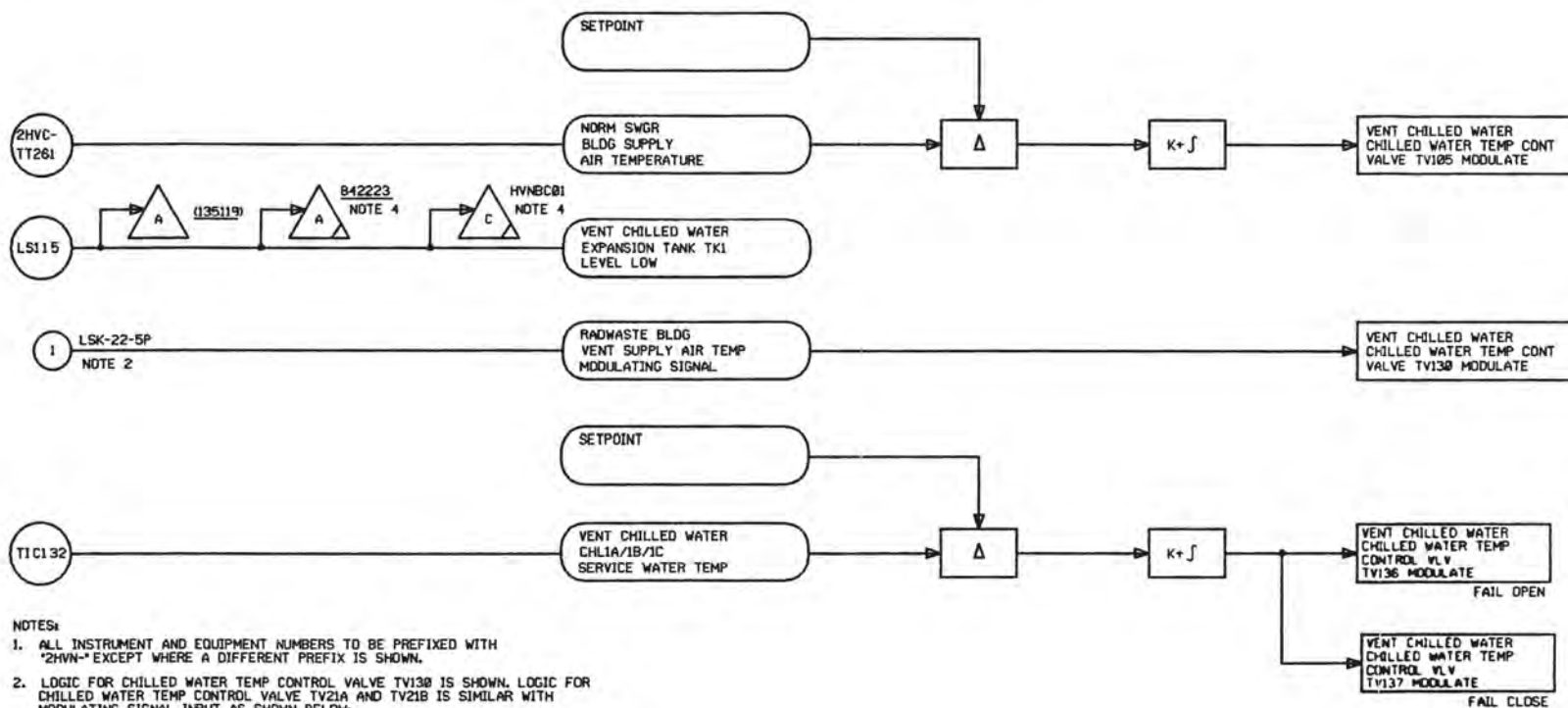


SOURCE

MONITOR

CONDITION

RESULTANT



## NOTES:

- ALL INSTRUMENT AND EQUIPMENT NUMBERS TO BE PREFIXED WITH "2HVN-" EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN.
- LOGIC FOR CHILLED WATER TEMP CONTROL VALVE TV130 IS SHOWN. LOGIC FOR CHILLED WATER TEMP CONTROL VALVE TV21A AND TV21B IS SIMILAR WITH MODULATING SIGNAL INPUT AS SHOWN BELOW:  

TV130	TV21A	TV21B
① LSK-22-5P RW BLDG SPLY SYS	② LSK-22-5M 2HVV-ACU1A	③ LSK-22-5M 2HVV-ACU1B
- LOGIC FOR CHILLED WATER TEMP CONTROL VALVE TV105 IS SHOWN. LOGIC FOR CHILLED WATER TEMP CONTROL VALVE TV129 IS SIMILAR. ASSOCIATED EQUIPMENT MARK NUMBERS.  

TV105	TV129
2HVC-TT261 NORM SWGR BLDG	2HVT-TT103 TURB BLDG
- COMMON ANNUNCIATOR WINDOW OR COMPUTER POINT FOR VENTILATION CHILLED WATER TROUBLE 2HVN-IPNL135.

SETPOINTS SHOWN ON LOGIC DIAGRAMS ARE FOR LOGIC CLARIFICATION ONLY AND MAY BE ONLY APPROXIMATIONS OF THE ACTUAL PROCESS SETPOINT. REFER TO SETPOINT DATA SHEETS FOR ACTUAL PROCESS SETPOINTS.

SOURCE: LSK-22-14B REV. 7

FIGURE 9.4-21

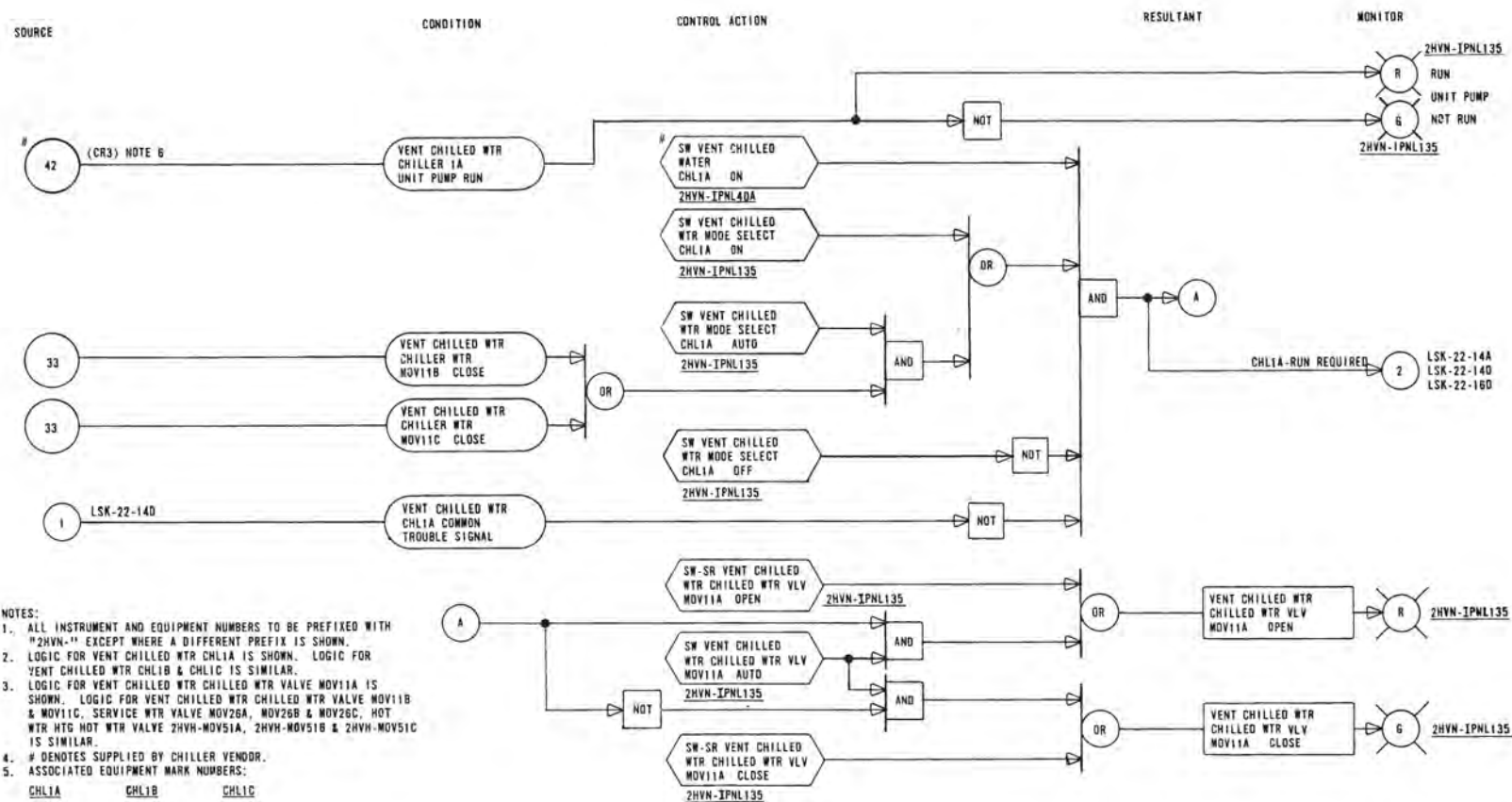
VENTILATION CHILLED WTR SYSTEM  
LOGIC DIAGRAM SHEET 2 OF 4

NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

USAR REVISION 3

OCTOBER 1991





NOTES:

1. ALL INSTRUMENT AND EQUIPMENT NUMBERS TO BE PREFIXED WITH "2HVN-" EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN.
  2. LOGIC FOR VENT CHILLED WTR CHL1A IS SHOWN. LOGIC FOR VENT CHILLED WTR CHL1B & CHL1C IS SIMILAR.
  3. LOGIC FOR VENT CHILLED WTR CHILLED WTR VALVE MOV11A IS SHOWN. LOGIC FOR VENT CHILLED WTR CHILLED WTR VALVE MOV11B & MOV11C, SERVICE WTR VALVE MOV26A, MOV26B & MOV26C, HOT WTR HTG HOT WTR VALVE 2HVN-MOV51A, 2HVN-MOV51B & 2HVN-MOV51C IS SIMILAR.
  4. # DENOTES SUPPLIED BY CHILLER VENDOR.
  5. ASSOCIATED EQUIPMENT MARK NUMBERS:
- | CHL1A        | CHL1B        | CHL1C        |
|--------------|--------------|--------------|
| MOV11A       | MOV11B       | MOV11C       |
| MOV26A       | MOV26B       | MOV26C       |
| 2HVN-MOV51A  | 2HVN-MOV51B  | 2HVN-MOV51C  |
| MOV11B       | MOV11A       | MOV11A       |
| MOV11C       | MOV11C       | MOV11B       |
| 2HVN-IPNL40A | 2HVN-IPNL40B | 2HVN-IPNL40C |
6. SEE VENDOR DWG #1871-0029, S & W FILE #10,440-993-012.

NOTE:

FOR LATEST SET POINT INFORMATION  
SEE SET POINT DATA SHEET

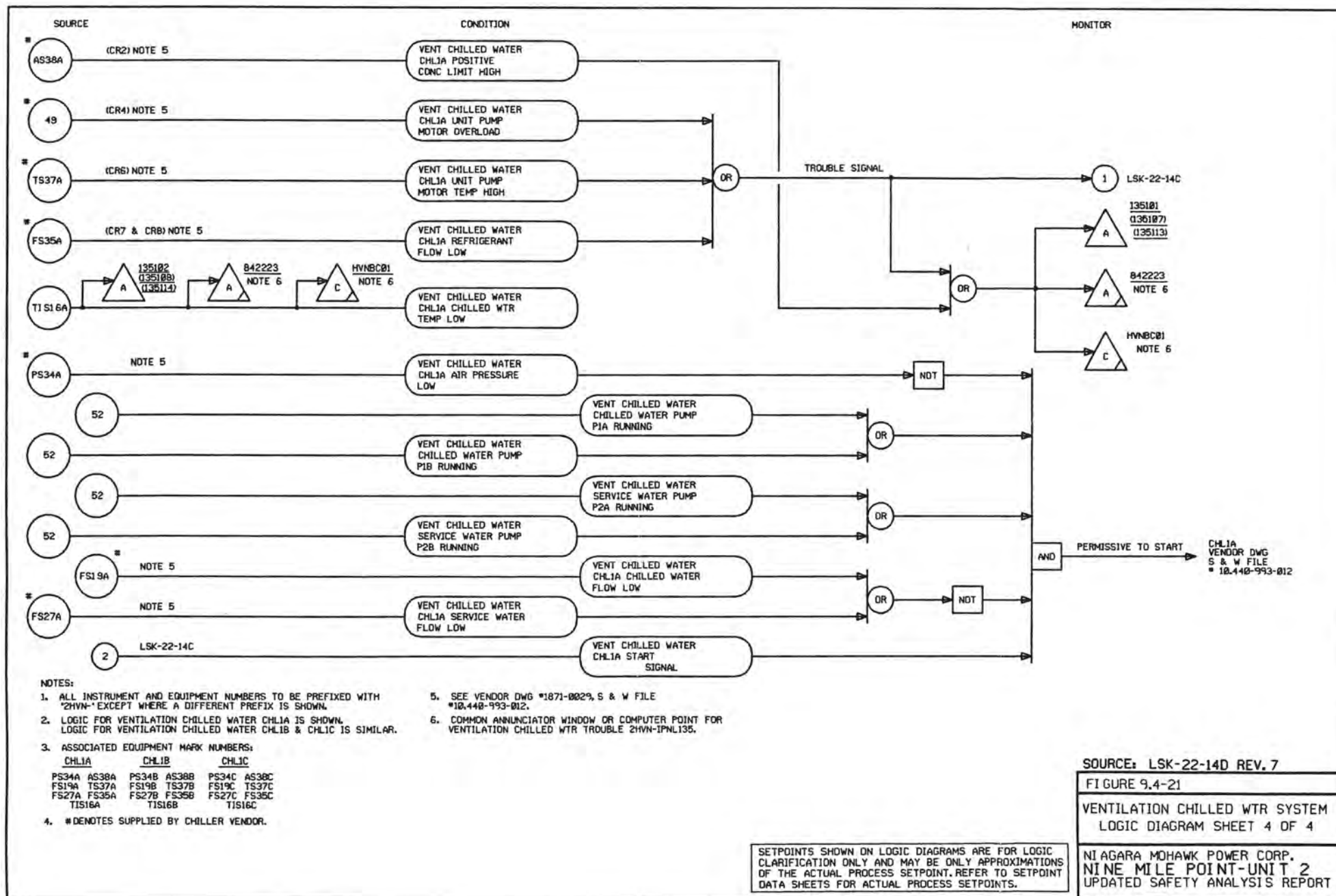
SOURCE: 12177-LSK-22-14C REV. 6

FIGURE 9.4-21

VENTILATION CHILLED WTR. SYS.  
LOGIC DIAGRAM SHEET 3 OF 4

NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

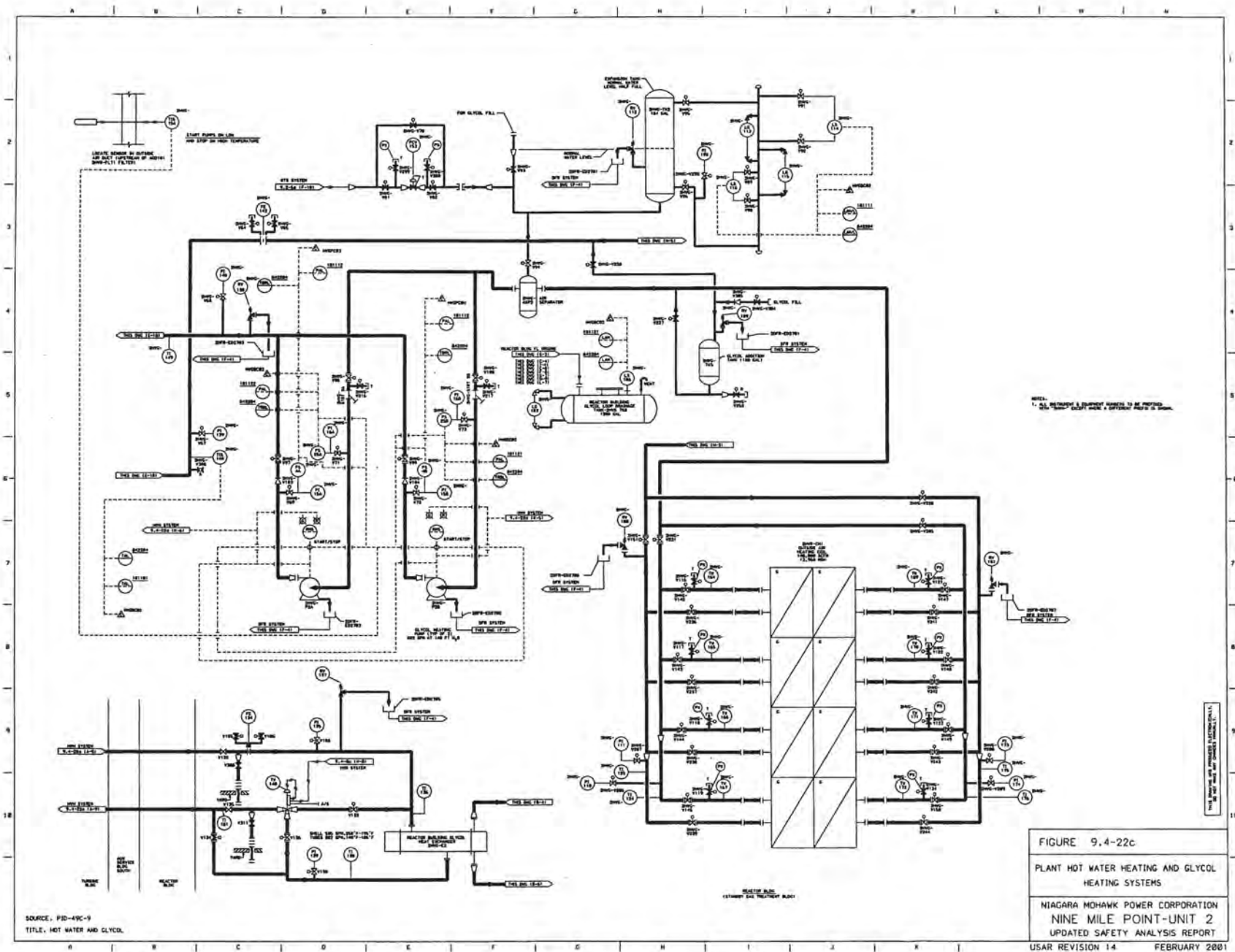








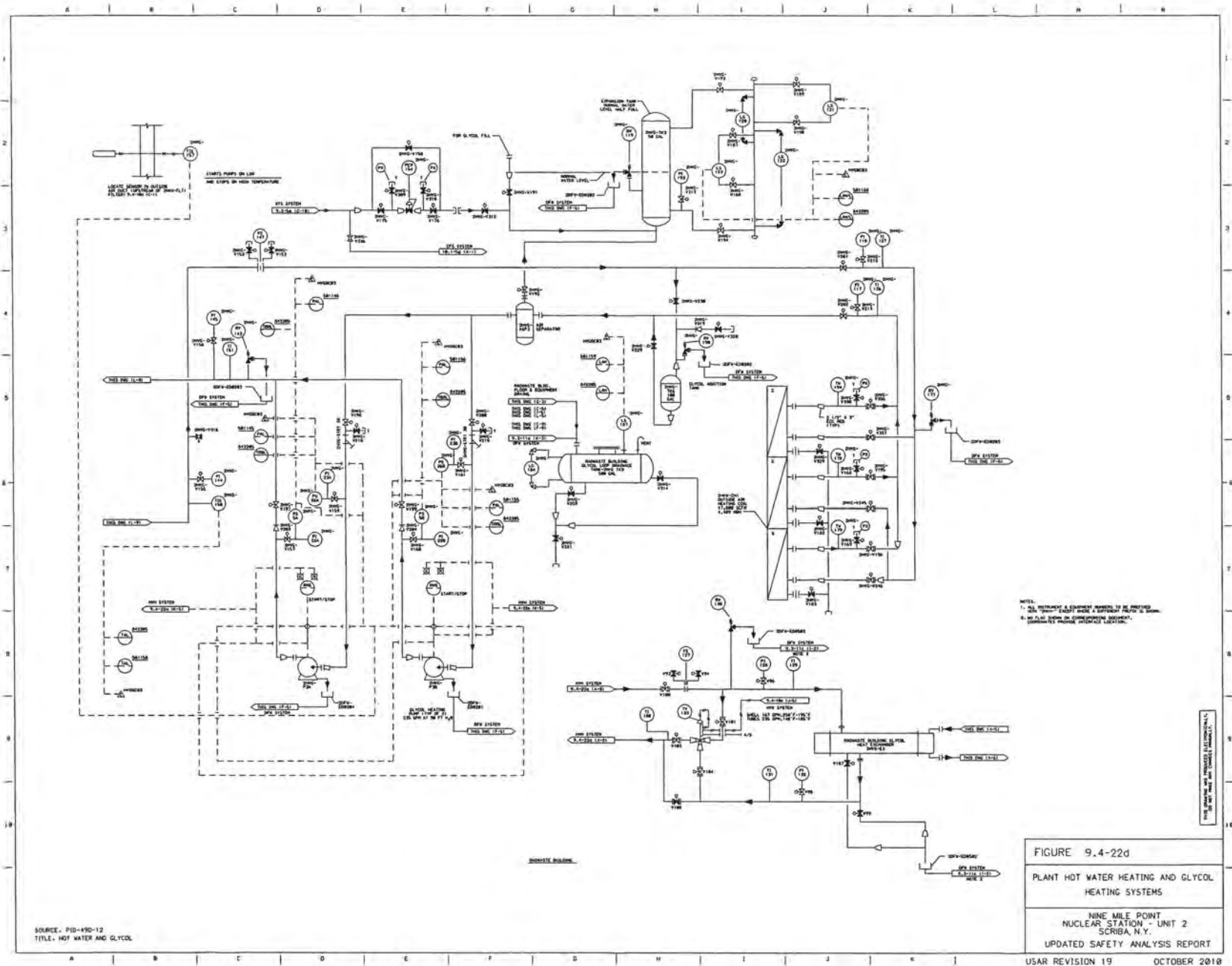














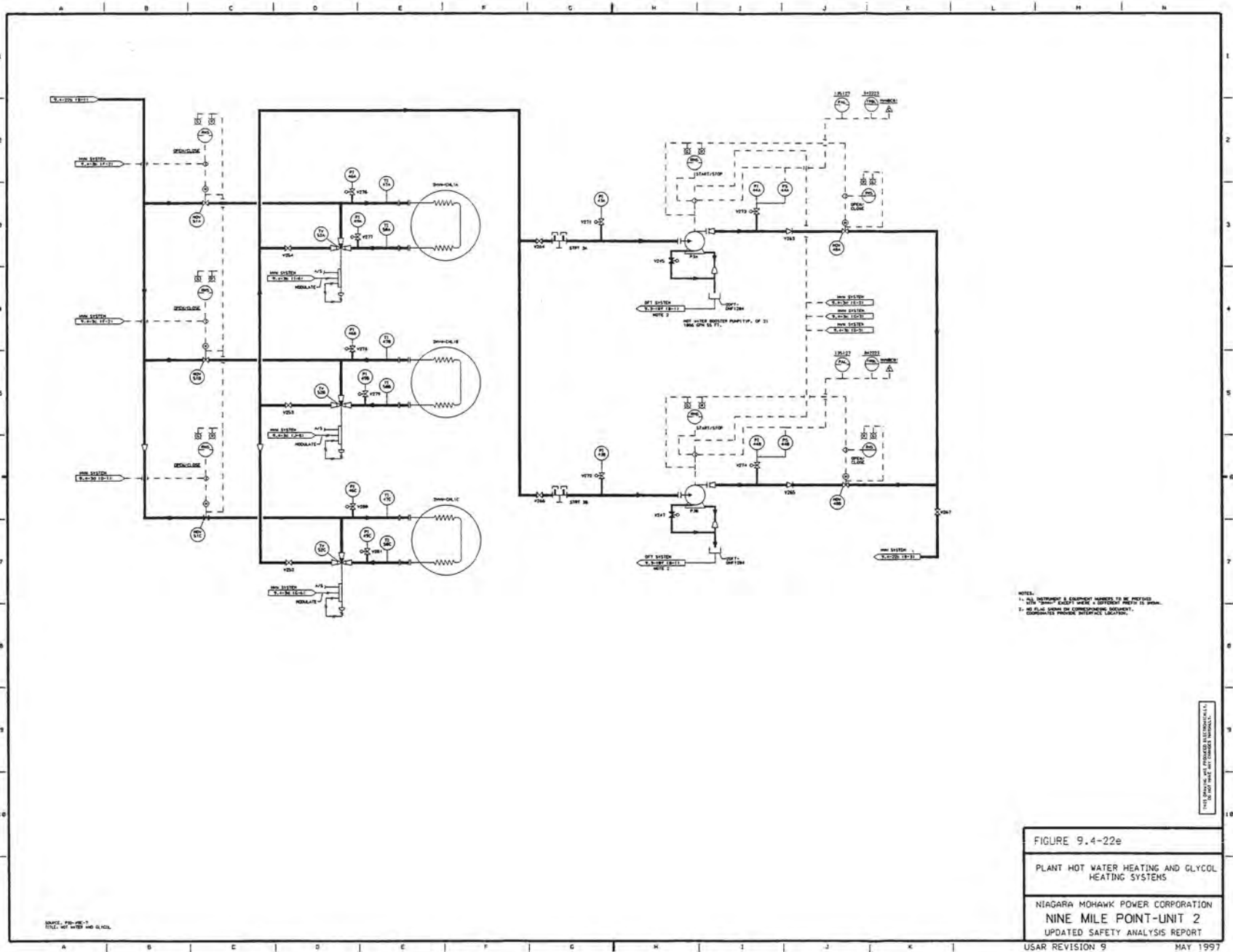
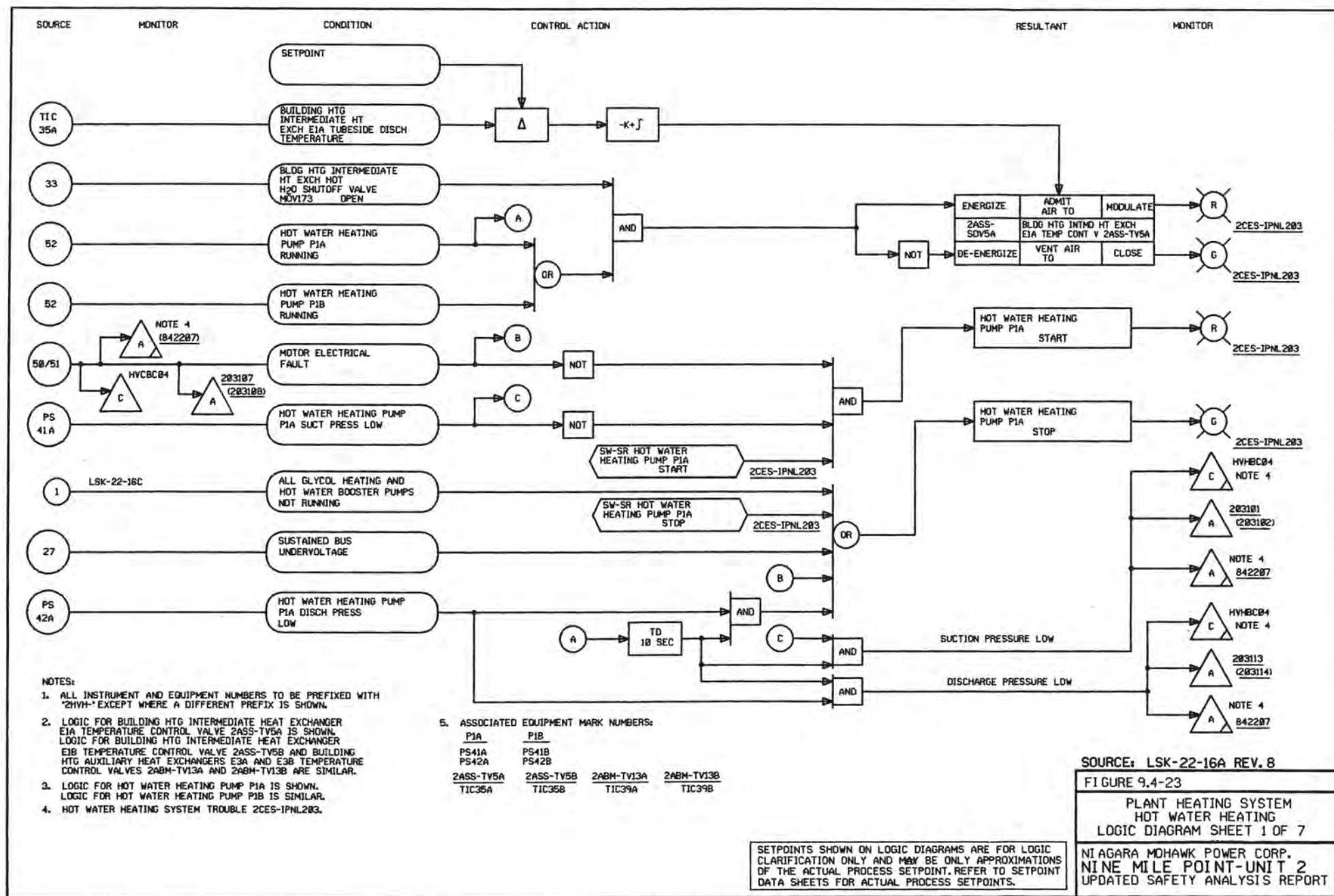


FIGURE 9.4-22e

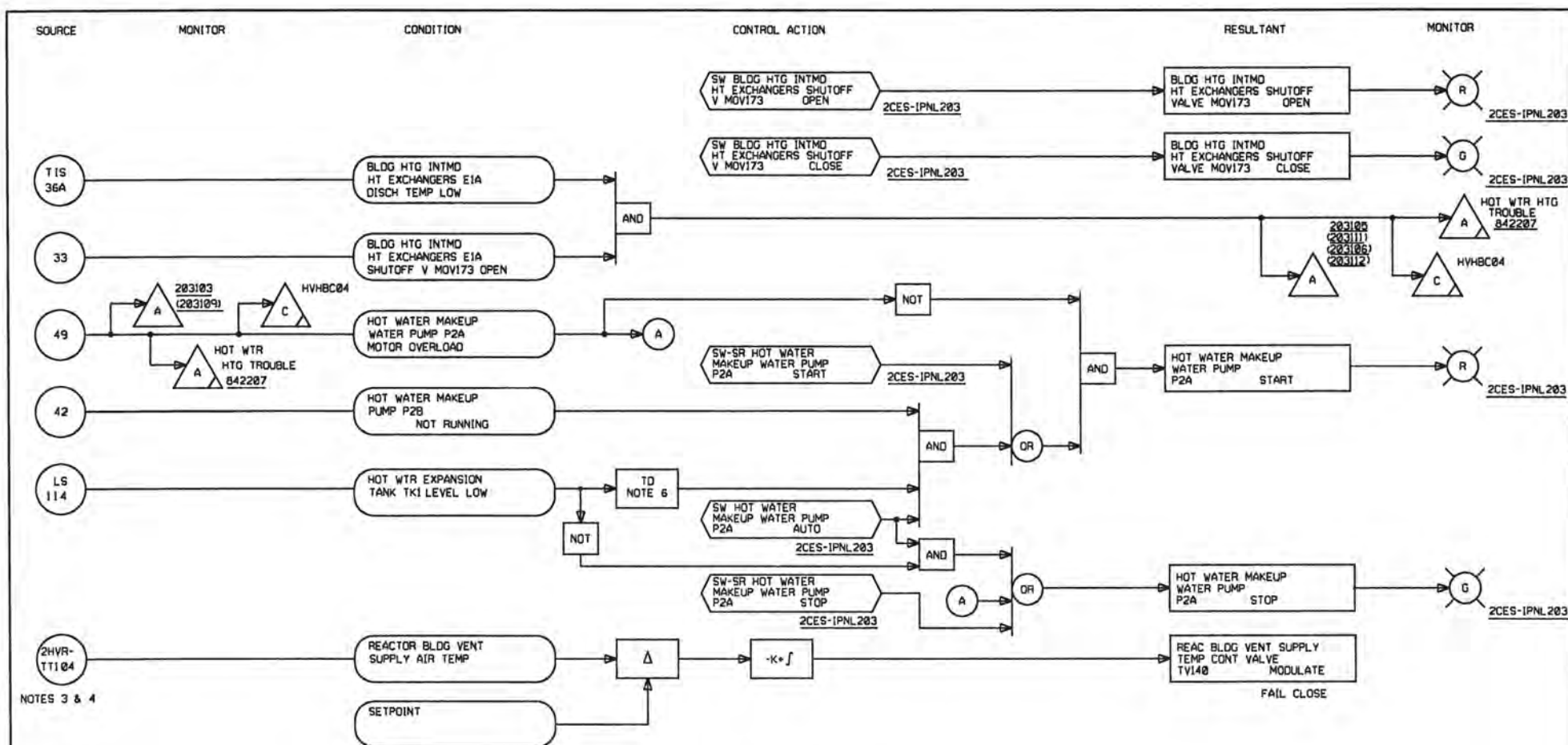
PLANT HOT WATER HEATING AND GLYCOL HEATING SYSTEMS

NIAGARA MOHAWK POWER CORPORATION  
 NINE MILE POINT-UNIT 2  
 UPDATED SAFETY ANALYSIS REPORT









NOTES 3 & 4

#### NOTES:

- ALL INSTRUMENT AND EQUIPMENT NUMBERS TO BE PREFIXED WITH '2HVR-' EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN.
- LOGIC FOR HOT WATER MAKEUP WATER PUMP P2A IS SHOWN. LOGIC FOR HOT WATER MAKEUP WATER PUMP P2B IS SIMILAR.
- LOGIC FOR REACTOR BUILDING VENTILATION SUPPLY TEMPERATURE CONTROL VALVE TV140 IS SHOWN. LOGIC FOR TURBINE BUILDING VENTILATION SUPPLY TEMPERATURE CONTROL VALVE TV126 IS SIMILAR.
- ASSOCIATED EQUIPMENT MARK NUMBERS:  
TV140  
2HVR-TT104 (LSK-22-1K)  
TV126  
2HVT-TT103 (LSK-22-3F)

#### NOTES CONT'D:

- LOGIC FOR INTERMEDIATE HEAT EXCHANGER E1A DISCHARGE TEMPERATURE TIS36A IS SHOWN. LOGIC FOR INTERMEDIATE HEAT EXCHANGER E1B DISCHARGE TEMPERATURE TIS36B, AUX, HEAT EXCHANGERS E3A AND E3B DISCHARGE TEMPERATURE TIS40A AND TIS40B ARE SIMILAR.
- TIME DELAY WILL BE ADJUSTABLE TO PREVENT AUTOMATIC SIMULTANEOUS STARTING OF BOTH PUMPS P2A AND P2B.

SETPOINTS SHOWN ON LOGIC DIAGRAMS ARE FOR LOGIC CLARIFICATION ONLY AND MAY BE ONLY APPROXIMATIONS OF THE ACTUAL PROCESS SETPOINT. REFER TO SETPOINT DATA SHEETS FOR ACTUAL PROCESS SETPOINTS.

SOURCE: LSK-22-16B REV. 9

FIGURE 9.4-23

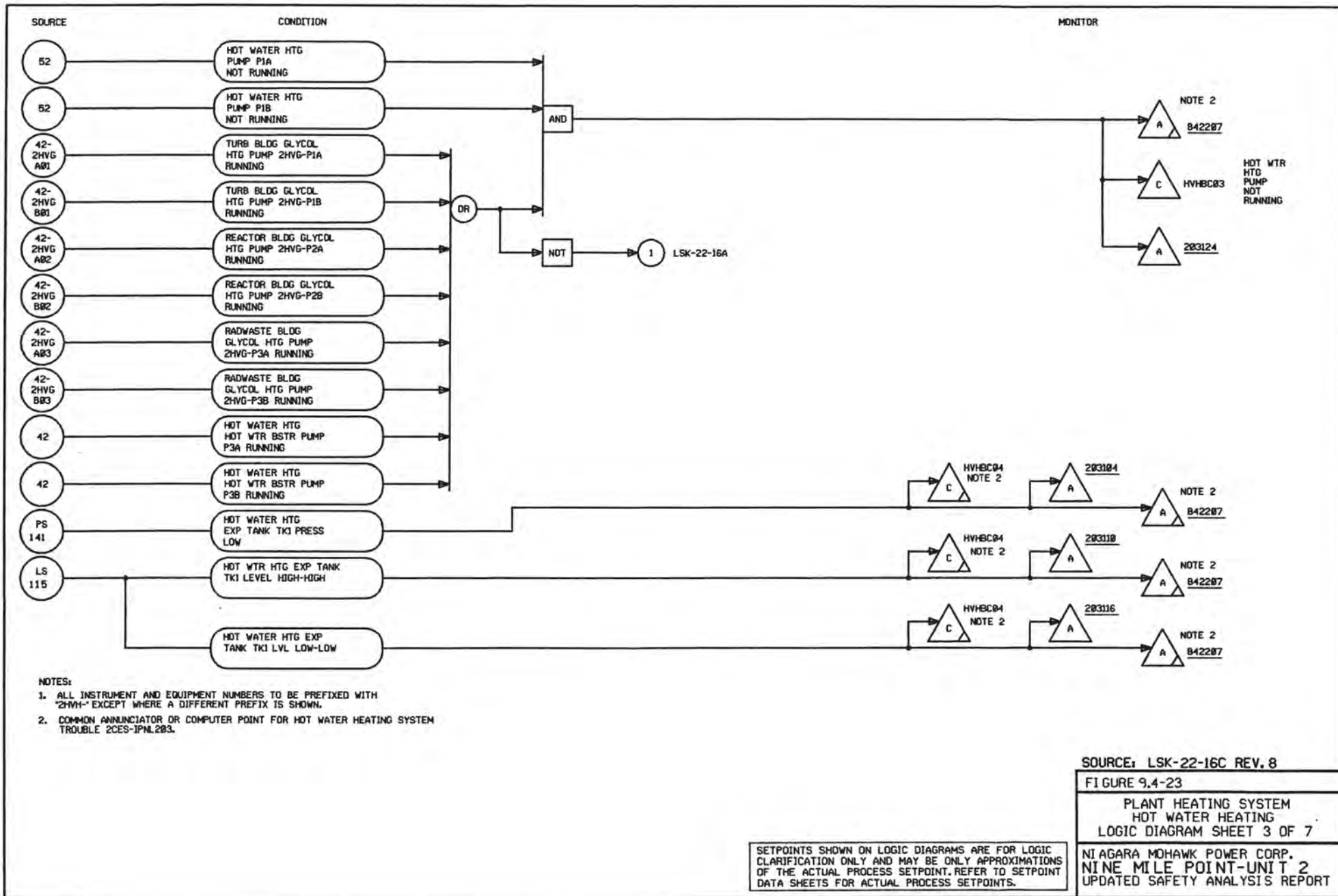
PLANT HEATING SYSTEM  
HOT WATER HEATING  
LOGIC DIAGRAM SHEET 2 OF 7

NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

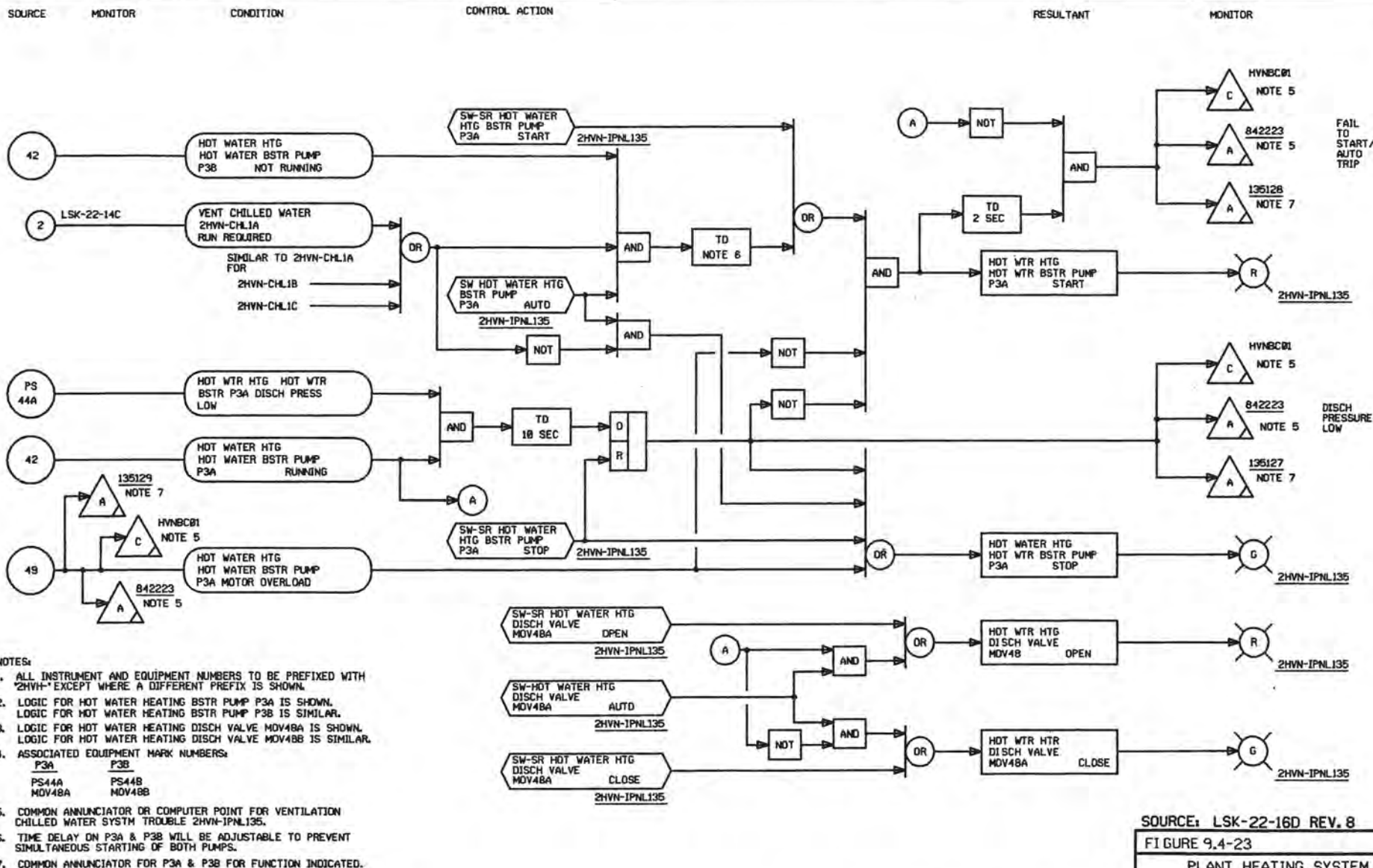
USAR REVISION 7

OCTOBER 1994









SOURCE: LSK-22-16D REV. 8

FIGURE 9.4-23

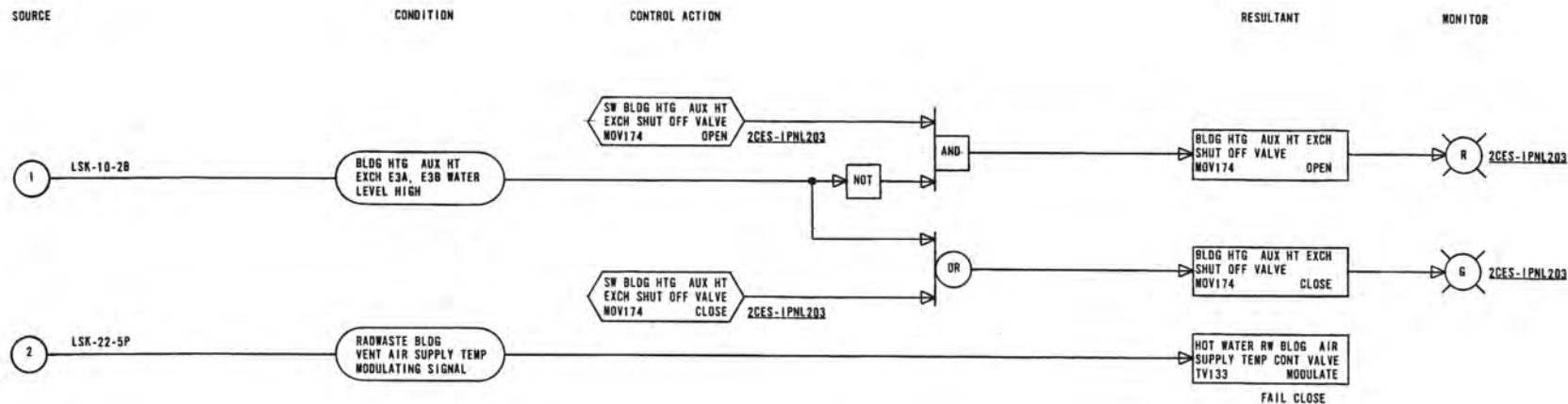
PLANT HEATING SYSTEM  
HOT WATER HEATING  
LOGIC DIAGRAM SHEET 4 OF 7

NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

USAR REVISION 3

OCTOBER 1991





NOTES:  
 1. ALL INSTRUMENT AND EQUIPMENT NUMBERS TO BE PREFIXED WITH "2HVN-" EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN.

NOTE:  
 FOR LATEST SET POINT INFORMATION  
 SEE SET POINT DATA SHEET

SOURCE: 12177-LSK-22-16E REV. 7

FIGURE 9. 4-23

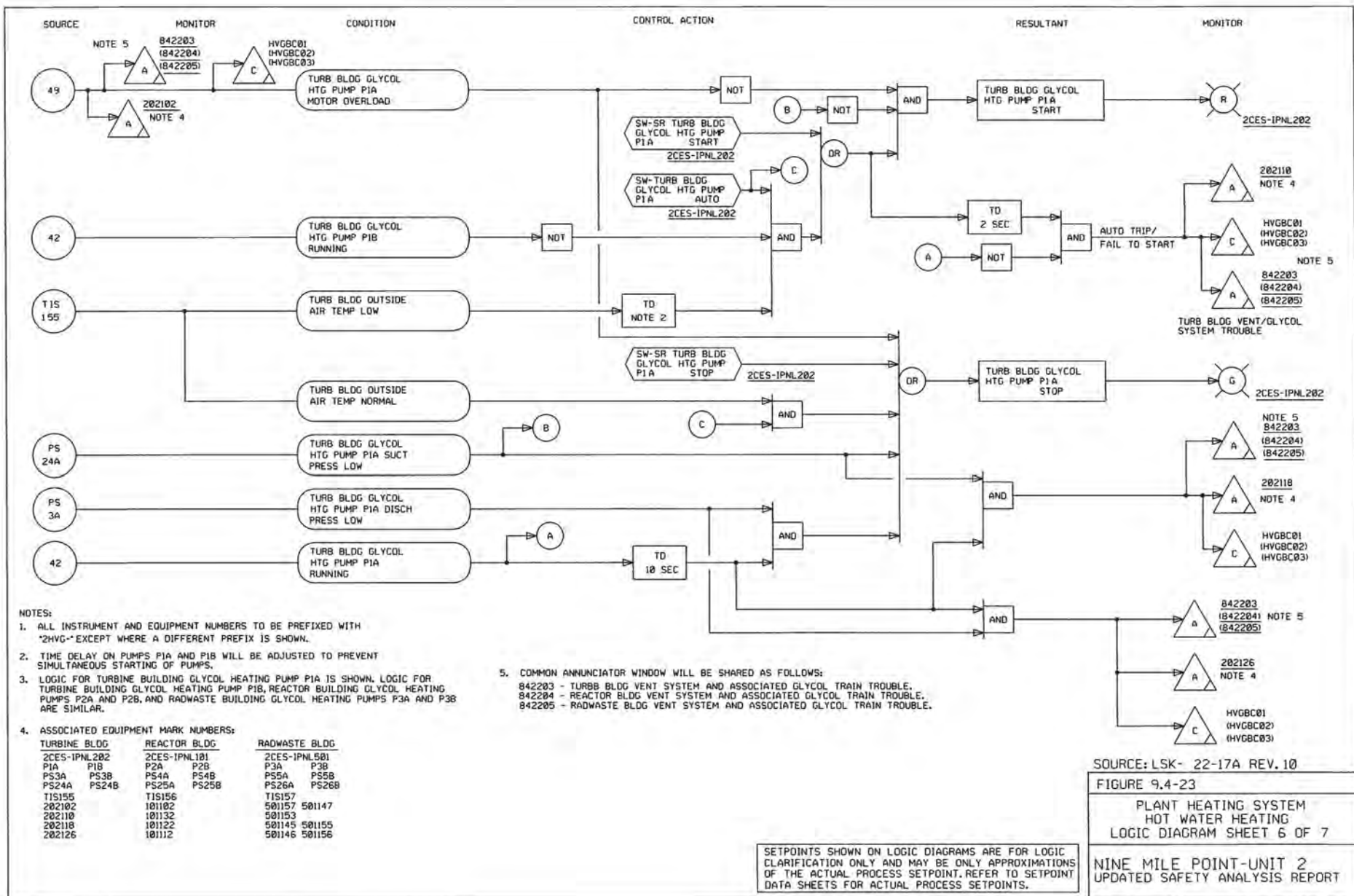
PLANT HEATING SYSTEM  
 HOT WATER HEATING  
 LOGIC DIAGRAM SHEET 5 OF 7

NIAGARA MOHAWK POWER CORP.  
 NINE MILE POINT-UNIT 2  
 UPDATED SAFETY ANALYSIS REPORT

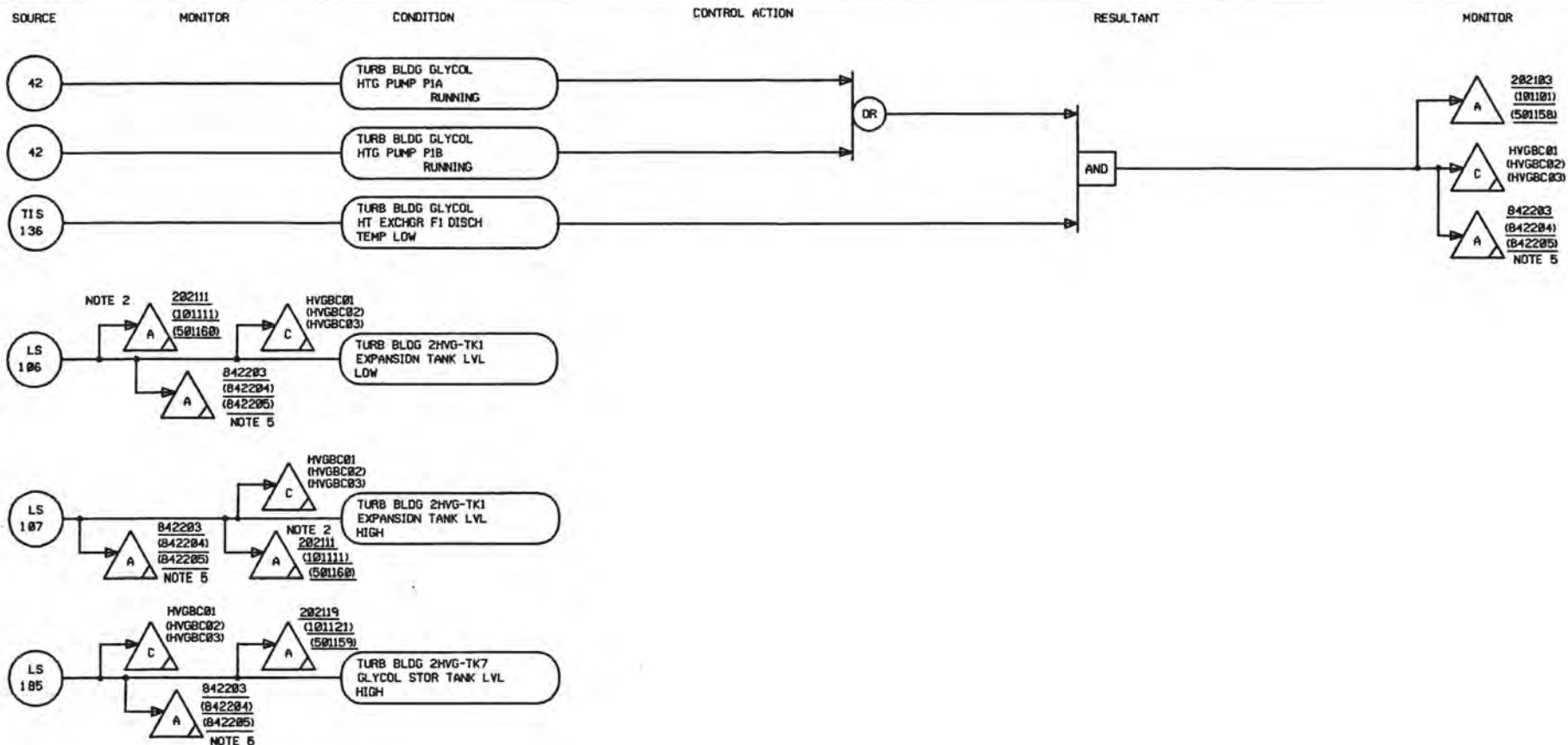
USAR REVISION 0

APRIL 1989









#### NOTES:

- ALL INSTRUMENT AND EQUIPMENT NUMBERS TO BE PREFIXED WITH "2HVG-" EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN.
- COMMON ALARM WINDOW FOR HI/LOW LEVEL.
- ALARM LOGIC FOR TURB BLDG GLYCOL HEATING IS SHOWN. ALARM LOGIC FOR REACTOR BLDG AND RADWASTE BLDG GLYCOL HEATING IS SIMILAR.
- ASSOCIATED EQUIPMENT MARK NUMBERS:
 

TURBINE BLDG	REACTOR BLDG	RADWASTE BLDG
2HVG-E1	2HVG-E2	2HVG-E3
T1S136	T1S148	T1S150
2HVG-TK1	2HVG-TK2	2HVG-TK3
LS106	LS116	LS123
LS107	LS114	LS121
2HVG-TK7	2HVG-TK8	2HVG-TK9
LS105	LS106	LS107
- COMMON ANNUNCIATOR WINDOW WILL BE SHARED AS FOLLOWS:
  - 842203 - TURB BLDG VENT SYSTEM AND ASSOCIATED GLYCOL TRAIN TROUBLE.
  - 842204 - REACTOR BLDG VENT SYSTEM AND ASSOCIATED GLYCOL TRAIN TROUBLE.
  - 842205 - RADWASTE BLDG VENT SYSTEM AND ASSOCIATED GLYCOL TRAIN TROUBLE.

SETPOINTS SHOWN ON LOGIC DIAGRAMS ARE FOR LOGIC CLARIFICATION ONLY AND MAY BE ONLY APPROXIMATIONS OF THE ACTUAL PROCESS SETPOINT. REFER TO SETPOINT DATA SHEETS FOR ACTUAL PROCESS SETPOINTS.

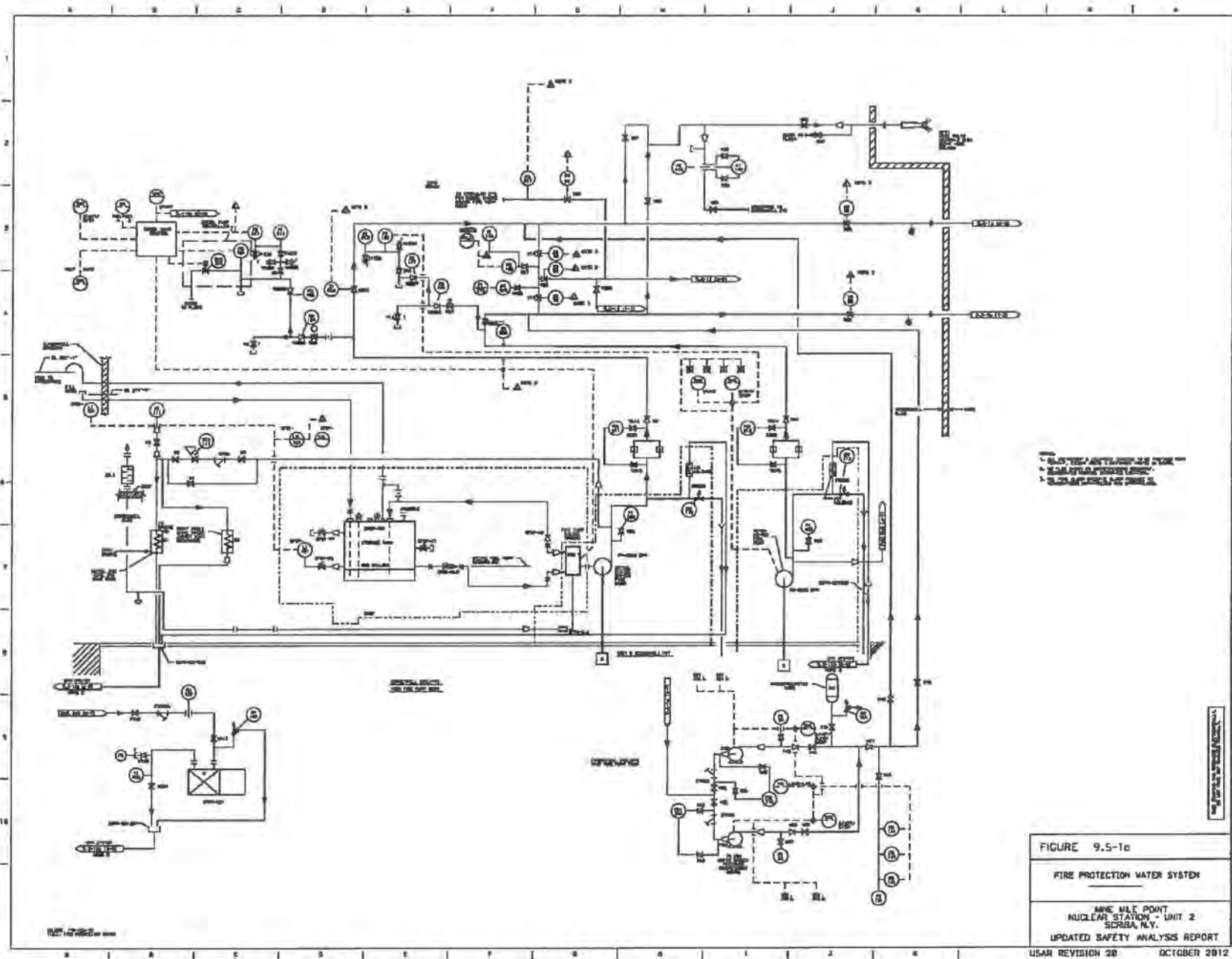
SOURCE: LSK-22-17B REV. 9

FIGURE 9.4-23

PLANT HEATING SYSTEM  
HOT WATER HEATING  
LOGIC DIAGRAM SHEET 7 OF 7

NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT











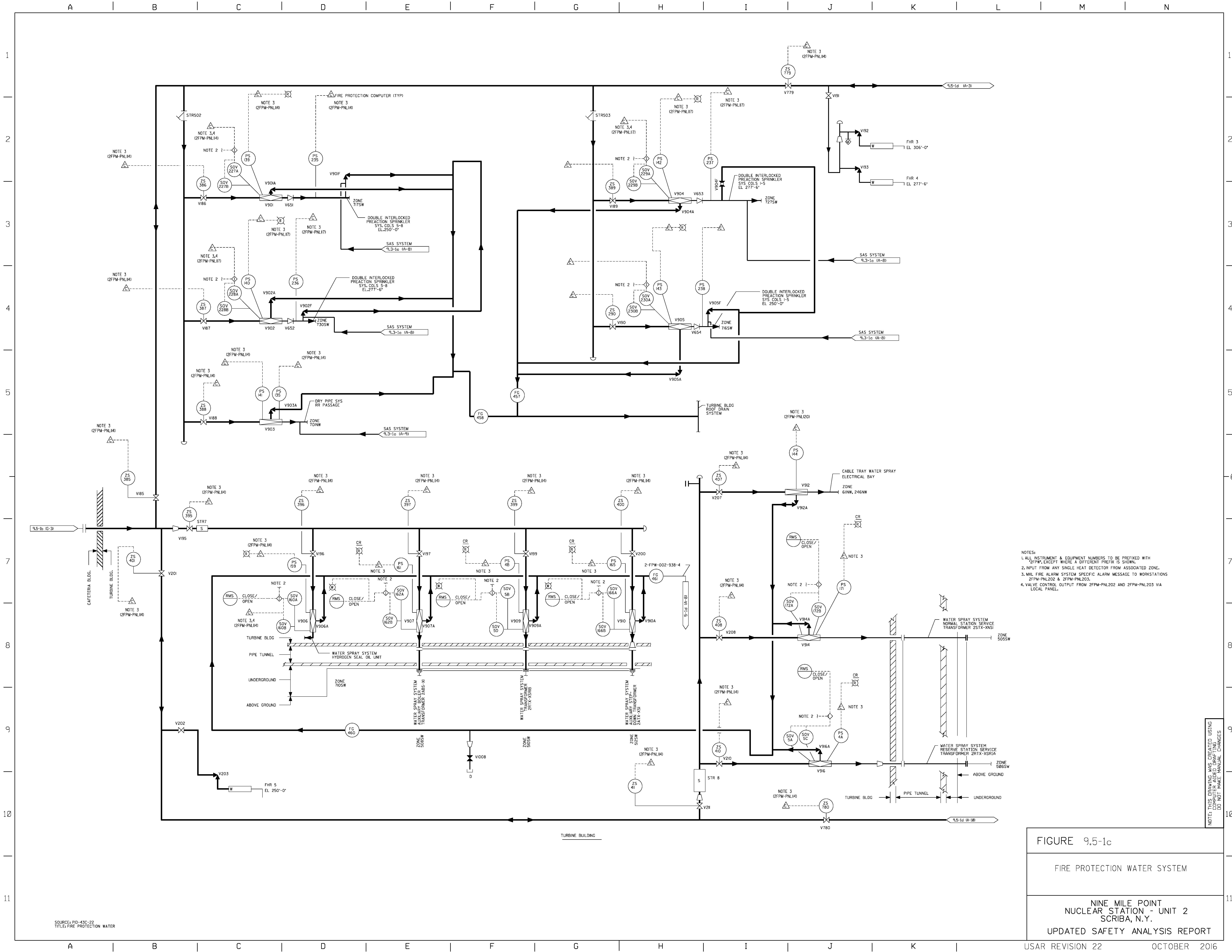


FIGURE 9.5-1c

FIRE PROTECTION WATER SYSTEM

NINE MILE POINT  
NUCLEAR STATION - UNIT 2  
SCRIBA, N.Y.

UPDATED SAFETY ANALYSIS REPORT











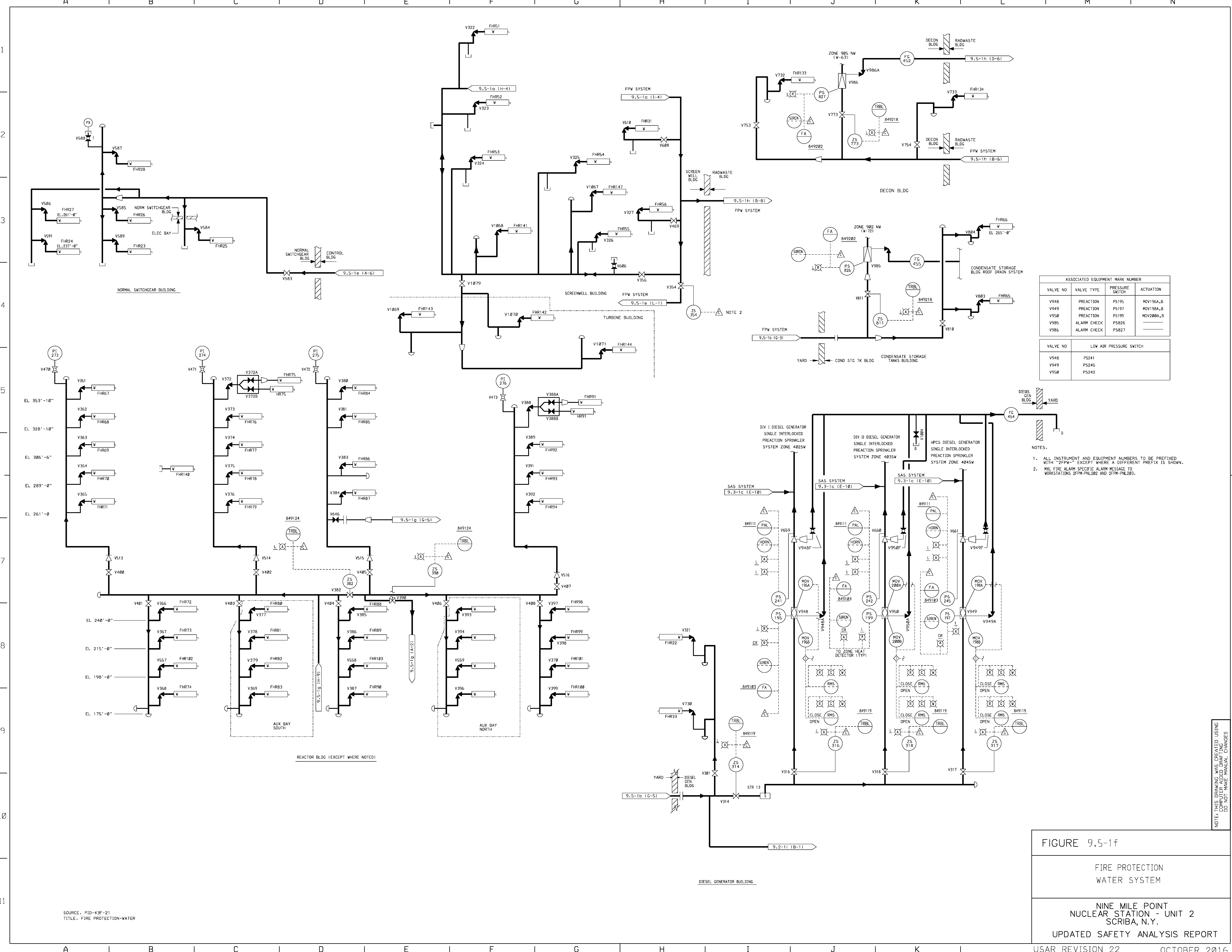


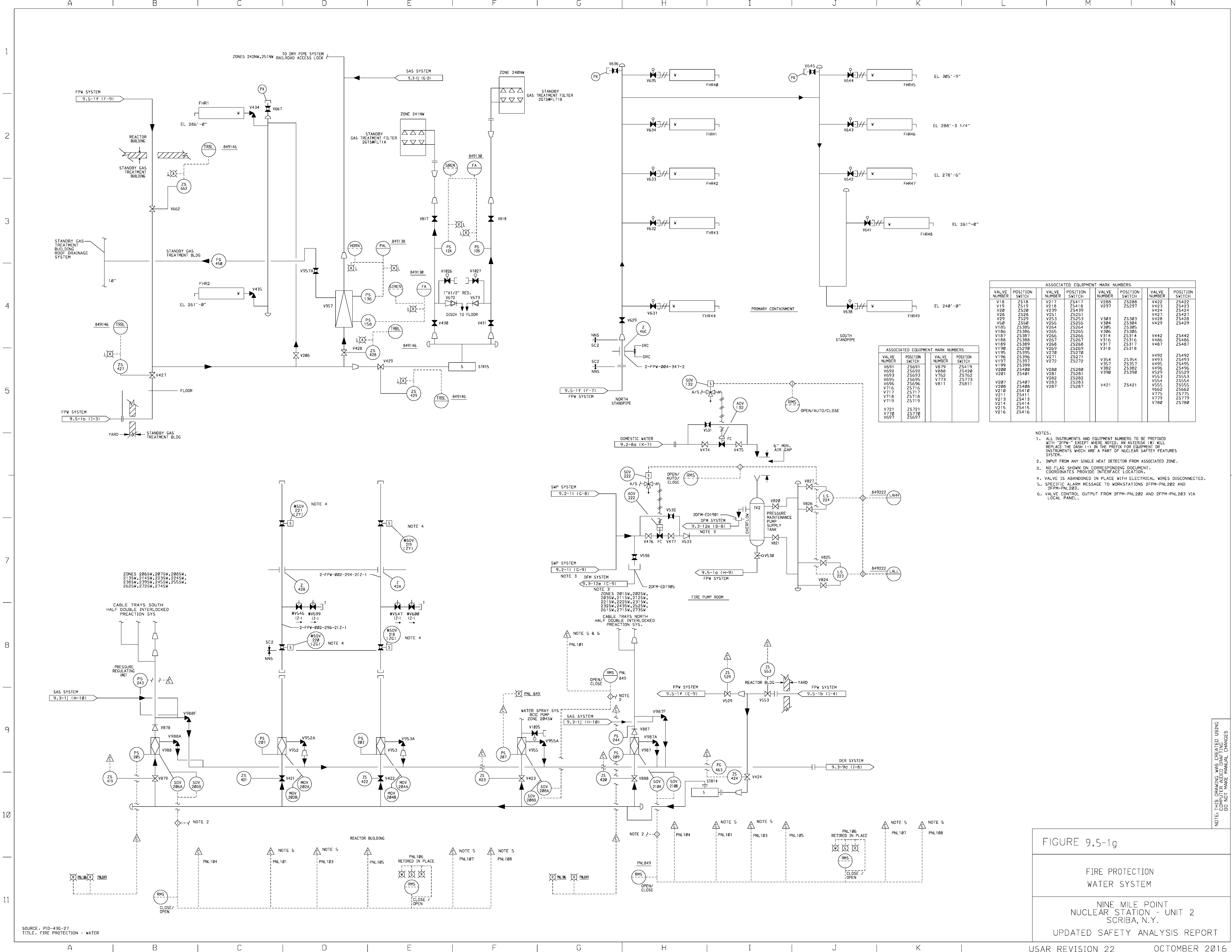
FIGURE 9.5-1f

FIRE PROTECTION  
WATER SYSTEM

NINE MILE POINT  
NUCLEAR STATION - UNIT 2  
SCRIBA, N.Y.

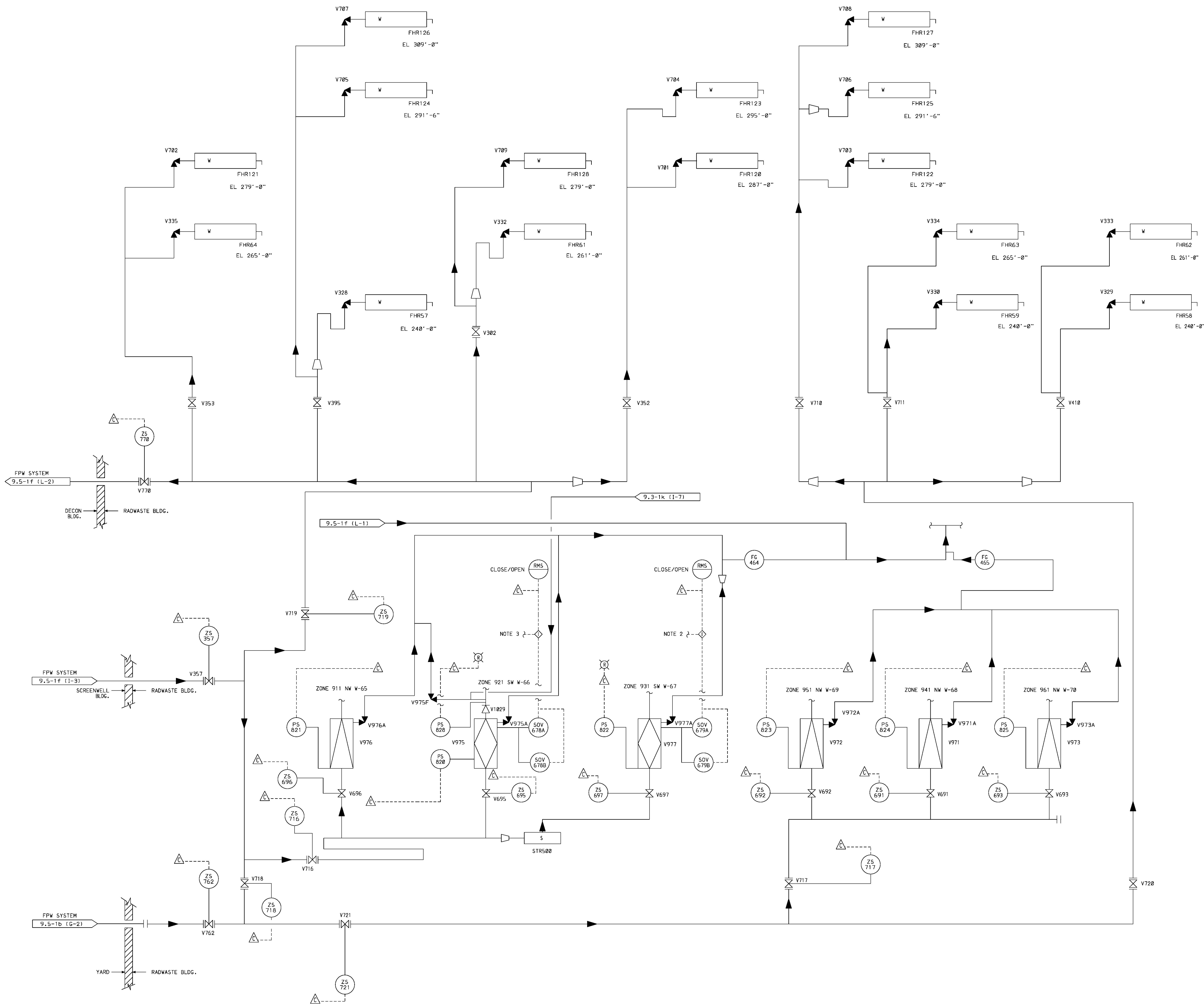
UPDATED SAFETY ANALYSIS REPORT





ASSOCIATED EQUIPMENT MARK NUMBERS							
VALVE NUMBER	POSITION SWITCH	VALVE NUMBER	POSITION SWITCH	VALVE NUMBER	POSITION SWITCH		
V18	ZS18	V217	ZS417	V288	ZS288	V422	ZS422
V19	ZS19	V218	ZS418	V297	ZS297	V423	ZS423
V20	ZS20	V219	ZS419			V424	ZS424
V21	ZS21	V220	ZS420			V425	ZS425
V22	ZS22	V221	ZS421			V426	ZS426
V23	ZS23	V222	ZS422			V427	ZS427
V24	ZS24	V223	ZS423			V428	ZS428
V25	ZS25	V224	ZS424			V429	ZS429
V26	ZS26	V225	ZS425				
V27	ZS27	V226	ZS426				
V28	ZS28	V227	ZS427				
V29	ZS29	V228	ZS428				
V30	ZS30	V229	ZS429				
V31	ZS31	V230	ZS430				
V32	ZS32	V231	ZS431				
V33	ZS33	V232	ZS432				
V34	ZS34	V233	ZS433				
V35	ZS35	V234	ZS434				
V36	ZS36	V235	ZS435				
V37	ZS37	V236	ZS436				
V38	ZS38	V237	ZS437				
V39	ZS39	V238	ZS438				
V40	ZS40	V239	ZS439				
V41	ZS41	V240	ZS440				
V42	ZS42	V241	ZS441				
V43	ZS43	V242	ZS442				
V44	ZS44	V243	ZS443				
V45	ZS45	V244	ZS444				
V46	ZS46	V245	ZS445				
V47	ZS47	V246	ZS446				
V48	ZS48	V247	ZS447				
V49	ZS49	V248	ZS448				
V50	ZS50	V249	ZS449				
V51	ZS51	V250	ZS450				
V52	ZS52	V251	ZS451				
V53	ZS53	V252	ZS452				
V54	ZS54	V253	ZS453				
V55	ZS55	V254	ZS454				
V56	ZS56	V255	ZS455				
V57	ZS57	V256	ZS456				
V58	ZS58	V257	ZS457				
V59	ZS59	V258	ZS458				
V60	ZS60	V259	ZS459				
V61	ZS61	V260	ZS460				
V62	ZS62	V261	ZS461				
V63	ZS63	V262	ZS462				
V64	ZS64	V263	ZS463				
V65	ZS65	V264	ZS464				
V66	ZS66	V265	ZS465				
V67	ZS67	V266	ZS466				
V68	ZS68	V267	ZS467				
V69	ZS69	V268	ZS468				
V70	ZS70	V269	ZS469				
V71	ZS71	V270	ZS470				
V72	ZS72	V271	ZS471				
V73	ZS73	V272	ZS472				
V74	ZS74	V273	ZS473				
V75	ZS75	V274	ZS474				
V76	ZS76	V275	ZS475				
V77	ZS77	V276	ZS476				
V78	ZS78	V277	ZS477				
V79	ZS79	V278	ZS478				
V80	ZS80	V279	ZS479				
V81	ZS81	V280	ZS480				
V82	ZS82	V281	ZS481				
V83	ZS83	V282	ZS482				
V84	ZS84	V283	ZS483				
V85	ZS85	V284	ZS484				
V86	ZS86	V285	ZS485				
V87	ZS87	V286	ZS486				
V88	ZS88	V287	ZS487				
V89	ZS89	V288	ZS488				
V90	ZS90	V289	ZS489				
V91	ZS91	V290	ZS490				
V92	ZS92	V291	ZS491				
V93	ZS93	V292	ZS492				
V94	ZS94	V293	ZS493				
V95	ZS95	V294	ZS494				
V96	ZS96	V295	ZS495				
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V103	ZS103	V302	ZS502				
V104	ZS104	V303	ZS503				
V105	ZS105	V304	ZS504				
V106	ZS106	V305	ZS505				
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V129	ZS129	V328	ZS528				
V130	ZS130	V329	ZS529				
V131	ZS131	V330	ZS530				
V132	ZS132	V331	ZS531				
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V147	ZS147	V346	ZS546				
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V149	ZS149	V348	ZS548				
V150	ZS150	V349	ZS549				
V151	ZS151	V350	ZS550				
V152	ZS152	V351	ZS551				
V153	ZS153	V352	ZS552				
V154	ZS154	V353	ZS553				
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V160	ZS160	V359	ZS559				
V161	ZS161	V360	ZS560				
V162	ZS162	V361	ZS561				
V163	ZS163	V362	ZS562				
V164	ZS164	V363	ZS563				
V165	ZS165	V364	ZS564				
V166	ZS166	V365	ZS565				
V167	ZS167	V366	ZS566				
V168	ZS168	V367	ZS567				
V169	ZS169	V368	ZS568				
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V186	ZS186	V385	ZS585				
V187	ZS187	V386	ZS586				
V188	ZS188	V387	ZS587				
V189	ZS189	V388	ZS588				
V190	ZS190	V389	ZS589				
V191	ZS191	V390	ZS590				
V192	ZS192	V391	ZS591				
V193	ZS193	V392	ZS592				
V194	ZS194	V393	ZS593				
V195	ZS195	V394	ZS594				
V196	ZS196	V395	ZS595				
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V200	ZS200	V399	ZS599				
V201	ZS201	V400	ZS600				
V202	ZS202	V401	ZS601				
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V207	ZS207	V406	ZS606				
V208	ZS208	V407	ZS607				
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V210	ZS210	V409	ZS609				
V211	ZS211	V410	ZS610				
V212	ZS212	V411	ZS611				
V213	ZS213	V412	ZS612				
V214	ZS214	V413	ZS613				
V215	ZS215	V414	ZS614				
V216	ZS216	V415	ZS615				
V217	ZS217	V416	ZS616				
V218	ZS218	V417	ZS617				
V219	ZS219	V418	ZS618				
V220	ZS220	V419	ZS619				
V221	ZS221	V420	ZS620				
V222	ZS222	V421	ZS621				
V223	ZS223	V422	ZS622				
V224	ZS224	V423	ZS623				
V225	ZS225	V424	ZS624				
V226	ZS226	V425	ZS625				
V227	ZS227	V426	ZS626				
V228	ZS228	V427	ZS627				
V229	ZS229	V428	ZS628				
V230	ZS230	V429	ZS629				
V231	ZS231	V430	ZS630				
V232	ZS232	V431	ZS631				
V233	ZS233	V432	ZS632				
V234	ZS234	V433	ZS633				
V235	ZS235	V434	ZS634				
V236	ZS236	V435	ZS635				
V237	ZS237	V436	ZS636				
V238	ZS238	V437	ZS637				
V239	ZS239	V438	ZS638				
V240	ZS240	V439	ZS639				
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V242	ZS242	V441	ZS641				
V243	ZS243	V442	ZS642				





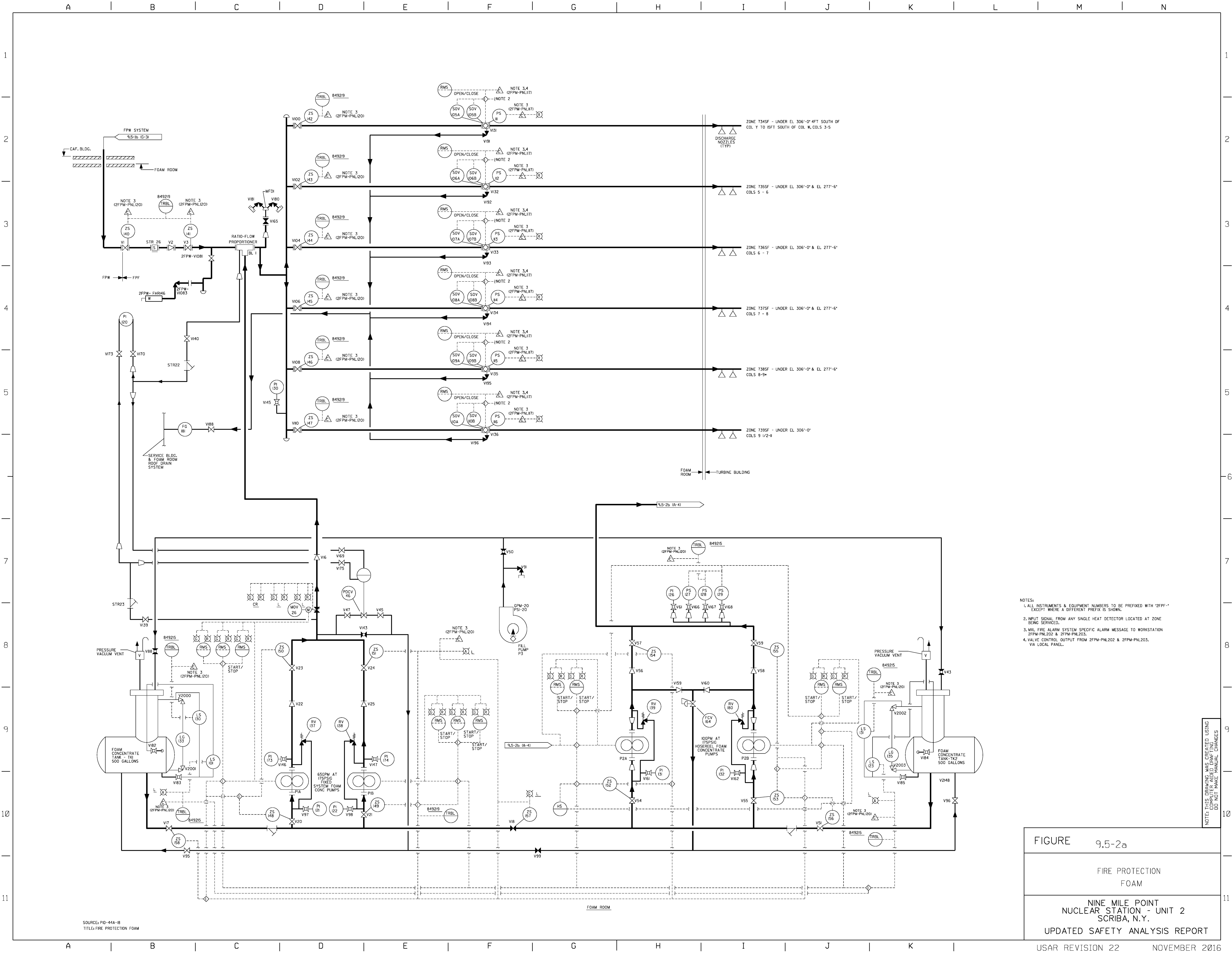
ASSOCIATED EQUIPMENT MARK NUMBERS			
VALVE NUMBER	VALVE TYPE	PRESSURE SWITCH	ACTUATION
V975	PREACTION	PS820	SOV678A,B
V976	ALARM CHECK	PS821	—
V977	DELUGE	PS822	SOV679A,B
V971	ALARM CHECK	PS824	—
V972	ALARM CHECK	PS823	—
V973	ALARM CHECK	PS825	—

VALVE NUMBER	LOW PRESURE AIR SWITCH
V975	PS828

- NOTES:
1. ALL INSTRUMENTS AND EQUIPMENT NUMBERS TO BE PREFIXED WITH "2FPW-" EXCEPT WHERE NOTED.
  2. INPUT FROM ANY SINGLE SMOKE DETECTOR FROM ASSOCIATED ZONE.
  3. INPUT FROM ANY SINGLE HEAT DETECTOR FROM ASSOCIATED ZONE.

NOTE: THIS DRAWING WAS CREATED USING  
COMPUTER AIDED DRAFTING  
DO NOT MAKE MANUAL CHANGES



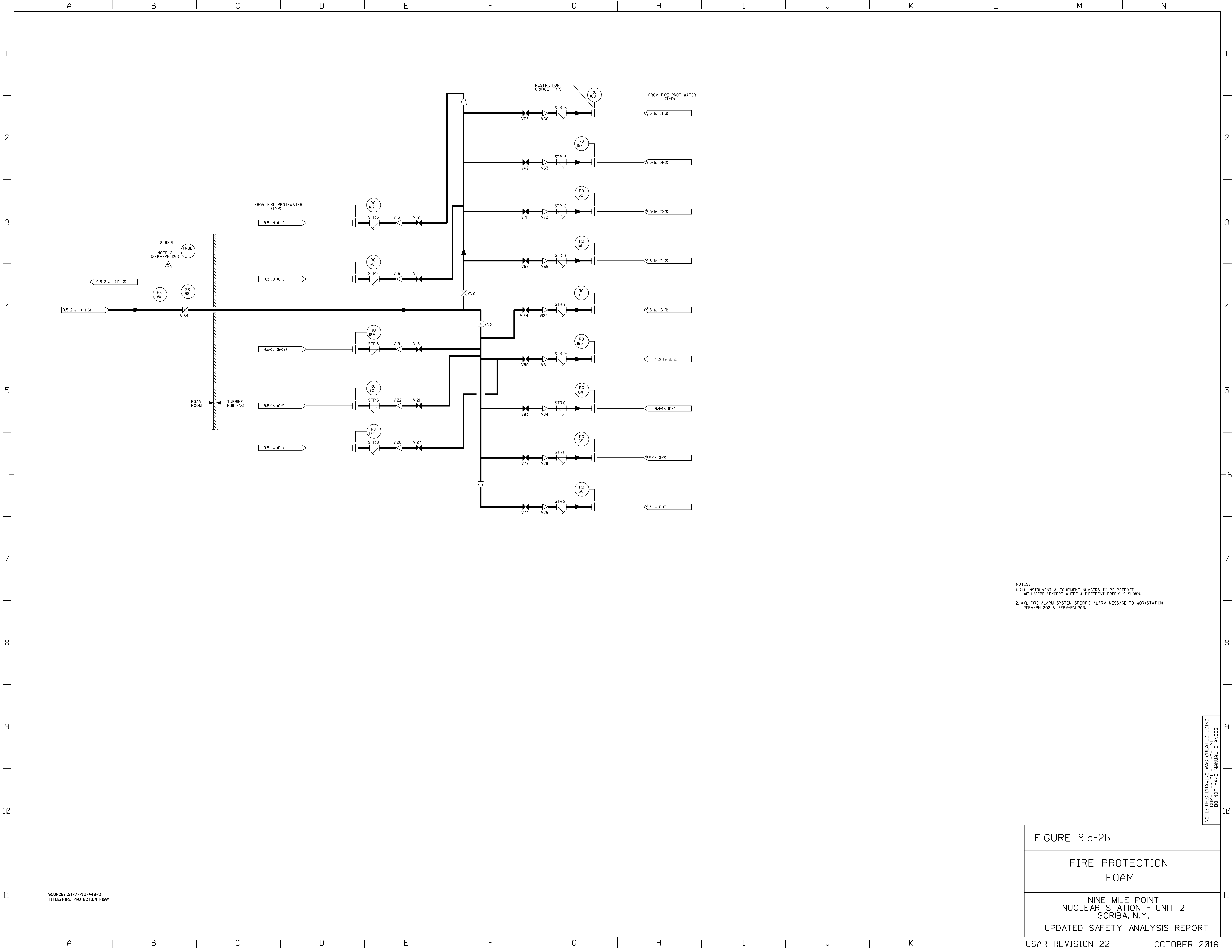


- NOTES:
- 1. ALL INSTRUMENTS & EQUIPMENT NUMBERS TO BE PREFIXED WITH "2FPM-" EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN.
  - 2. INPUT SIGNAL FROM ANY SINGLE HEAT DETECTOR LOCATED AT ZONE BEING SERVICED.
  - 3. MXL FIRE ALARM SYSTEM SPECIFIC ALARM MESSAGE TO WORKSTATION 2FPM-PNL202 & 2FPM-PNL203.
  - 4. VALVE CONTROL OUTPUT FROM 2FPM-PNL202 & 2FPM-PNL203, VIA LOCAL PANEL.

NOTE: THIS DRAWING WAS CREATED USING AUTOCAD. NO FIELD CHANGES SHOULD BE MADE WITHOUT CHANGING THE DRAWING.

FIGURE	9.5-2a
FIRE PROTECTION FOAM	
NINE MILE POINT NUCLEAR STATION - UNIT 2 SCRIBA, N.Y.	
UPDATED SAFETY ANALYSIS REPORT	





NOTES:  
1. ALL INSTRUMENT & EQUIPMENT NUMBERS TO BE PREFIXED  
WITH "2FPM-" EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN.  
2. MXL FIRE ALARM SYSTEM SPECIFIC ALARM MESSAGE TO WORKSTATION  
2FPM-PNL202 & 2FPM-PNL203.

NOTE: THIS DRAWING WAS CREATED USING  
COMPUTER AIDED DRAFTING  
DO NOT MAKE MANUAL CHANGES

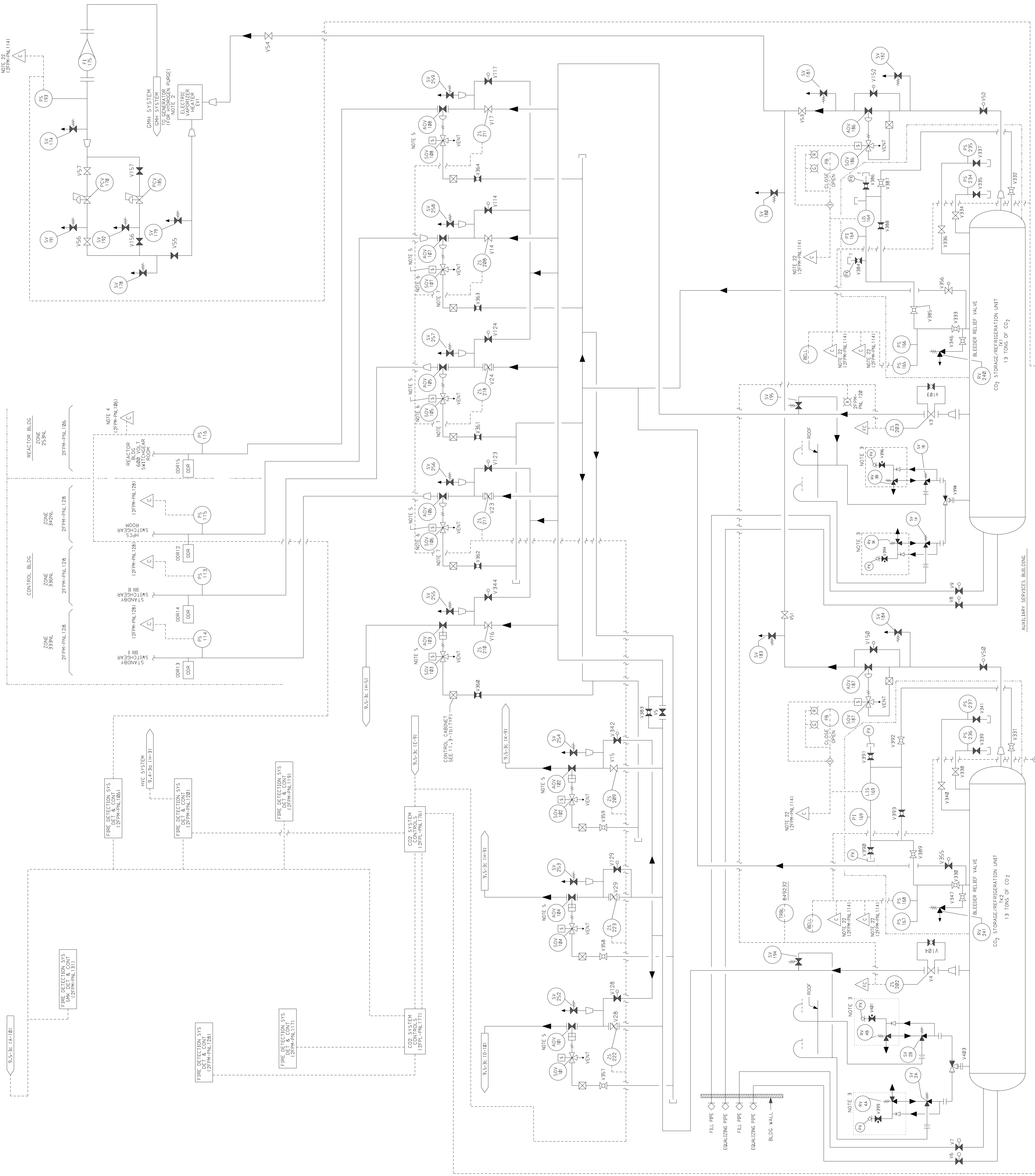
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TITLE: FIRE PROTECTION FOAM

FIGURE 9.5-2b

FIRE PROTECTION  
FOAM

NINE MILE POINT  
NUCLEAR STATION - UNIT 2  
SCRIBA, N.Y.  
UPDATED SAFETY ANALYSIS REPORT





NOTE: THIS DRAWING WAS CREATED USING  
COMPUTER AIDED DRAFTING  
DO NOT MAKE MANUAL CHANGES

FIGURE 9.5-3d

FIRE PROTECTION CO2 SYSTEM

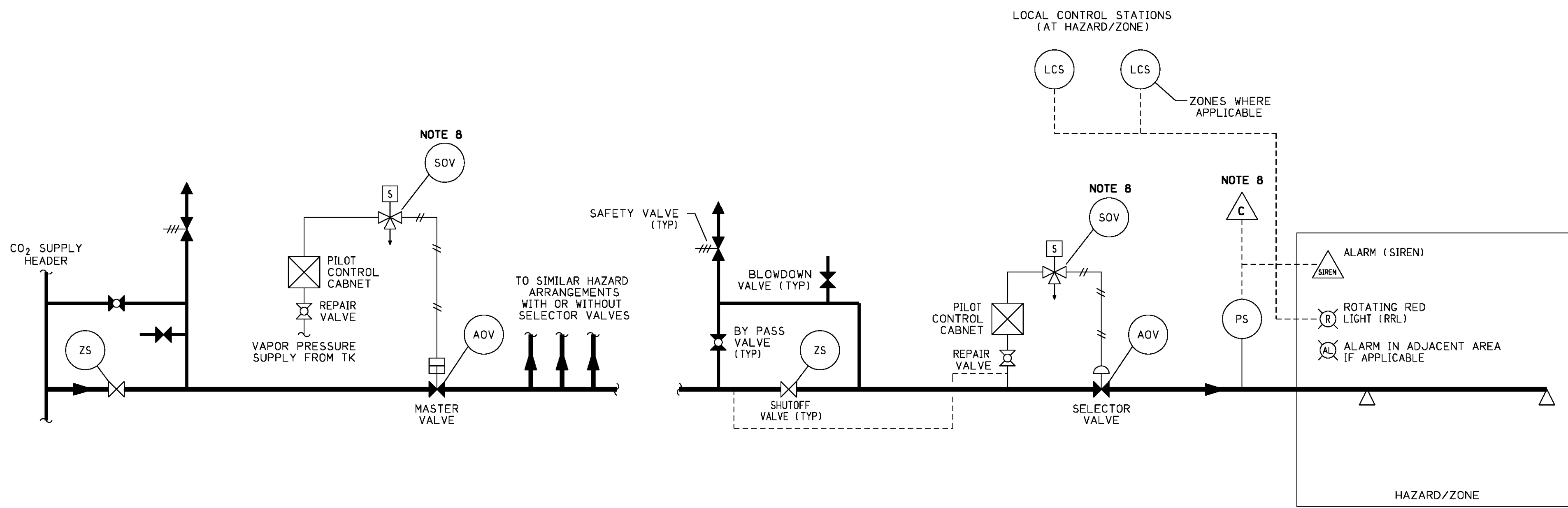
NINE MILE POINT  
NUCLEAR STATION - UNIT 2  
SCRIBA, N.Y.

TITLE, FIRE PROTECTION CO2 SYSTEM

SAR REVISION 22

OCTOBER 2016





TYPICAL CO<sub>2</sub> HAZARD/ZONE ARRANGEMENT

ELECTRICAL EQUIPMENT FOR CO<sub>2</sub> FIRE HOSE REELS

FHR NO.	SOV NO.	TR NO.	FHR NO.	SOV NO.	TR NO.
	2FPL-SOV196 (SEE NOTE 2)	2FPL-TR700 (SEE NOTE 2)		2FPL-SOV199 (SEE NOTE 2)	2FPL-TR500 (SEE NOTE 2)
	2FPL-SOV197 (SEE NOTE 2)	2FPL-TR701 (SEE NOTE 2)		2FPL-SOV233 (SEE NOTE 2)	2FPL-TR002 (SEE NOTE 2)
	2FPL-SOV200 (SEE NOTE 2)	2FPL-TR702 (SEE NOTE 2)		2FPL-SOV201 (SEE NOTE 2)	2FPL-TR001 (SEE NOTE 2)
	2FPL-SOV198 (SEE NOTE 2)	2FPL-TR502 (SEE NOTE 2)			

CO<sub>2</sub> SYSTEM VALVES AND ASSOCIATED POSITION SWITCH MARK NO.

VALVE NO.	POSITION SWITCH	VALVE NO.	POSITION SWITCH
2FPL-V3	2FPL-ZS203	2FPL-V20	2FPL-ZS214
2FPL-V4	2FPL-ZS202	2FPL-V21	2FPL-ZS215
2FPL-V11	2FPL-ZS225	2FPL-V22	2FPL-ZS216
2FPL-V12	2FPL-ZS206	2FPL-V23	2FPL-ZS217
2FPL-V13	2FPL-ZS207	2FPL-V24	2FPL-ZS218
2FPL-V14	2FPL-ZS208	2FPL-V25	2FPL-ZS219
2FPL-V15	2FPL-ZS209	2FPL-V26	2FPL-ZS220
2FPL-V16	2FPL-ZS210	2FPL-V27	2FPL-ZS221
2FPL-V17	2FPL-ZS211	2FPL-V28	2FPL-ZS222
2FPL-V18	2FPL-ZS212	2FPL-V29	2FPL-ZS223
2FPL-V19	2FPL-ZS213	2FPL-V30	2FPL-ZS226

ELECTRICAL EQUIPMENT (MARK NO'S)  
ASSOCIATED WITH CO<sub>2</sub> HAZARD/ZONES

ZONE NO.	RRL NO.	AL NO.	LCS NO.	LFCP	PS
253NL 333NL	2FPL-RRL001 2FPL-RRL505	2FPL-AL001 2FPL-AL505	2FPL-LCS037 2FPL-LCS532	2FPM-PNL106 2FPM-PNL128	2FPL-PS116 (SEE NOTE 8) 2FPL-PS114 (SEE NOTES 8,9)
336NL	2FPL-RRL504	2FPL-AL504	2FPL-LCS537 2FPL-LCS531	2FPM-PNL128	2FPL-PS113 (SEE NOTES 8,9)
342NL	2FPL-RRL506	2FPL-AL506	2FPL-LCS536 2FPL-LCS533	2FPM-PNL128	2FPL-PS115 (SEE NOTES 8,9)
395NL	2FPL-RRL000 2FPL-RRL001	2FPL-AL000 2FPL-AL501	2FPL-LCS000	2FPM-PNL131	2FPL-PS205 (SEE NOTE 8)
601NL 602NL	2FPL-RRL501 2FPL-RRL500	2FPL-AL501 2FPL-AL500	2FPL-LCS529 (SEE NOTE 10)	2FPM-PNL120	2FPL-PS136 (SEE NOTE 8,10) 2FPL-PS138 (SEE NOTE 8,10)
612NL 613NL	2FPL-RRL503 2FPL-RRL502	2FPL-AL503 2FPL-AL502			2FPL-PS135 (SEE NOTE 8,10) 2FPL-PS137 (SEE NOTE 8,10)
726NL 733NL	2FPL-RRL705 2FPL-AL701		2FPL-LCS793	2FPM-PNL117 2FPM-PNL117	2FPL-PS133 (SEE NOTE 8) 2FPL-PS134 (SEE NOTE 8)
740NL	2FPL-RRL706	2FPL-AL702	2FPL-LCS794	2FPM-PNL117	2FPL-PS132 (SEE NOTE 8)
757NL (SEE NOTE 7)	2FPL-RRL700 (SEE NOTE 7)	2FPL-AL700 (SEE NOTE 7)	2FPL-LCS787 (SEE NOTE 7)		
758NL (SEE NOTE 7)	2FPL-RRL701 (SEE NOTE 7)	2FPL-AL703 (SEE NOTE 7)	2FPL-LCS790 (SEE NOTE 7)		
759NL (SEE NOTE 7)	2FPL-RRL702 (SEE NOTE 7)	2FPL-AL705 (SEE NOTE 7)	2FPL-LCS789 (SEE NOTE 7)		
760NL (SEE NOTE 7)	2FPL-RRL703 (SEE NOTE 7)	2FPL-AL702 (SEE NOTE 7)	2FPL-LCS788 (SEE NOTE 7)		

- NOTES:
- ALL INSTRUMENT AND EQUIPMENT NUMBERS TO BE PREFIXED WITH "2FPL-" EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN.
  - RETIRED IN PLACE.

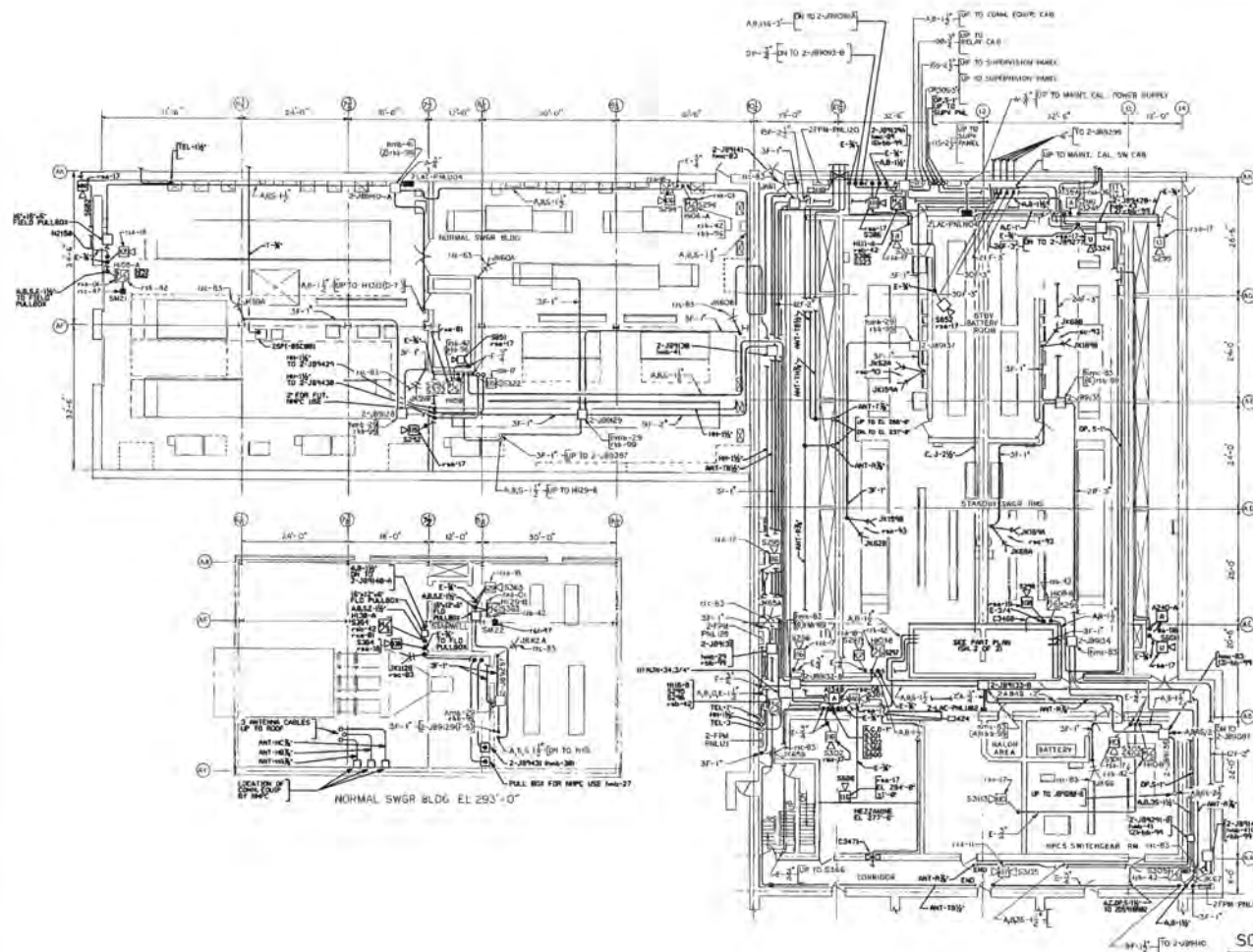












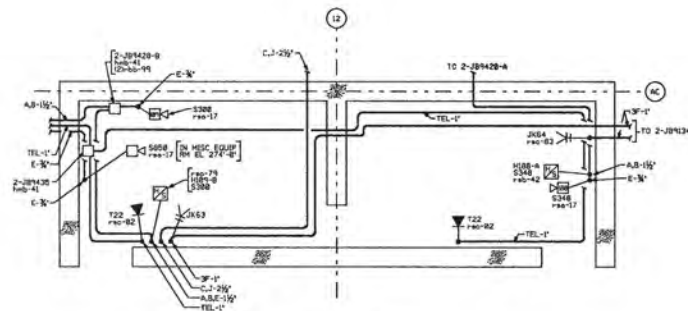
- LEGEND**
- 1. SUPERVISION MODULE
  - 2. ELEVATOR STATION
  - 3. BI-DIRECTIONAL SPEAKER
  - 4. LAMP/REAR IS INDICATES SPEAKER NUMBER AND REFERS TO EQUIPMENT SCHEDULE ON DRAWING. 2 INDICATES EQUIPMENT POWERED BY AMPLIFIER. 4 OR 5 INDICATES EQUIPMENT ABOVE FLOOR EXCEPT AS NOTED.
  - 5. CEILING SPEAKER. 5S INDICATES SPEAKER NUMBER AND REFERS TO EQUIPMENT SCHEDULE ON DRAWING.
  - 6. SPEAKER APPLIES. 6S INDICATES SPEAKER NUMBER AND REFERS TO EQUIPMENT SCHEDULE ON DRAWING. 6S1 & 6S2 INDICATES SPEAKERS POWERED BY AMPLIFIER. 6-4-5 ABOVE FLOOR EXCEPT AS NOTED.
  - 7. WALL HANDSET. 7S INDICATES HANDSET NUMBER AND REFERS TO EQUIPMENT SCHEDULE ON DRAWING. 7-4-5 ABOVE FLOOR EXCEPT AS NOTED.
  - 8. COMBINATION WALL HANDSET. 8S INDICATES HANDSET NUMBER AND REFERS TO EQUIPMENT SCHEDULE ON DRAWING. 8S1 & 8S2 INDICATES SPEAKERS POWERED BY COMBINATION HANDSET. 8-4-5 ABOVE FLOOR EXCEPT AS NOTED.
  - 9. DESK-TOP HANDSET WITH BUILT-IN SPEAKER. 9S INDICATES HANDSET NUMBER AND REFERS TO EQUIPMENT SCHEDULE ON DRAWING. 9S1 & 9S2 INDICATES SPEAKERS POWERED BY COMBINATION HANDSET. 9-4-5 ABOVE FLOOR EXCEPT AS NOTED.
  - 10. COMBINATION DESK-TOP HANDSET. 10S INDICATES HANDSET NUMBER AND REFERS TO EQUIPMENT SCHEDULE ON DRAWING. 10S1 & 10S2 INDICATES SPEAKERS POWERED BY COMBINATION HANDSET. 10-4-5 ABOVE FLOOR EXCEPT AS NOTED.
  - 11. TERMINAL BOX. 11S INDICATES TERMINAL BOX NUMBER.
  - 12. LINE BALANCE ASSEMBLY.
  - 13. JACK STATION FOR PORTABLE HANDSET. 13S INDICATES REFERS TO EQUIPMENT SCHEDULE ON DRAWING. 13-4-5 ABOVE FLOOR EXCEPT AS NOTED.
  - 14. TEL WALL OUTLET. WALL TYPE. 14-4-5 ABOVE FLOOR. INTRAPLANT TEL SYSTEM.
  - 15. BATTERY POWERED CALIBRATION JACK.
  - 16. TELEPHONE BOOTH.
- NOTES**
1. NO RELOCATION OF HANDSETS IS PERMITTED WITHOUT THE CONFORMANCE OF THE FIRE PROTECTION ENGINEER.
  2. FOR LOCATION OF LOW POWER DIGITAL CELLULAR TELEPHONE SEE 13-4-5 AND LOCATION MONITORING BROADCAST BONES SEE 13-4-5 AND LOCATION MONITORING BROADCAST BONES SEE 13-4-5.

SOURCE: EE-80A Rev. 30

FIGURE 9.5-5  
COMMUNICATIONS PLAN NORMAL STANDBY  
& HPCS SWITCHGEAR ROOMS  
SHEET 1 OF 2

NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

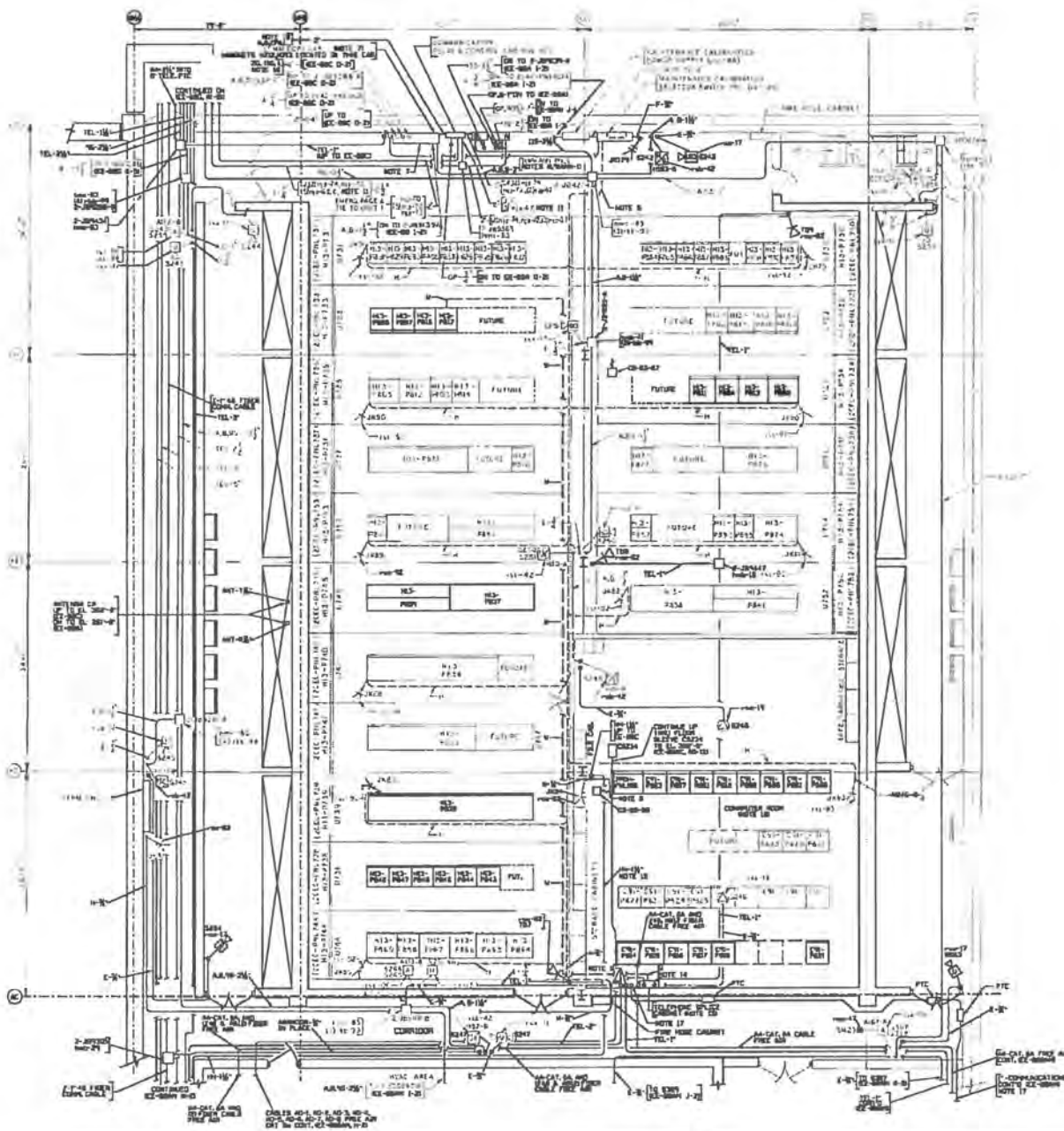




MISC. EQUIP. RM.  
PLAN-EL. 274'-8"

NIAGARA MOHAWK POWER CORPORATION  
NINE MILE POINT-UNIT 2  
UPDATE SAFETY ANALYSIS REPORT





SOURCE: EE-0808

FIGURE 9.5-6

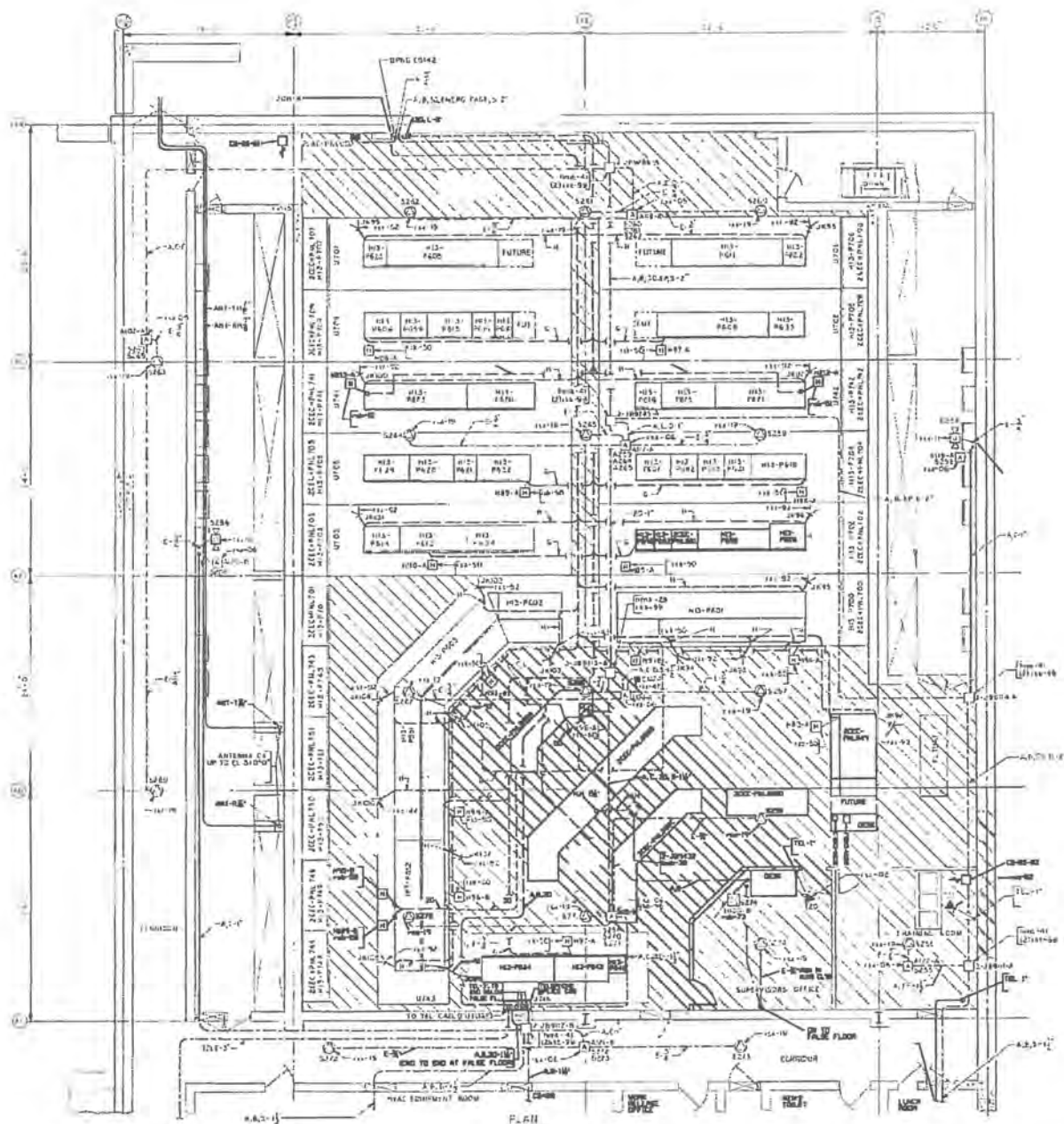
COMMUNICATIONS PLAN CONTROL BUILDING  
RELAY & COMPUTER ROOM  
EL. 288'-0"

NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

USAR REVISION 22

OCTOBER 2016





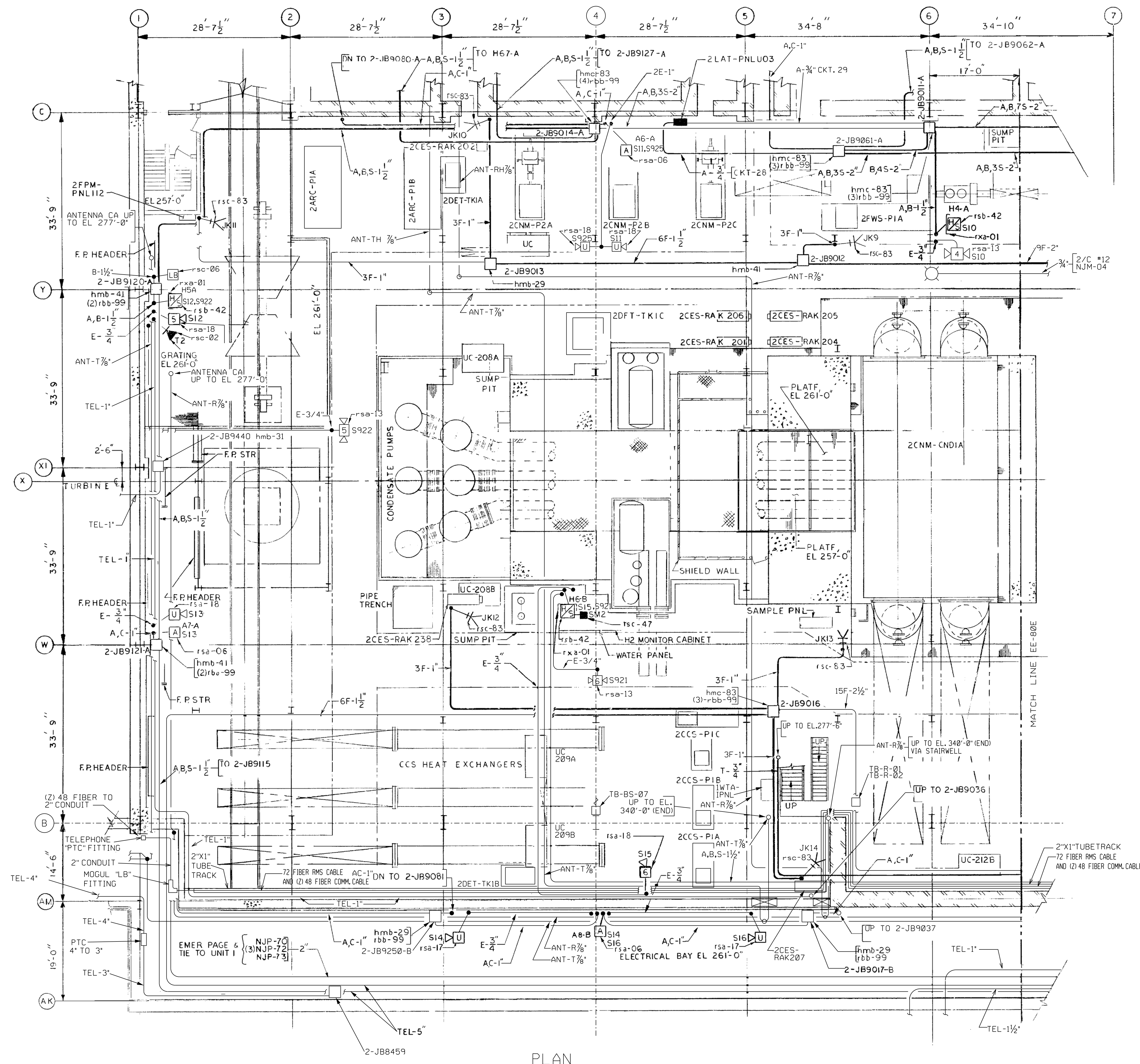
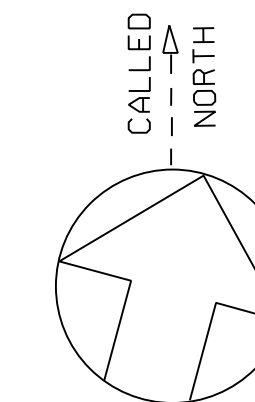
SOURCE: EE-80C-9

FIGURE 9.5-7

COMMUNICATIONS PLAN  
MAIN CONTROL ROOM  
EL. 306'-0"

NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT





PLAN

SOURCE: EE-80D

FIGURE 9.5-8

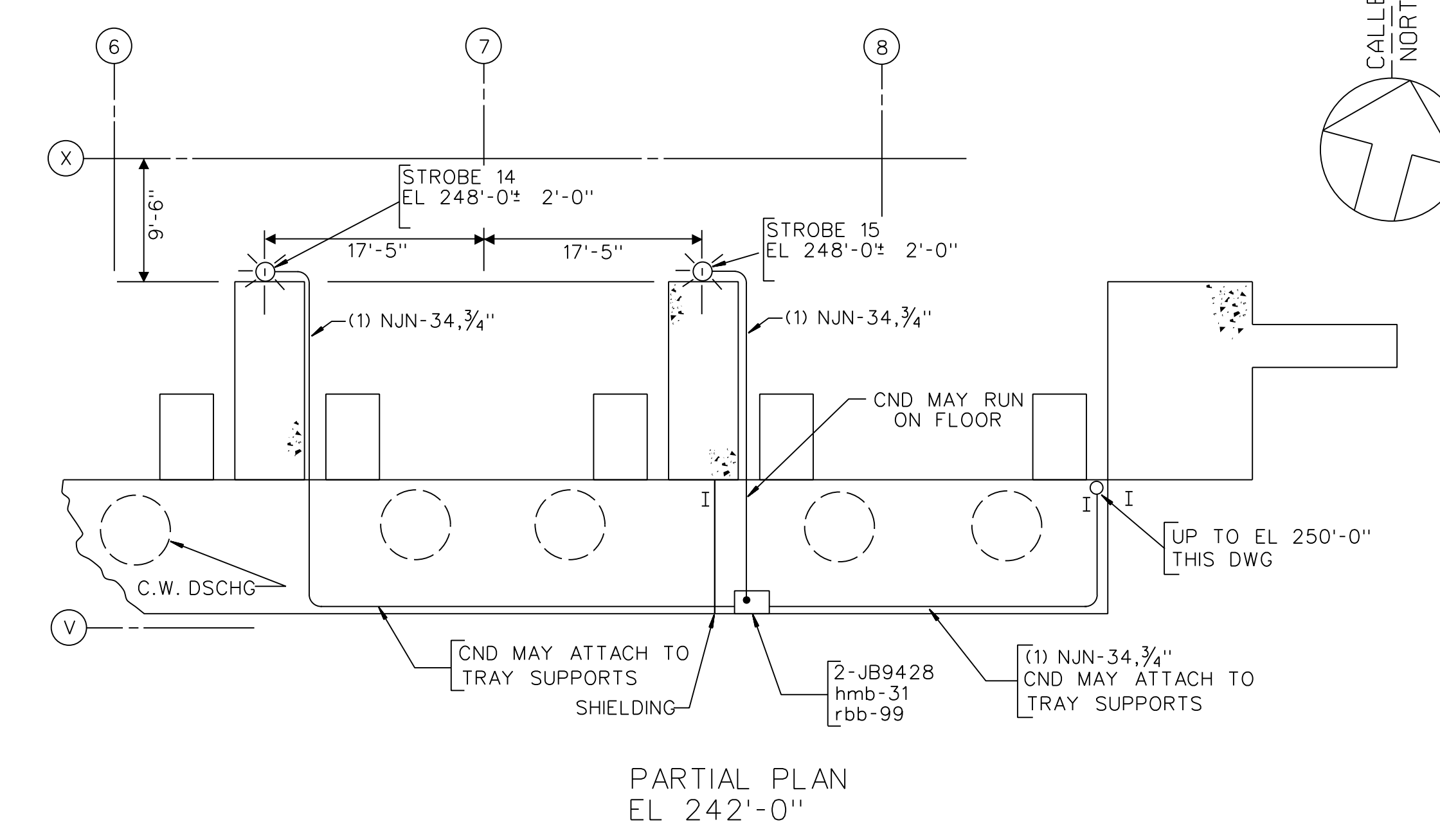
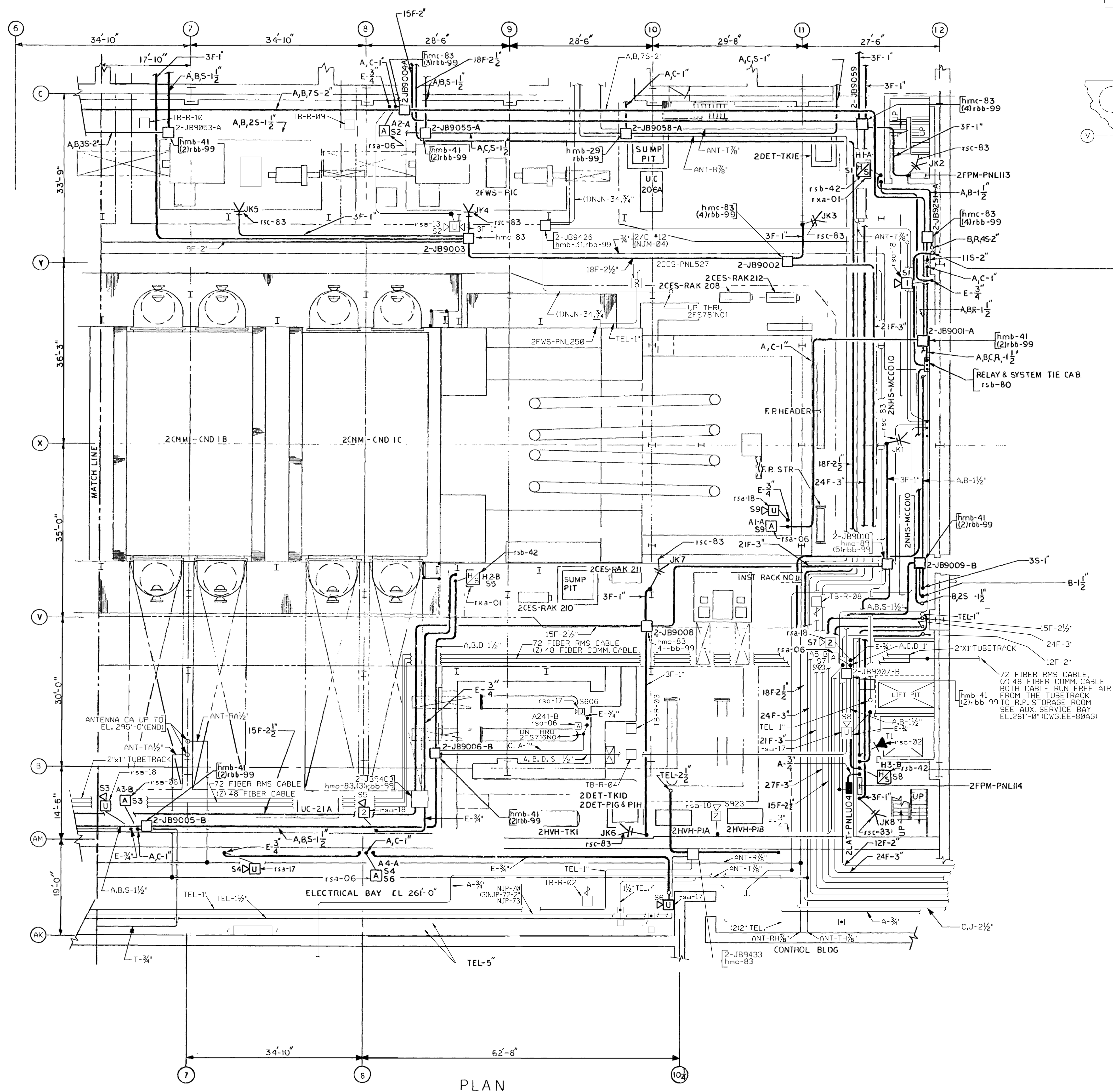
COMMUNICATION PLAN TURBINE  
BUILDING EL. 250'-0''  
SHEET 1 OF 2

NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

USAR REVISION 22

OCTOBER 2016





SOURCE: EE-80E

FIGURE 9.5-8

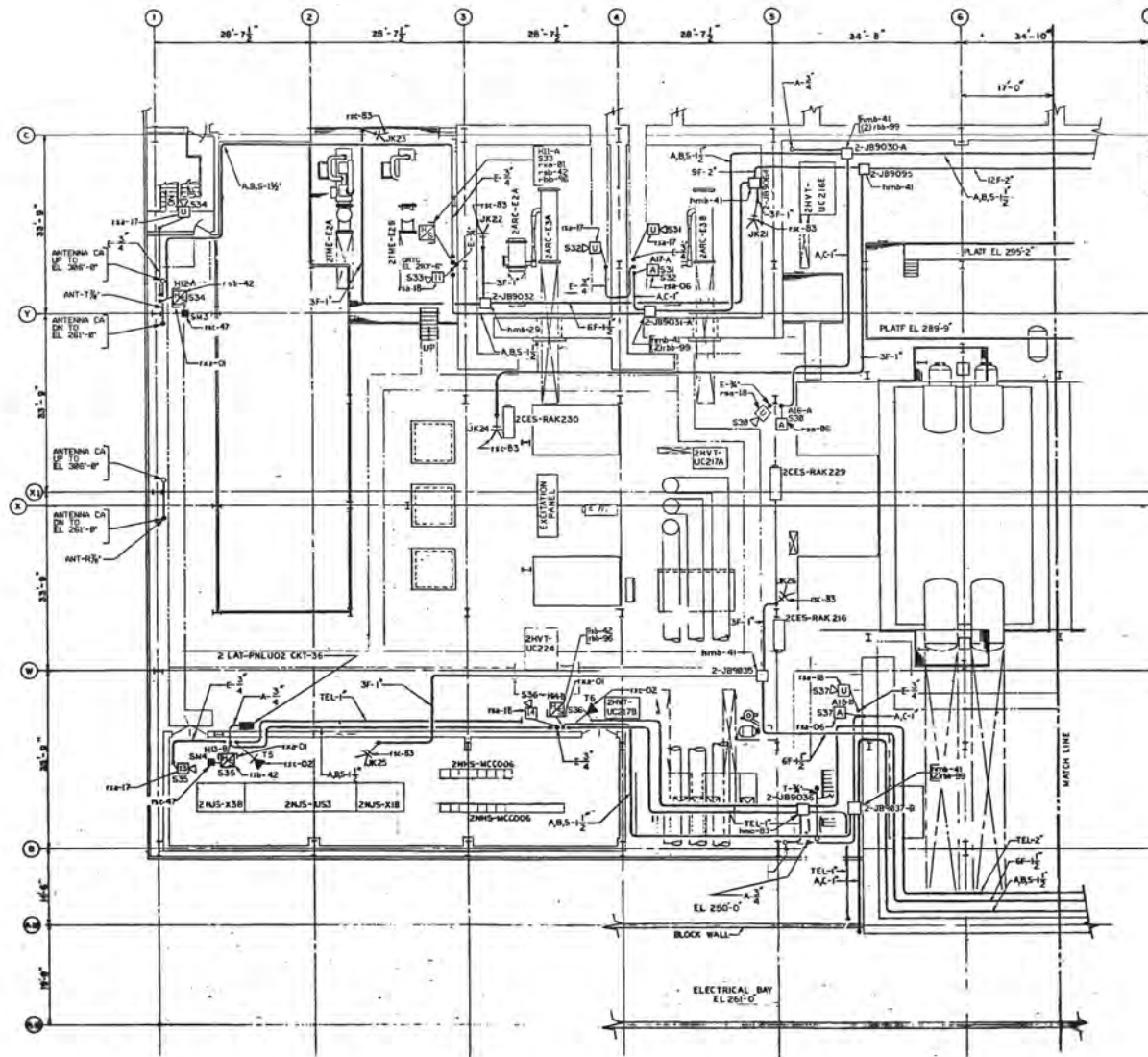
COMMUNICATION PLAN TURBINE  
BUILDING EL. 250'-0"  
SHEET 2 OF 2

NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

USAR REVISION 22

OCTOBER 2016





SOURCE: EE-80F-7

FIGURE 9.5-9

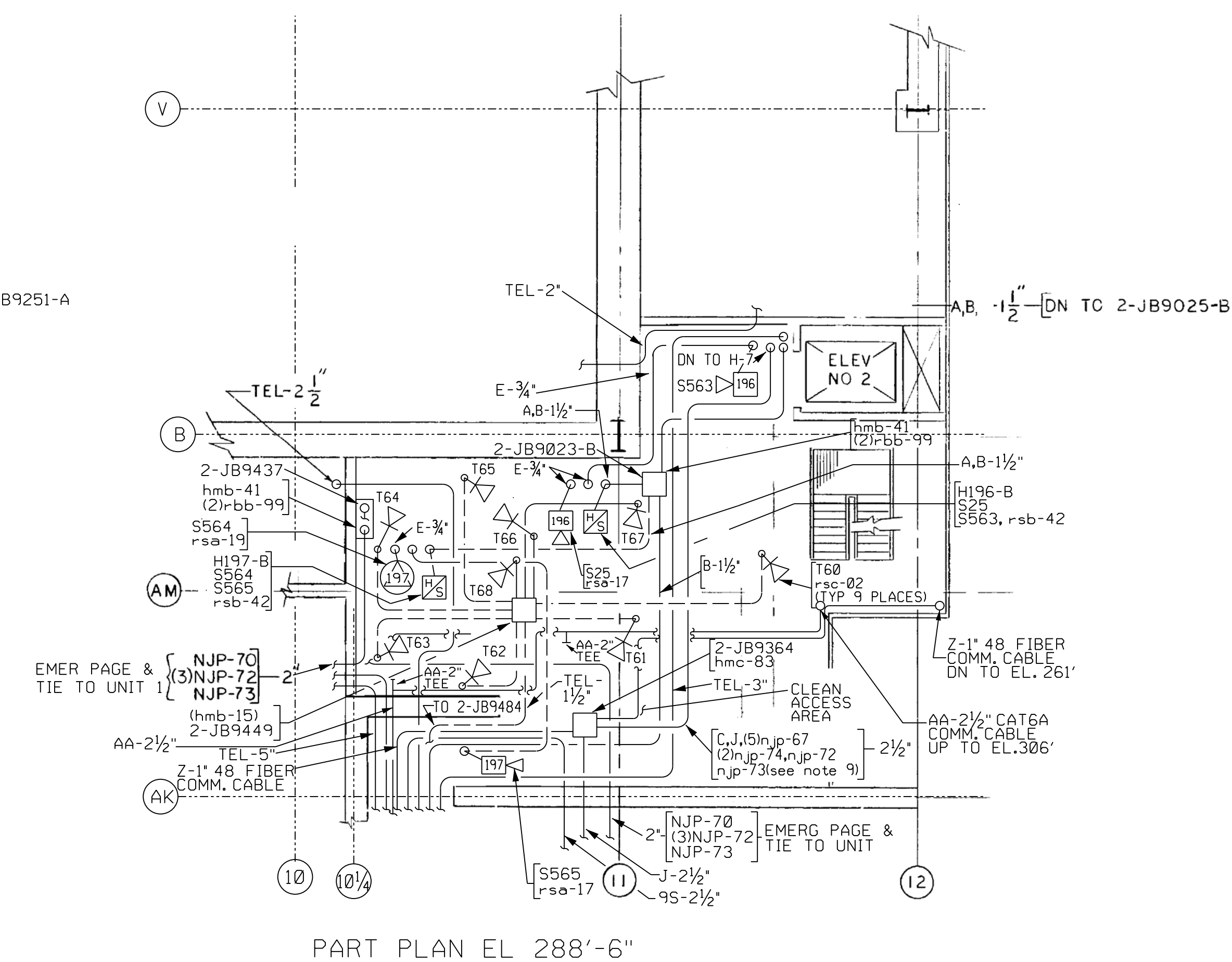
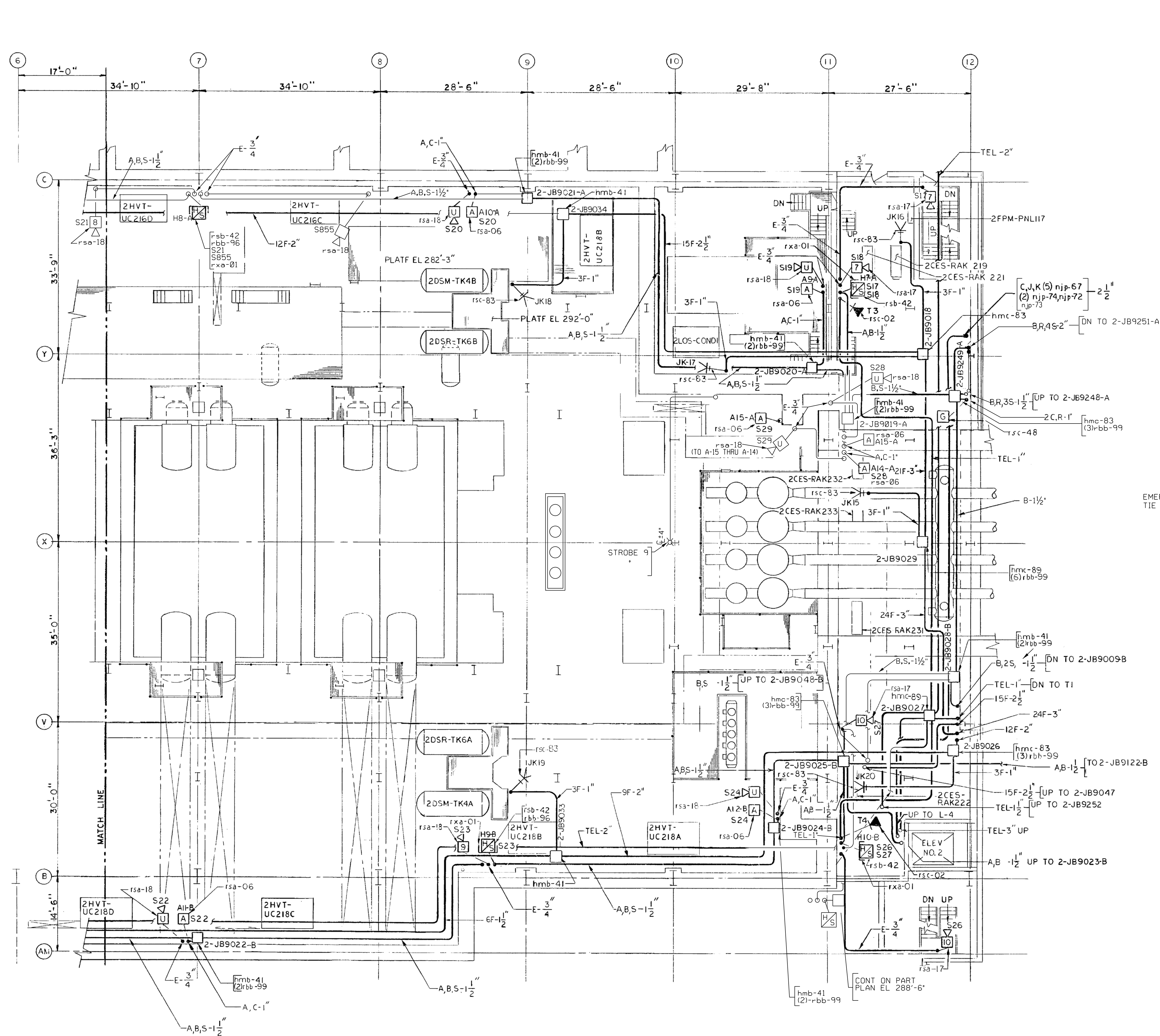
COMMUNICATION PLAN TURBINE  
BUILDING EL. 277'-0"  
SHEET 1 OF 2

NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

UBAR REVISION 2

OCTOBER 1990





SOURCE: EE-80G

FIGURE 9.5-9

COMMUNICATION PLAN TURBINE  
BUILDING EL. 277'-0"  
SHEET 2 OF 2

NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

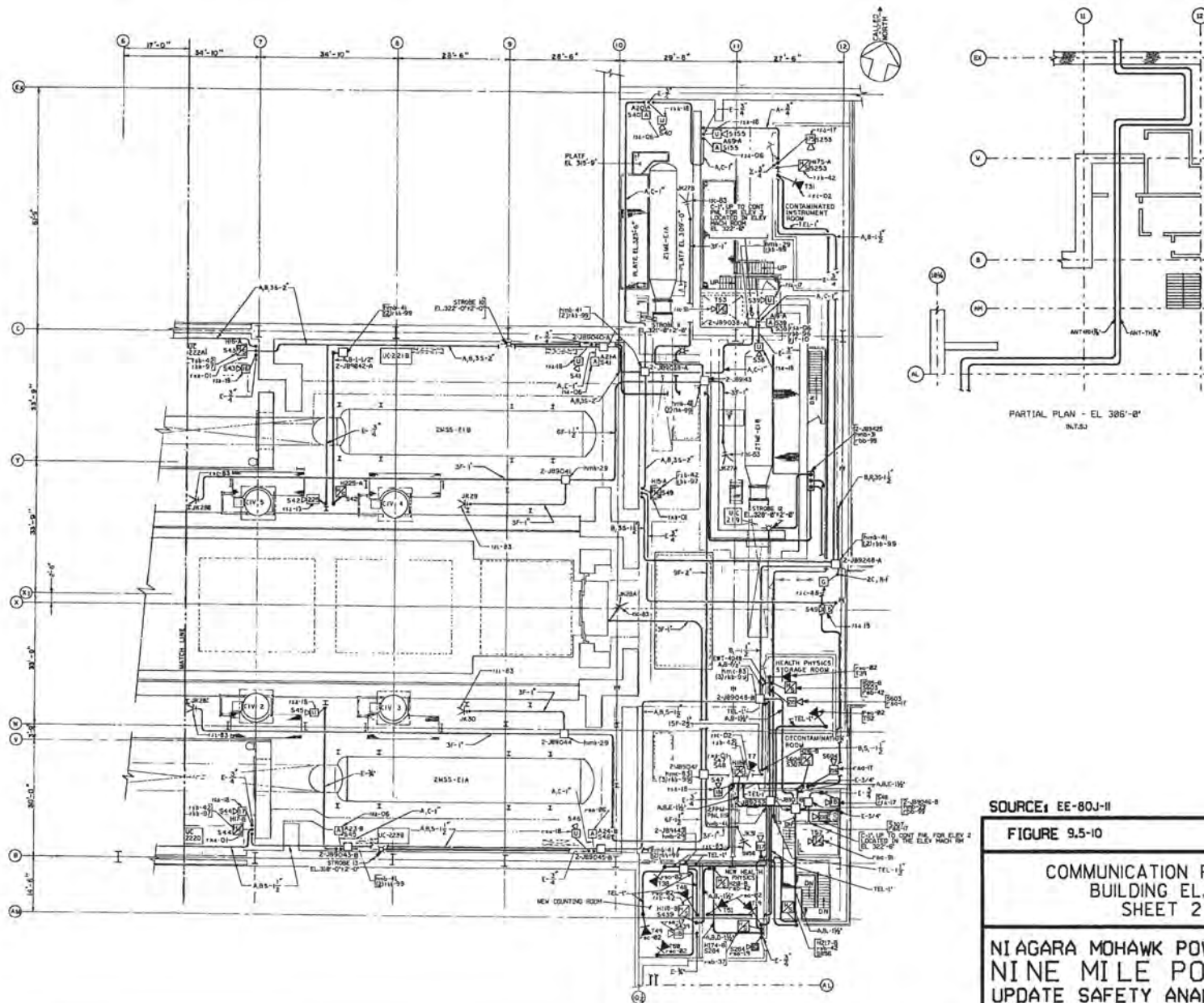
USAR REVISION 22

OCTOBER 2016









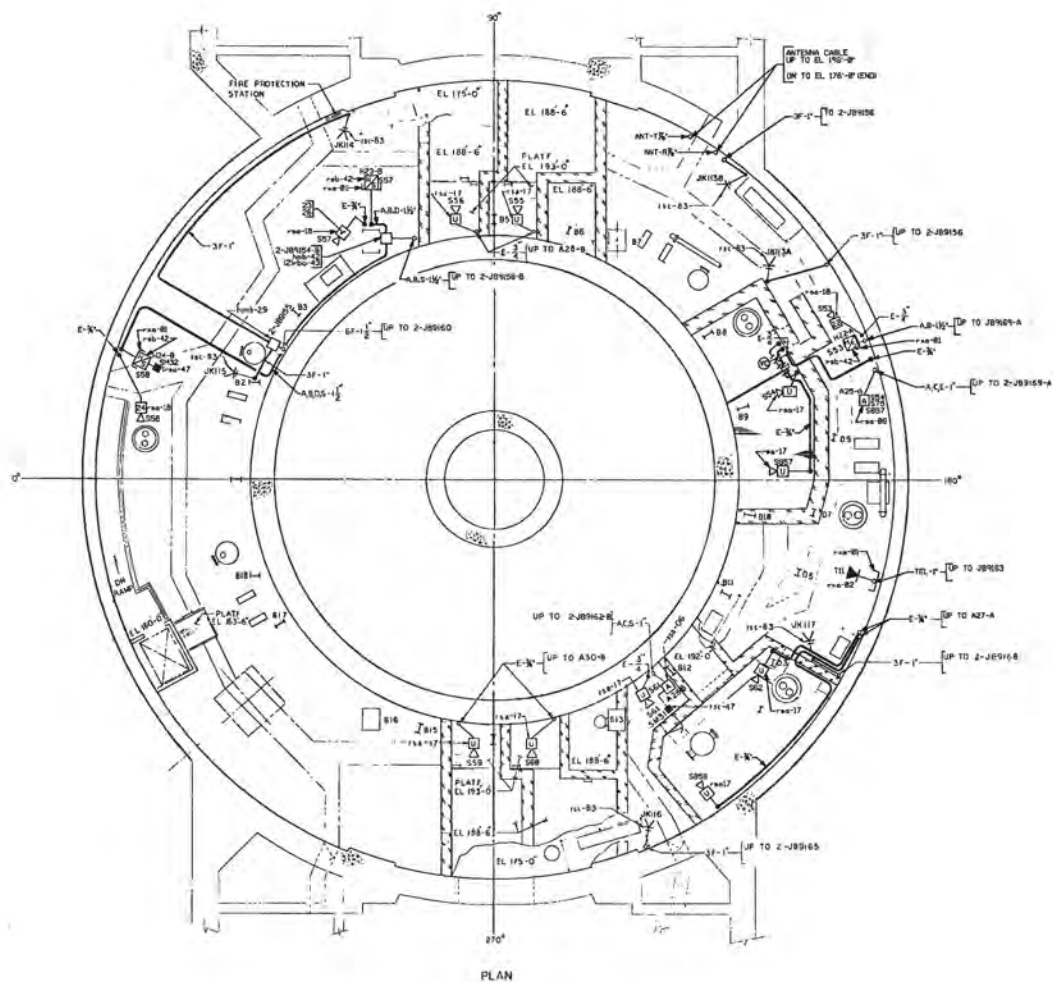
SOURCE: EE-80J-II

FIGURE 9.5-10

COMMUNICATION PLAN TURBINE  
BUILDING EL. 306'-0"  
SHEET 2 OF 2

NIAGARA MOHAWK POWER CORPORATION  
NINE MILE POINT-UNIT 2  
UPDATE SAFETY ANALYSIS REPORT





SOURCE: EE-80K-6

FIGURE 9.5-11

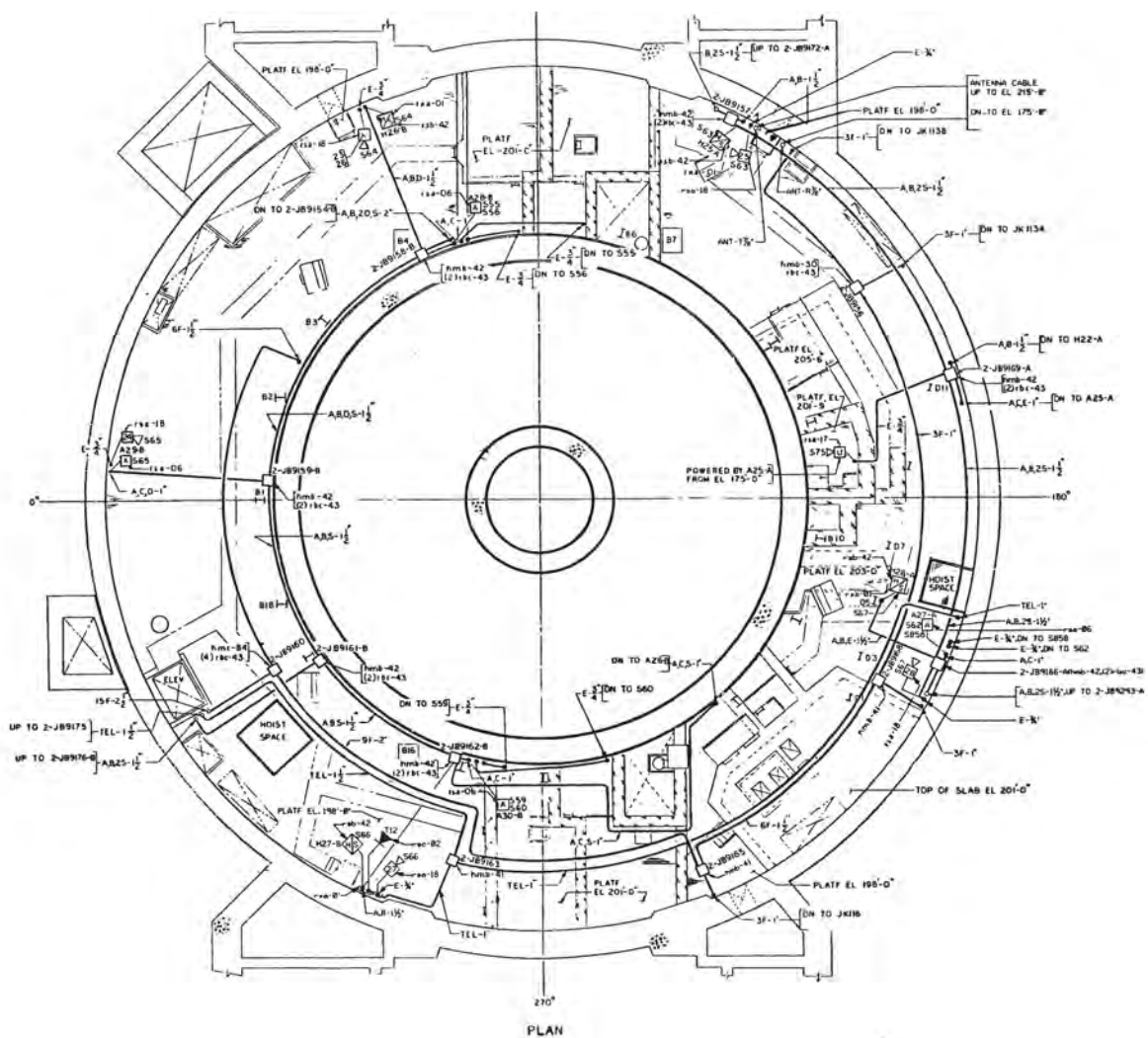
COMMUNICATION PLAN REACTOR  
BUILDING EL. 175'-0"

NIAGARA MOHAWK POWER CORPORATION  
NINE MILE POINT-UNIT 2  
UPDATE SAFETY ANALYSIS REPORT

USAR REVISION 5

OCTOBER 1993





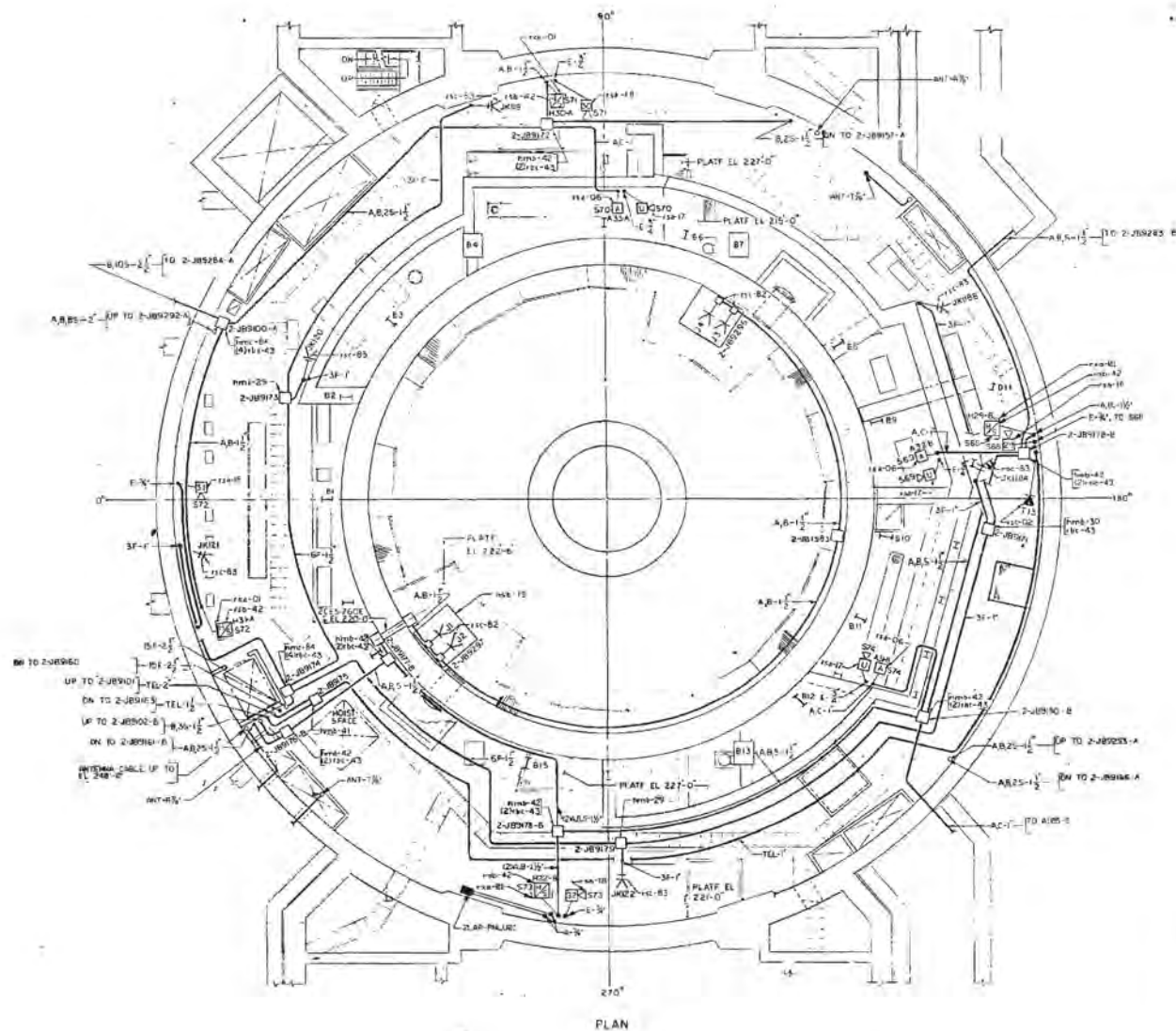
SOURCE: EE-80L-5

FIGURE 9.5-12

COMMUNICATION PLAN REACTOR  
BUILDING EL. 196'-0"

NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT





SOURCE: EE-80M-6

FIGURE 9.5-13

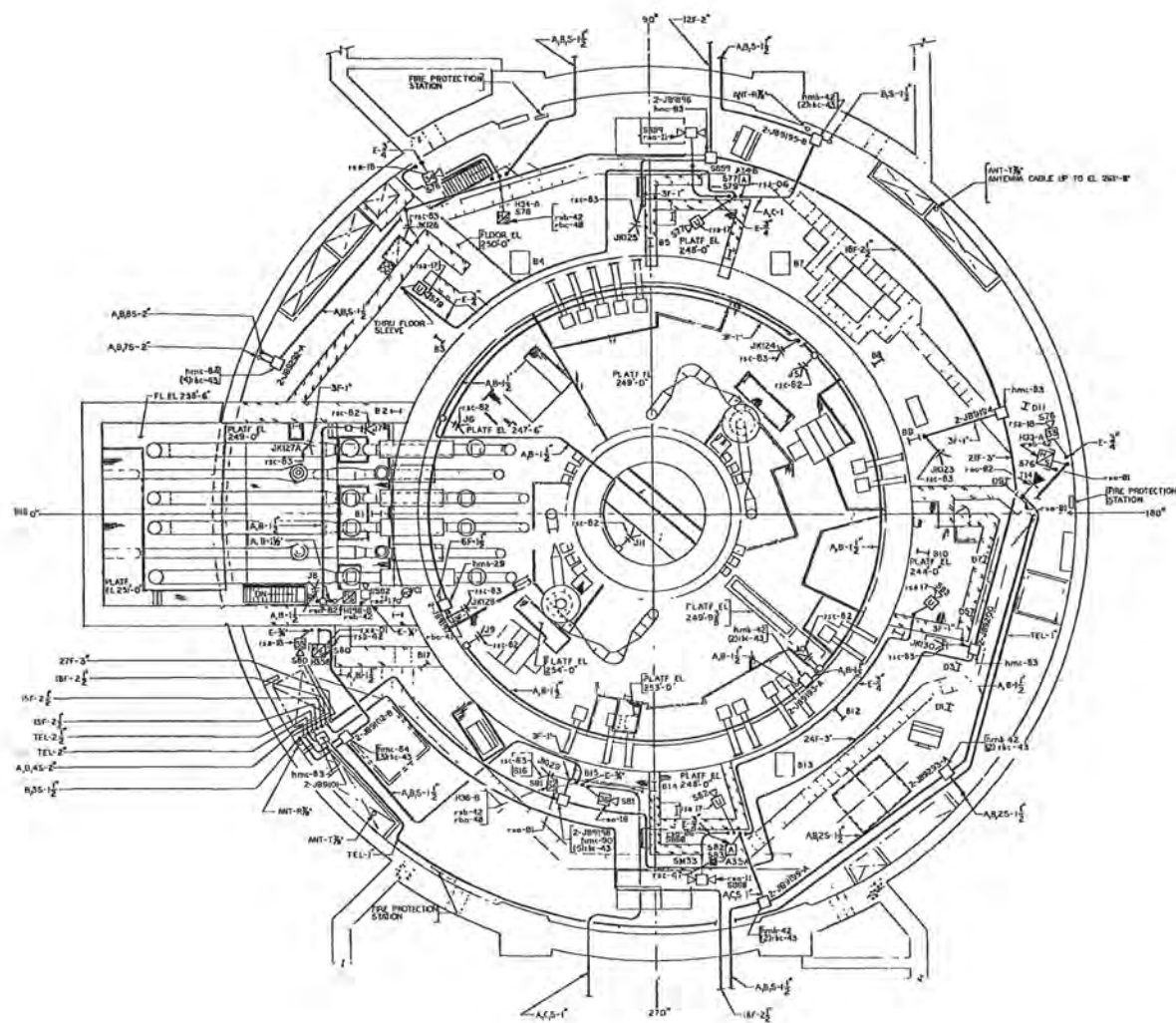
COMMUNICATION PLAN REACTOR  
BUILDING EL.215'-0"

NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

USAR REVISION 2

OCTOBER 1990





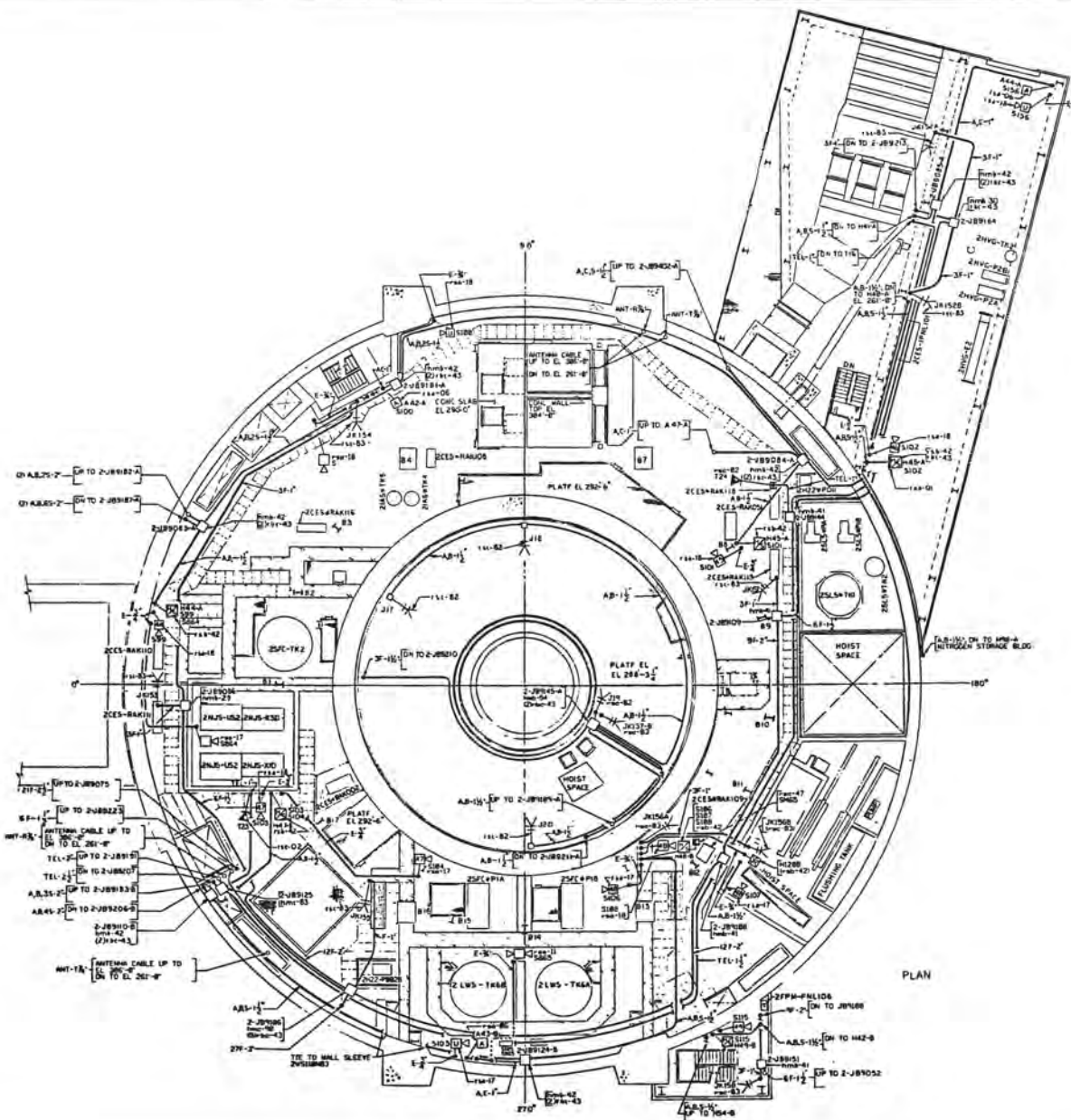
OCTOBER 1993





NOVEMBER 1998





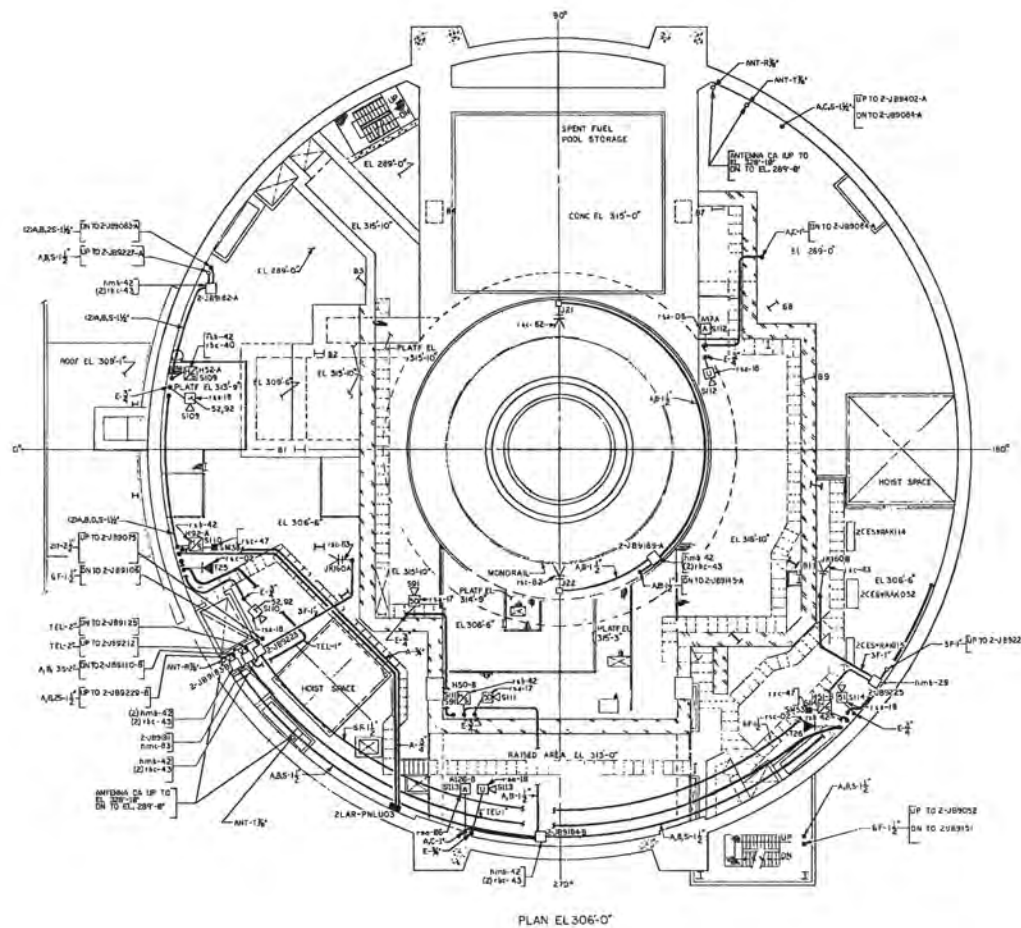
SOURCE: EE-80Q-3

FIGURE 9.5-16

COMMUNICATION PLAN REACTOR  
BUILDING EL. 289'-0"

NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT





SOURCE: EE-88R-4

FIGURE 9.5-17

COMMUNICATION PLAN REACTOR  
BUILDING EL. 306'-0"

NIAGARA MOHAWK POWER CORPORATION  
NINE MILE POINT-UNIT 2  
UPDATE SAFETY ANALYSIS REPORT

USAR REVISION 5

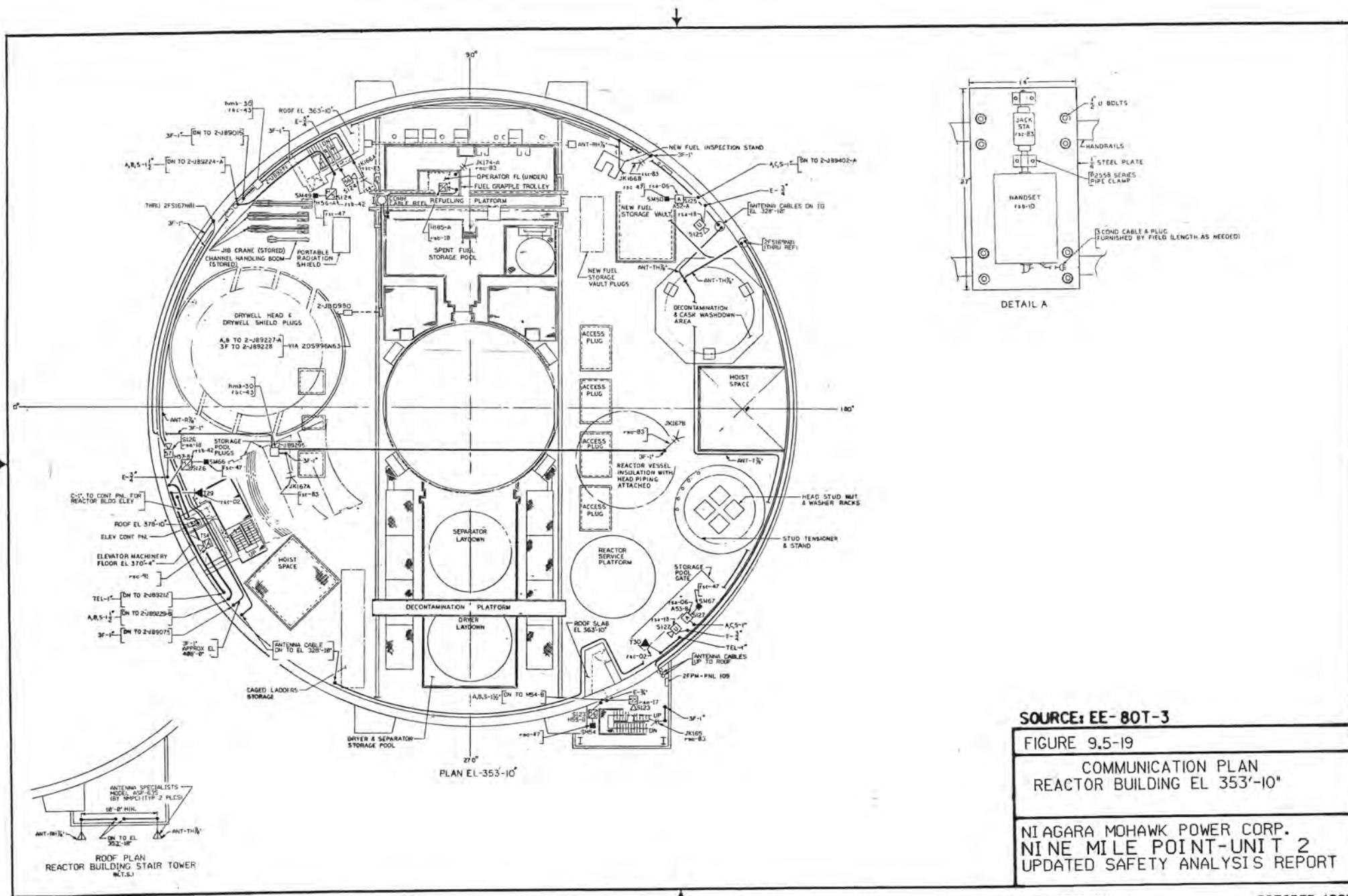
OCTOBER 1993



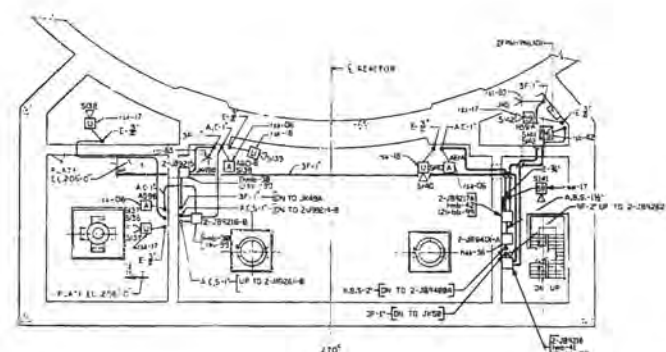
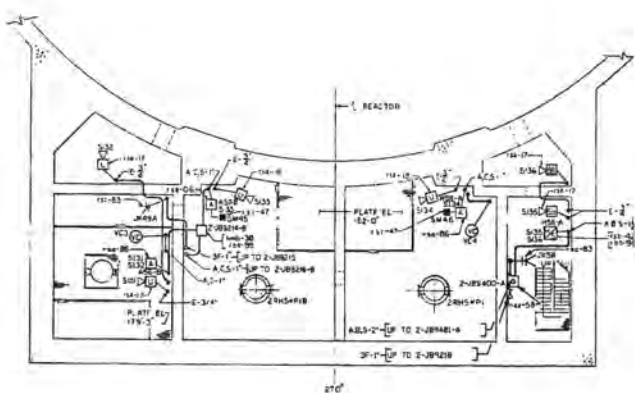
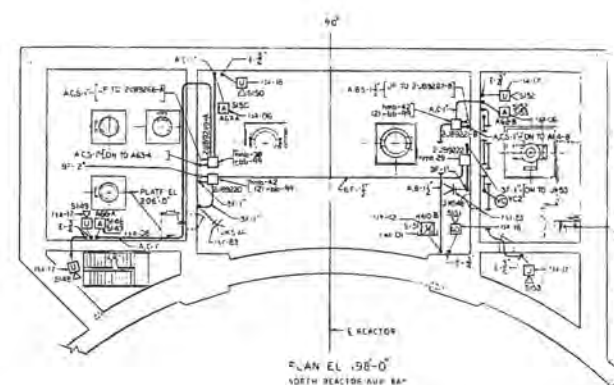
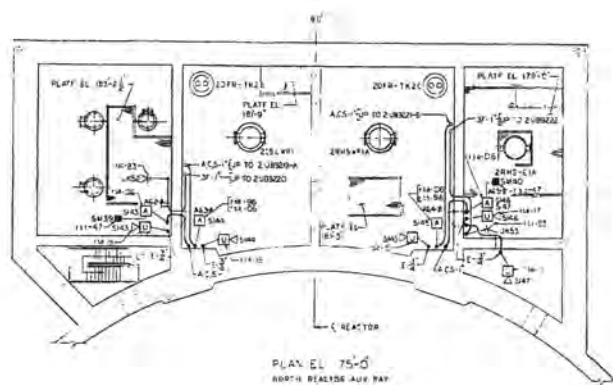


NOVEMBER 1998









SOURCE: EE-80U-5

FIGURE 9.5-20

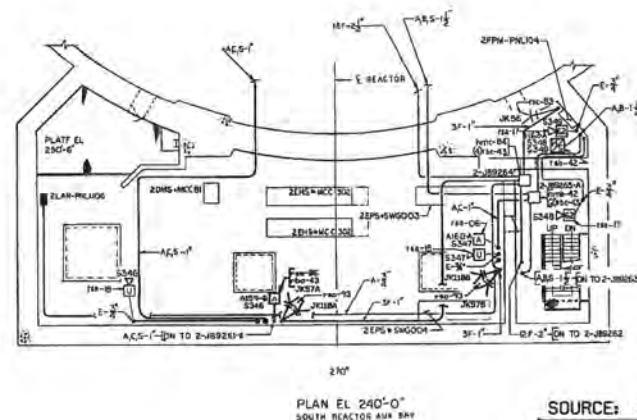
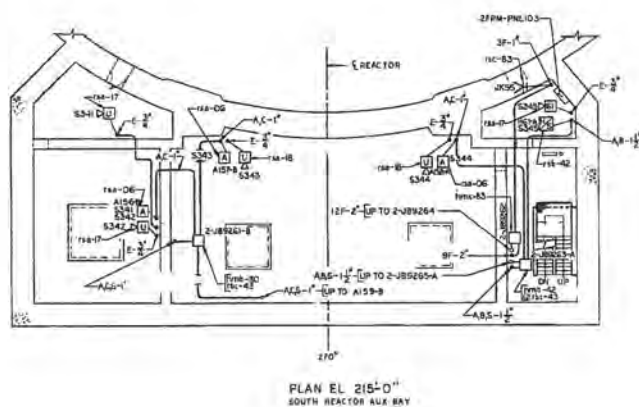
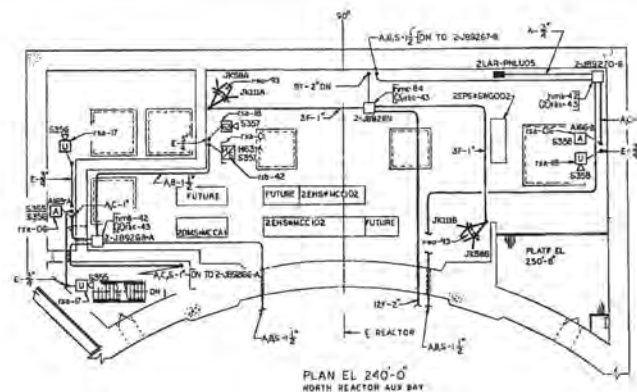
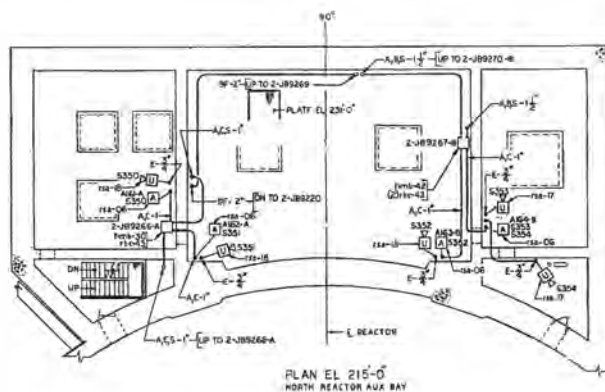
COMMUNICATION PLAN REACTOR  
AUXILIARY BAYS NORTH & SOUTH  
SHEET 1 OF 2

NIAGARA MOHAWK POWER CORPORATION  
NINE MILE POINT-UNIT 2  
UPDATE SAFETY ANALYSIS REPORT

USAR REVISION 5

OCTOBER 1993





SOURCE: EE-80V

FIGURE 9.5-20

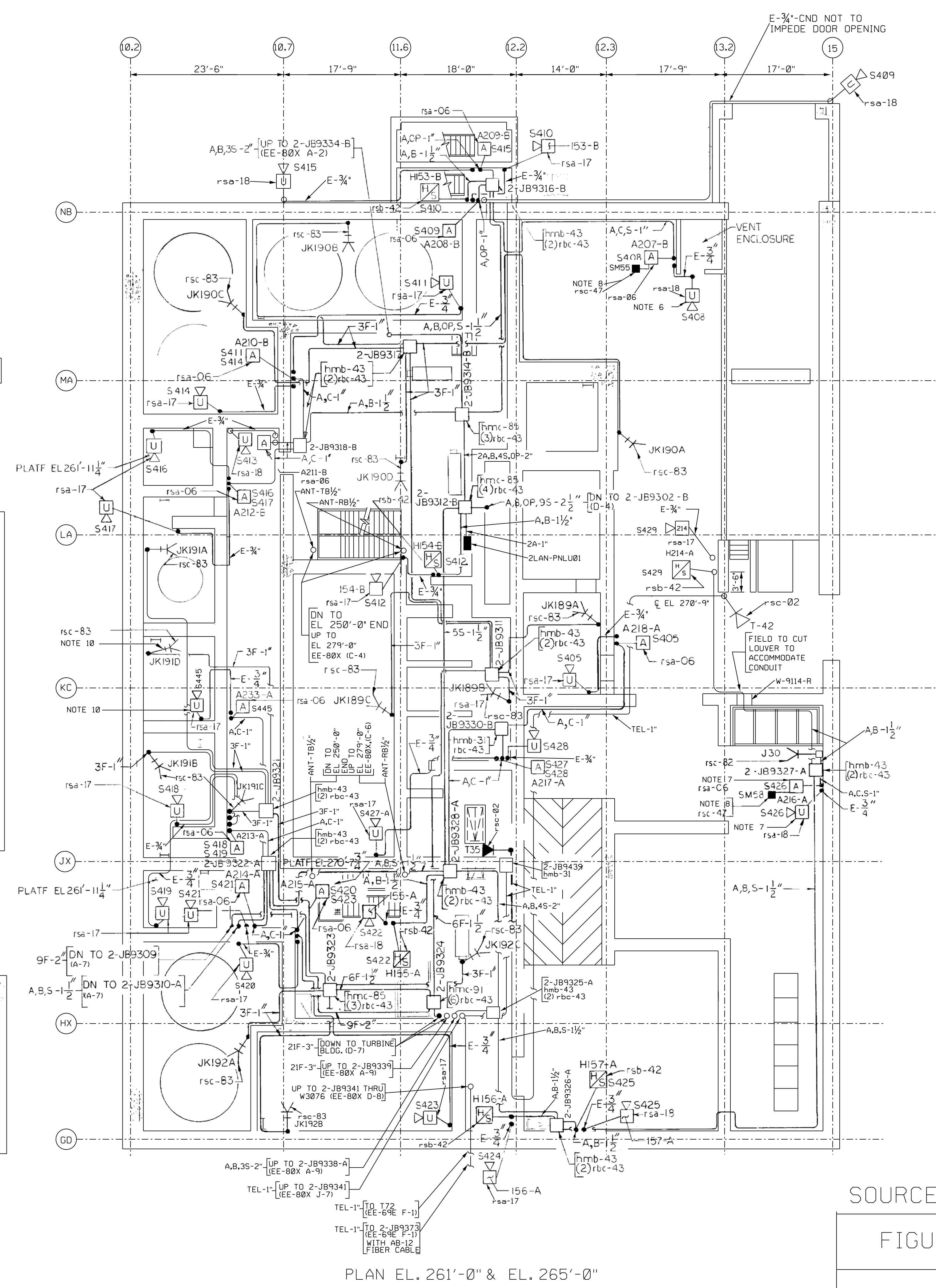
COMMUNICATION PLAN REACTOR  
AUXILIARY BAYS NORTH & SOUTH  
SHEET 2 OF 2

NIAGARA MOHAWK POWER CORPORATION  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

USAR REVISION 13

OCTOBER 2000





# NINE MILE POINT-UNIT 2

## UPDATED SAFETY ANALYSIS REPORT

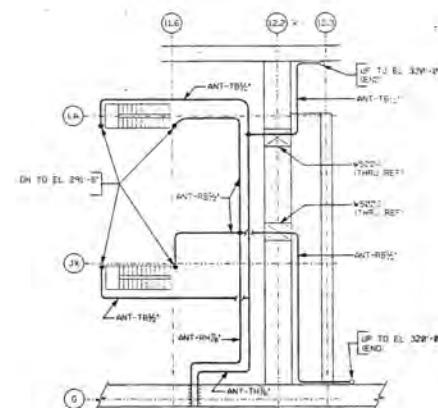
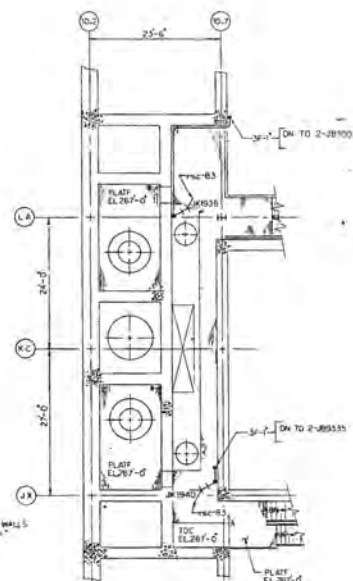
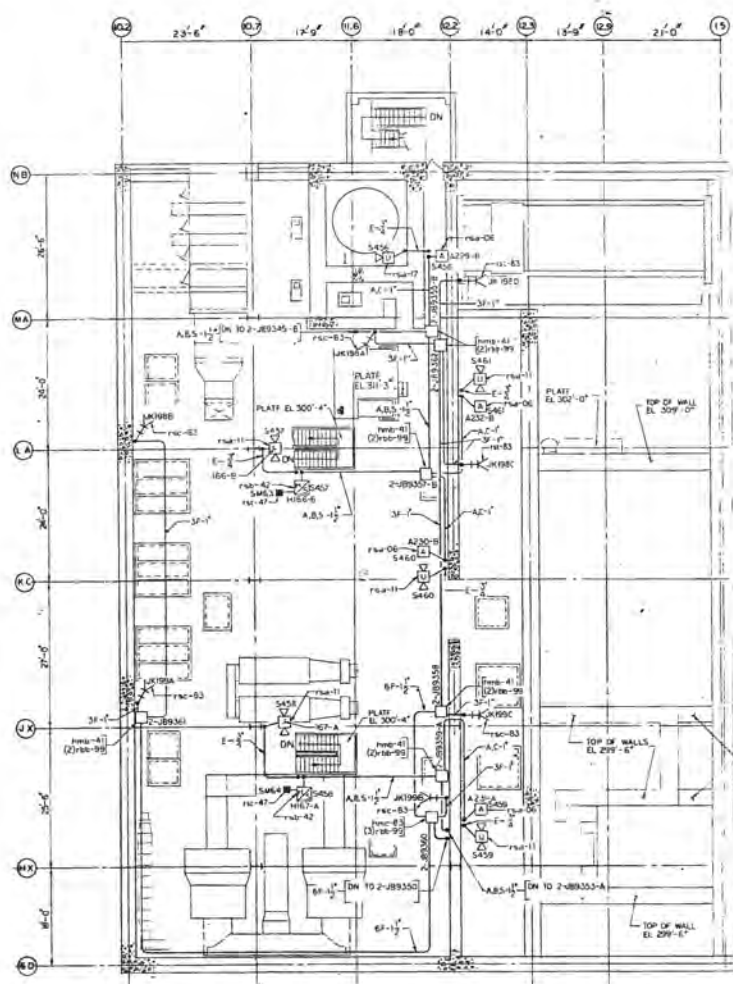




# NINE MILE POINT-UNIT 2

## UPDATED SAFETY ANALYSIS REPORT





SOURCE: EE-80Y-2

FIGURE 9.5-23

COMMUNICATION PLAN RADWASTE  
BUILDING EL. 309'-0"

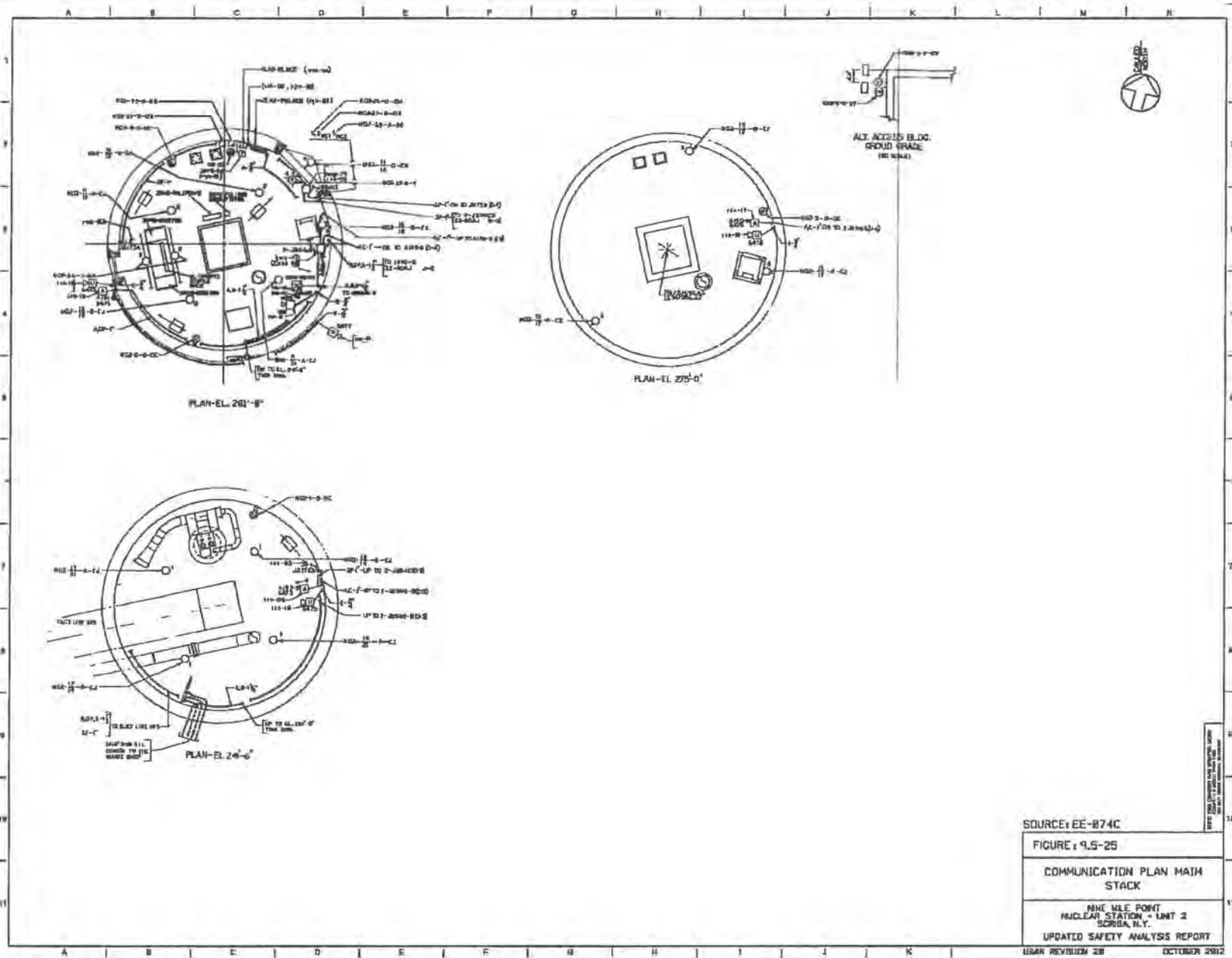
NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT



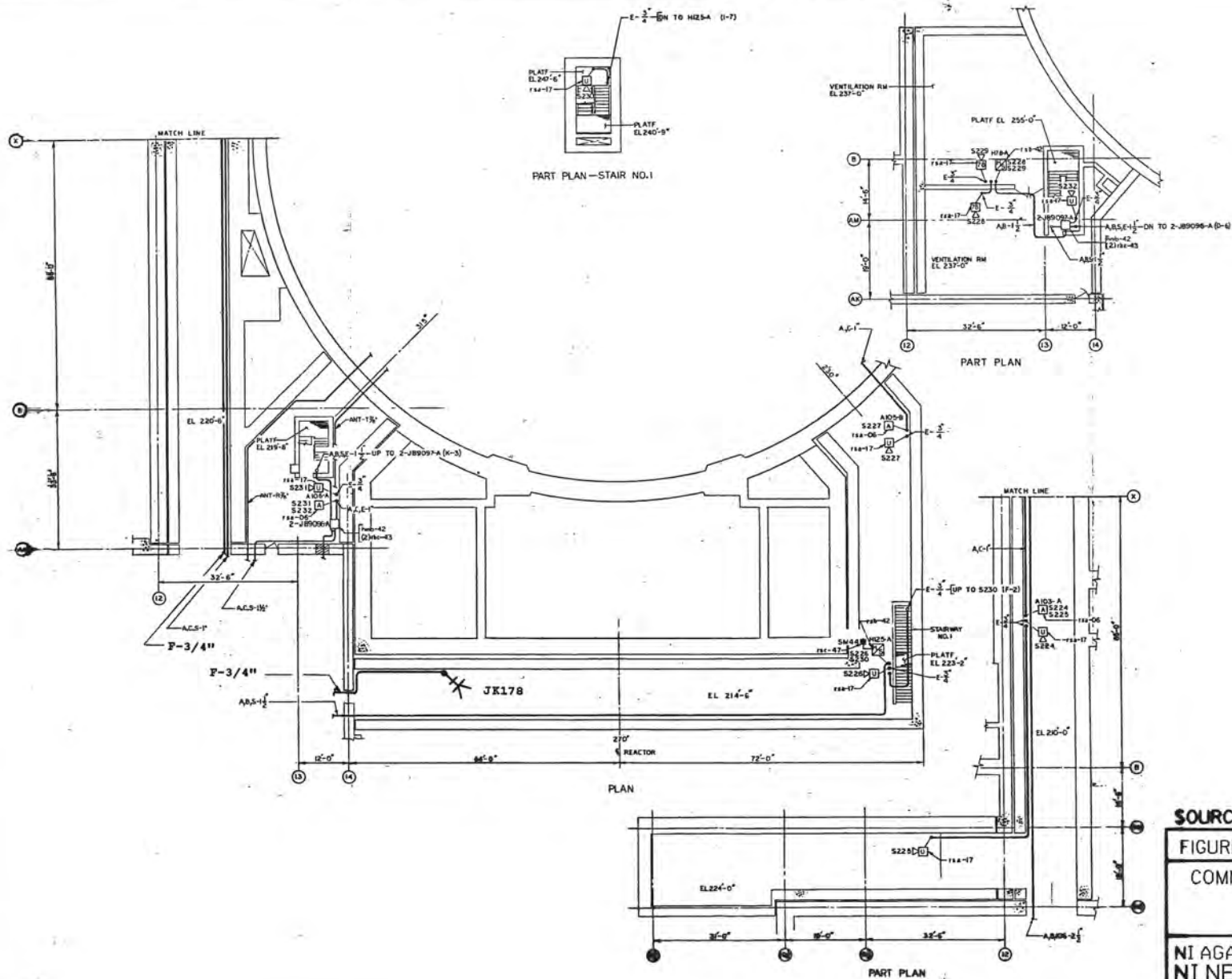


NOVEMBER 1995









SOURCE: EE-80AB-7

FIGURE 9.5-26

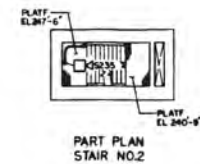
COMMUNICATION PLAN ELECTRICAL  
TUNNELS  
SHEET 1 OF 2

NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

USAR REVISION 3

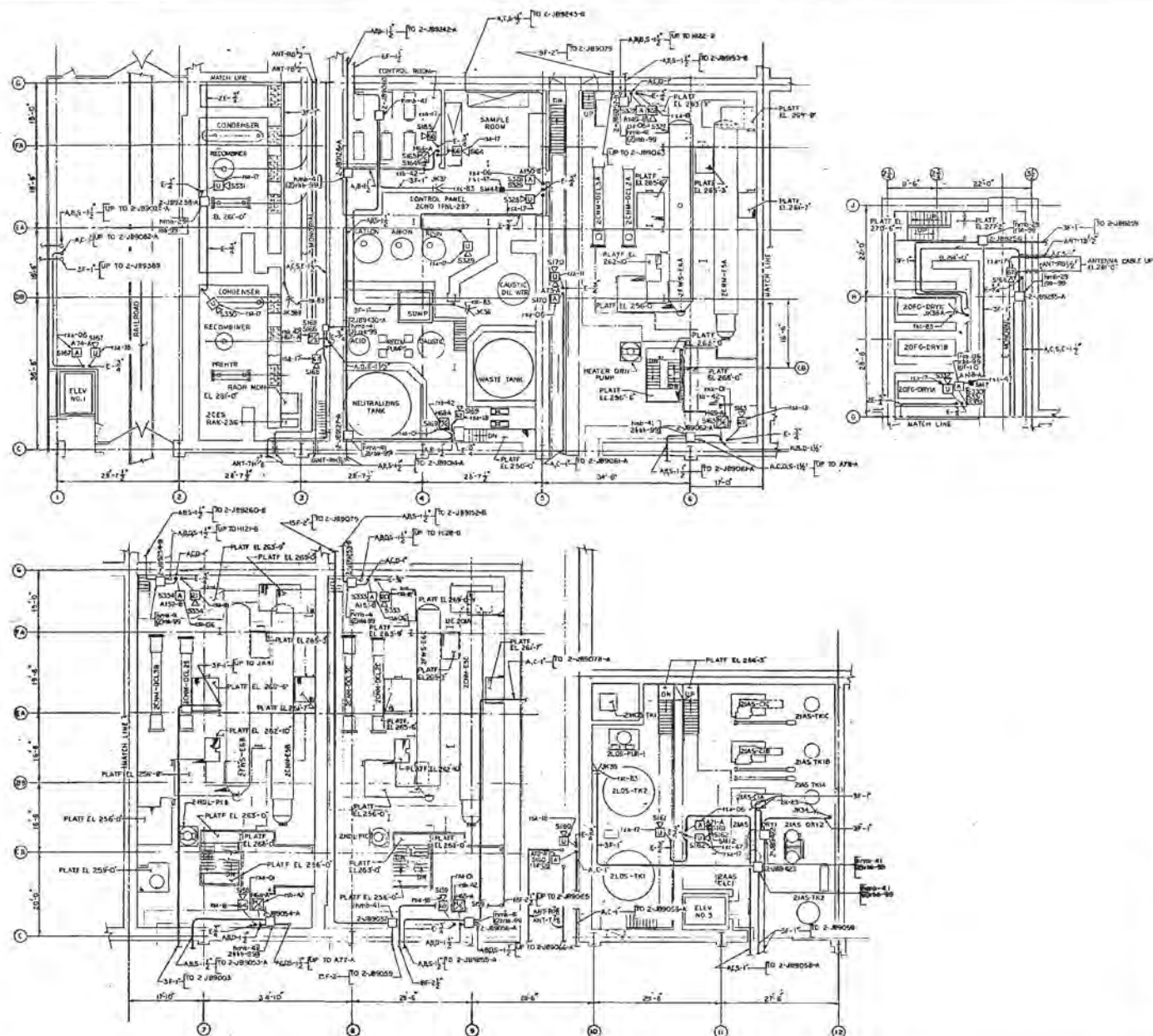
OCTOBER 1991





NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT





SOURCE: EE-80AD-6

FIGURE 9.5-27

COMMUNICATION PLAN HEATER  
BAYS EL. 250'-0"

NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

UBAR REVISION 2

OCTOBER 1990







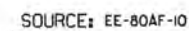
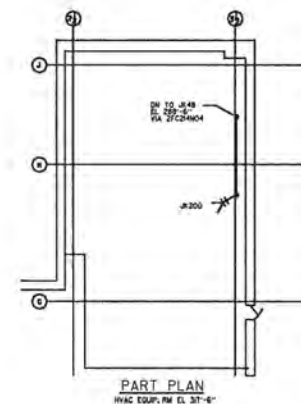
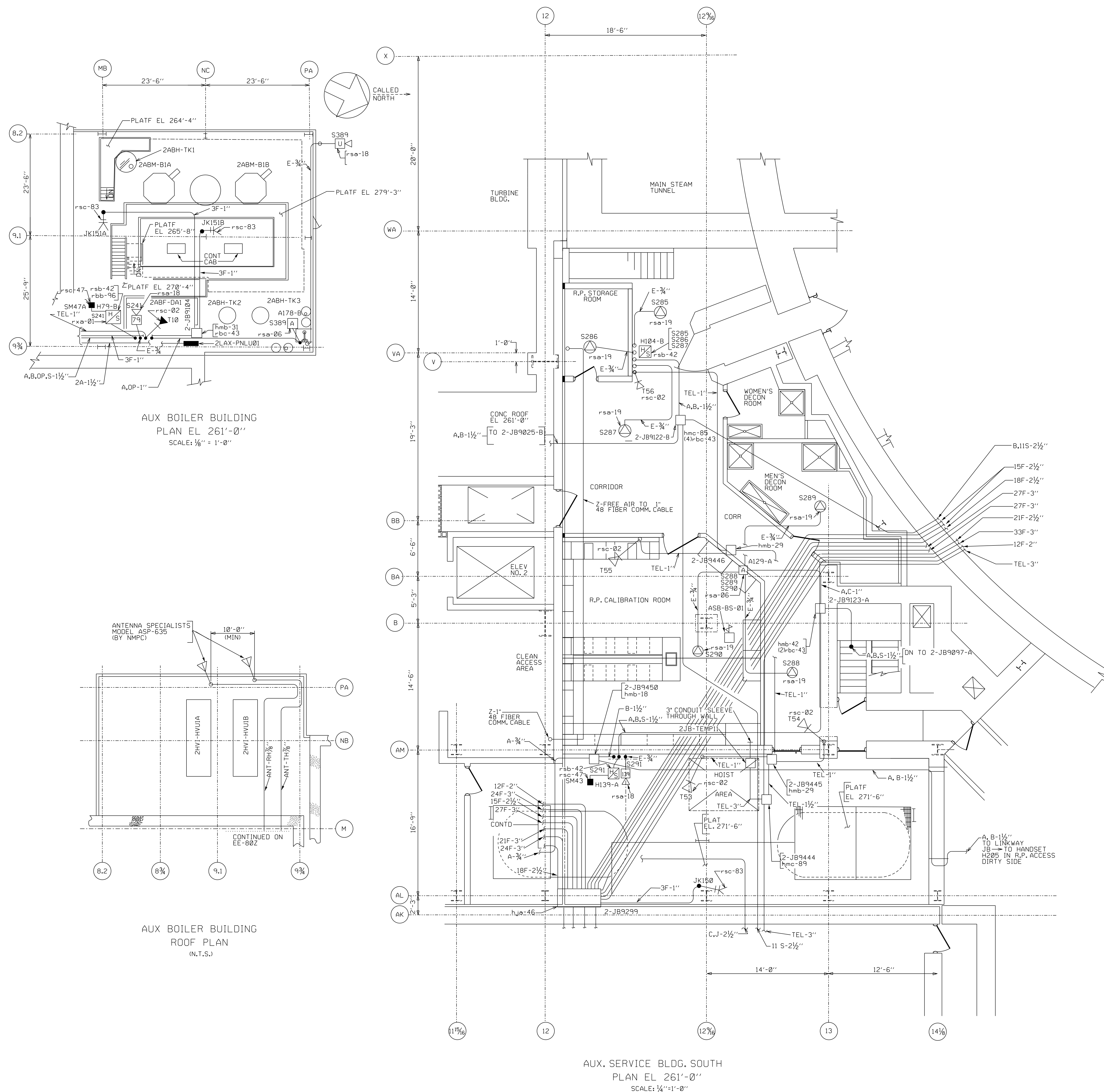


FIGURE 9.5-29

COMMUNICATIONS PLAN  
VENTILATION EQUIPMENT ROOM  
EL. 306'-0"

NIAGARA MOHAWK POWER CORPORATION  
NINE MILE POINT-UNIT 2  
UPDATE SAFETY ANALYSIS REPORT





SOURCE: EE-80AG

FIGURE 9.5-30

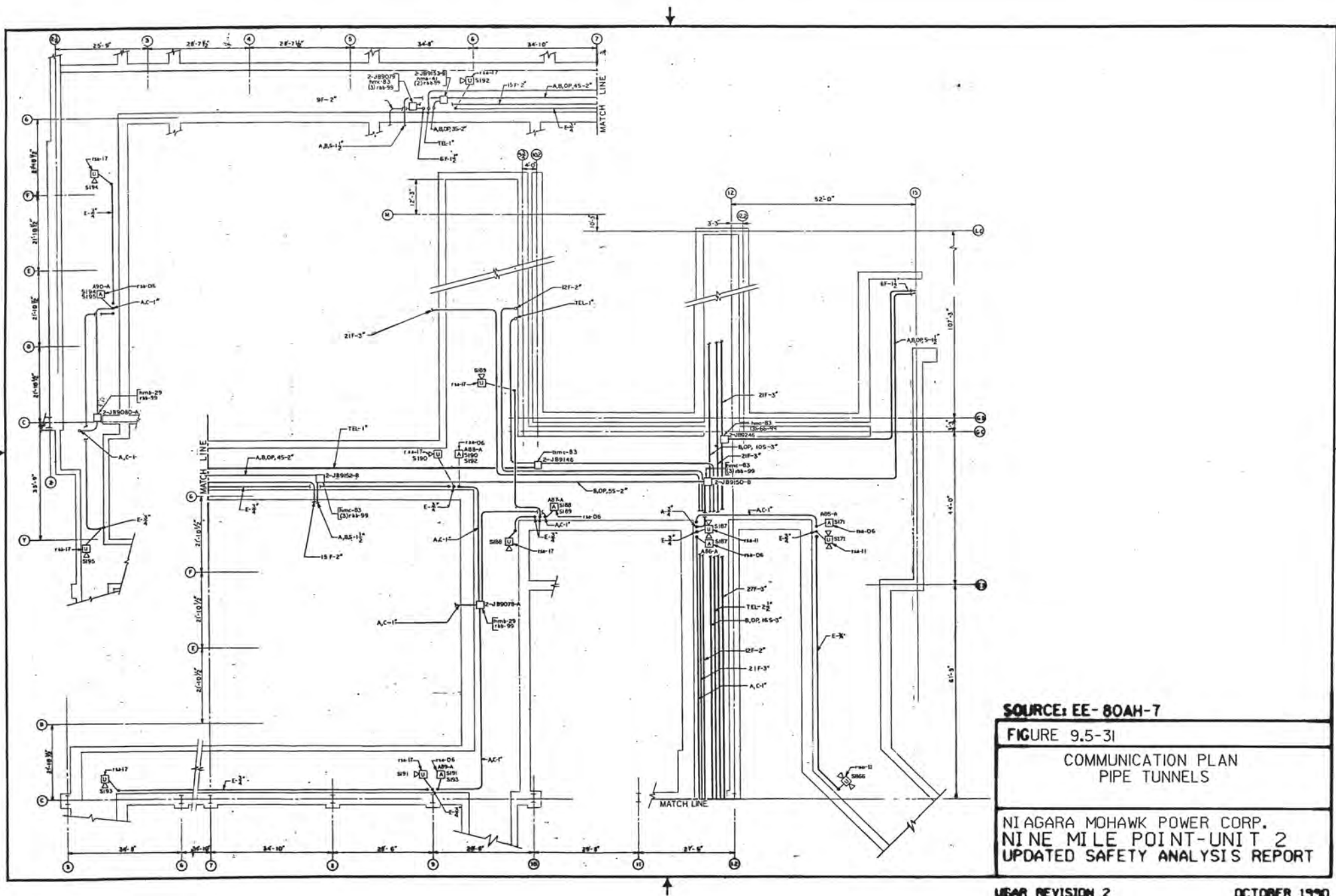
COMMUNICATION PLAN AUXILIARY  
SERVICE & AUXILIARY BOILER BUILDING

NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

USAR REVISION 22

OCTOBER 2016

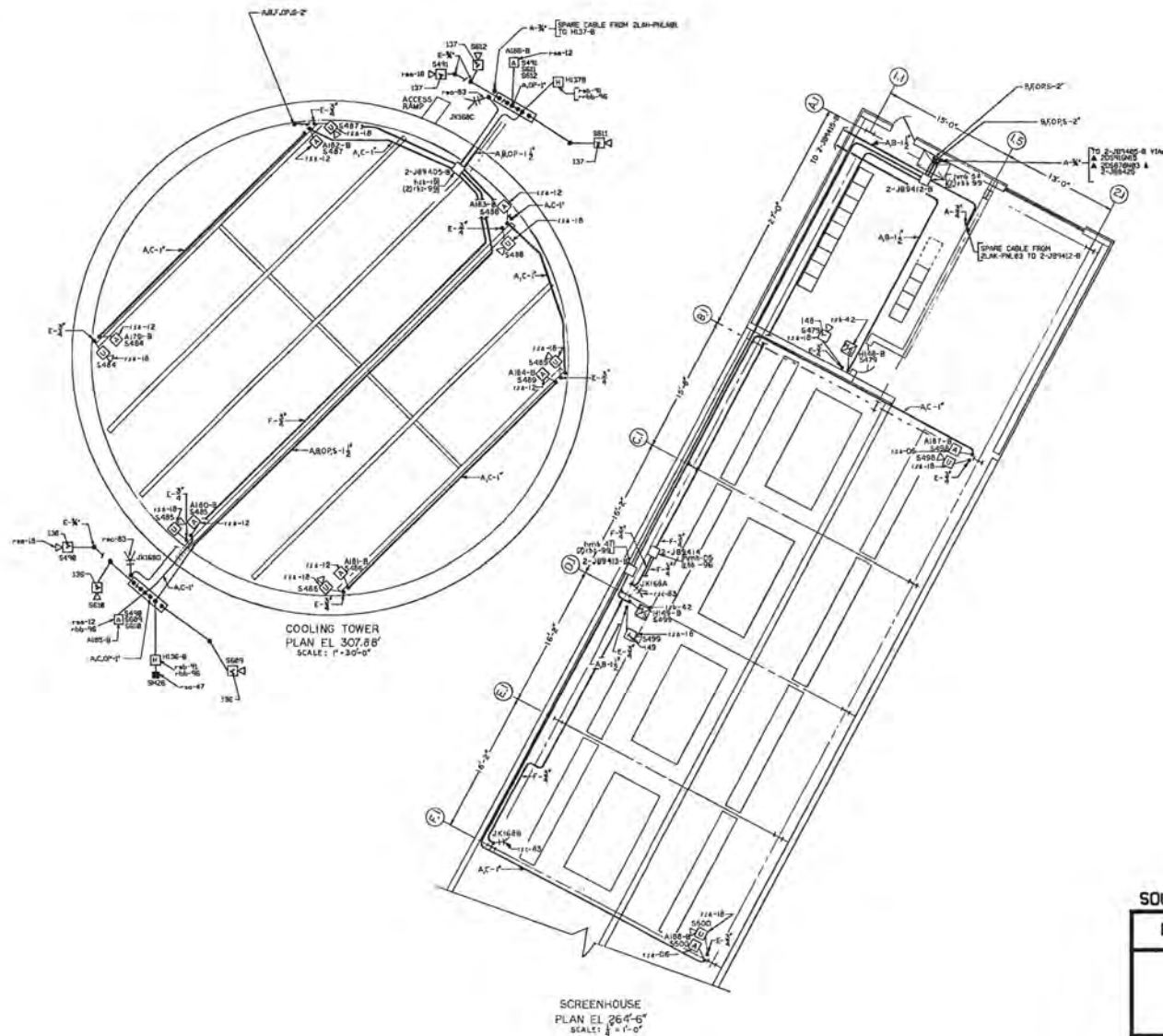












SOURCE: EE-88AK-7

FIGURE 9.5-33

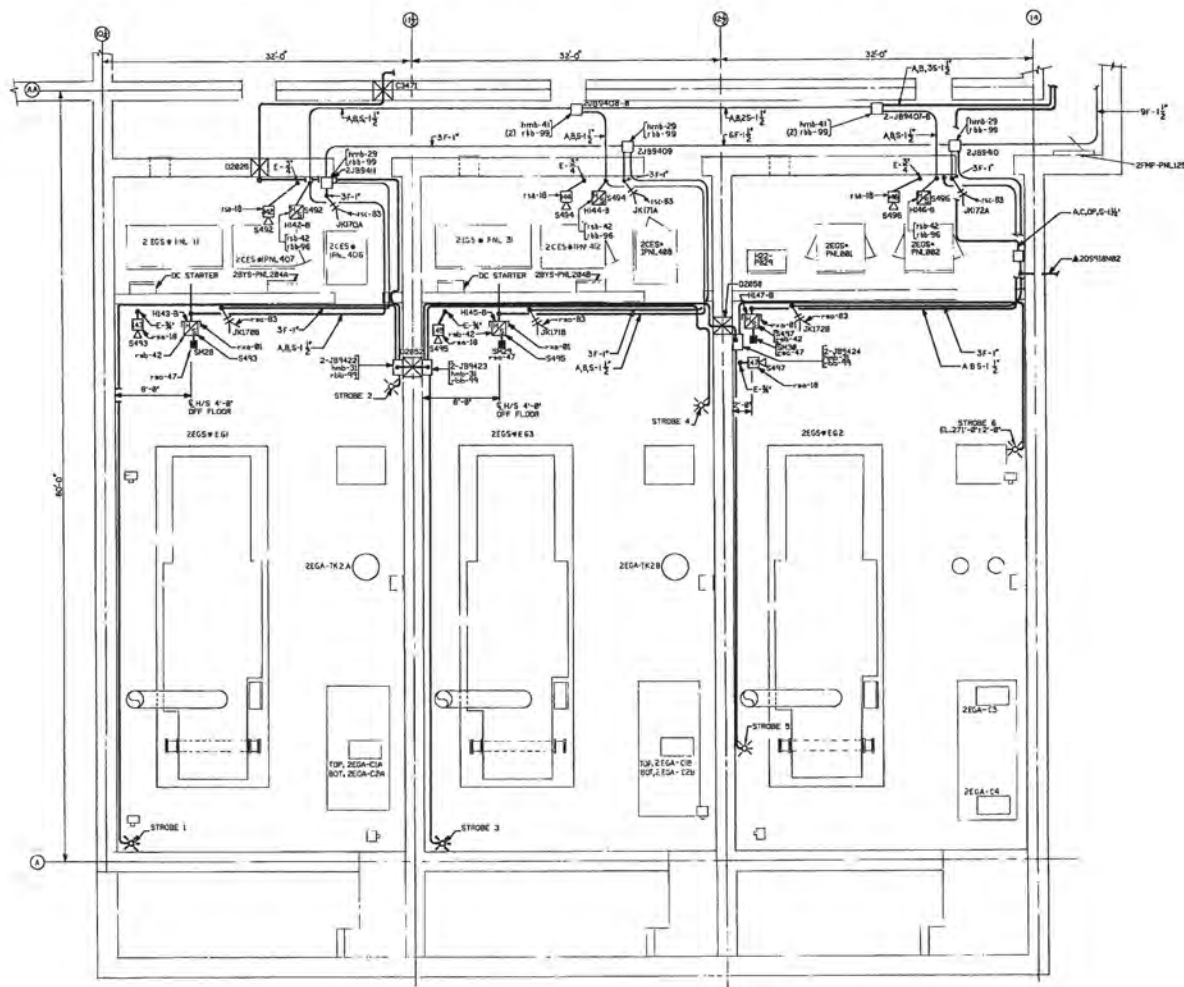
COMMUNICATION PLAN  
COOLING TOWER AND  
SCREENHOUSE

NIAGARA MOHAWK POWER CORPORATION  
NINE MILE POINT-UNIT 2  
UPDATE SAFETY ANALYSIS REPORT

USAR REVISION 5

OCTOBER 1993





SOURCE: EE-88AL-3

FIGURE 9.5-34

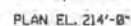
# COMMUNICATION PLAN DIESEL GENERATOR BUILDING

NIAGARA MOHAWK POWER CORPORATION  
NINE MILE POINT-UNIT 2  
UPDATE SAFETY ANALYSIS REPORT

USAR REVISION 5

OCTOBER 1993



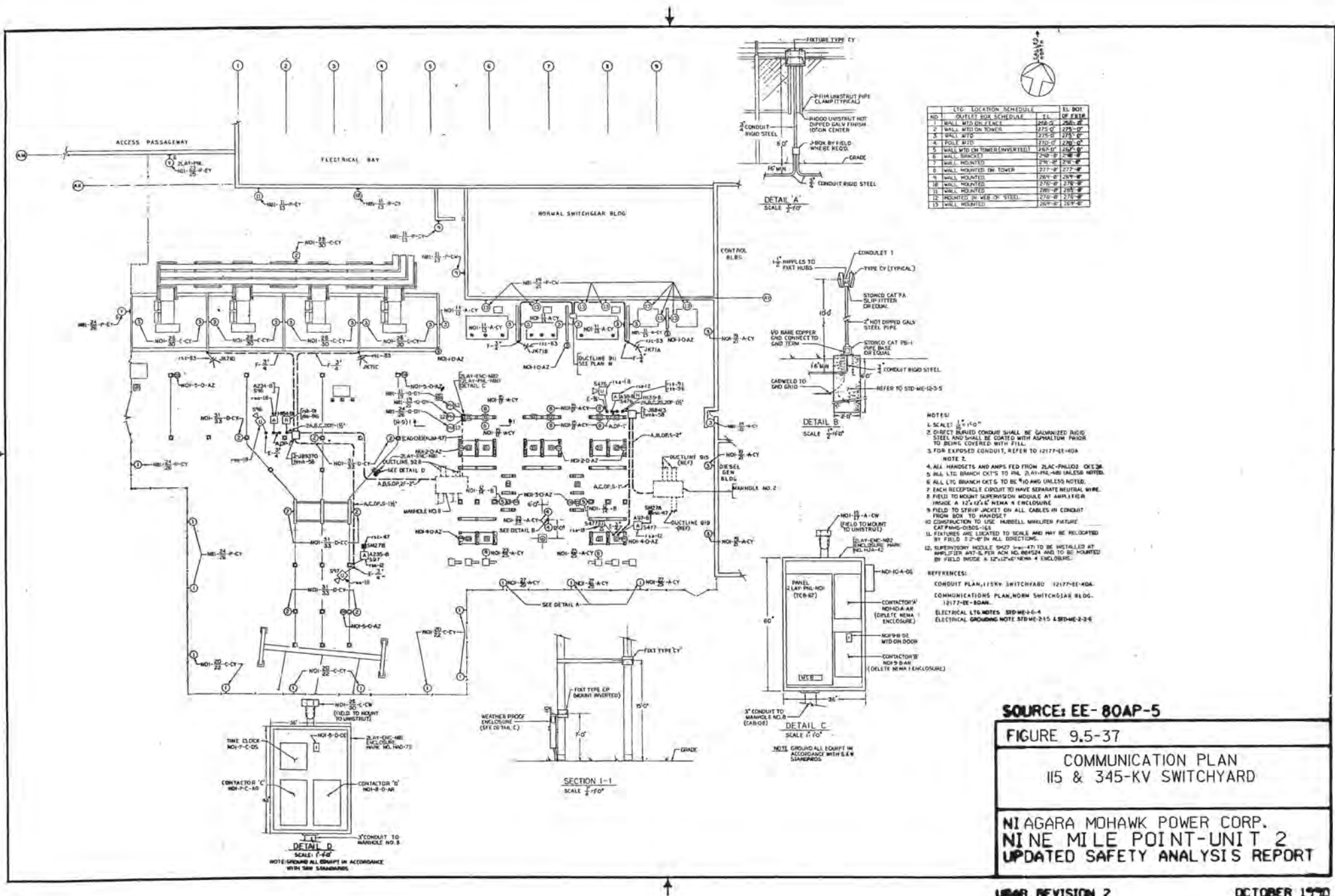


OCTOBER 2016









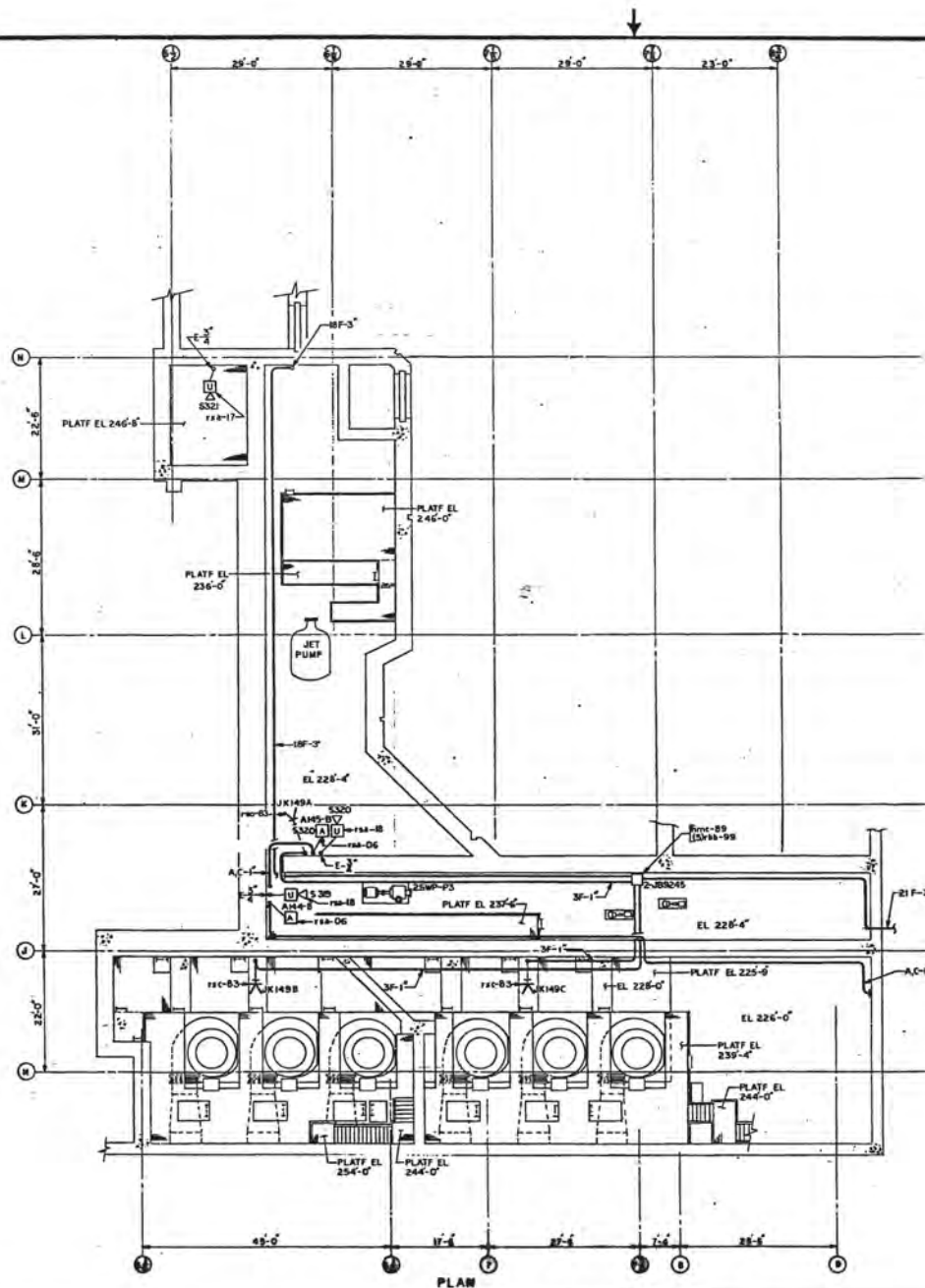
SOURCE: EE-80AP-5

FIGURE 9.5-37

COMMUNICATION PLAN  
IIS & 345-KV SWITCHYARD

NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT





SOURCE: EE-80AQ-2

FIGURE 9.5-38

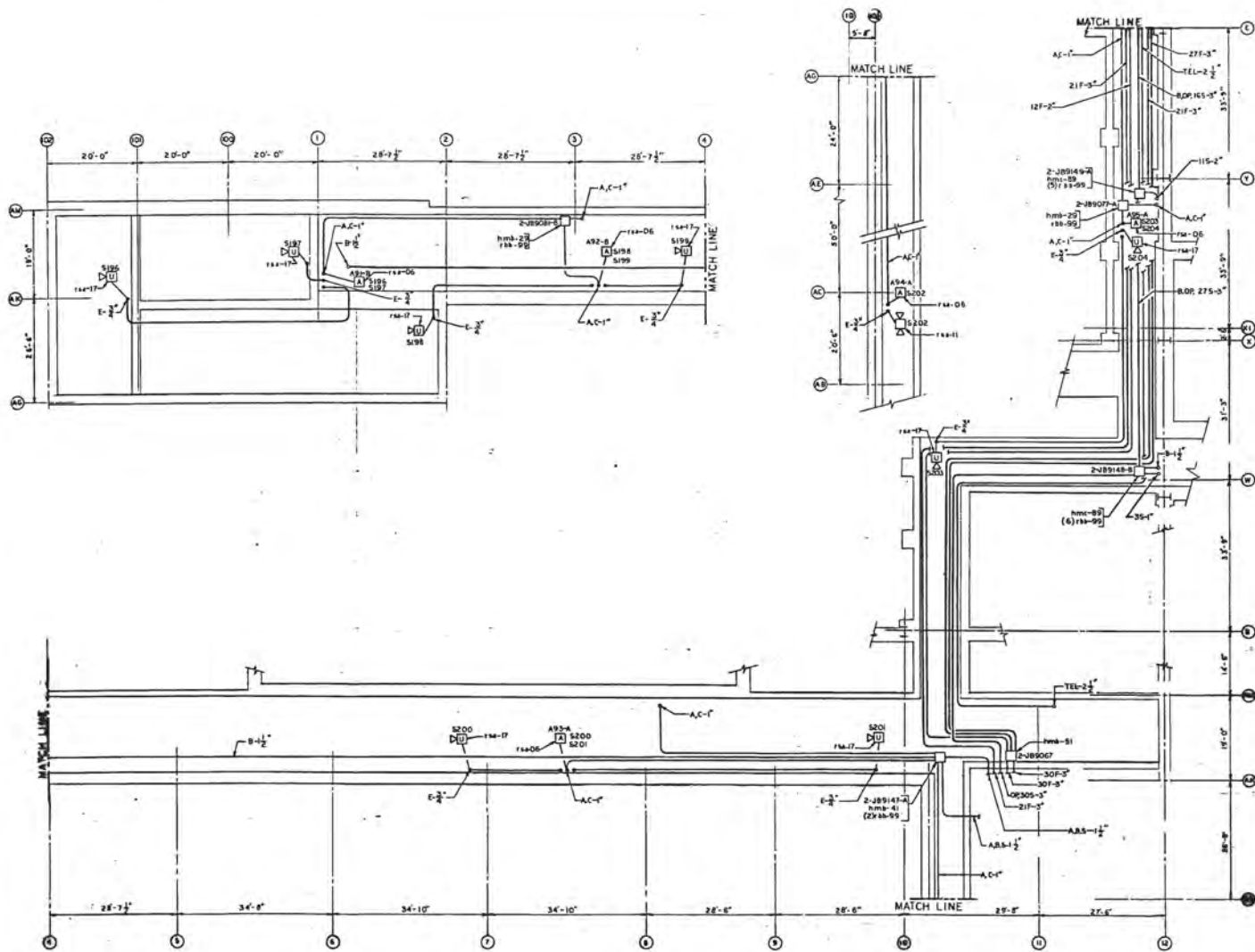
COMMUNICATION PLAN SCREENWELL

NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

USAR REVISION 2

OCTOBER 1990





SOURCE: EE-80AR-3

FIGURE 9.5-39

COMMUNICATION PLAN  
PIPE TUNNELS

NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

USAR REVISION 2

OCTOBER 1990



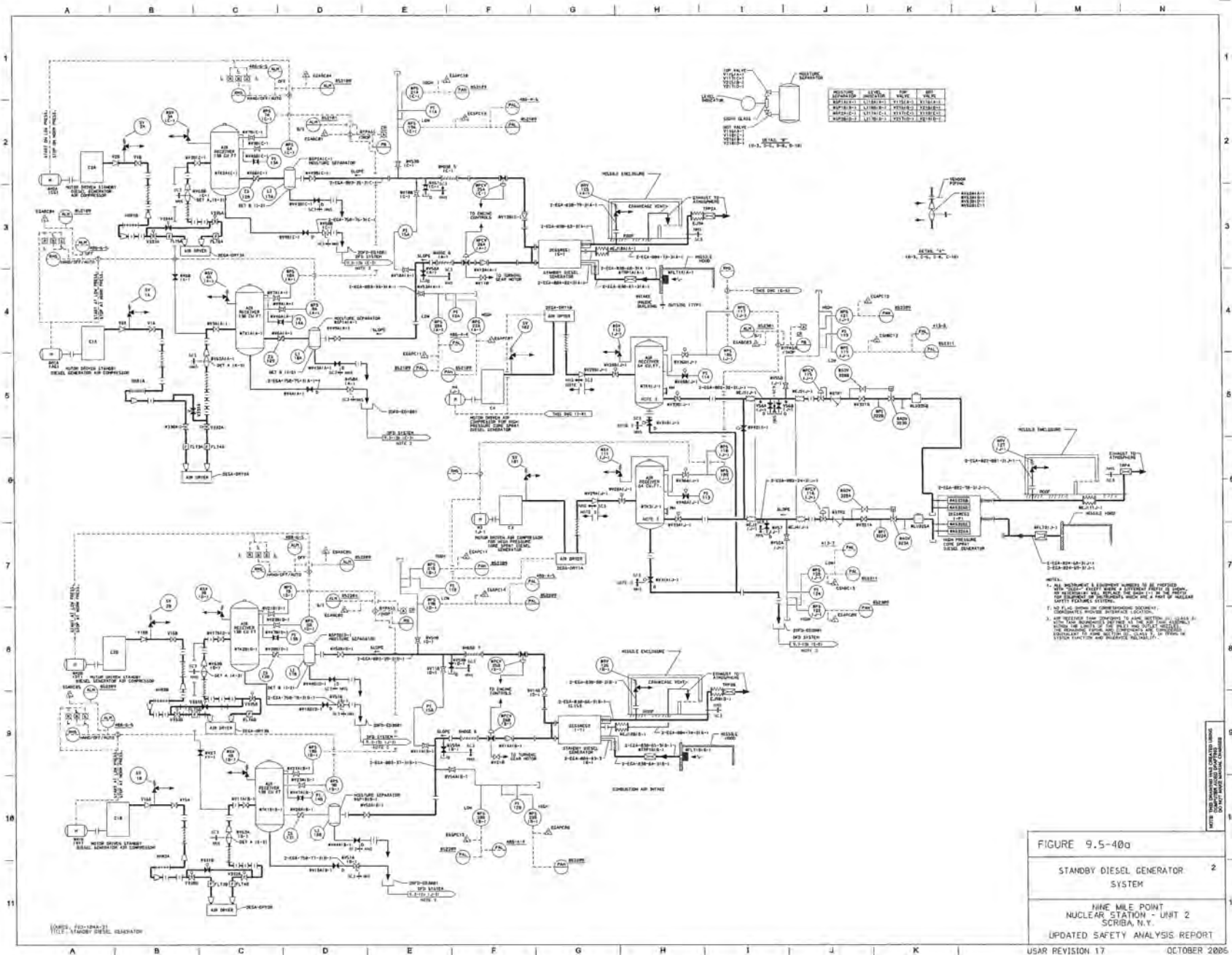


FIGURE 9.5-400a

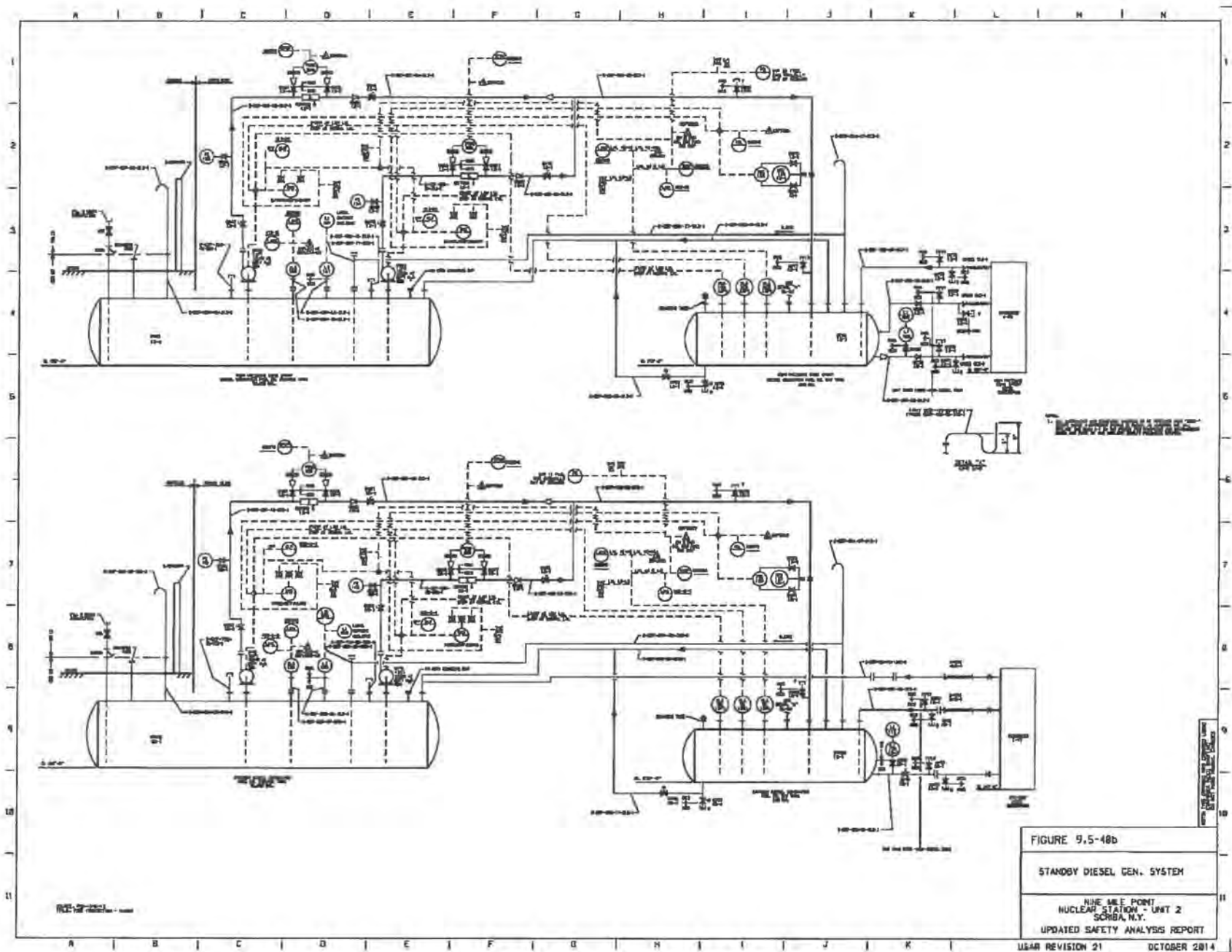
STANDBY DIESEL GENERATOR SYSTEM

NINE MILE POINT NUCLEAR STATION - UNIT 2 SCRIBA, N.Y.

UPDATED SAFETY ANALYSIS REPORT

USAR REVISION 17 OCTOBER 2005





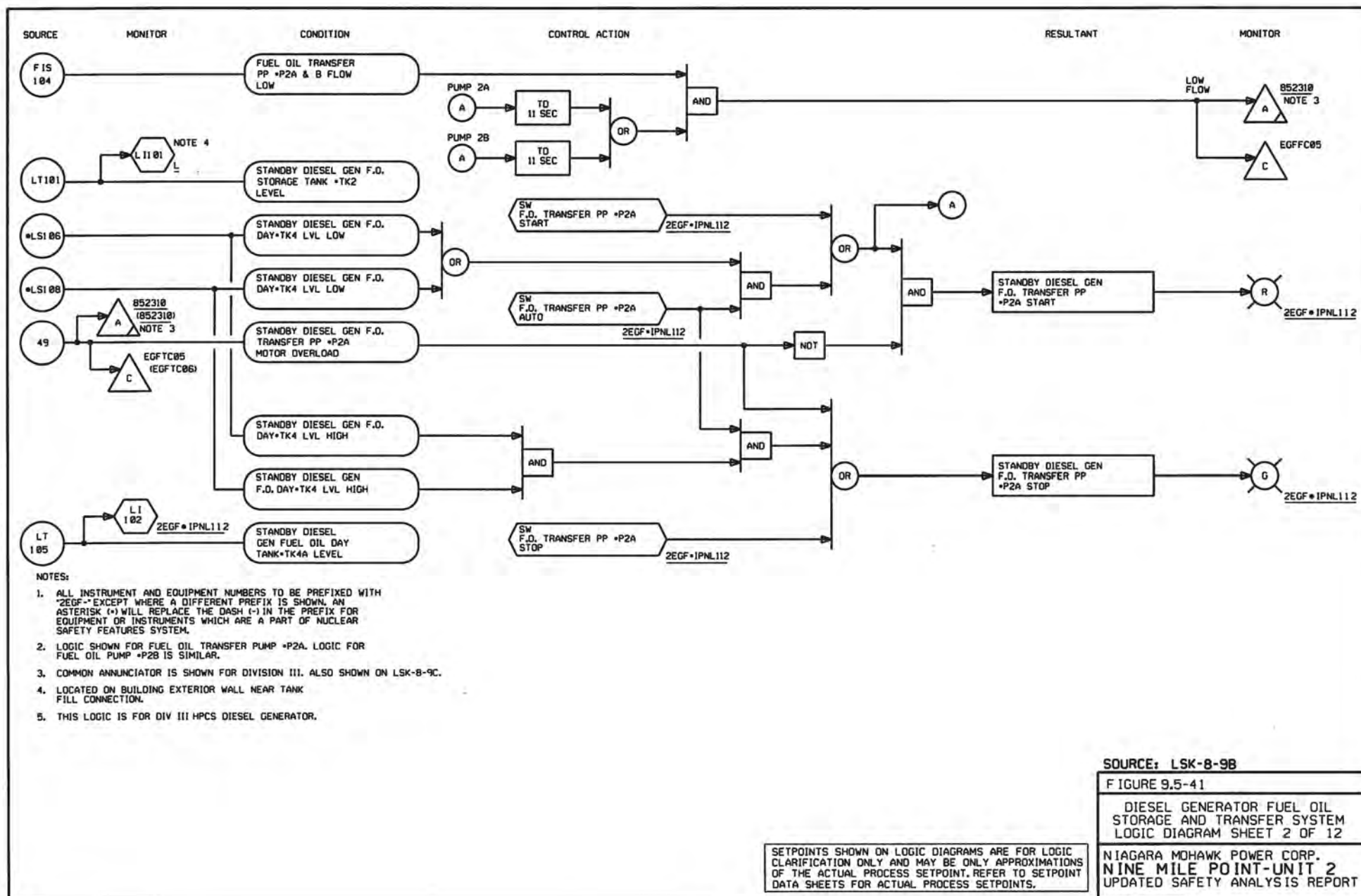












SOURCE: LSK-8-9B

FIGURE 9.5-41

DIESEL GENERATOR FUEL OIL  
STORAGE AND TRANSFER SYSTEM  
LOGIC DIAGRAM SHEET 2 OF 12

NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

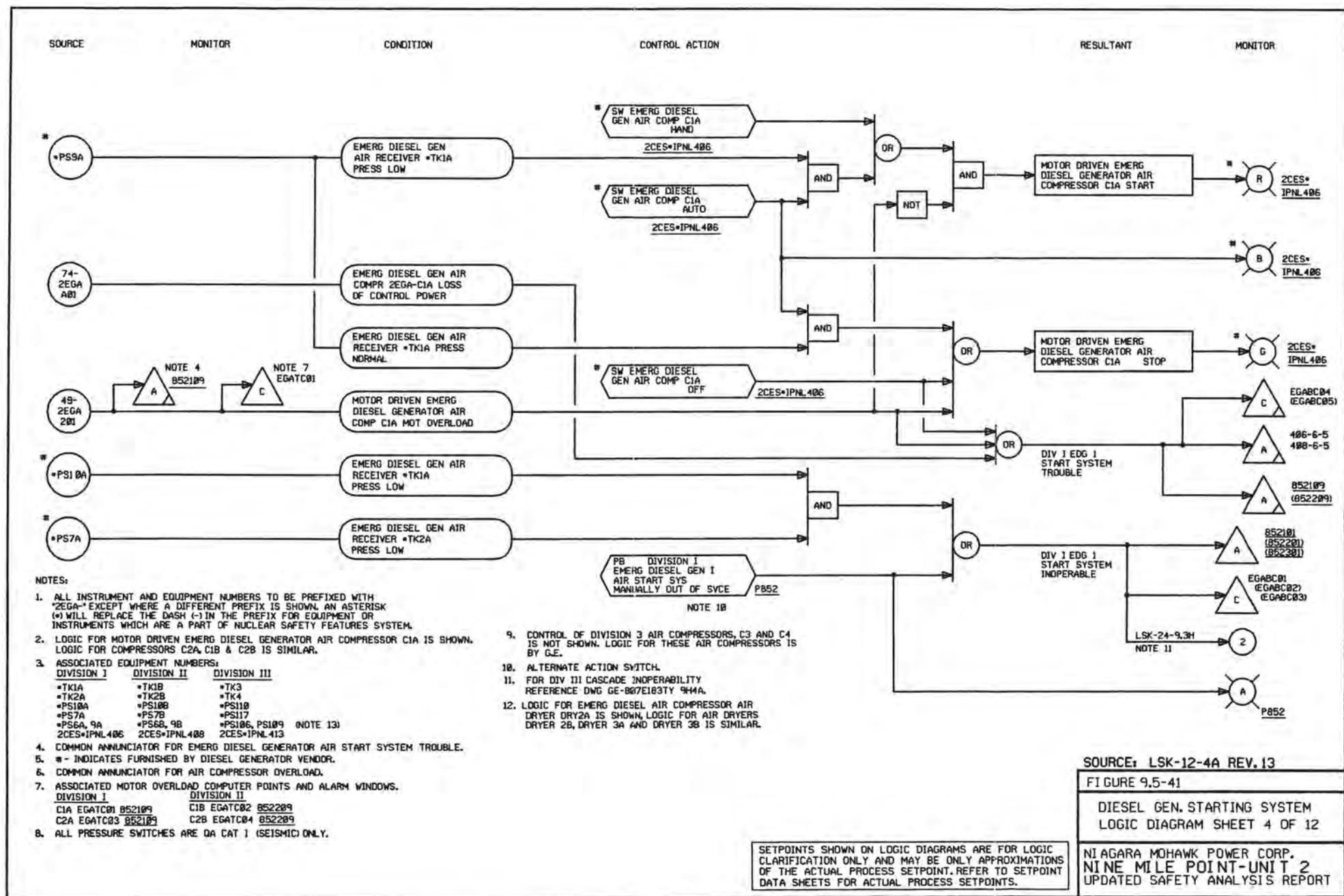
USAR REVISION 10

NOVEMBER 1998







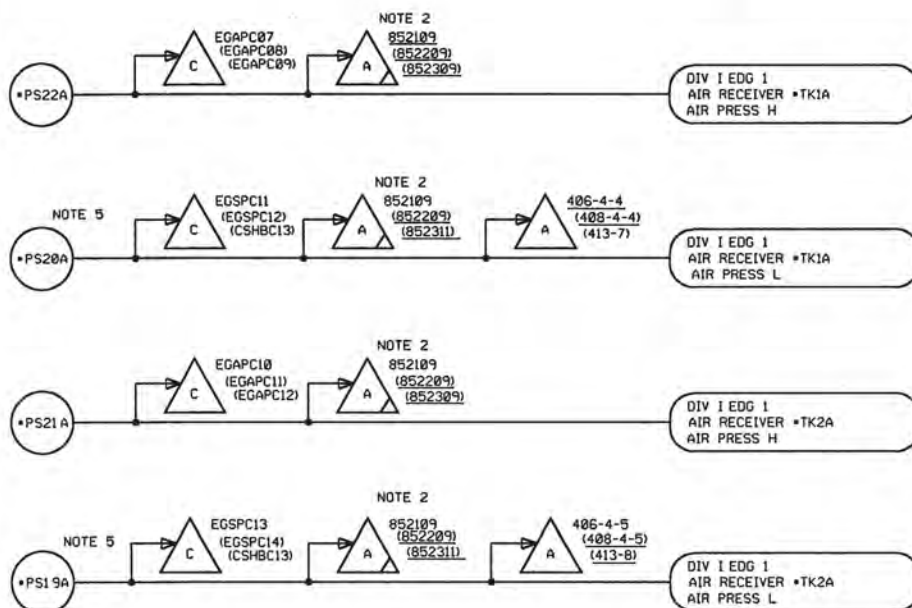




SOURCE

MONITOR

CONDITION



## NOTES:

- ALL INSTRUMENT AND EQUIPMENT NUMBERS TO BE PREFIXED WITH "2EGA-" EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN. AN ASTERISK (\*) WILL REPLACE THE DASH (-) IN THE PREFIX FOR EQUIPMENT OR INSTRUMENTS WHICH ARE A PART OF NUCLEAR SAFETY FEATURES SYSTEM.
- COMMON ANNUNCIATOR FOR DIVISION I EDG I START SYSTEM TROUBLE.
- ASSOCIATED EQUIPMENT NUMBERS:
 

DIVISION I	DIVISION II	DIVISION III
*PS22A	*PS22B	*PS122
*PS20A	*PS20B	*PS120 (NOTE 6)
*PS21A	*PS21B	*PS121
*PS19A	*PS19B	*PS119 (NOTE 6)
2CES*IPNL406	2CES*IPNL408	2CES*IPNL413
- ALL PRESSURE SWITCHES ARE QA CAT I (SEISMIC) ONLY.
- LOW PRESSURE ALARMS TO BE SET 10 PSIG BELOW THE EXPECTED PRESSURE AFTER ONE 10 SECOND START.
- FOR DIV III, 2EGA\*PS120 AND 2EGA\*PS119, USE COMMON TROUBLE ANNUNCIATOR CEC852311 INSTEAD OF START SYSTEM TROUBLE ANNUNCIATOR.

SETPOINTS SHOWN ON LOGIC DIAGRAMS ARE FOR LOGIC CLARIFICATION ONLY AND MAY BE ONLY APPROXIMATIONS OF THE ACTUAL PROCESS SETPOINT. REFER TO SETPOINT DATA SHEETS FOR ACTUAL PROCESS SETPOINTS.

SOURCE: LSK-12-4B REV. 14

FIGURE 9.5-41

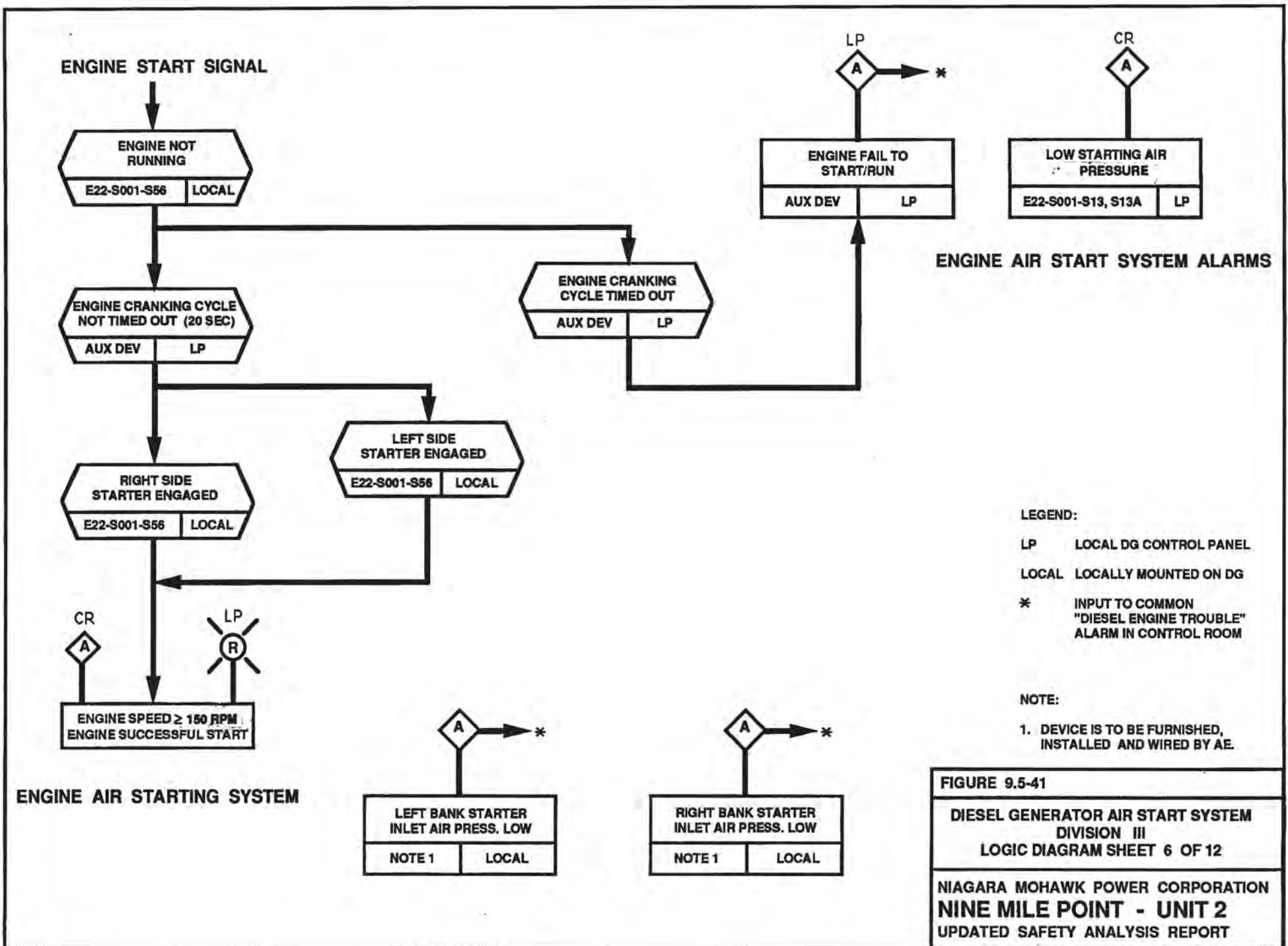
DIESEL GEN. STARTING SYSTEM  
LOGIC DIAGRAM SHEET 5 OF 12

NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

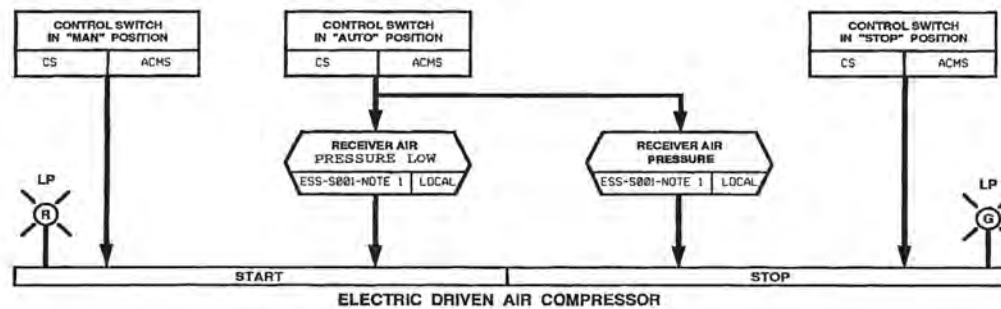
USAR REVISION 5

OCTOBER 1993









NOTE 1  
 S38 AIR RECEIVER TANK 2EGA\*TK3  
 S49 AIR RECEIVER TANK 2EGA\*TK4

LEGEND:  
 LOCAL LOCALLY MOUNTED ON DG  
 CS CONTROL SWITCH  
 ACMS AIR COMPRESSOR MOTOR STARTER

SOURCE: 0001.774-001-286 REV. 01

FIGURE 9.5-41

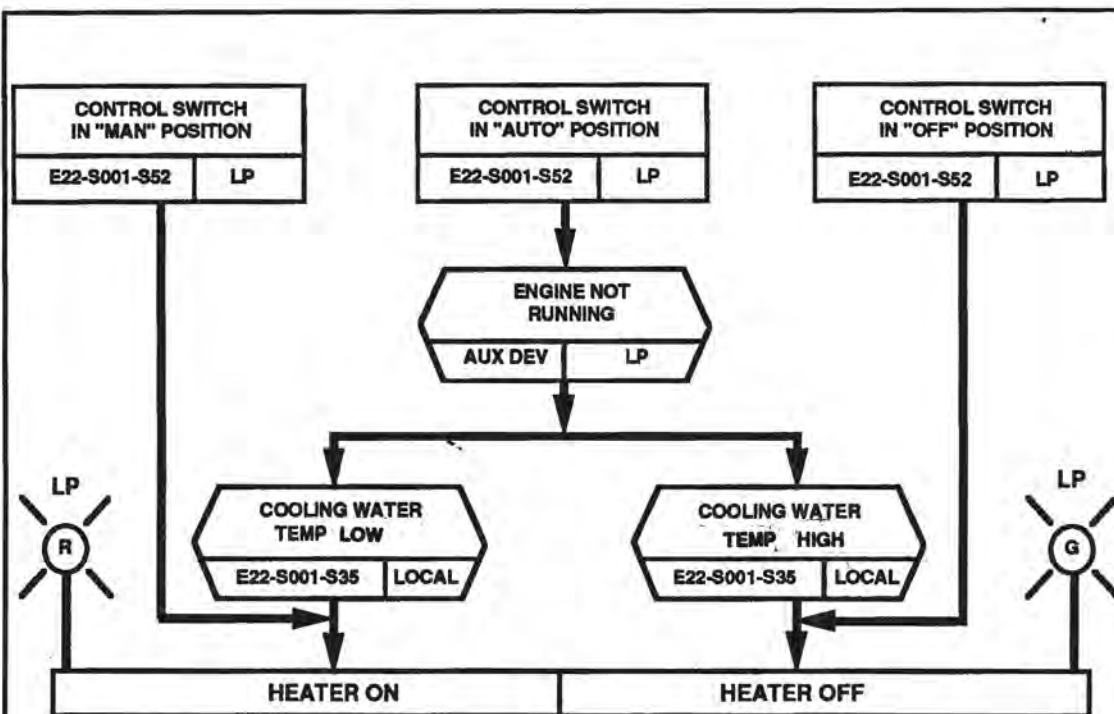
DIESEL GENERATOR AIR START SYSTEM  
 DIVISION III  
 LOGIC DIAGRAM SHEET 7 OF 12

NINE MILE POINT-UNIT 2  
 UPDATED SAFETY ANALYSIS REPORT

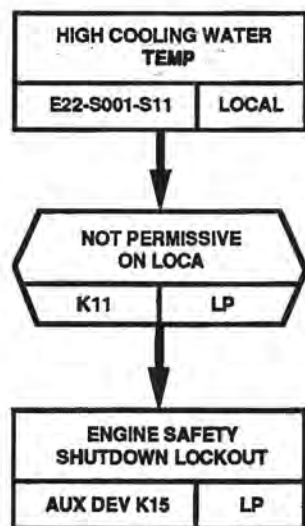
USAR REVISION 15

OCTOBER 2002





COOLING WATER IMMERSION HEATER

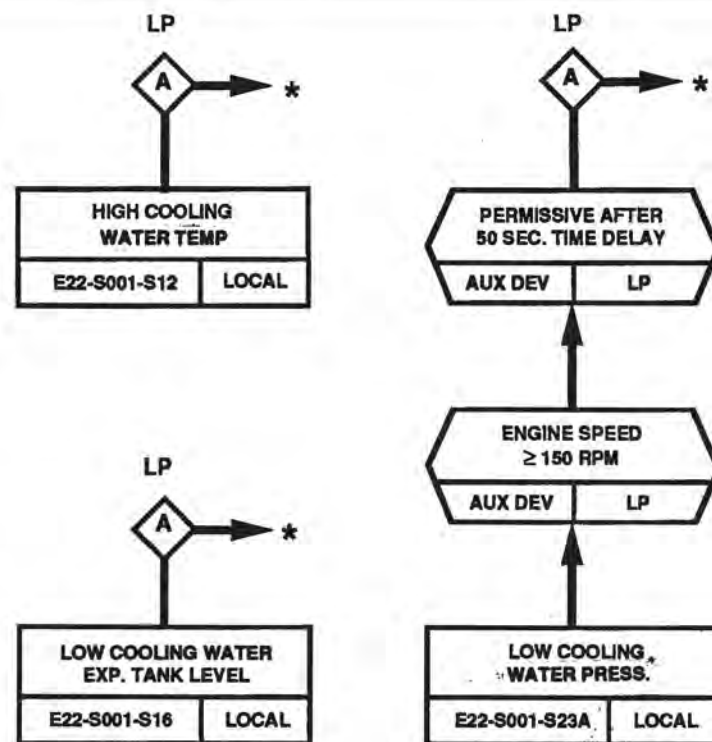


LEGEND:

LP LOCAL DG CONTROL PANEL

LOCAL LOCALLY MOUNTED ON DG  
VENDOR FURNISHED  
EQUIPMENT

\* INPUT TO COMMON  
"DIESEL ENGINE TROUBLE"  
ALARM IN CONTROL ROOM



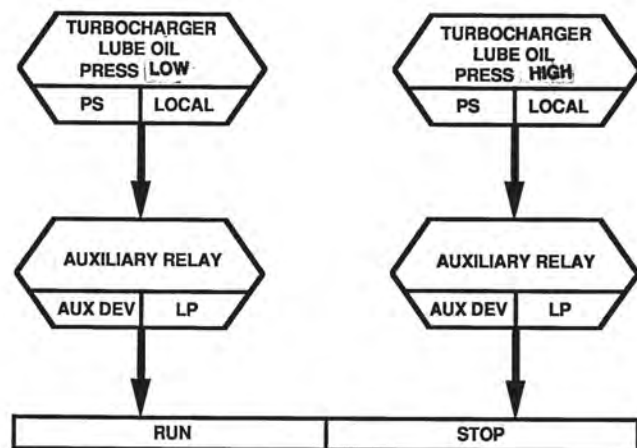
COOLING WATER SYSTEM ALARMS

FIGURE 9.5-41

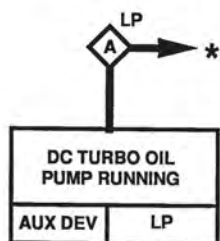
DIESEL GENERATOR COOLING SYSTEM  
DIVISION III  
LOGIC DIAGRAM SHEET 8 OF 12

NIAGARA MOHAWK POWER CORPORATION  
**NINE MILE POINT - UNIT 2**  
UPDATED SAFETY ANALYSIS REPORT



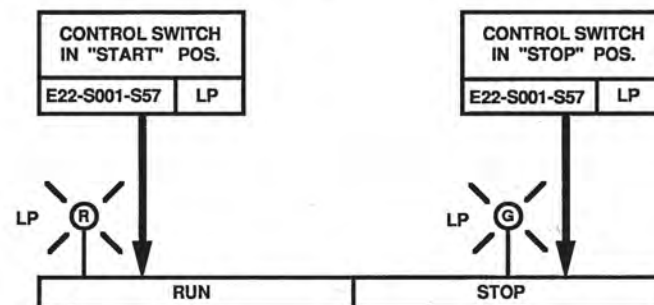


DC TURBOCHARGER LUBE OIL PUMP



LEGEND:

- LP LOCAL DG CONTROL PANEL
- LOCAL LOCALLY MOUNTED ON DG VENDOR FURNISHED EQUIPMENT
- \* INPUT TO COMMON "DIESEL ENGINE TROUBLE" ALARM IN CONTROL ROOM



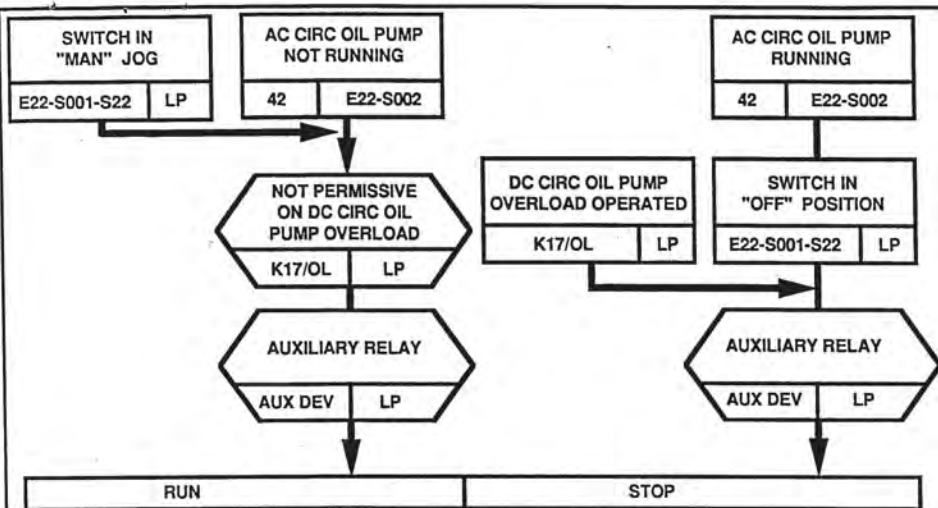
AC TURBOCHARGER LUBE OIL PUMP

FIGURE 9.5-41

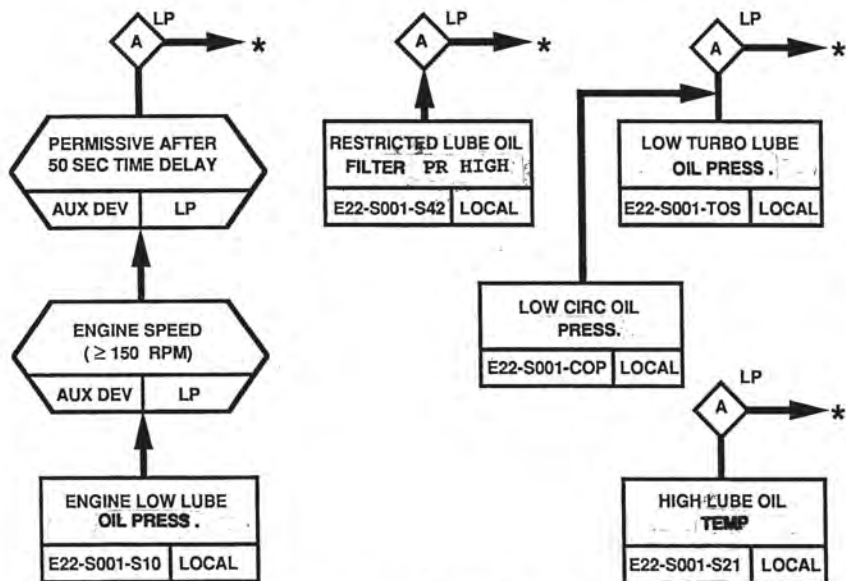
DIESEL GENERATOR LUBRICATION SYSTEM  
DIVISION III  
LOGIC DIAGRAM SHEET 9 OF 12

NIAGARA MOHAWK POWER CORPORATION  
**NINE MILE POINT - UNIT 2**  
UPDATED SAFETY ANALYSIS REPORT

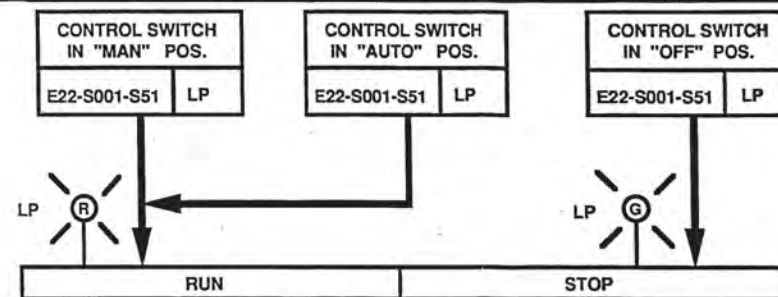




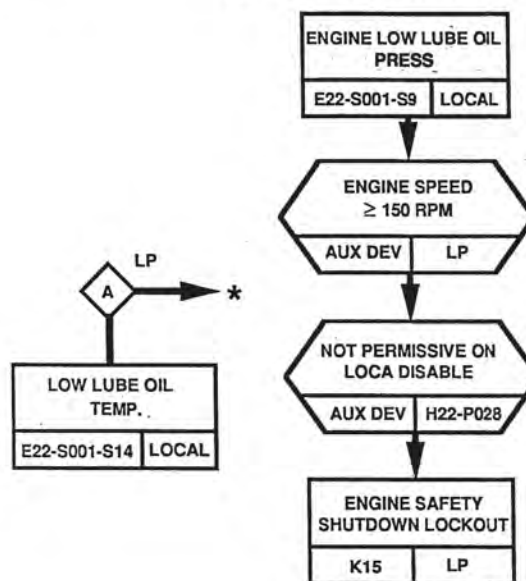
DC CIRCULATING OIL PUMP



ENGINE LUBE OIL SYSTEM ALARMS



AC CIRCULATING OIL PUMP



LEGEND:

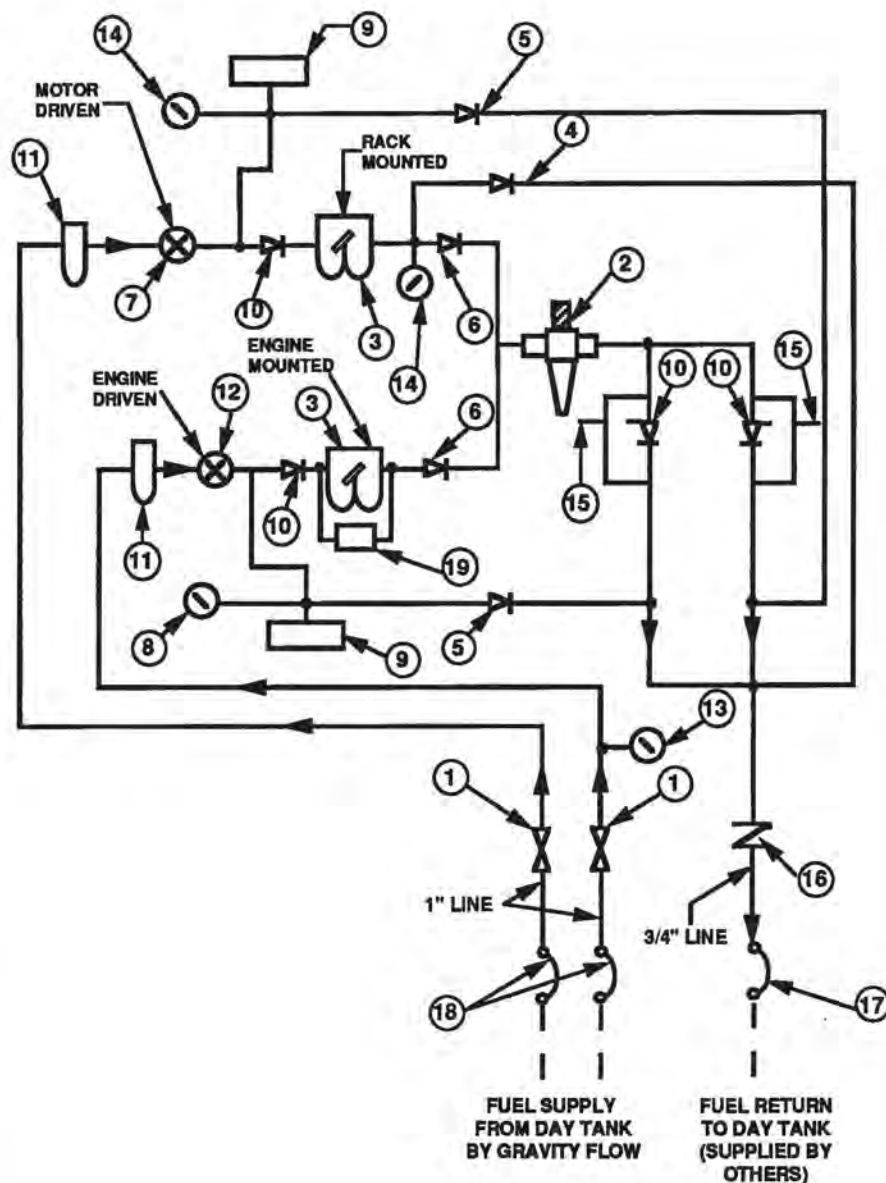
- LP LOCAL DG CONTROL PANEL
- LOCAL LOCALLY MOUNTED
- \* INPUT TO COMMON "DIESEL ENGINE TROUBLE" ALARM IN CONTROL ROOM

FIGURE 9.5-41

DIESEL GENERATOR LUBRICATION SYSTEM  
DIVISION III  
LOGIC DIAGRAM SHEET 10 OF 12

NIAGARA MOHAWK POWER CORPORATION  
NINE MILE POINT - UNIT 2  
UPDATED SAFETY ANALYSIS REPORT





19	DIFFERENTIAL SWITCH (ALARM), PRESSURE
18	FLEX. CONT., CS., 1"X12" OAL WITH 1" NPTM NIPPLES EACH END
17	FLEX. CONN., CS., 3/4" X 12" OAL WITH 3/4" NPTM NIPPLES EACH END
16	VALVE CHECK 3/4" NPT STEEL
15	ORIFICE 1/16"
14	GAUGE, PRESSURE (0 TO 100 P.S.I.) LIQUID FILLED, ENGINE MOUNTED
13	FUEL TEMPERATURE GAGE (PANEL MOUNTED)
12	PUMP FUEL ENGINE DRIVEN 4 GPM 60 PSI
11	STRAINER
10	VALVE, RELIEF, 10 PSI (SEE NOTE 3)
9	S43 SWITCH, ALARM, LOSS OF PRESSURE
	S44 SWITCH, ALARM, LOSS OF PRESSURE
8	GAUGE PRESSURE (0 TO 100 PSI) 4-1/2" PANEL MOUNTED
7	PUMP FUEL, ASSY, 4 GPM DRIVEN BY 3/4 HP 115V DC MOTOR
6	VALVE, RELIEF, 1 P.S.I.
5	VALVE, RELIEF, 65 P.S.I. (SEE NOTE 3)
4	VALVE, RELIEF, 30 P.S.I.
3	FILTER, DUPLEX (ELEMENT PN8423132 TWO PER FILTER)
2	INJECTOR
1	VALVE FUEL CUT-OFF, 1" NPT

**NOTE:**

1. - - - - LINES INDICATES PIPING DONE BY OTHERS.
2. ALL COMPONENTS MOUNTED ON MAIN ENGINE BASE.
3. ITEMS 10 AND 5 COMBINED INTO VALVE ASSEMBLY PN8432366 WHICH THE FILTERS BOLT TO. TWO OF THESE VALVE ASSEMBLIES ARE USED. THIS REDUCES EXTERNAL PIPING AND FITTINGS.
4. THE STATIC HEAD OF THE FUEL LEVEL IN THE DAY TANK SHOULD BE MINIMIZED WITH RESPECT TO THE ENGINE FUEL INJECTORS BUT SHOULD NOT BE NEGATIVE AND SHOULD NOT BE POSITIVE BY MORE THAN 12 FEET ABOVE THE ENGINE CRANKSHAFT HORIZONTAL CENTERLINE.
5. ALL PIPING - NON-ASME (ANSI B31.1).

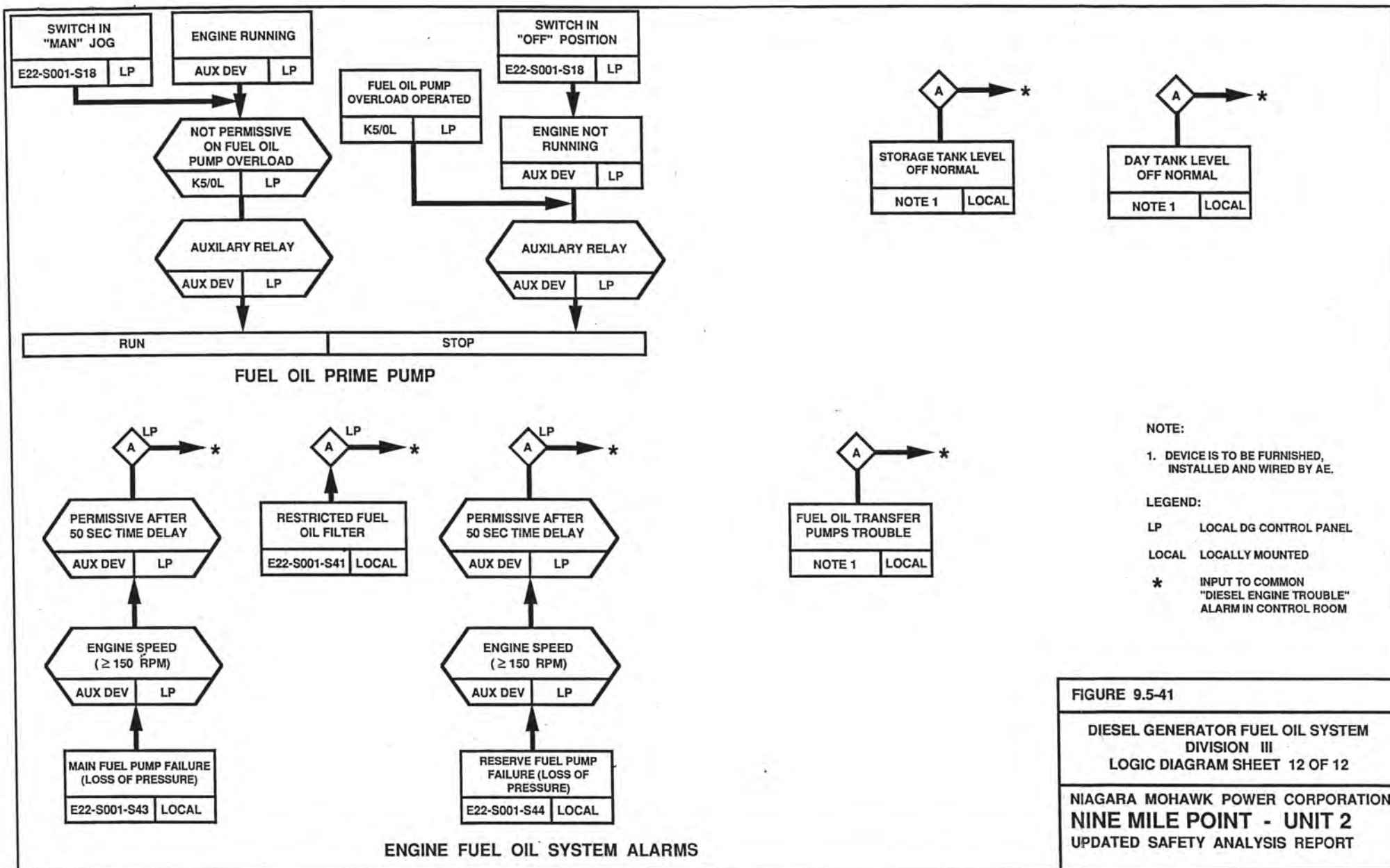
**FIGURE 9.5-41**

**DIESEL GENERATOR FUEL OIL SYSTEM  
DIVISION III  
LOGIC DIAGRAM SHEET 11 OF 12**

**NIAGARA MOHAWK POWER CORPORATION  
NINE MILE POINT - UNIT 2  
UPDATED SAFETY ANALYSIS REPORT**

U-1323/1

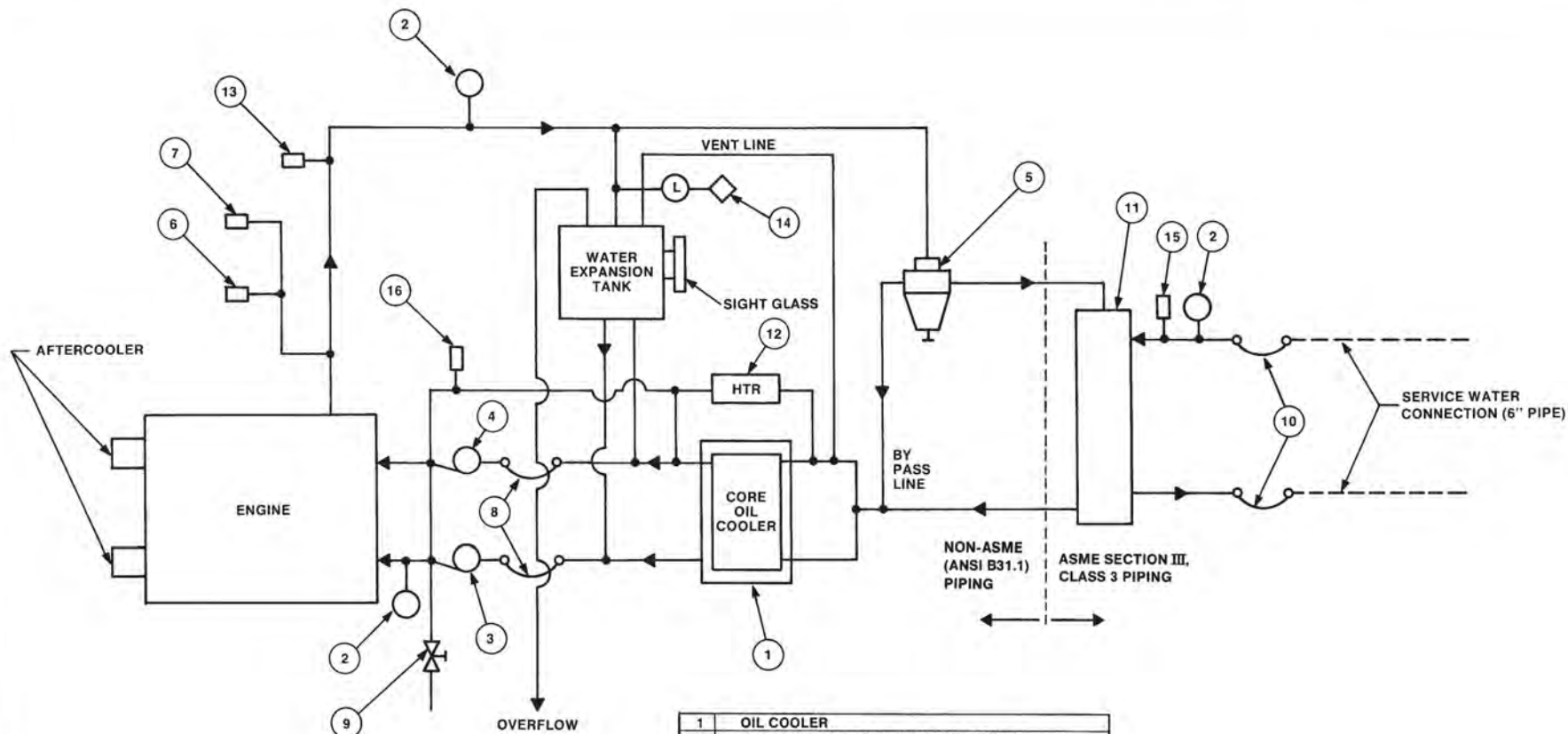












1	OIL COOLER
2	TEMPERATURE GAGE 4½" (30°F-240°F)
3	ENGINE WATER PUMP (RIGHT SIDE)
4	ENGINE WATER PUMP (LEFT SIDE)
5	TEMPERATURE REGULATING VALVE (AMOT)
6	HOT ENGINE TEMP. SWITCH (ALARM)
7	HOT ENGINE TEMP. SWITCH (SHUT DOWN)
8	FLEXIBLE CONNECTION
9	VALVE, DRAIN
10	FLEXIBLE CONNECTION-6"
11	HEAT EXCHANGER
12	IMMERSION HEATER 15KW RES. COIL
13	TEMP. SWITCH "IMMERSION-HEATER" CONTROL
14	LOW WATER LEVEL ALARM
15	SERVICE WATER LOW PRESSURE SWITCH (ALARM)
16	JACKET WATER LOW PRESSURE SWITCH (ALARM)

FIGURE 9.5-43

DIESEL GENERATOR  
COOLING WATER  
DIVISION III

NIAGARA MOHAWK POWER CORPORATION  
NINE MILE POINT-UNIT 2  
FINAL SAFETY ANALYSIS REPORT



**THIS FIGURE HAS  
BEEN DELETED**

FIGURE 9.5-44

SHEET 1 OF 2

NIAGARA MOHAWK POWER CORPORATION  
**NINE MILE POINT-UNIT 2**  
FINAL SAFETY ANALYSIS REPORT



**THIS FIGURE HAS  
BEEN DELETED**

**FIGURE 9.5-44**

**SHEET 2 OF 2**

**NIAGARA MOHAWK POWER CORPORATION  
NINE MILE POINT-UNIT 2  
FINAL SAFETY ANALYSIS REPORT**



**THIS FIGURE HAS BEEN DELETED**

FIGURE 9.5-45

NIAGARA MOHAWK POWER CORPORATION  
**NINE MILE POINT-UNIT 2**  
FINAL SAFETY ANALYSIS REPORT



**THIS FIGURE HAS  
BEEN DELETED**

FIGURE 9.5-46

NIAGARA MOHAWK POWER CORPORATION  
NINE MILE POINT-UNIT 2  
FINAL SAFETY ANALYSIS REPORT



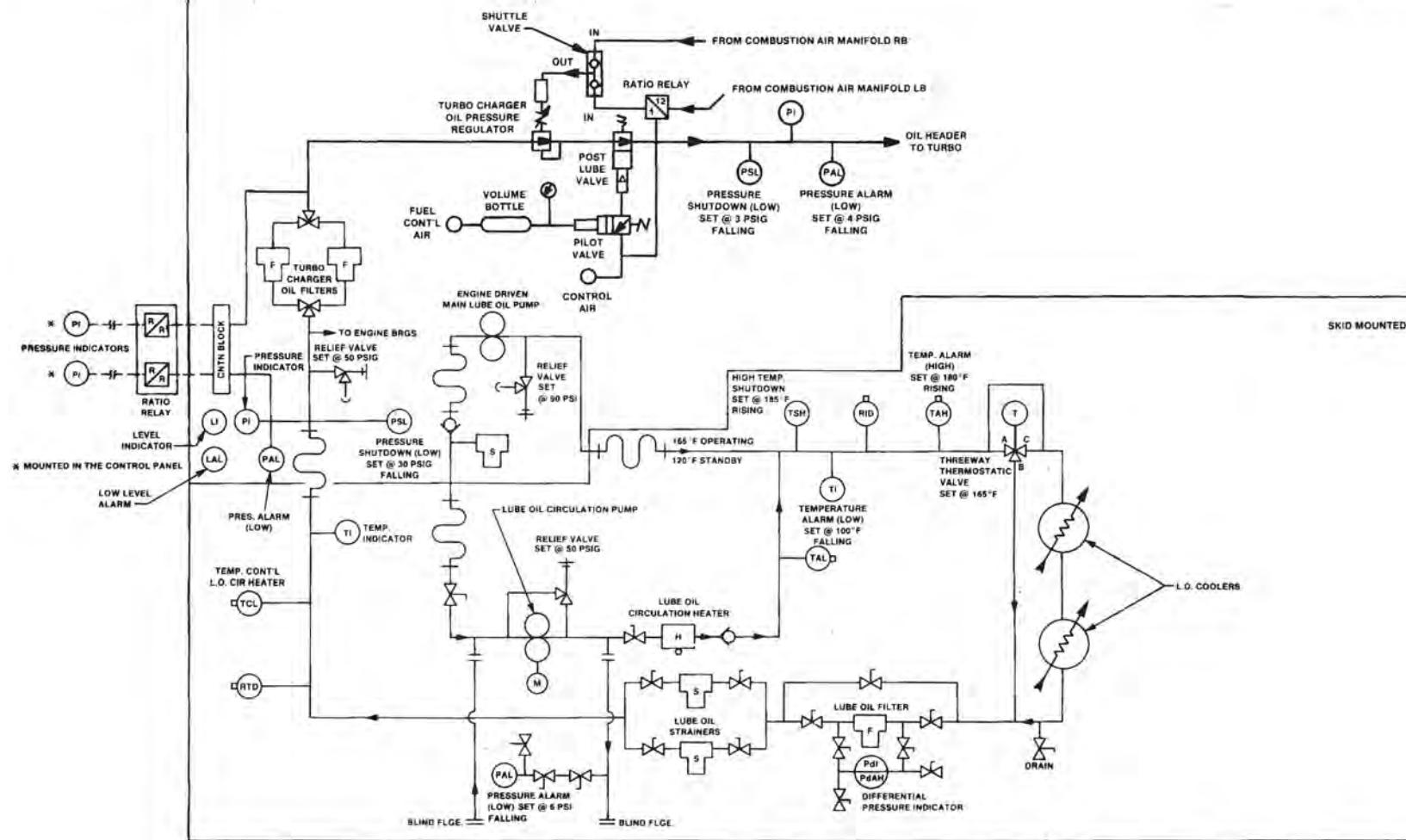
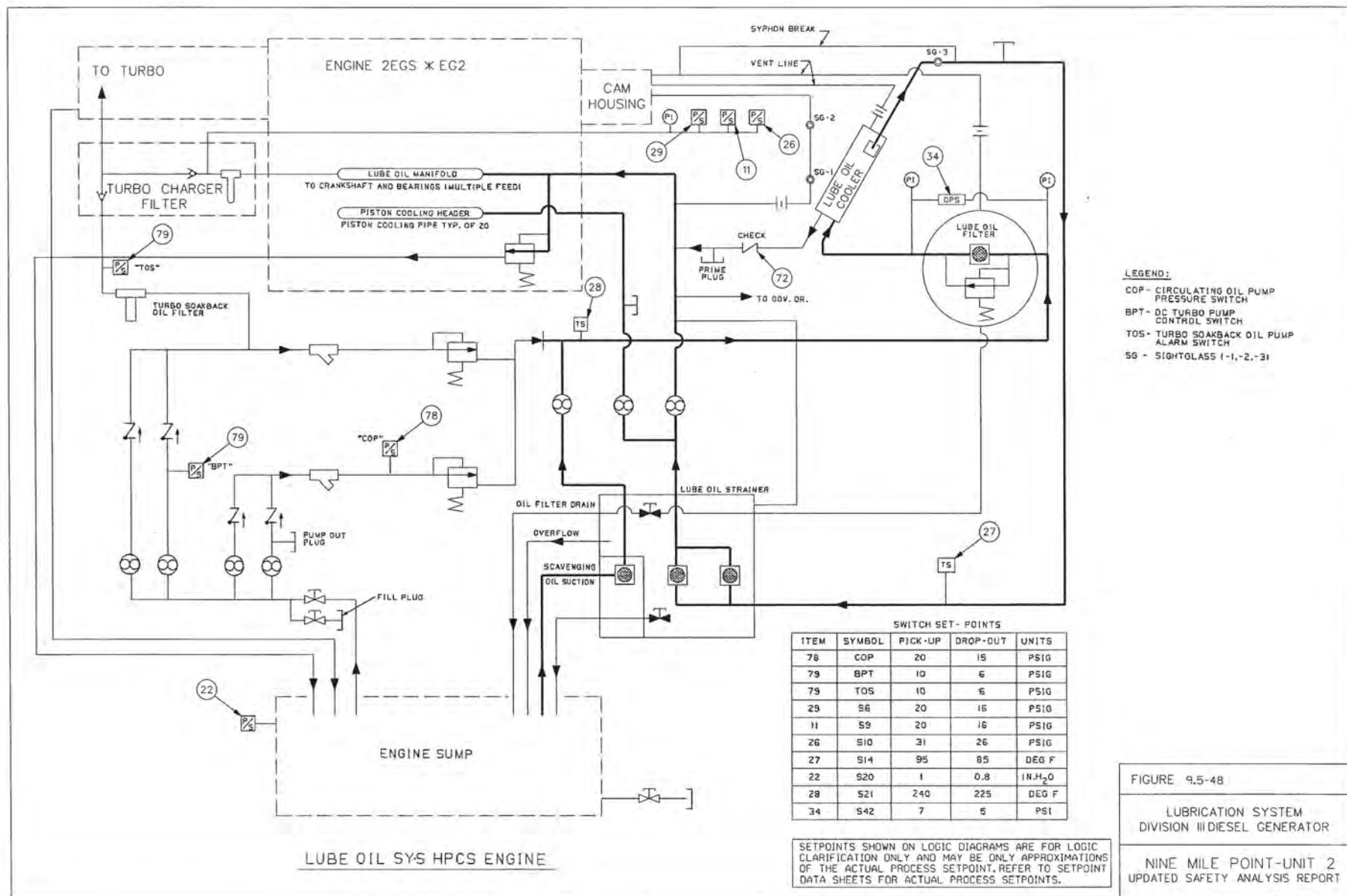


FIGURE 9.5-47

LUBRICATION SYSTEM  
DIVISION I AND DIVISION II  
DIESEL GENERATOR

NIAGARA MOHAWK POWER CORPORATION  
NINE MILE POINT-UNIT 2  
FINAL SAFETY ANALYSIS REPORT







**THIS FIGURE  
HAS BEEN DELETED**

**FIGURE 9.5-49**

**NIAGARA MOHAWK POWER CORPORATION  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT**



**THIS FIGURE  
HAS BEEN DELETED**

**FIGURE 9.5-50**

**NIAGARA MOHAWK POWER CORPORATION  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT**

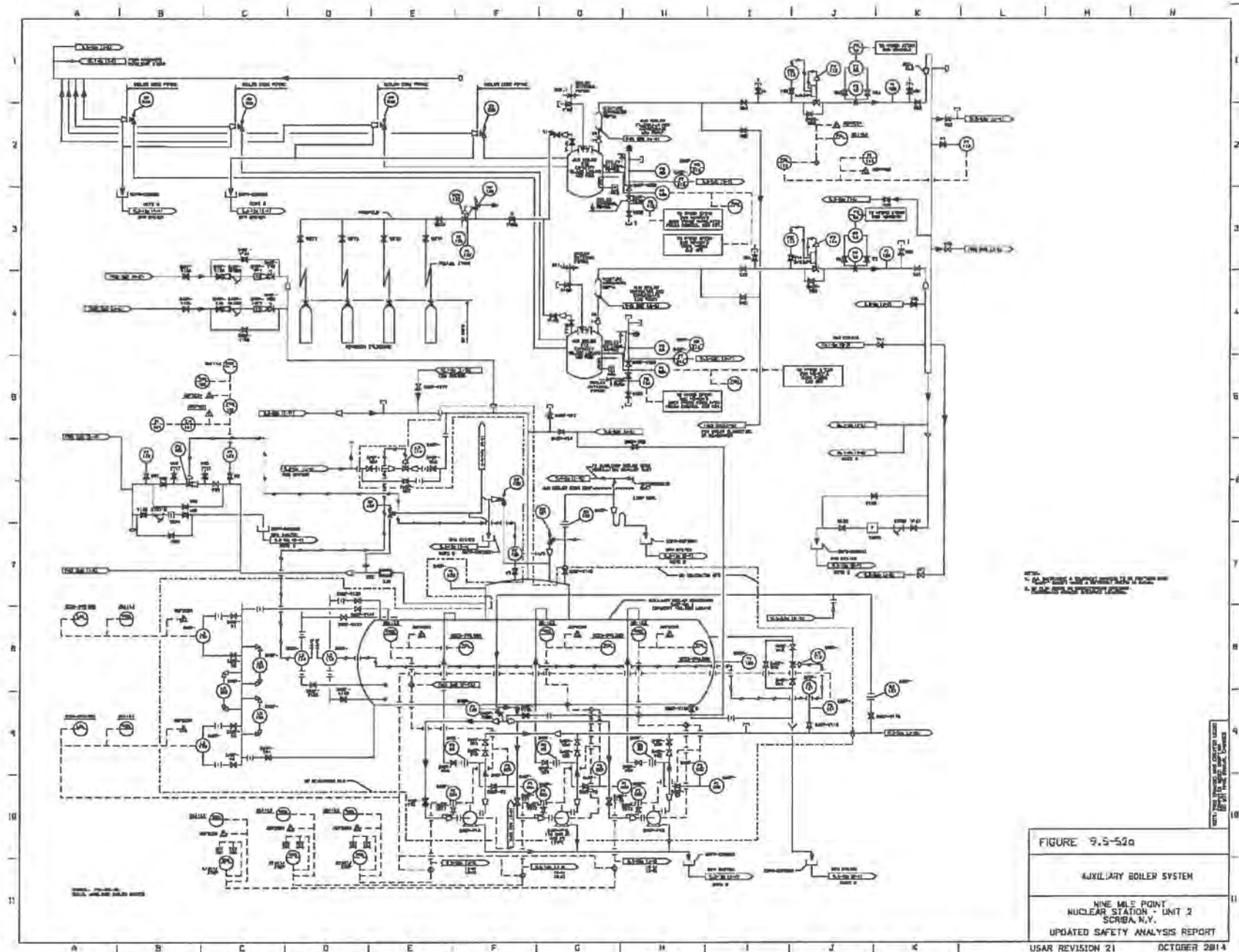


**THIS FIGURE  
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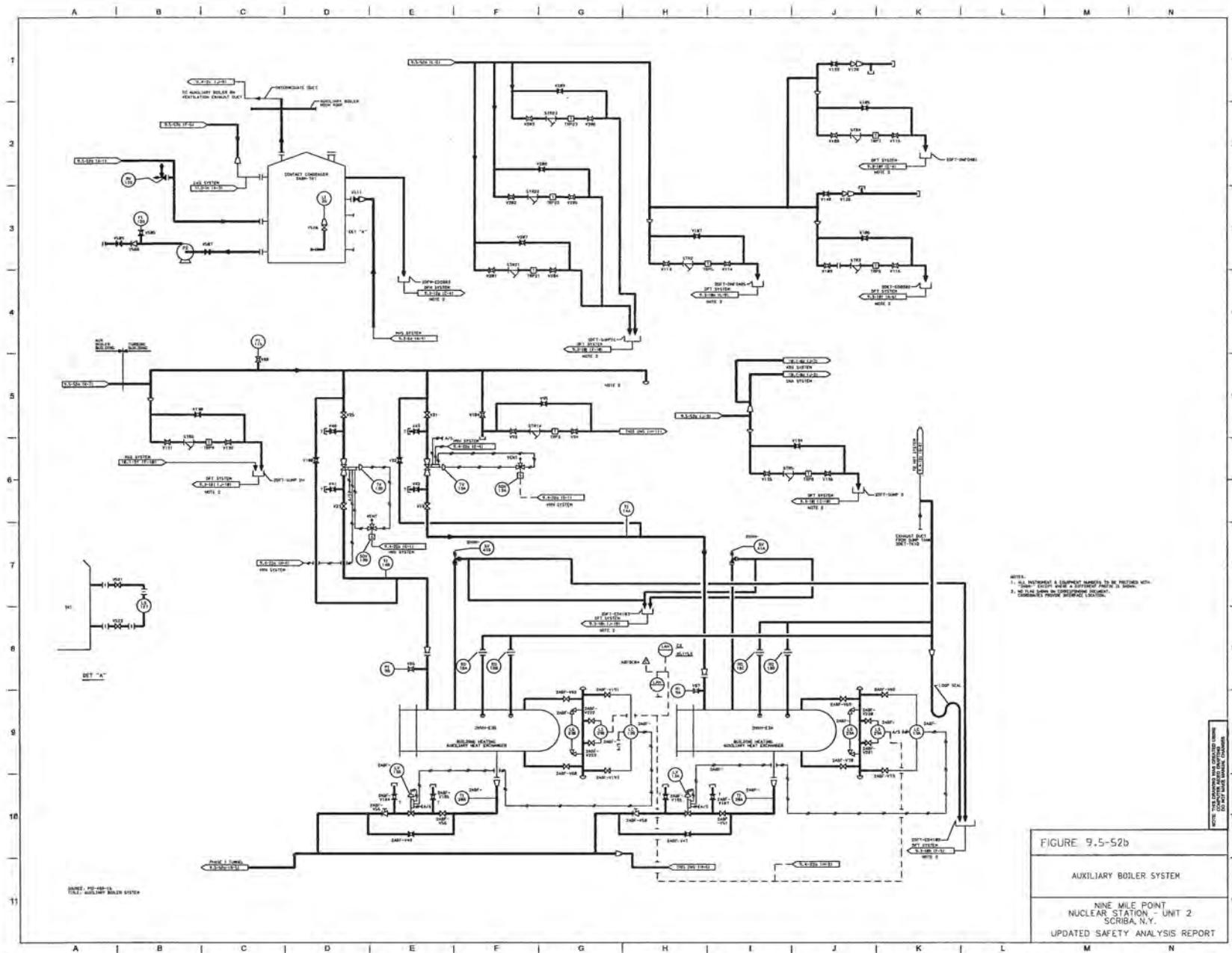
**FIGURE 9.5-51**

**NIAGARA MOHAWK POWER CORPORATION  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT**

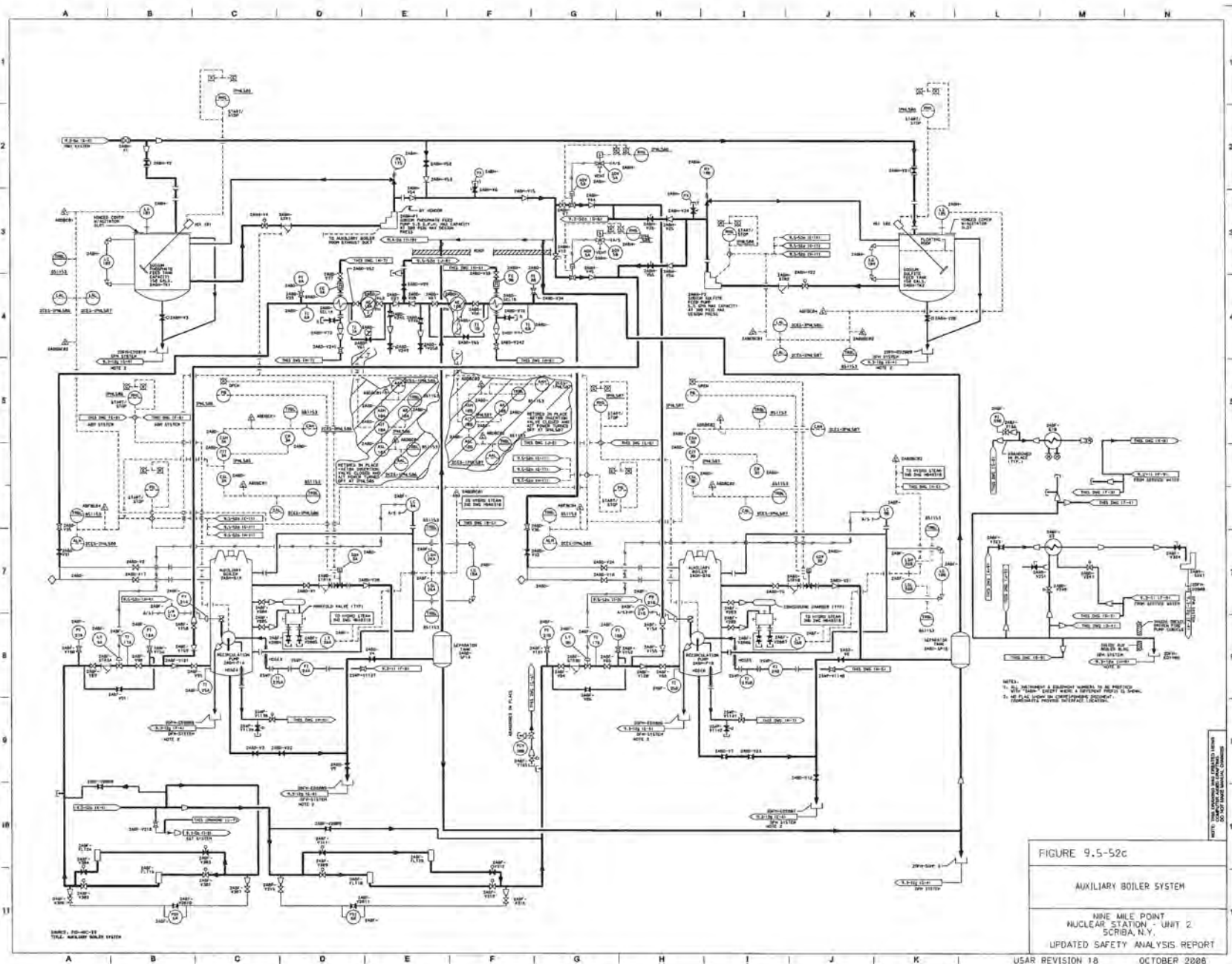




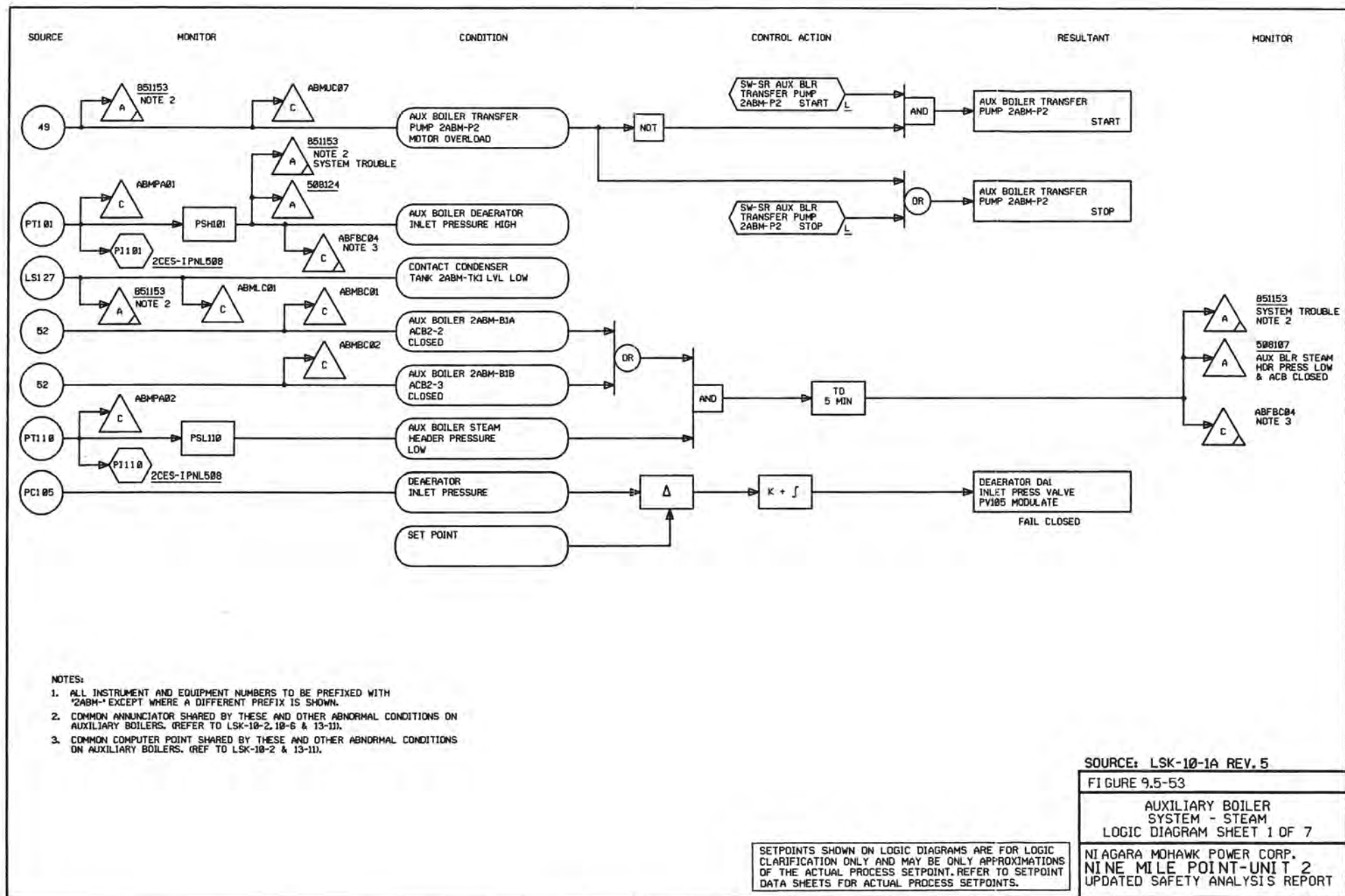












SOURCE: LSK-10-1A REV. 5

FIGURE 9.5-53

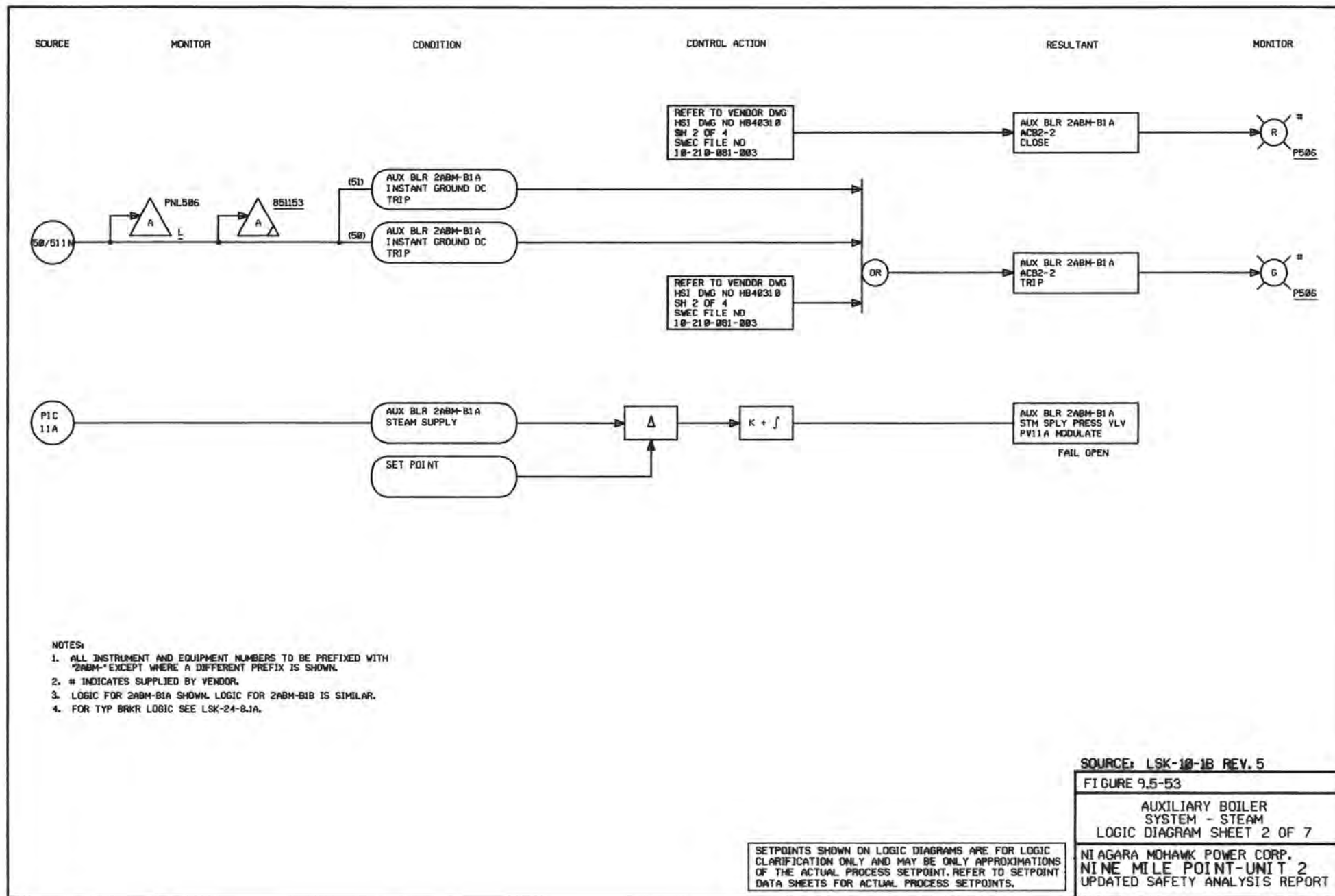
AUXILIARY BOILER  
SYSTEM - STEAM  
LOGIC DIAGRAM SHEET 1 OF 7

NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

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SOURCE: LSK-10-1B REV. 5

FIGURE 9.5-53

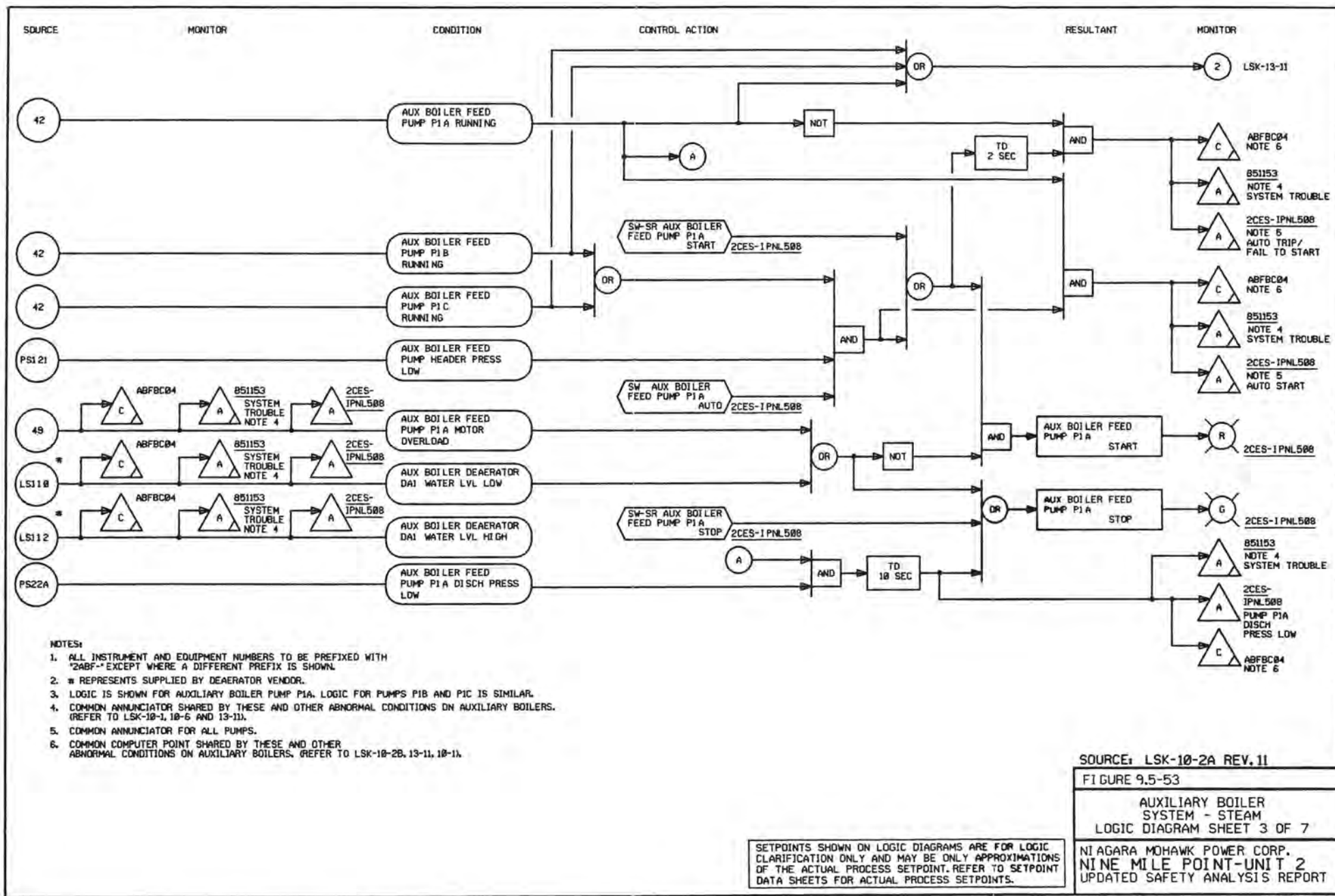
AUXILIARY BOILER  
SYSTEM - STEAM  
LOGIC DIAGRAM SHEET 2 OF 7

NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

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SOURCE: LSK-10-2A REV. 11

FIGURE 9.5-53

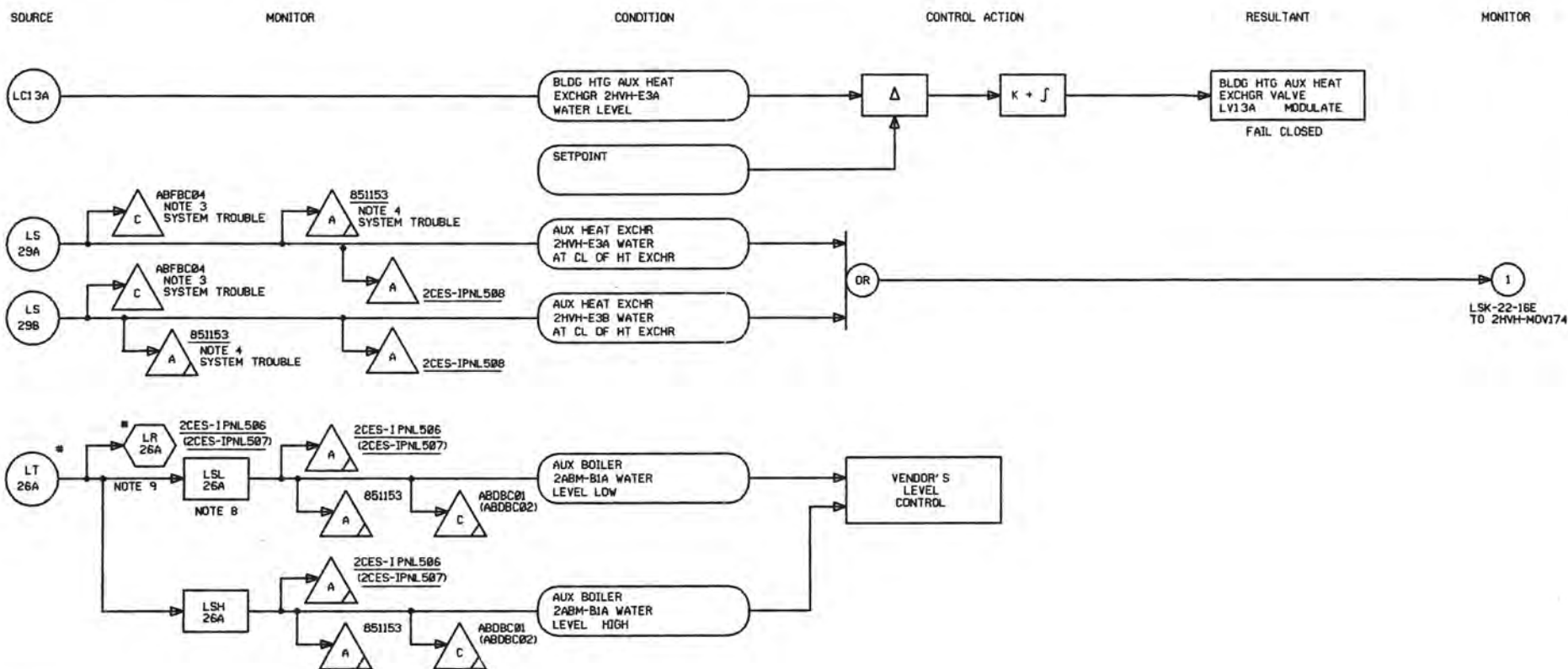
AUXILIARY BOILER  
SYSTEM - STEAM  
LOGIC DIAGRAM SHEET 3 OF 7

NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

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#### NOTES:

1. ALL INSTRUMENT AND EQUIPMENT NUMBERS TO BE PREFIXED WITH "2ABF" EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN.
2. LOGIC SHOWN FOR LV13A. LOGIC FOR LV13B IS SIMILAR.
3. COMMON COMPUTER POINTS SHARED BY THESE AND OTHER ABNORMAL CONDITIONS ON AUXILIARY BOILER (REFER TO LSK-13-11 & LSK-10-1).
4. COMMON ANNUNCIATOR SHARED BY THESE AND OTHER ABNORMAL CONDITIONS ON AUXILIARY BOILER (REFER TO LSK-13-11 & LSK-10-1).
5. \* DENOTES DEVICE SUPPLIED BY VENDOR.
6. LOGIC SHOWN FOR AUX BOILER 2ABM-B1A. LOGIC FOR AUX BOILER 2ABM-B1B IS SIMILAR.
7. LOGIC FOR LT26A, LSL26A AND LSH26A IS SHOWN. LOGIC FOR LT26B, LSL26B AND LSH26B IS SIMILAR.
8. LSL26A HAS TIME DELAY 3 SEC.
9. 3 PEN RECORDER, SEE ALSO LSK-10-6.

SETPOINTS SHOWN ON LOGIC DIAGRAMS ARE FOR LOGIC CLARIFICATION ONLY AND MAY BE ONLY APPROXIMATIONS OF THE ACTUAL PROCESS SETPOINT. REFER TO SETPOINT DATA SHEETS FOR ACTUAL PROCESS SETPOINTS.

SOURCE: LSK-10-2B REV. 11

FIGURE 9.5-53

AUXILIARY BOILER  
SYSTEM - STEAM  
LOGIC DIAGRAM SHEET 4 OF 7

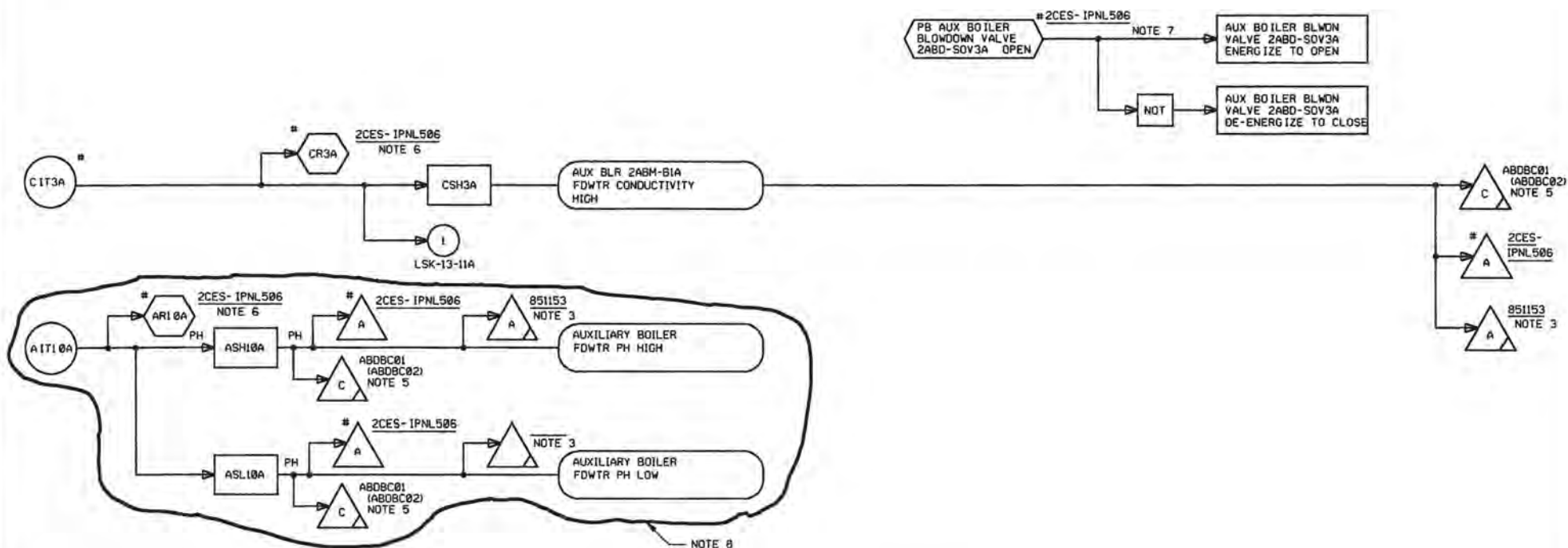
NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

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SOURCE                      MONITOR                      CONDITION                      CONTROL ACTION                      RESULTANT                      MONITOR



#### NOTES:

1. ALL INSTRUMENT AND EQUIPMENT NUMBERS TO BE PREFIXED WITH '2ABD-' EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN.
2. # INDICATES INSTRUMENT SUPPLIED BY AUXILIARY BOILER VENDOR.
3. COMMON ANNUNCIATOR WINDOW 'AUX BOILER 1A-1B SYSTEM TROUBLE' SHARED BY THESE AND OTHER TROUBLE CONDITIONS ON AUX BOILERS (REF LSK-10-1A, -1B, -1C, 10-2A, -2B & 3-11A).
4. ASSOCIATED EQUIPMENT AND MARK NUMBERS:
 

2ABM-B1A	2ABM-B1B	2ABM-B1A	2ABM-B1B
SOV3A	SOV3B	AIT10A	AIT10B
CIT3A	CIT3B	ASH10A	ASH10B
CSH3A	CSH3B	ASL10A	ASL10B
CR3A	CR3B	ARI10A	ARI10B
		2CES-IPNL506	2CES-IPNL507

5. COMMON COMPUTER POINT AUX BOILER LOCAL PNL SYSTEM TROUBLE SHARED BY ALL TROUBLE POINTS IN THAT PANEL.

PNL	COMPUTER POINT
2CES-IPNL506	ABDBC01
2CES-IPNL507	ABDBC02
2CES-IPNL508	ABFBC04

6. EACH AUX BOILER PANEL HAS TWO (2) THREE PEN RECORDERS. THE RECORDING PARAMETERS ARE:
 

STEAM PRESSURE	WATER LEVEL
KW	CONDUCTIVITY
STEAM FLOW	PH
7. REFER VENDOR DWG HYDRO STEAM IND., INC DWG NO HB40310 SH 2 & 3 SWEC FILE NO 0010,210-001-002 & 003.
8. EQUIPMENT RETIRED IN PLACE (2ABD-AE10A&B)

SOURCE: LSK-10-6 REV.10

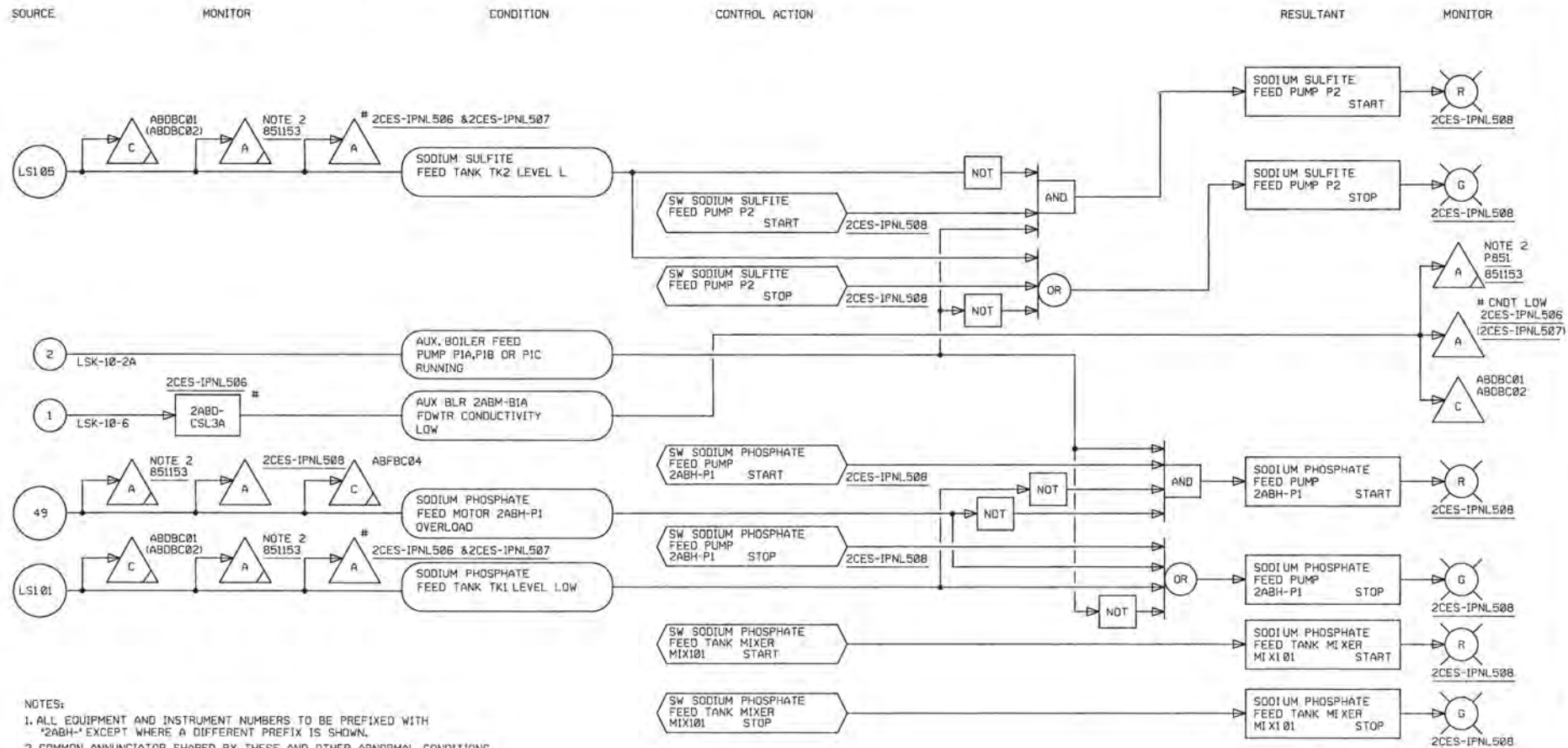
FIGURE 9,5-53

AUXILIARY BOILER  
SYSTEM - STEAM  
LOGIC DIAGRAM SHEET 5 OF 7

SETPOINTS SHOWN ON LOGIC DIAGRAMS ARE FOR LOGIC CLARIFICATION ONLY AND MAY BE ONLY APPROXIMATIONS OF THE ACTUAL PROCESS SETPOINT. REFER TO SETPOINT DATA SHEETS FOR ACTUAL PROCESS SETPOINTS.

NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT





#### NOTES:

1. ALL EQUIPMENT AND INSTRUMENT NUMBERS TO BE PREFIXED WITH "2ABH-" EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN.
2. COMMON ANNUNCIATOR SHARED BY THESE AND OTHER ABNORMAL CONDITIONS ON AUXILIARY BOILERS (REFER TO LSK-10-1, 10-2A, B 10-6).
3. # INDICATES SUPPLIED BY AUXILIARY BOILER VENDOR.
4. LOGIC IS SHOWN FOR SODIUM PHOSPHATE FEED TANK MIXER, M1X101. LOGIC IS SIMILAR FOR SODIUM SULFITE FEED TANK MIXER, M1X102.
5. FOR ALL ABNORMAL (ALARM) CONDITIONS ON AUXILIARY BOILER SYSTEM EACH LOCAL PANEL A COMMON COMPUTER POINT PER PANEL REPRESENTING LOCAL PANEL SYSTEM TROUBLE HAS BEEN USED.

PNL	COMMON COMP PT
2CES-IPNL506	ABDBC01
2CES-IPNL507	ABDBC02
2CES-IPNL508	ABFBC04

6. SIGNALS TO BE RETRANSMITTED TO CONTROL ROOM ANN & COMPUTER FROM PNLS 2CES-IPNL506 & 507 SHOULD BE TAKEN TO PNL 2CES-IPNL508. RETRANSMISSION OF ALARM & COMPUTER SIGNALS FROM PNL 2CES-IPNL508 ONLY.

SOURCE: LSK-13-11A REV.5

FIGURE 9.5-53

AUXILIARY BOILER SYSTEM-STEAM  
LOGIC DIAGRAM SHEET 6 OF 7

SETPOINTS SHOWN ON LOGIC DIAGRAMS ARE FOR LOGIC CLARIFICATION ONLY AND MAY BE ONLY APPROXIMATIONS OF THE ACTUAL PROCESS SETPOINT. REFER TO SETPOINT DATA SHEETS FOR ACTUAL PROCESS SETPOINTS.

NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT



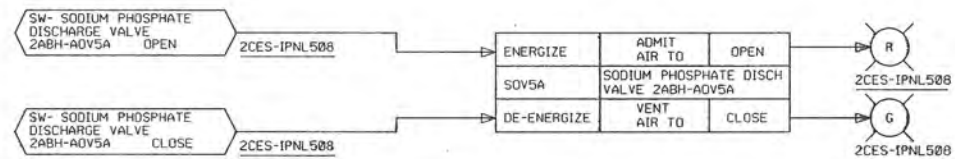
SOURCE

CONDITION

CONTROL ACTION

RESULTANT

MONITOR



## NOTES:

1. ALL INSTRUMENT AND EQUIPMENT NUMBERS TO BE PREFIXED WITH "2ABH-" EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN.
2. LOGIC FOR 2ABH-AOV5A IS SHOWN. LOGIC FOR 2ABH-AOV5B IS SIMILAR.

SETPOINTS SHOWN ON LOGIC DIAGRAMS ARE FOR LOGIC CLARIFICATION ONLY AND MAY BE ONLY APPROXIMATIONS OF THE ACTUAL PROCESS SETPOINT. REFER TO SETPOINT DATA SHEETS FOR ACTUAL PROCESS SETPOINTS.

SOURCE: LSK-13-11B REV.5

FIGURE 9.5-53

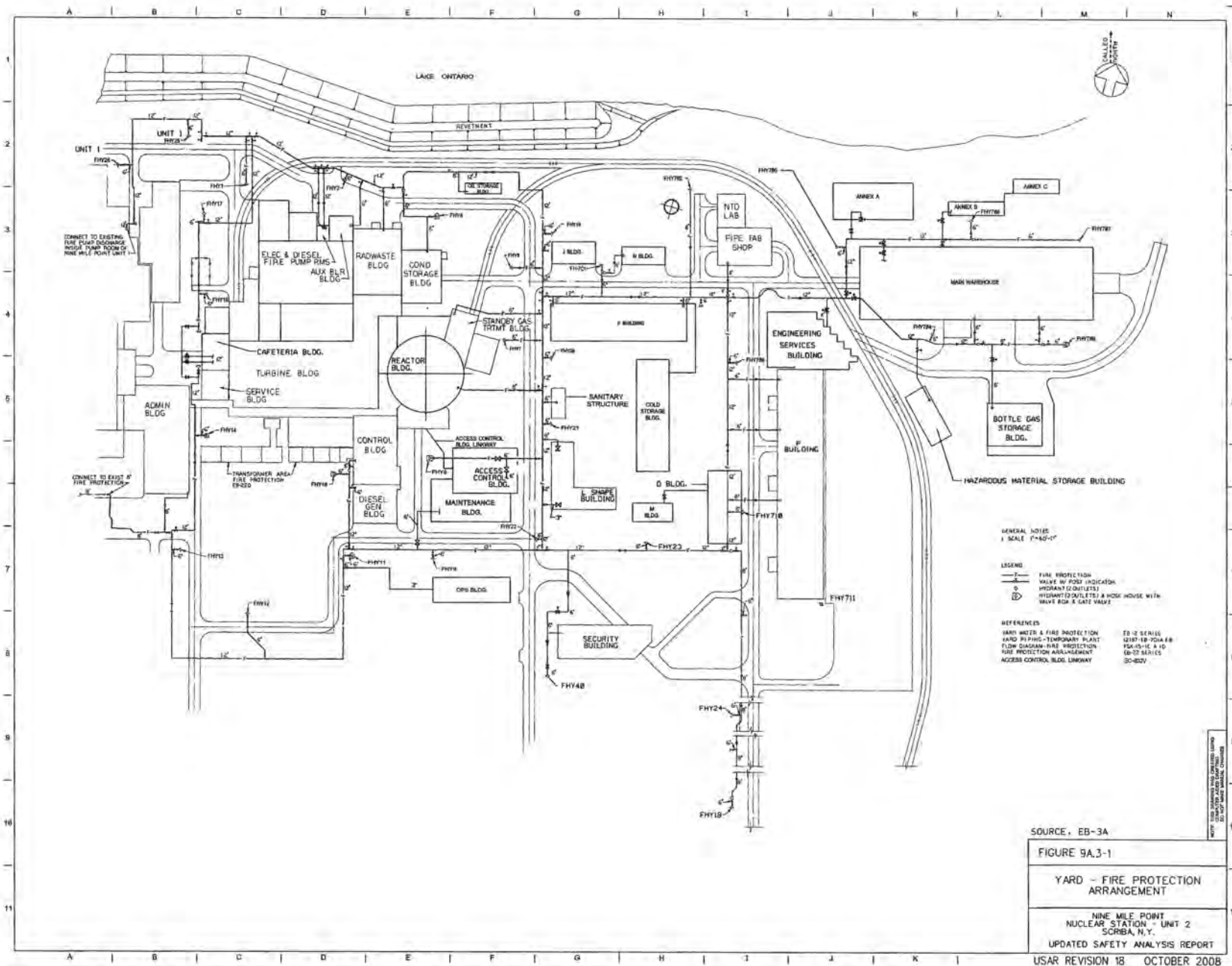
AUXILIARY BOILER SYSTEM-STEAM  
LOGIC DIAGRAM SHEET 7 OF 7

NIAGARA MOHAWK POWER CORP.  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

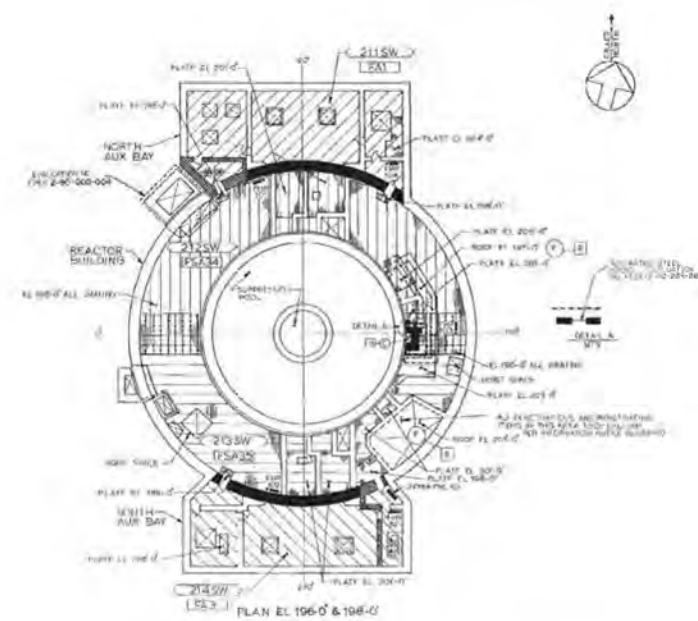
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## GENERAL AGENTS

2. OUTLINE 850, 860, 870, 880, 890, 900, 910, 920, 930, 940, 950, 960, 970, 980, 990, 1000, 1010, 1020, 1030, 1040, 1050, 1060, 1070, 1080, 1090, 1100, 1110, 1120, 1130, 1140, 1150, 1160, 1170, 1180, 1190, 1200, 1210, 1220, 1230, 1240, 1250, 1260, 1270, 1280, 1290, 1300, 1310, 1320, 1330, 1340, 1350, 1360, 1370, 1380, 1390, 1400, 1410, 1420, 1430, 1440, 1450, 1460, 1470, 1480, 1490, 1500, 1510, 1520, 1530, 1540, 1550, 1560, 1570, 1580, 1590, 1600, 1610, 1620, 1630, 1640, 1650, 1660, 1670, 1680, 1690, 1700, 1710, 1720, 1730, 1740, 1750, 1760, 1770, 1780, 1790, 1800, 1810, 1820, 1830, 1840, 1850, 1860, 1870, 1880, 1890, 1900, 1910, 1920, 1930, 1940, 1950, 1960, 1970, 1980, 1990, 2000, 2010, 2020, 2030, 2040, 2050, 2060, 2070, 2080, 2090, 2100, 2110, 2120, 2130, 2140, 2150, 2160, 2170, 2180, 2190, 2200, 2210, 2220, 2230, 2240, 2250, 2260, 2270, 2280, 2290, 2300, 2310, 2320, 2330, 2340, 2350, 2360, 2370, 2380, 2390, 2400, 2410, 2420, 2430, 2440, 2450, 2460, 2470, 2480, 2490, 2500, 2510, 2520, 2530, 2540, 2550, 2560, 2570, 2580, 2590, 2600, 2610, 2620, 2630, 2640, 2650, 2660, 2670, 2680, 2690, 2700, 2710, 2720, 2730, 2740, 2750, 2760, 2770, 2780, 2790, 2800, 2810, 2820, 2830, 2840, 2850, 2860, 2870, 2880, 2890, 2900, 2910, 2920, 2930, 2940, 2950, 2960, 2970, 2980, 2990, 3000, 3010, 3020, 3030, 3040, 3050, 3060, 3070, 3080, 3090, 3100, 3110, 3120, 3130, 3140, 3150, 3160, 3170, 3180, 3190, 3200, 3210, 3220, 3230, 3240, 3250, 3260, 3270, 3280, 3290, 3300, 3310, 3320, 3330, 3340, 3350, 3360, 3370, 3380, 3390, 3400, 3410, 3420, 3430, 3440, 3450, 3460, 3470, 3480, 3490, 3500, 3510, 3520, 3530, 3540, 3550, 3560, 3570, 3580, 3590, 3600, 3610, 3620, 3630, 3640, 3650, 3660, 3670, 3680, 3690, 3700, 3710, 3720, 3730, 3740, 3750, 3760, 3770, 3780, 3790, 3800, 3810, 3820, 3830, 3840, 3850, 3860, 3870, 3880, 3890, 3900, 3910, 3920, 3930, 3940, 3950, 3960, 3970, 3980, 3990, 4000, 4010, 4020, 4030, 4040, 4050, 4060, 4070, 4080, 4090, 4100, 4110, 4120, 4130, 4140, 4150, 4160, 4170, 4180, 4190, 4200, 4210, 4220, 4230, 4240, 4250, 4260, 4270, 4280, 4290, 4300, 4310, 4320, 4330, 4340, 4350, 4360, 4370, 4380, 4390, 4400, 4410, 4420, 4430, 4440, 4450, 4460, 4470, 4480, 4490, 4500, 4510, 4520, 4530, 4540, 4550, 4560, 4570, 4580, 4590, 4600, 4610, 4620, 4630, 4640, 4650, 4660, 4670, 4680, 4690, 4700, 4710, 4720, 4730, 4740, 4750, 4760, 4770, 4780, 4790, 4800, 4810, 4820, 4830, 4840, 4850, 4860, 4870, 4880, 4890, 4900, 4910, 4920, 4930, 4940, 4950, 4960, 4970, 4980, 4990, 5000, 5010, 5020, 5030, 5040, 5050, 5060, 5070, 5080, 5090, 5100, 5110, 5120, 5130, 5140, 5150, 5160, 5170, 5180, 5190, 5200, 5210, 5220, 5230, 5240, 5250, 5260, 5270, 5280, 5290, 5300, 5310, 5320, 5330, 5340, 5350, 5360, 5370, 5380, 5390, 5400, 5410, 5420, 5430, 5440, 5450, 5460, 5470, 5480, 5490, 5500, 5510, 5520, 5530, 5540, 5550, 5560, 5570, 5580, 5590, 5600, 5610, 5620, 5630, 5640, 5650, 5660, 5670, 5680, 5690, 5700, 5710, 5720, 5730, 5740, 5750, 5760, 5770, 5780, 5790, 5800, 5810, 5820, 5830, 5840, 5850, 5860, 5870, 5880, 5890, 5900, 5910, 5920, 5930, 5940, 5950, 5960, 5970, 5980, 5990, 6000, 6010, 6020, 6030, 6040, 6050, 6060, 6070, 6080, 6090, 6100, 6110, 6120, 6130, 6140, 6150, 6160, 6170, 6180, 6190, 6200, 6210, 6220, 6230, 6240, 6250, 6260, 6270, 6280, 6290, 6300, 6310, 6320, 6330, 6340, 6350, 6360, 6370, 6380, 6390, 6400, 6410, 6420, 6430, 6440, 6450, 6460, 6470, 6480, 6490, 6500, 6510, 6520, 6530, 6540, 6550, 6560, 6570, 6580, 6590, 6600, 6610, 6620, 6630, 6640, 6650, 6660, 6670, 6680, 6690, 6700, 6710, 6720, 6730, 6740, 6750, 6760, 6770, 6780, 6790, 6800, 6810, 6820, 6830, 6840, 6850, 6860, 6870, 6880, 6890, 6900, 6910, 6920, 6930, 6940, 6950, 6960, 6970, 6980, 6990, 7000, 7010, 7020, 7030, 7040, 7050, 7060, 7070, 7080, 7090, 7100, 7110, 7120, 7130, 7140, 7150, 7160, 7170, 7180, 7190, 7200, 7210, 7220, 7230, 7240, 7250, 7260, 7270, 7280, 7290, 7300, 7310, 7320, 7330, 7340, 7350, 7360, 7370, 7380, 7390, 7400, 7410, 7420, 7430, 7440, 7450, 7460, 7470, 7480, 7490, 7500, 7510, 7520, 7530, 7540, 7550, 7560, 7570, 7580, 7590, 7600, 7610, 7620, 7630, 7640, 7650, 7660, 7670, 7680,

§. THEY FIRE BARRIERS SHALL

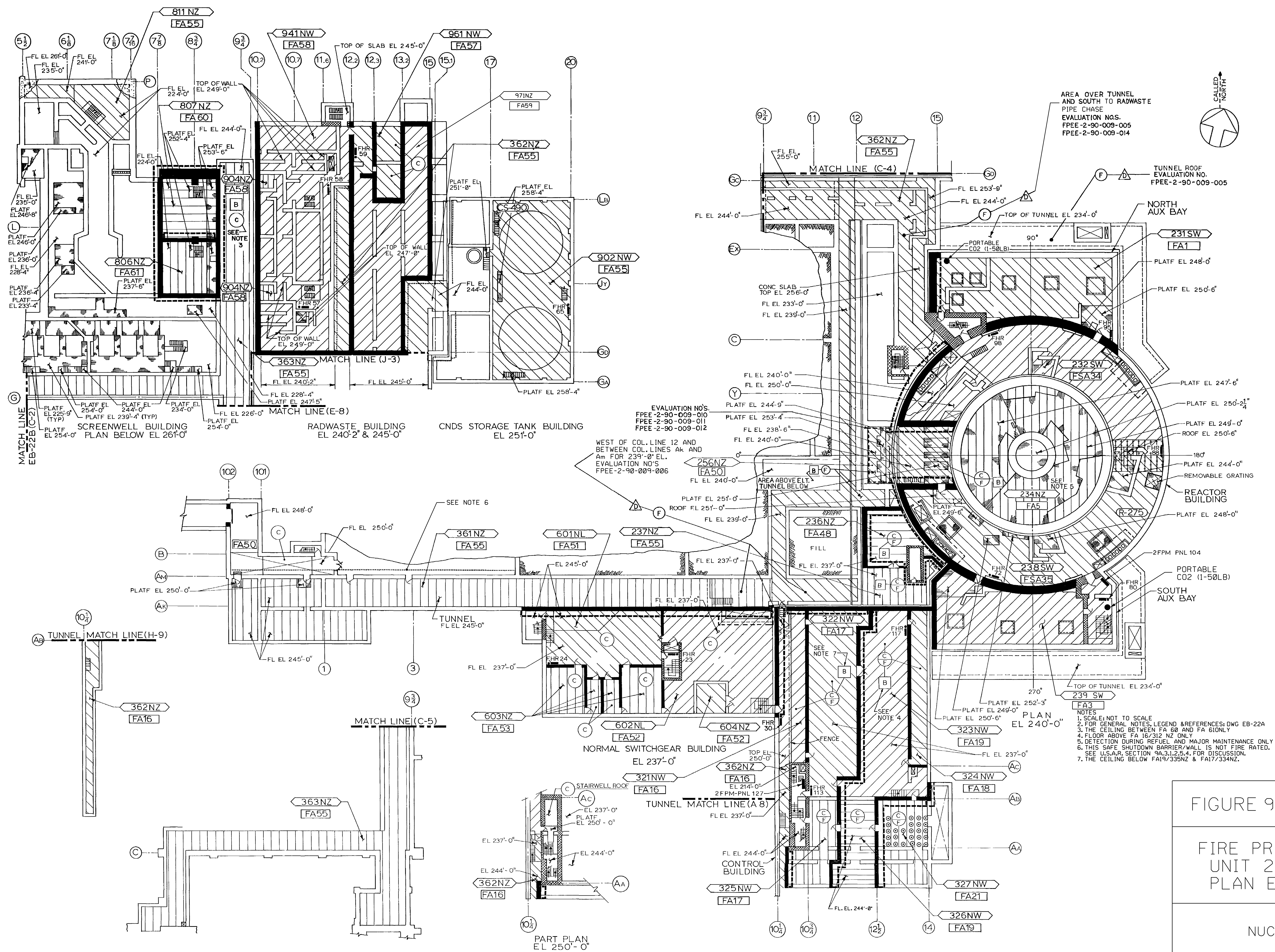
- g. CONDUIT THAT TERMINATES IN CLOSED JUNCTION BOXES OR OTHER NON-COMBUSTIBLE ENCLOSURES.
- h. CONDUIT 2 IN. IN DIAMETER WITH A CABLE FULL OF AIR OR OTHER GASES THAT TERMINATES IN A CLOSED JUNCTION BOX OR THE END OF THE RAN.
- i. CONDUIT BETWEEN 1 IN. AND 2 IN. IN DIAMETER WITH A CABLE FULL OF AIR OR OTHER GASES THAT TERMINATES IN THE FIRE BARRED.
- j. CONDUIT 2 IN. IN DIAMETER WITH A CABLE FULL OF AIR OR OTHER GASES THAT TERMINATES 5 FT. OR GREATER FROM THE FIRE BARRED.
- k. CONDUIT 1 IN. IN DIAMETER WITH A CABLE FULL OF AIR OR OTHER GASES THAT TERMINATES 7 FT. OR GREATER FROM THE FIRE BARRED.
- l. CONDUITS SMALLER THAN 1 IN. IN DIAMETER THAT TERMINATE 7 FT. OR GREATER FROM THE FIRE BARRED.

NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

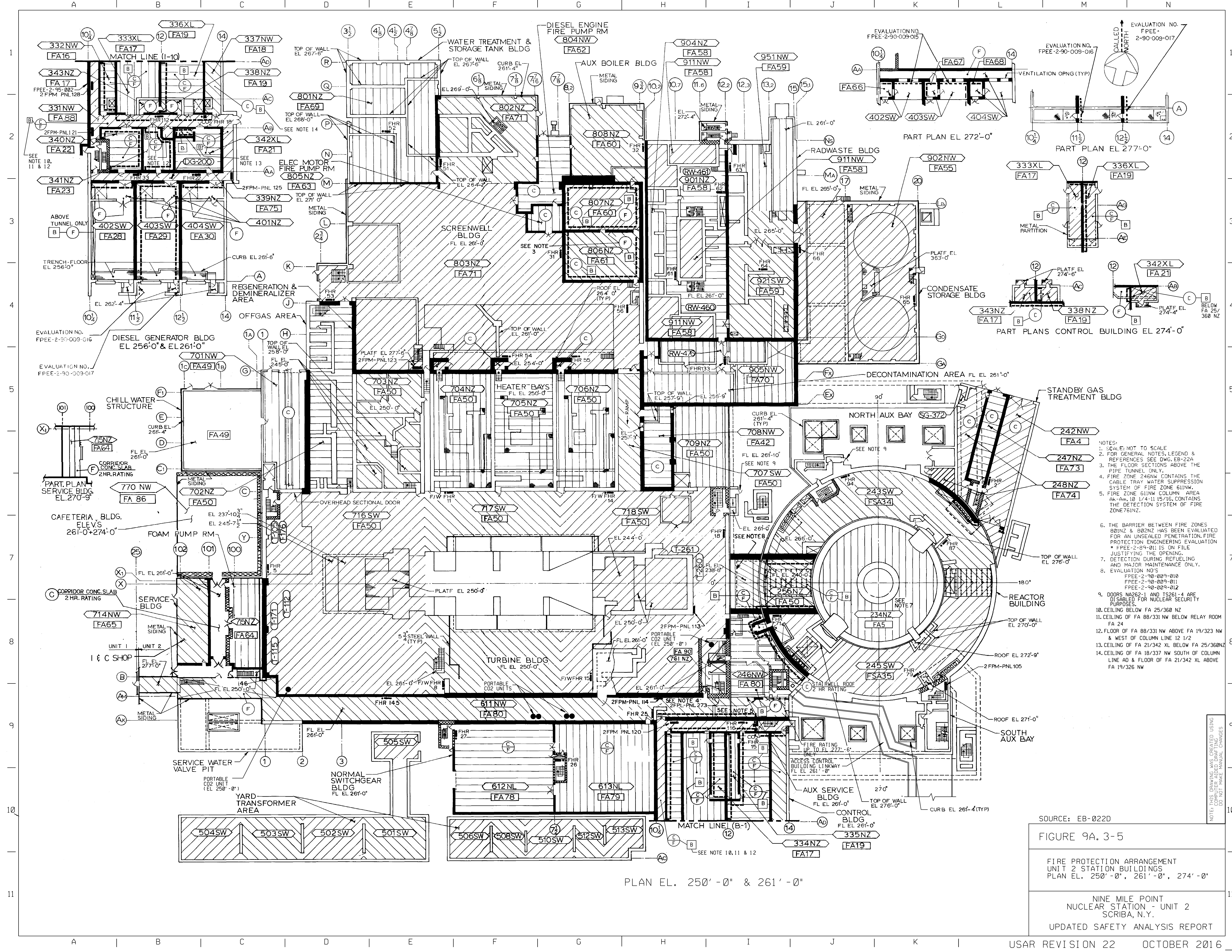




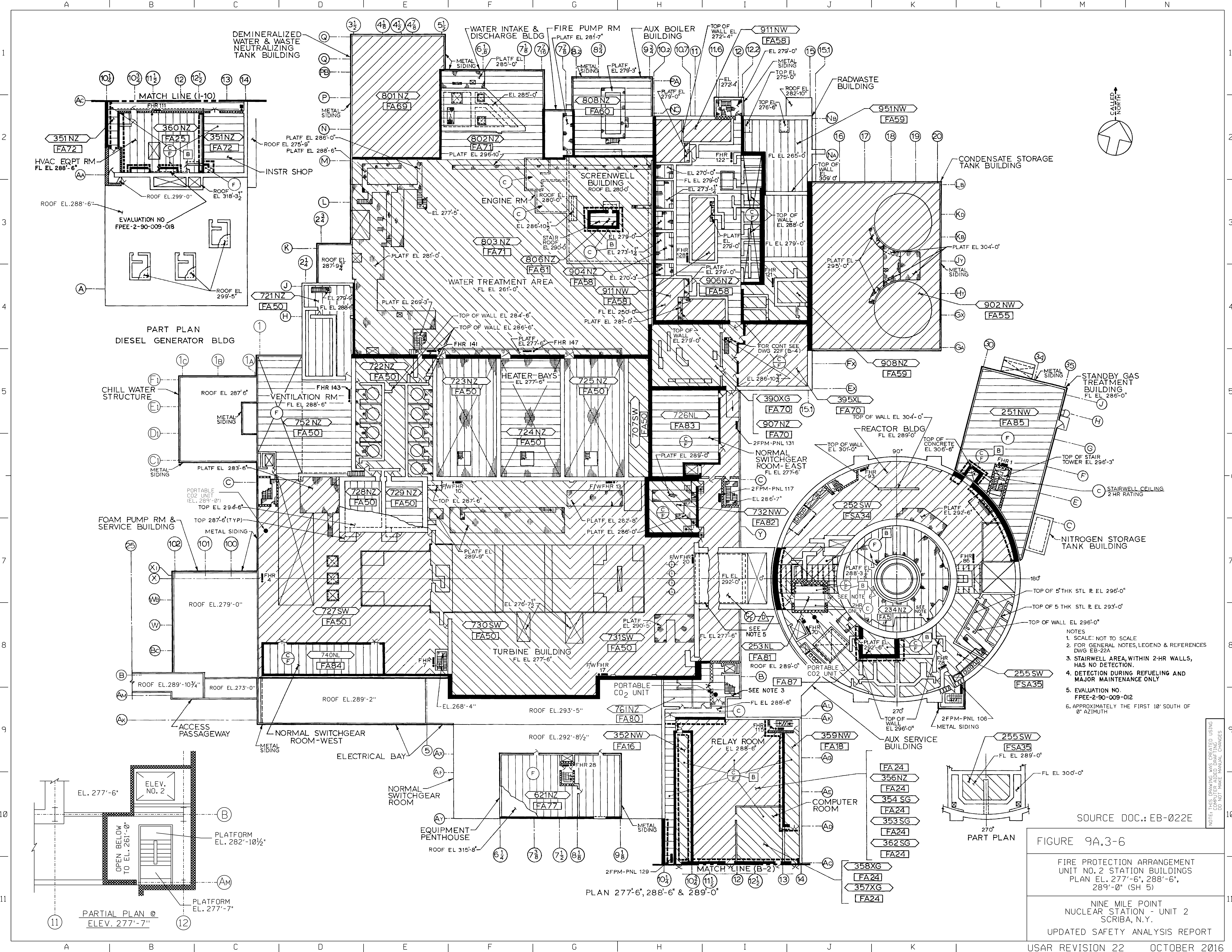












- NOTES
- 1. SCALE: NOT TO SCALE
  - 2. FOR GENERAL NOTES, LEGEND & REFERENCES DWG EB-22A
  - 3. STAIRWELL AREA, WITHIN 2-HR WALLS, HAS NO DETECTION.
  - 4. DETECTION DURING REFUELING AND MAJOR MAINTENANCE ONLY
  - 5. EVALUATION NO. FPCE-2-90-009-012
  - 6. APPROXIMATELY THE FIRST 10° SOUTH OF 0° AZIMUTH

SOURCE DOC.: EB-022E

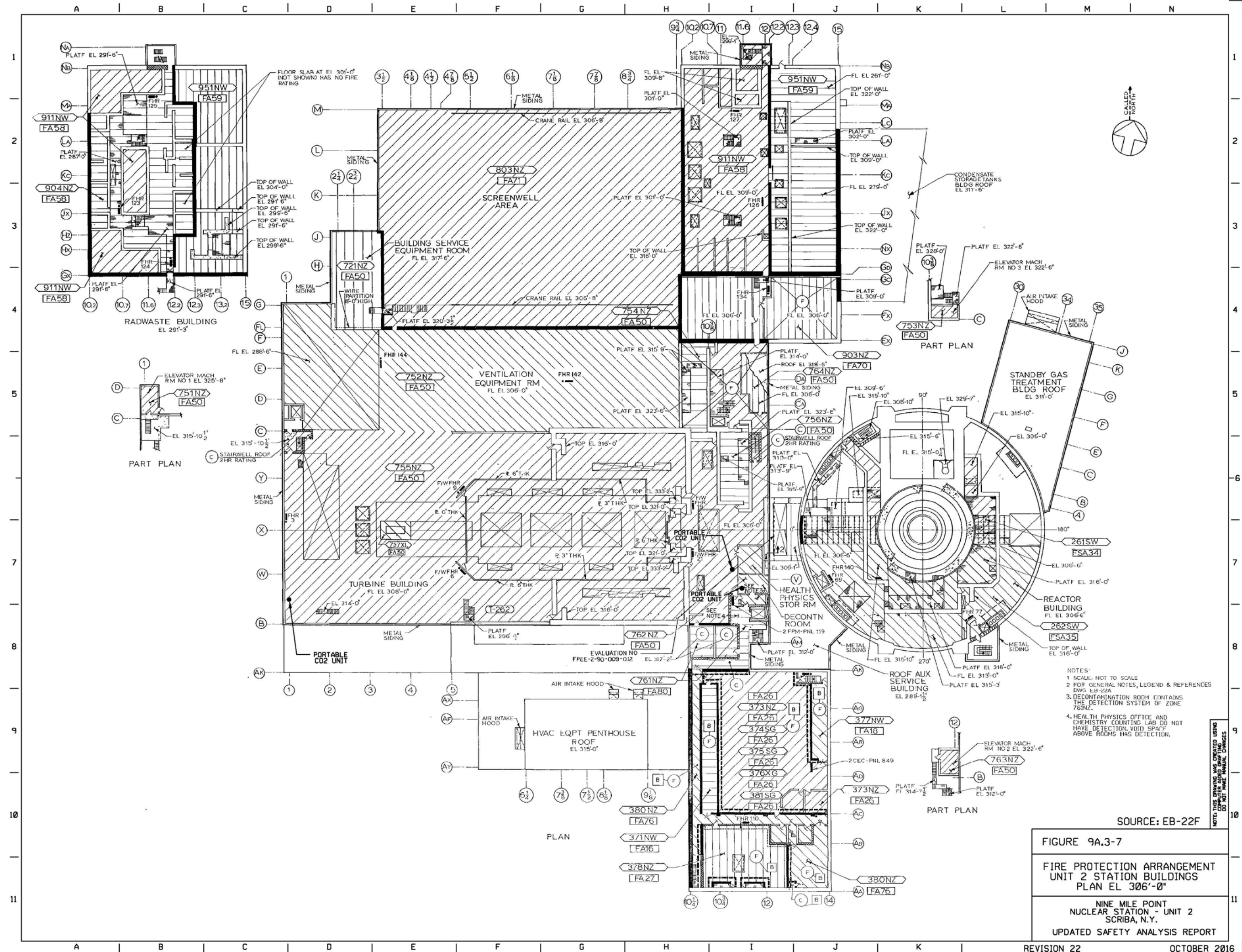
FIGURE 9A.3-6

FIRE PROTECTION ARRANGEMENT  
UNIT NO. 2 STATION BUILDINGS  
PLAN EL. 277'-6", 288'-6",  
289'-0" (SH 5)

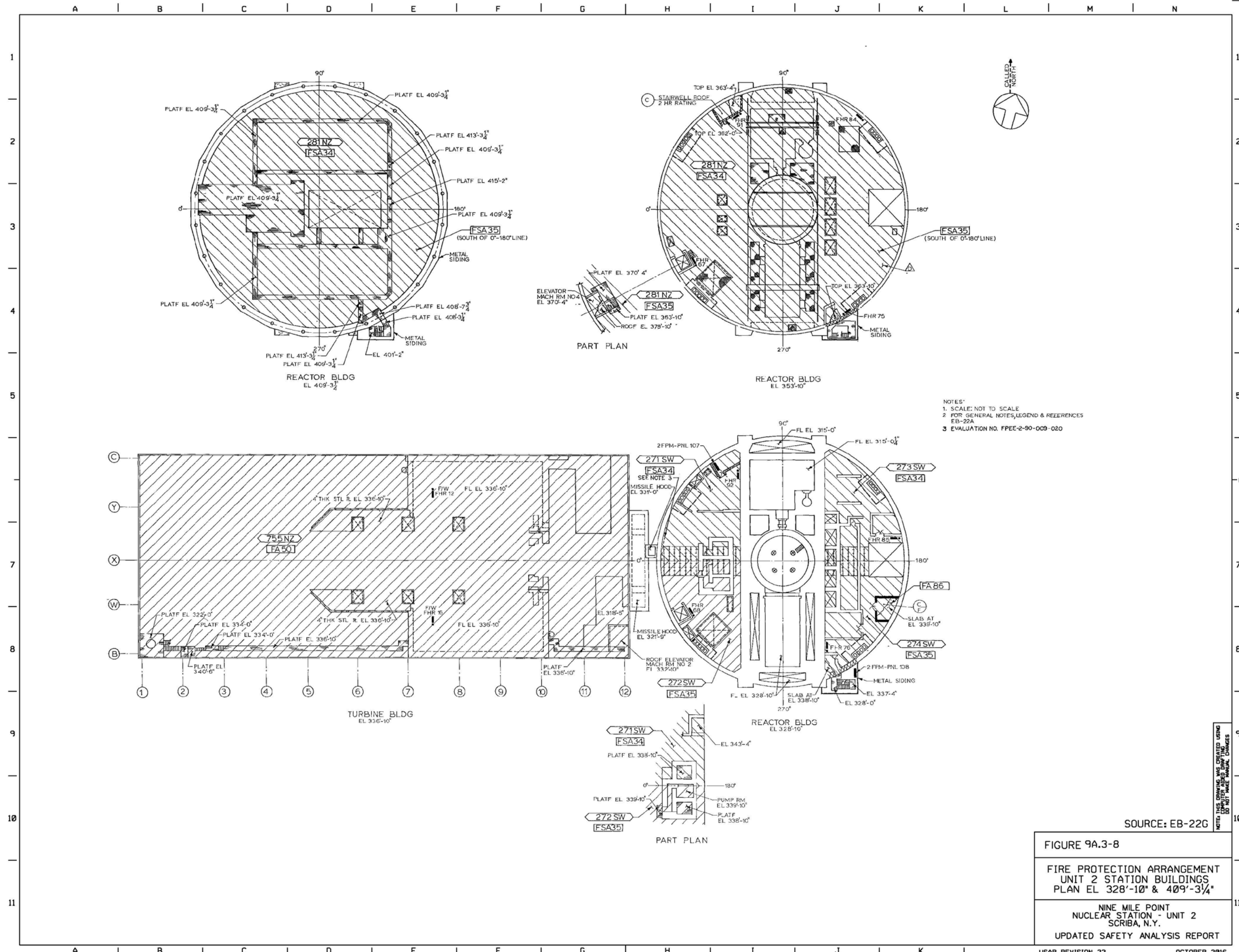
NINE MILE POINT  
NUCLEAR STATION - UNIT 2  
SCRIBA, N.Y.

UPDATED SAFETY ANALYSIS REPORT









SOURCE: EB-22G

FIGURE 9A.3-8  
FIRE PROTECTION ARRANGEMENT  
UNIT 2 STATION BUILDINGS  
PLAN EL 328'-10" & 409'-3 1/4"  
NINE MILE POINT  
NUCLEAR STATION - UNIT 2  
SCRIBA, N.Y.  
UPDATED SAFETY ANALYSIS REPORT



**THIS FIGURE HAS  
BEEN DELETED**

FIGURE 9A.3-9

NIAGARA MOHAWK POWER CORPORATION  
**NINE MILE POINT-UNIT 2**  
FINAL SAFETY ANALYSIS REPORT



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FIGURE 9A.3-10

NIAGARA MOHAWK POWER CORPORATION  
**NINE MILE POINT-UNIT 2**  
FINAL SAFETY ANALYSIS REPORT



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FIGURE 9A.3-11

NIAGARA MOHAWK POWER CORPORATION  
NINE MILE POINT-UNIT 2  
FINAL SAFETY ANALYSIS REPORT



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**FIGURE 9A.3-12**

**NIAGARA MOHAWK POWER CORPORATION  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT**

**USAR REVISION 0**

**APRIL 1989**



**THIS FIGURE HAS  
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FIGURE 9A.3-13

NIAGARA MOHAWK POWER CORPORATION  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT



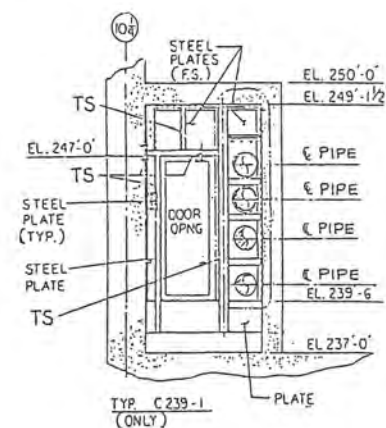
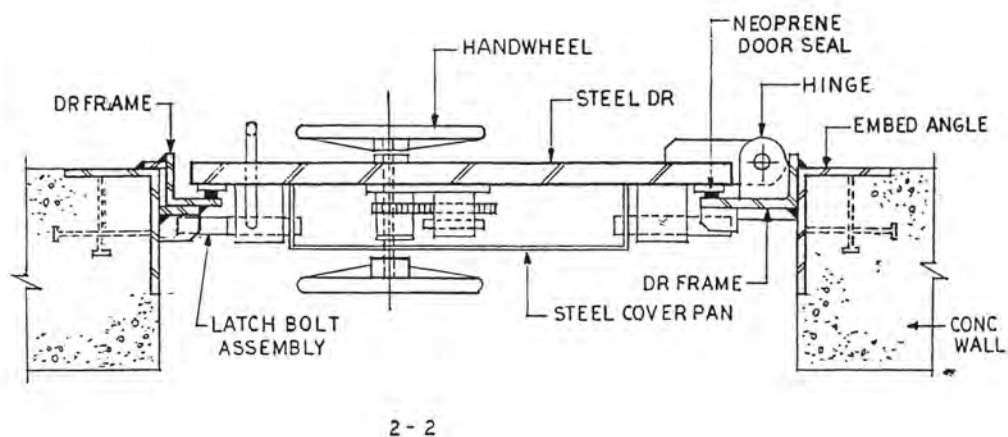
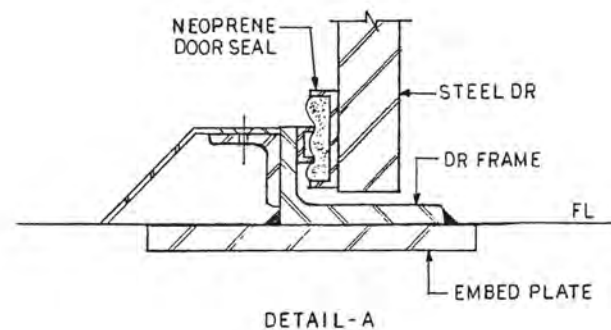
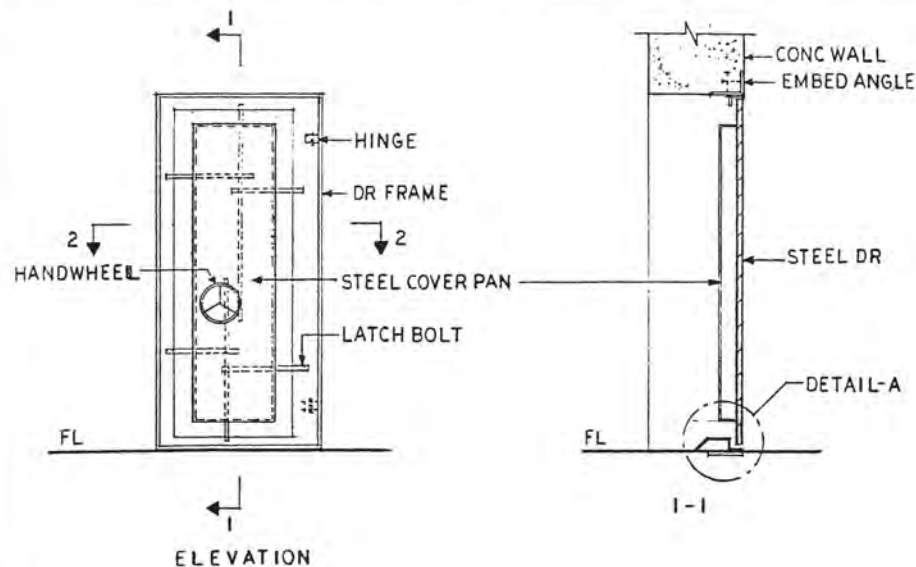
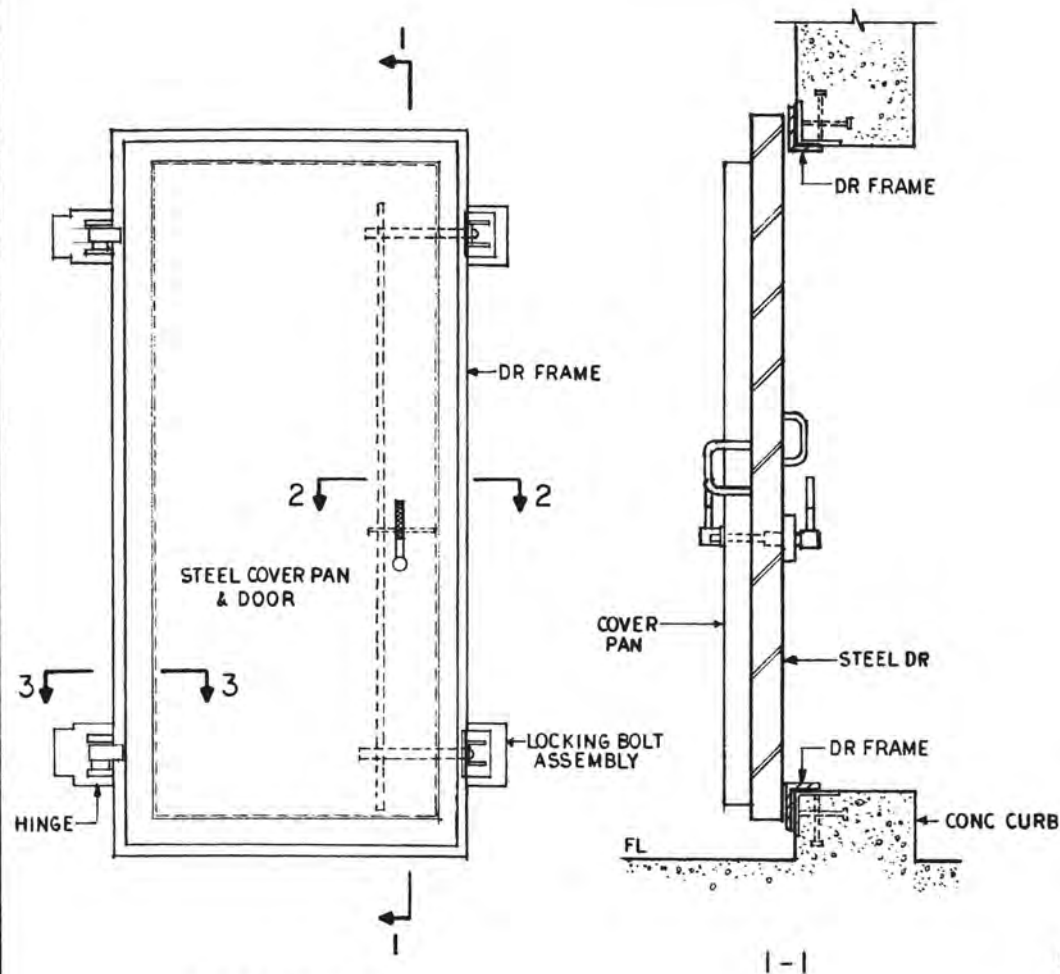


FIGURE 9A.3-14

WATERTIGHT DOORS - SECTIONS & DETAILS  
SA175-3, R175-4, R175-5, R175-7, C239-1  
PAGE 1 OF 2

NIAGARA MOHAWK POWER CORPORATION  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT





ELEVATION

TYPICAL SECTIONS & DETAILS

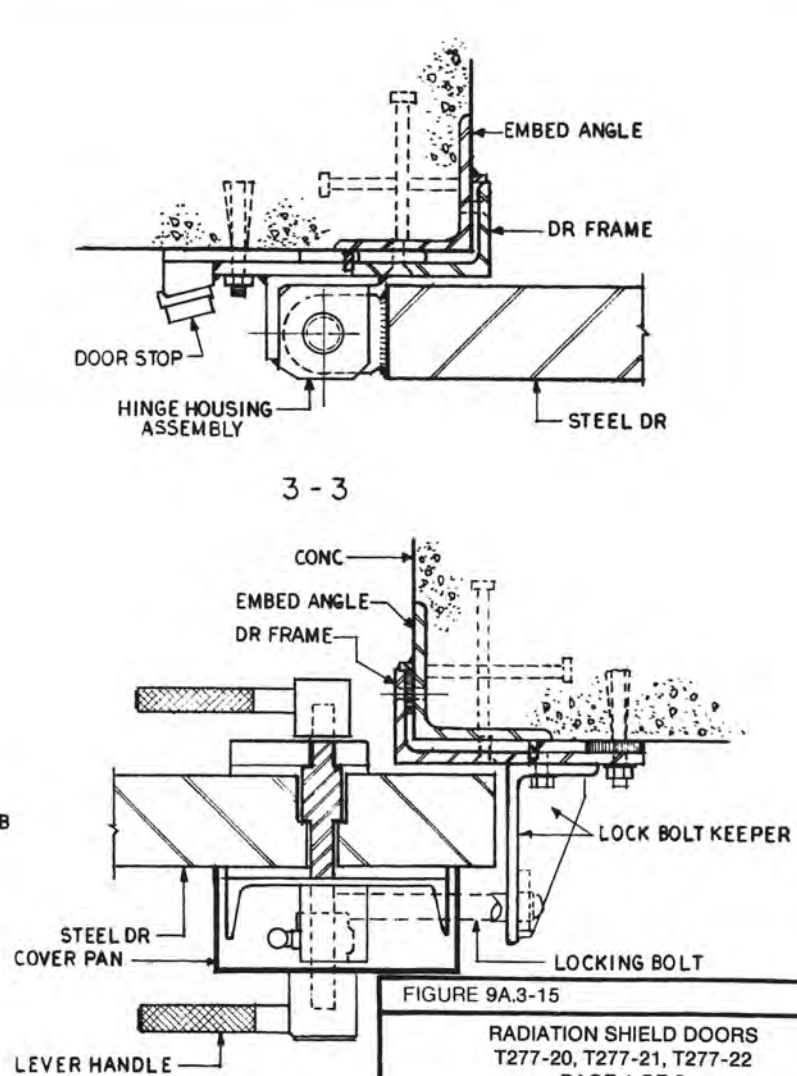


FIGURE 9A.3-15

RADIATION SHIELD DOORS  
T277-20, T277-21, T277-22  
PAGE 1 OF 2

NIAGARA MOHAWK POWER CORPORATION  
NINE MILE POINT-UNIT 2  
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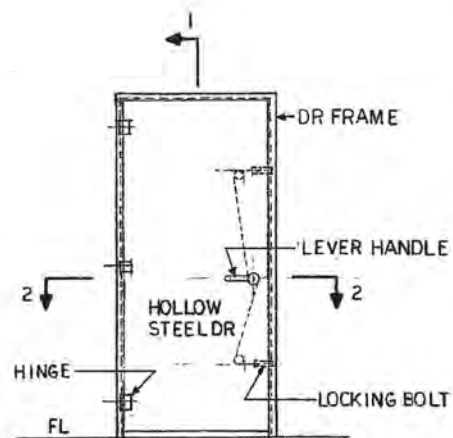
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FIGURE 9A.3-15

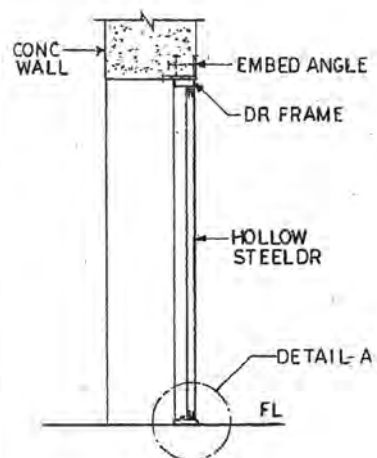
PAGE 2 OF 2

NIAGARA MOHAWK POWER CORPORATION  
**NINE MILE POINT-UNIT 2**  
FINAL SAFETY ANALYSIS REPORT

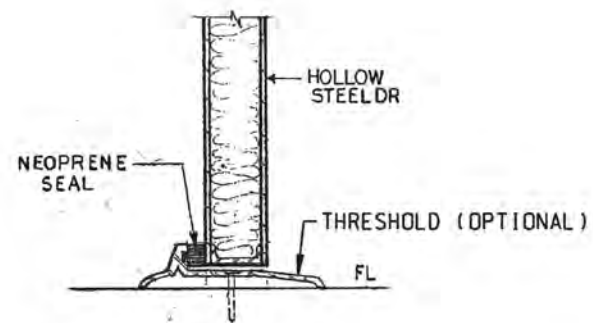




ELEVATION

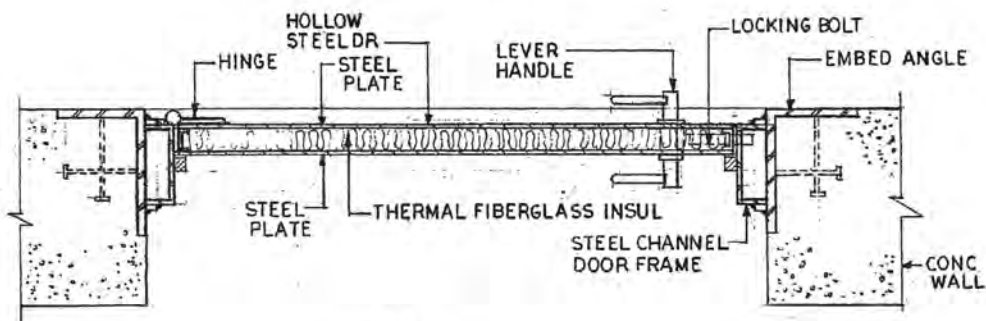


1-1



DETAIL-A

TYPICAL SECTIONS & DETAILS



2-2

(SOURCE DOCUMENT: PR9378 REV. C)

FIGURE 9A.3-16

TORNADO DOORS ET214-2, ET237-1,  
SW261-14, DG272-4, AB261-3, SW280-1,  
C261-1, C288-1, C306-1 PAGE 1 OF 2

NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

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October 2002



**THIS FIGURE HAS  
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FIGURE 9A.3-16

PAGE 2 OF 2

NIAGARA MOHAWK POWER CORPORATION  
NINE MILE POINT-UNIT 2  
FINAL SAFETY ANALYSIS REPORT



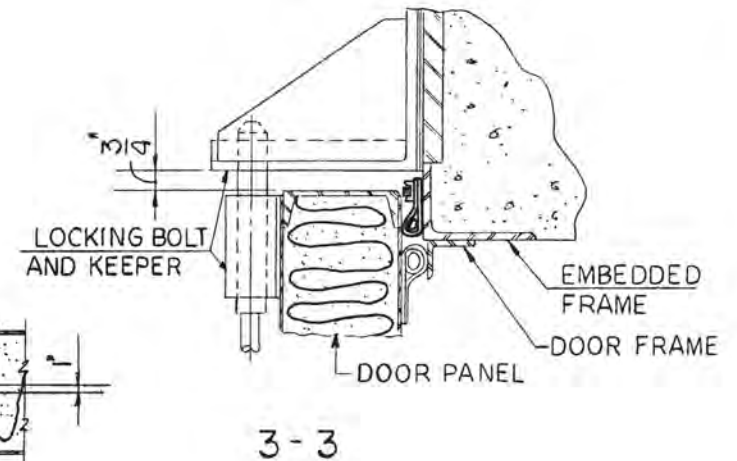
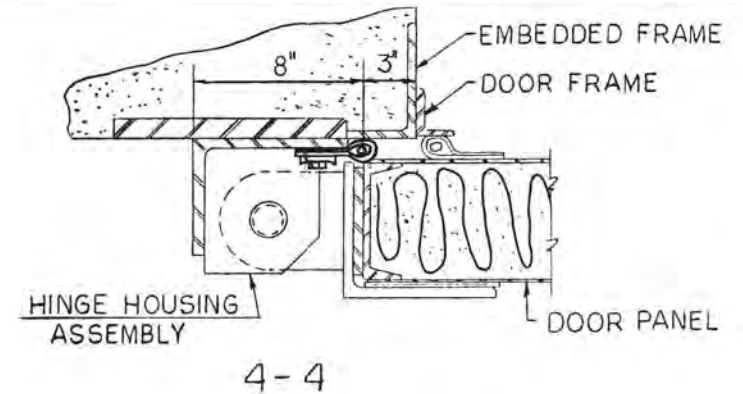
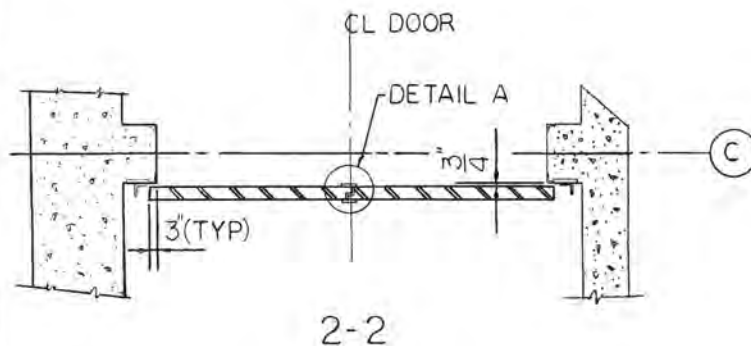
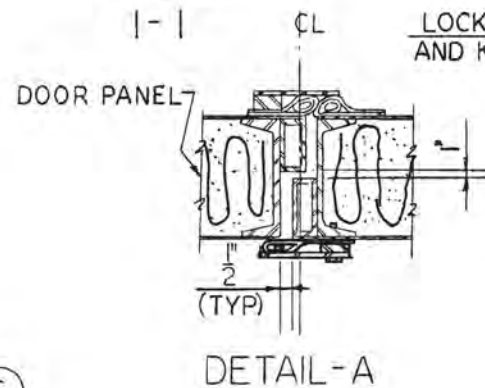
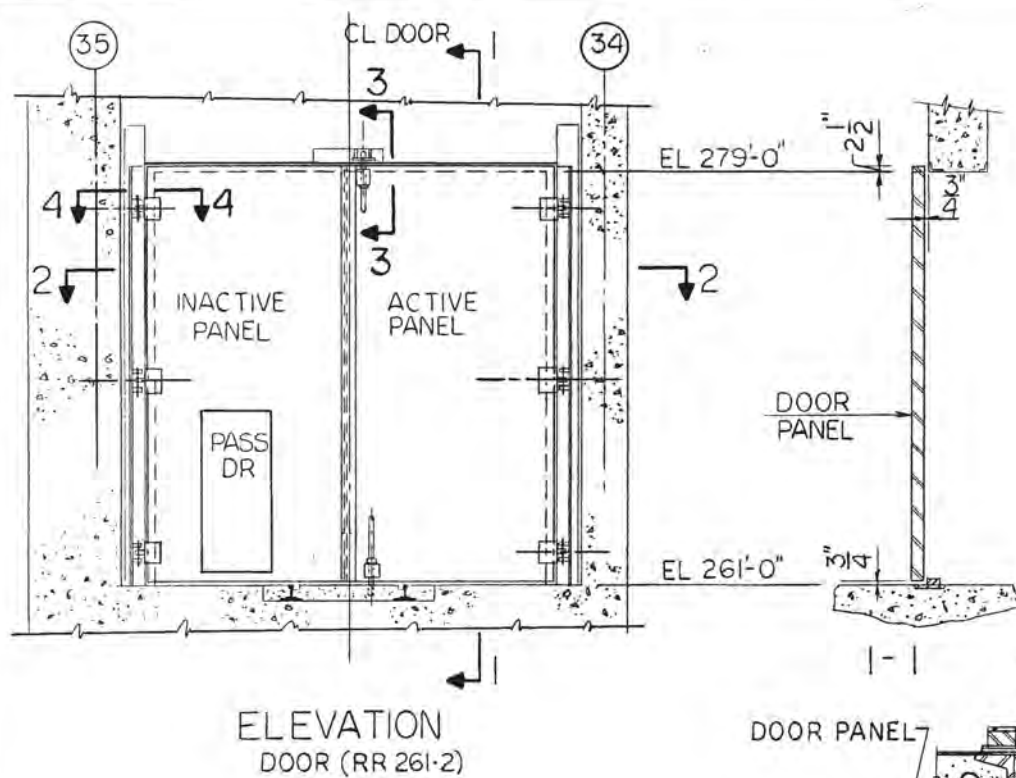


FIGURE 9A.3-17

REACTOR BLDG RAILROAD  
ACCESS DOOR RR261-2  
PAGE 1 OF 2

NIAGARA MOHAWK POWER CORPORATION  
NINE MILE POINT-UNIT 2  
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FIGURE 9A.3-17

PAGE 2 OF 2

NIAGARA MOHAWK POWER CORPORATION  
**NINE MILE POINT-UNIT 2**  
FINAL SAFETY ANALYSIS REPORT



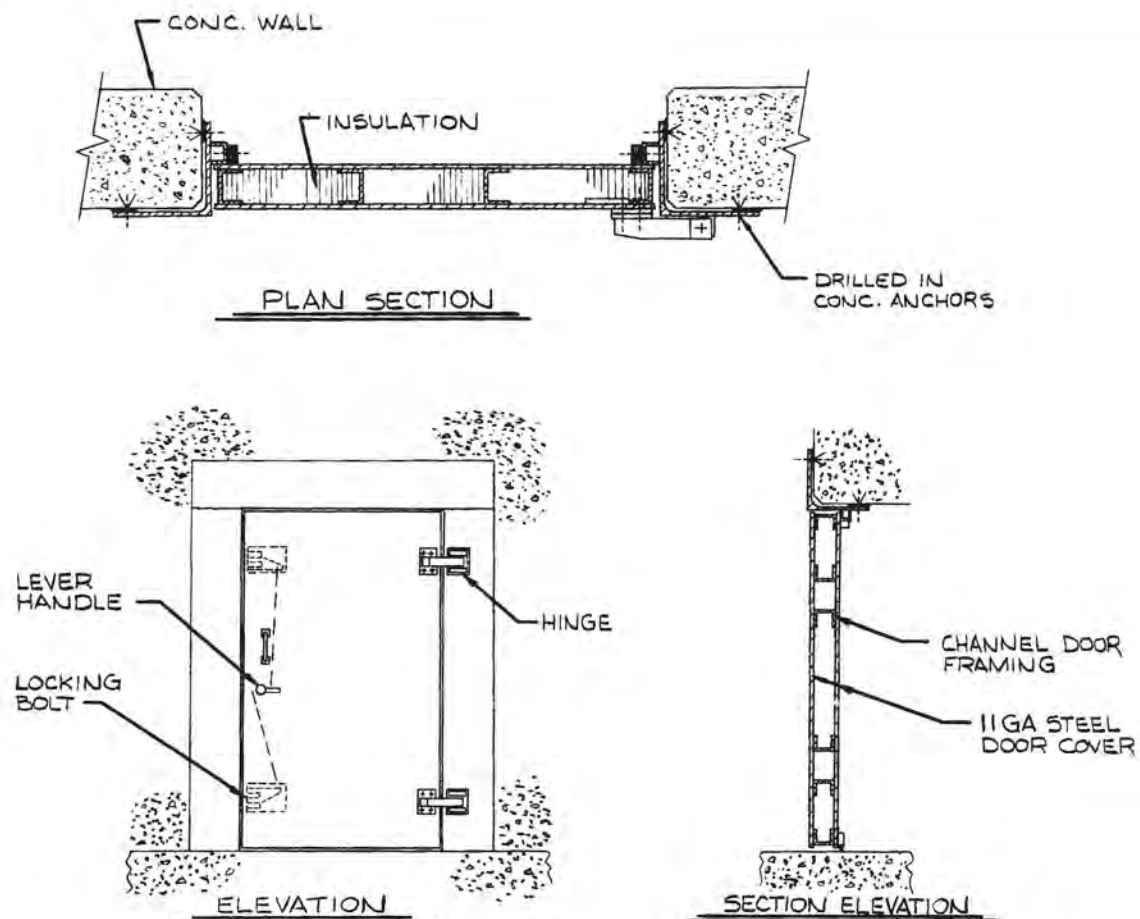
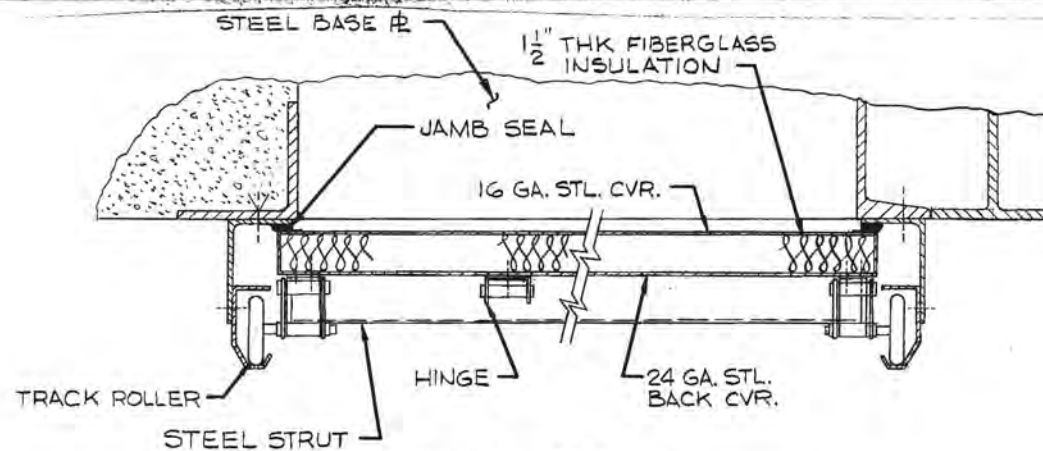


FIGURE 9A.3-18

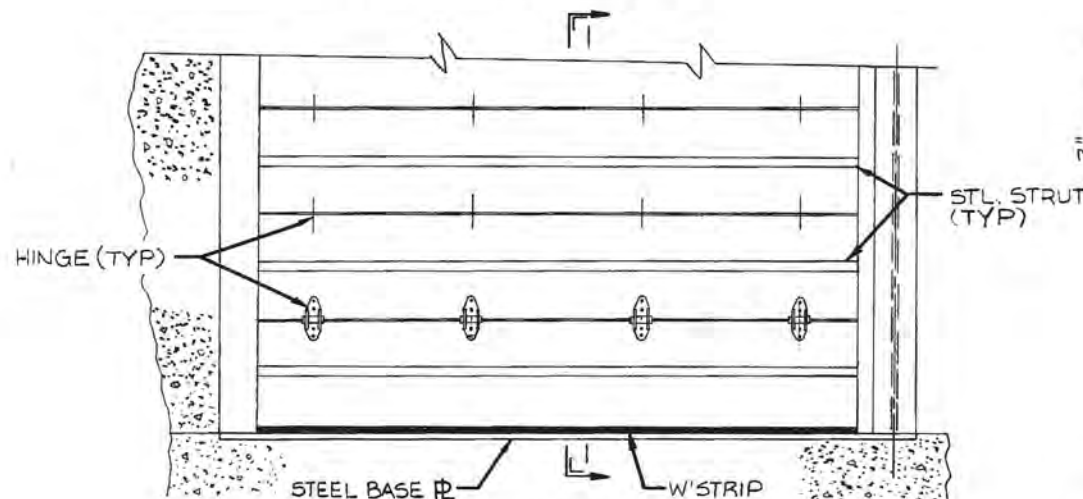
PRESSURE DOORS  
SA240-1, R240-2, R240-3  
& TORNADO DOOR NS250-1

NIAGARA MOHAWK POWER CORPORATION  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

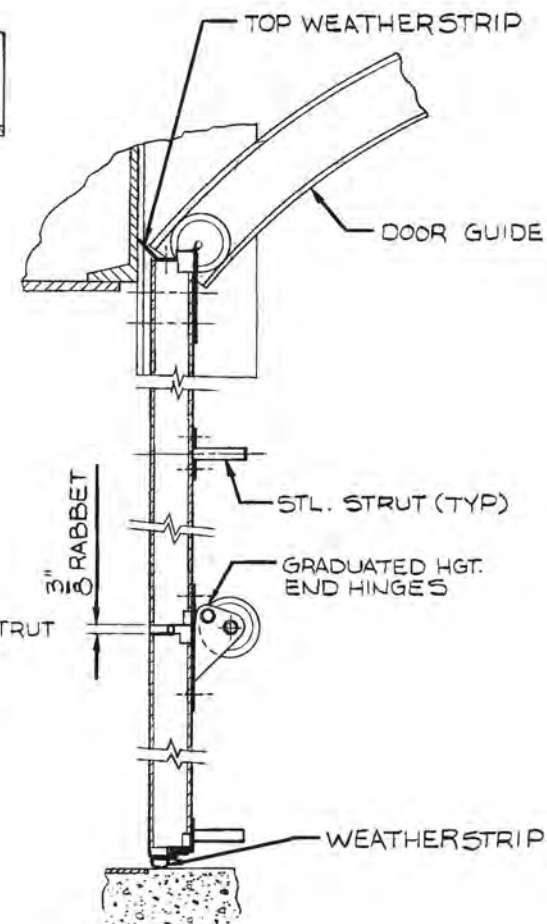




PLAN SECTION



ELEVATION



SECTION I-I

FIGURE 9A.3-19

TURBINE BUILDING  
RAILROAD ACCESS DOOR  
RR261-4

NIAGARA MOHAWK POWER CORPORATION  
NINE MILE POINT-UNIT 2  
FINAL SAFETY ANALYSIS REPORT



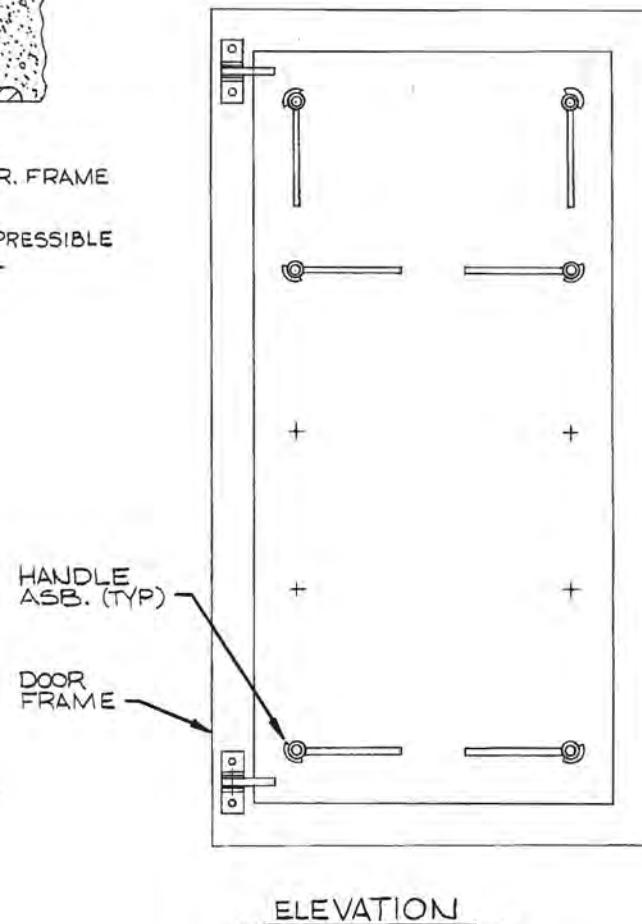
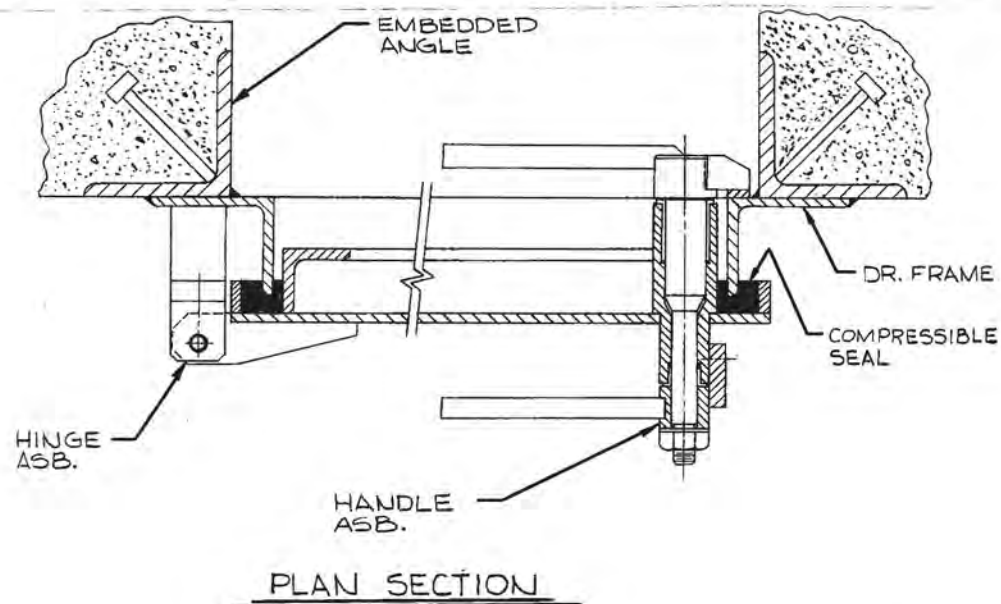
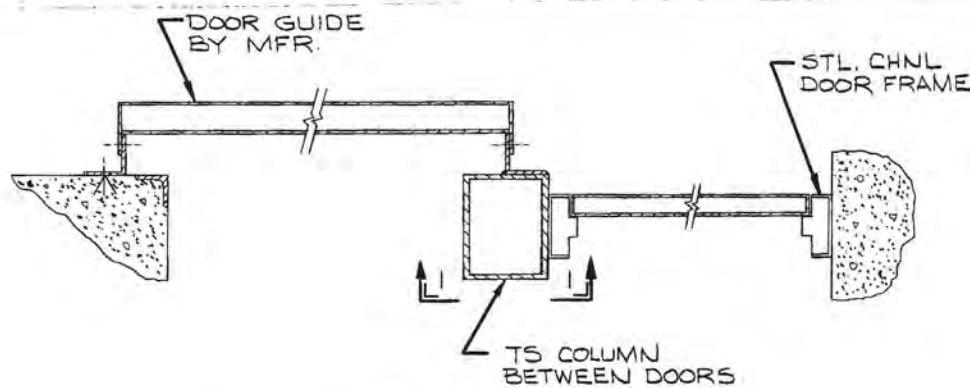


FIGURE 9A.3-20

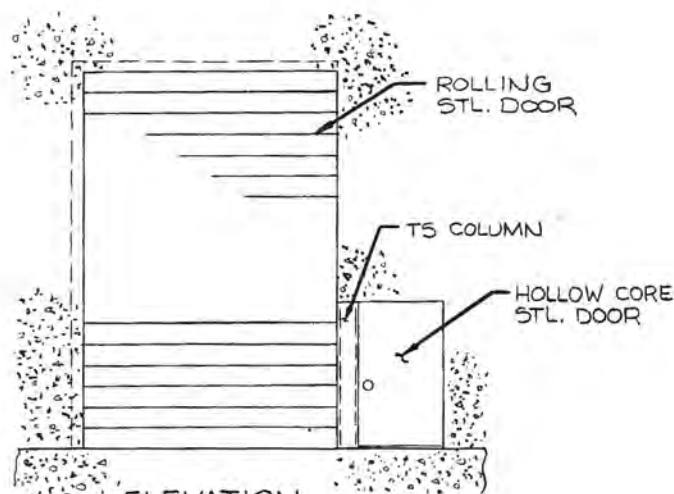
HIGH PRESSURE DOOR  
R240-7

NIAGARA MOHAWK POWER CORPORATION  
NINE MILE POINT-UNIT 2  
FINAL SAFETY ANALYSIS REPORT

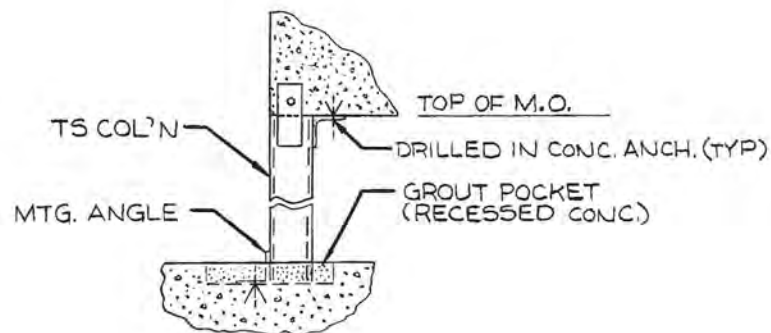




PLAN SECTION



ELEVATION



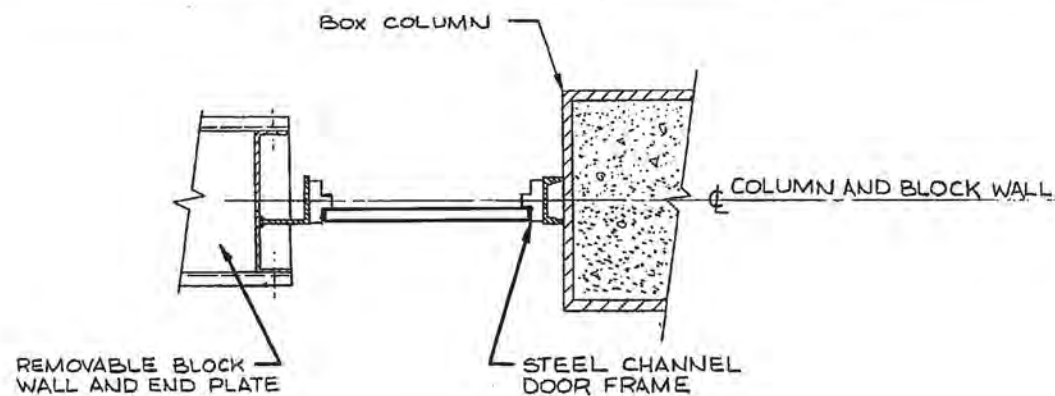
SECTION 1-1

FIGURE 9A.3-21

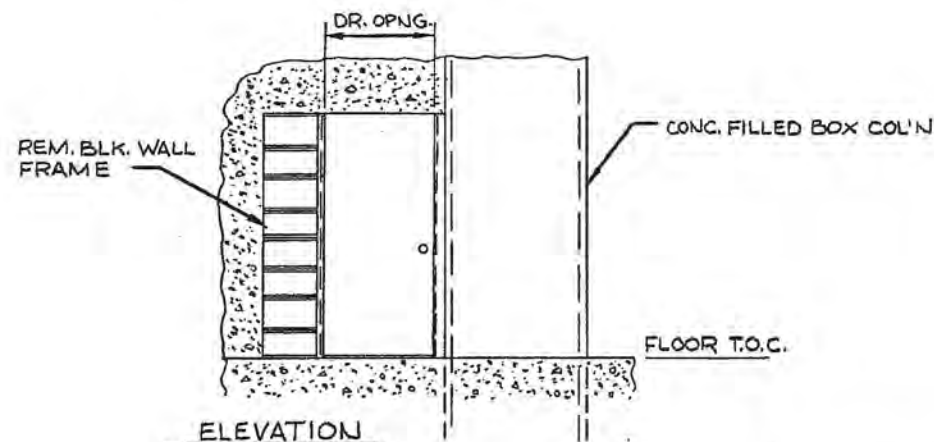
SCREENWELL/TURBINE  
RAMP ACCESS DOORS  
SW261-9, SW261-10

NIAGARA MOHAWK POWER CORPORATION  
**NINE MILE POINT-UNIT 2**  
FINAL SAFETY ANALYSIS REPORT





PLAN SECTION



ELEVATION

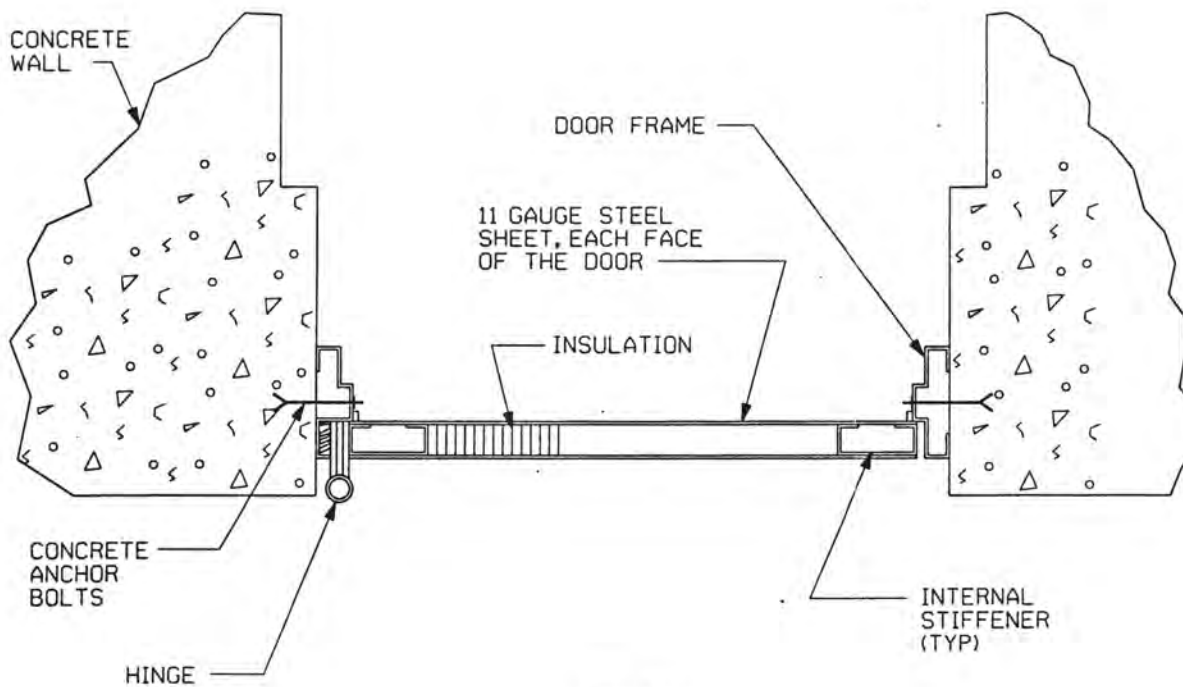
SOURCE: EA-006N

FIGURE 9A.3-22

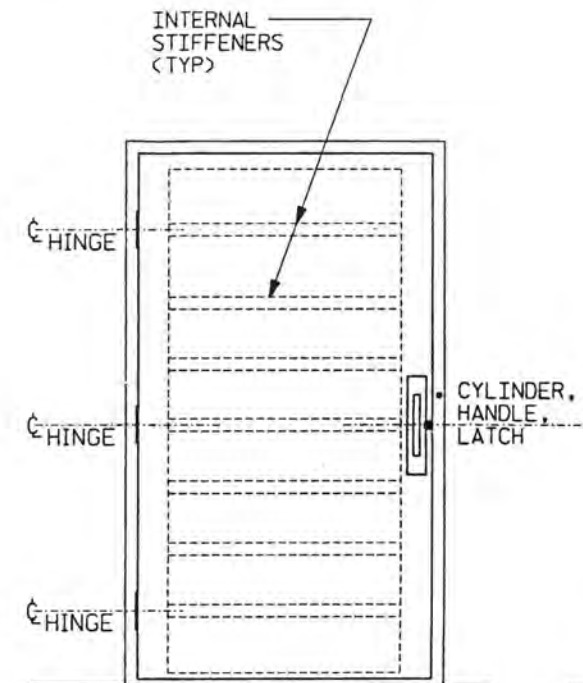
SFC PUMP ROOM DOOR  
R289-9

NIAGARA MOHAWK POWER CORPORATION  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT





PLAN



ELEVATION

THIS DRAWING WAS PRODUCED ELECTRONICALLY.  
DO NOT MAKE ANY CHANGES MANUALLY.

FIGURE 9A.3-23

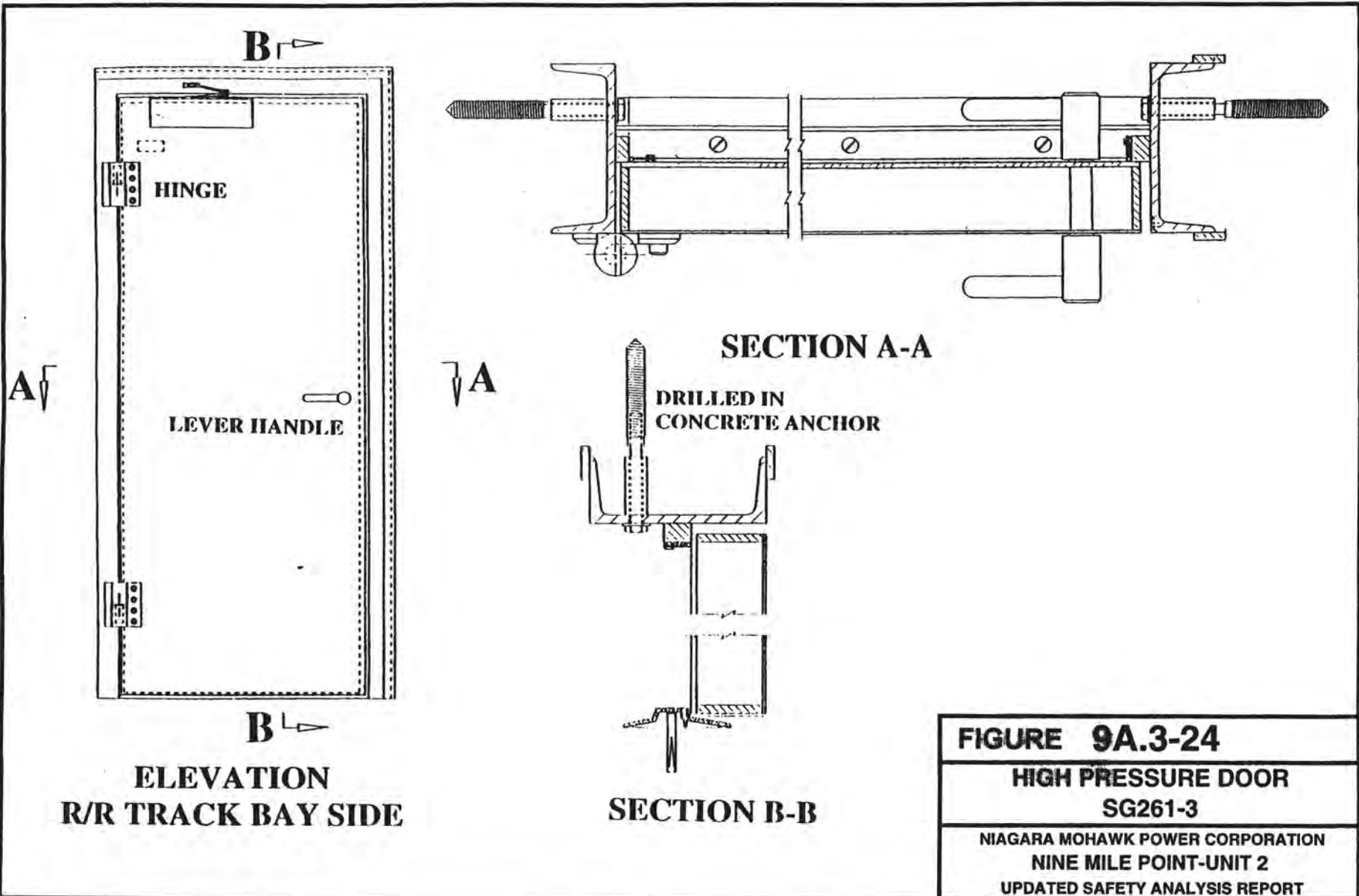
SECONDARY CONTAINMENT  
AIRLOCK PRESSURE DOOR  
R261-2

NIAGARA MOHAWK POWER CORPORATION  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

USAR REVISION 3

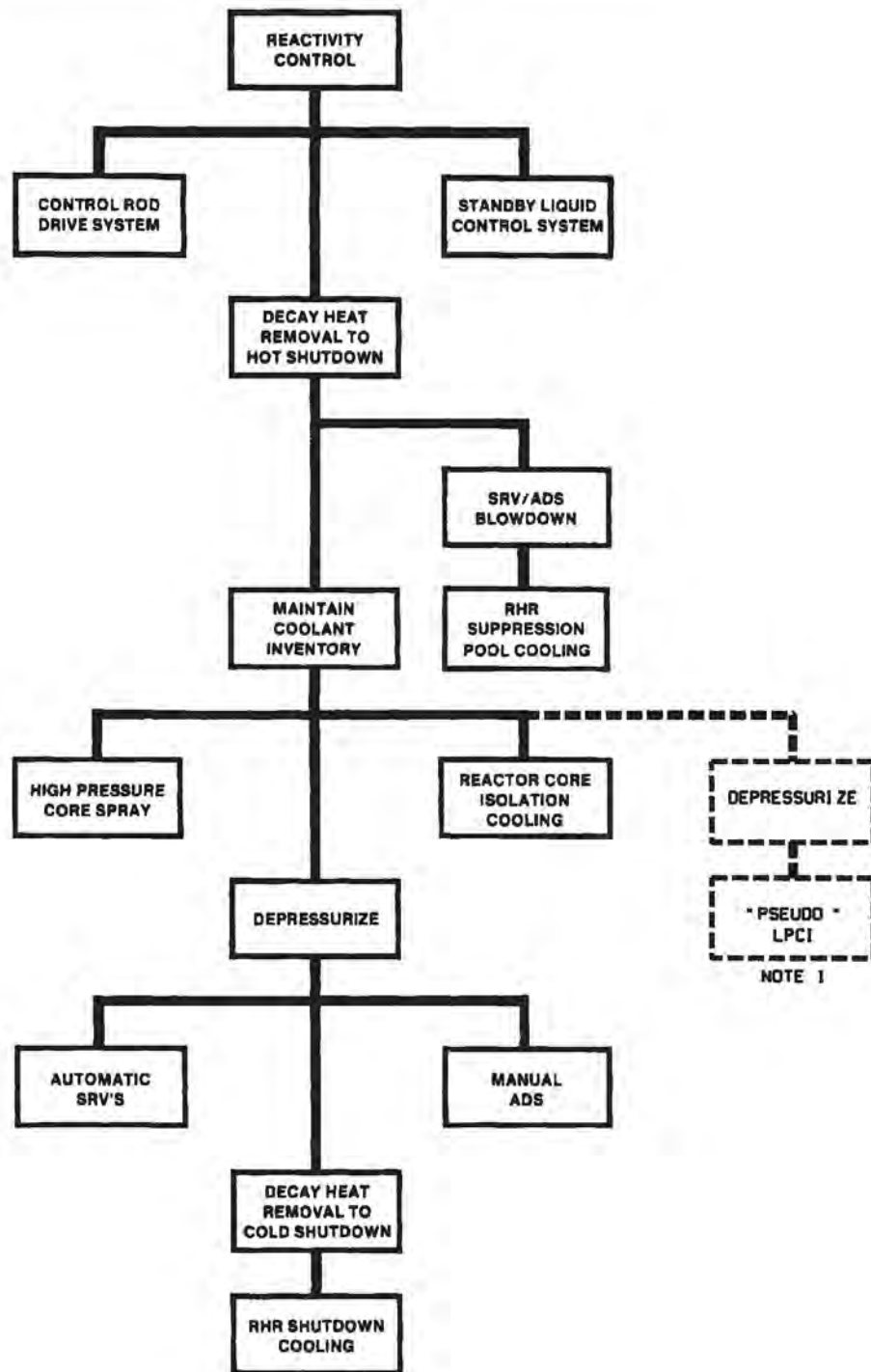
OCTOBER 1991





<b>FIGURE 9A.3-24</b>
<b>HIGH PRESSURE DOOR</b>
<b>SG261-3</b>
NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT-UNIT 2
UPDATED SAFETY ANALYSIS REPORT





**NOTE:**

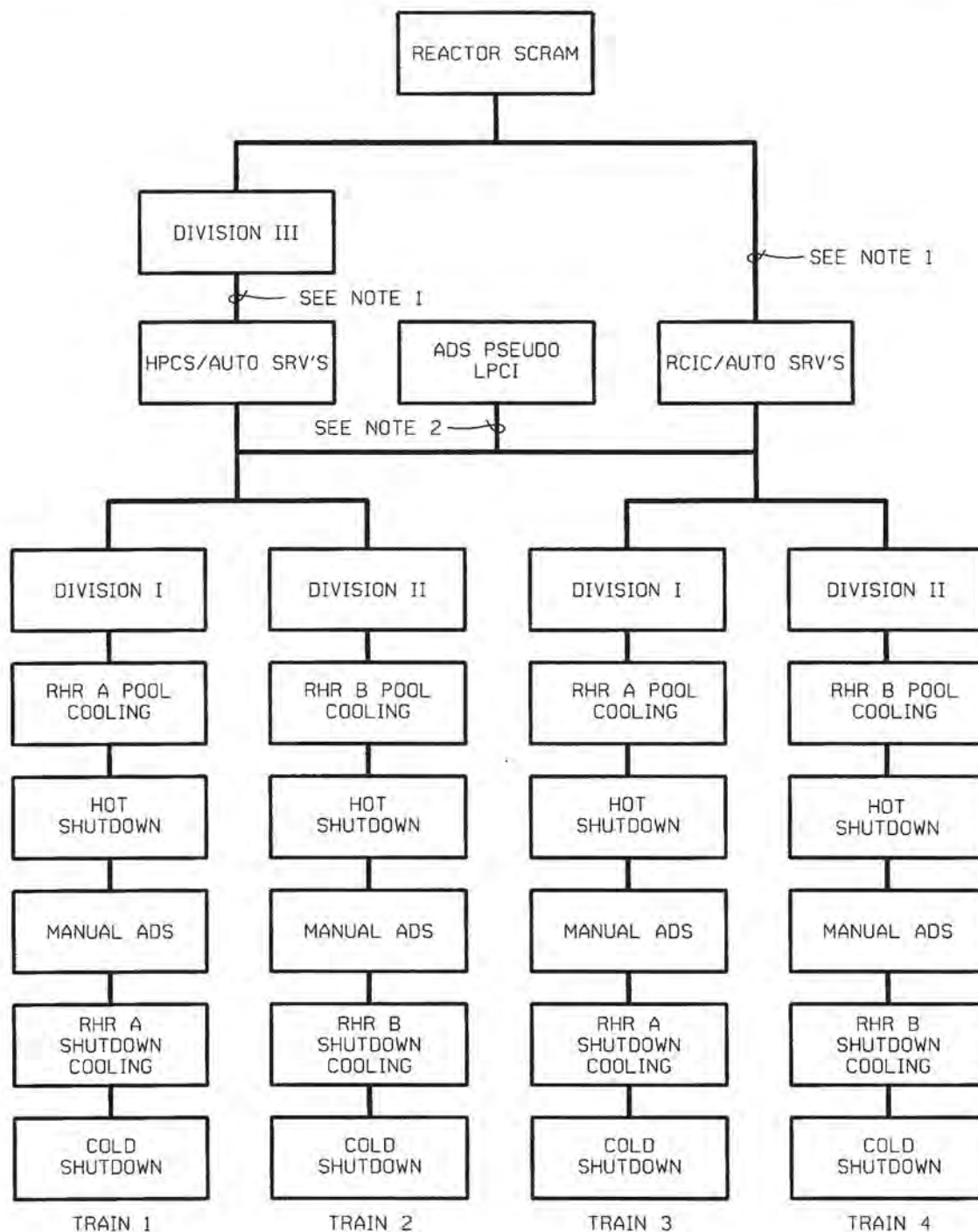
1. THIS METHOD WILL BE USED FROM REMOTE SHUTDOWN ROOM, IF RCIC IS NOT AVAILABLE

FIGURE 9B.4-1

FUNCTIONAL PERFORMANCE CRITERIA  
REQUIRED FOR STATION SHUTDOWN

NIAGARA MOHAWK POWER CORPORATION  
NINE MILE POINT-UNIT 2  
UPDATE SAFETY ANALYSIS REPORT





**NOTES:**

1. IF BOTH HPCS/RCIC EQUIPMENT & CABLES ARE LOCATED IN FIRE AREAS, AN ANALYSIS WAS PERFORMED TO ENSURE THAT AT LEAST ONE TRAIN IS ALWAYS AVAILABLE TO SAFELY SHUTDOWN THE PLANT.
2. ADS PSEUDO LPCI METHOD CAN BE UTILIZED FROM RSS ROOM AS AN ALTERNATE TO RCIC, AND FROM CONTROL ROOM AS REDUNDANT TO RCIC OR HPCS.

FIGURE 9B.4-2

SAFE SHUTDOWN TRAINS

NINE MILE POINT-UNIT 2  
UPDATE SAFETY ANALYSIS REPORT



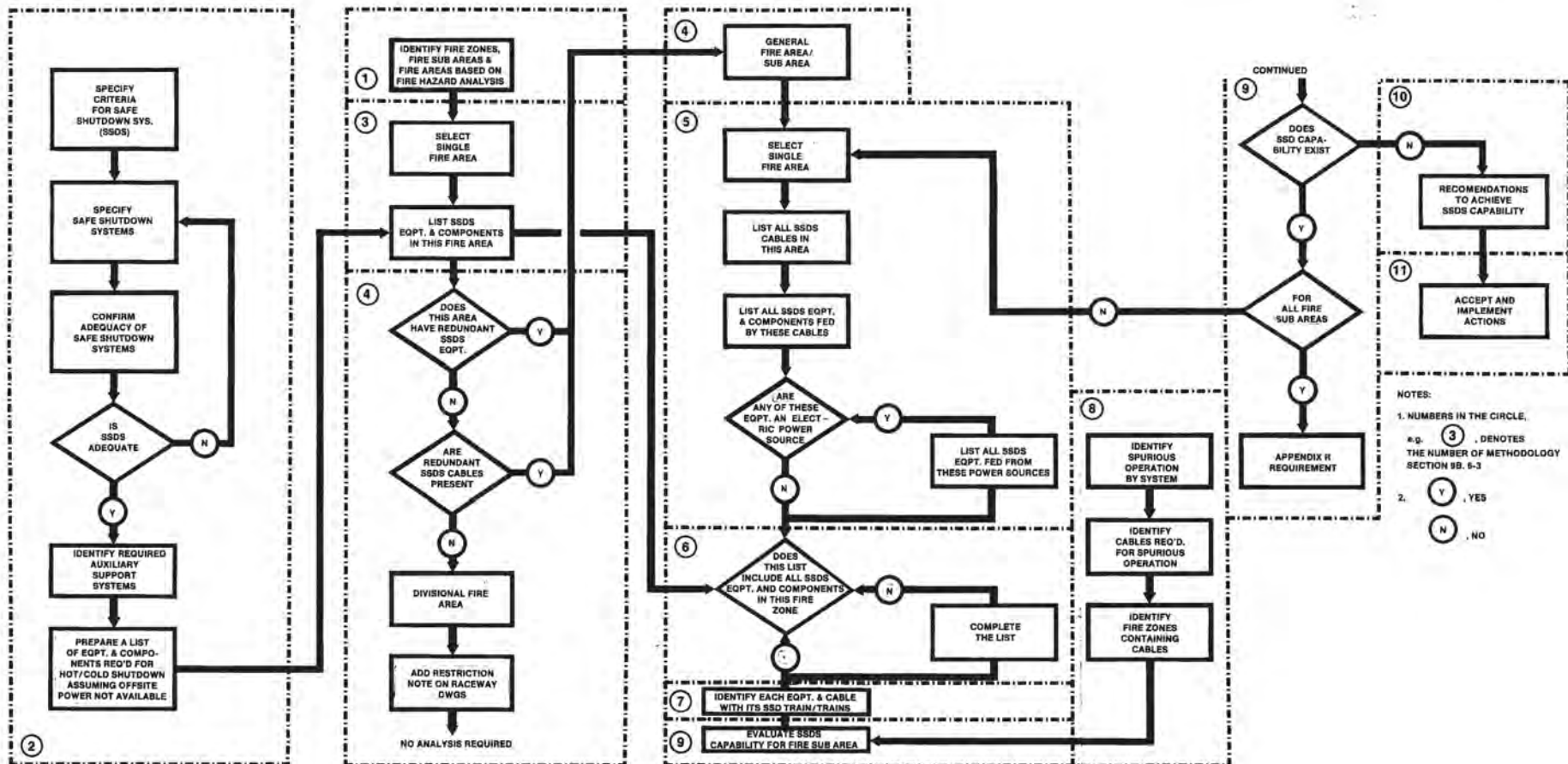
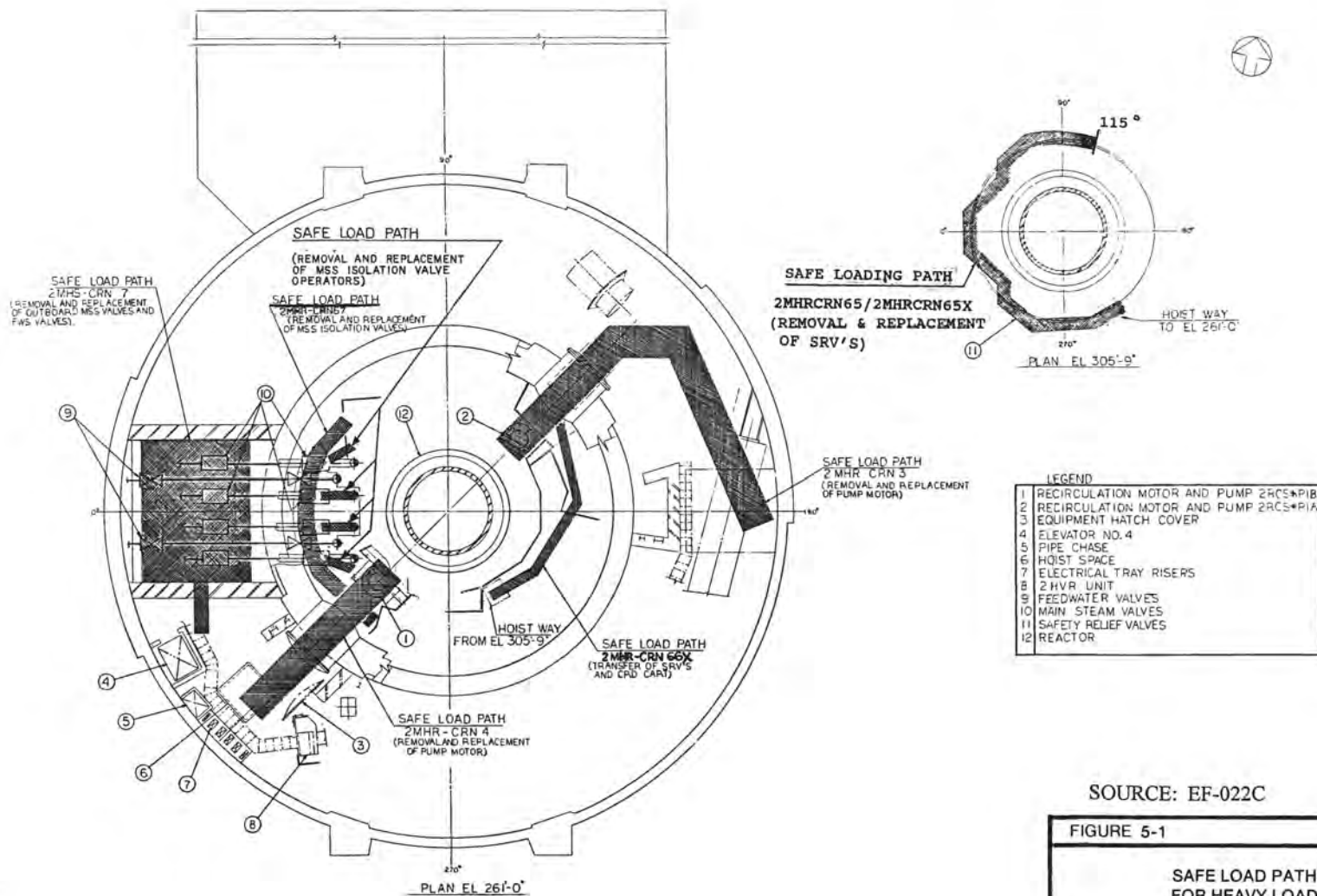


FIGURE 9B.6-1

SAFE SHUTDOWN EVALUATION  
FLOW DIAGRAM

NIAGARA MOHAWK POWER CORPORATION  
NINE MILE POINT-UNIT 2  
FINAL SAFETY ANALYSIS REPORT





SOURCE: EF-022C

FIGURE 5-1

SAFE LOAD PATHS  
FOR HEAVY LOADS

NIAGARA MOHAWK POWER CORPORATION  
NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

USAR REVISION 10 NOVEMBER 1998



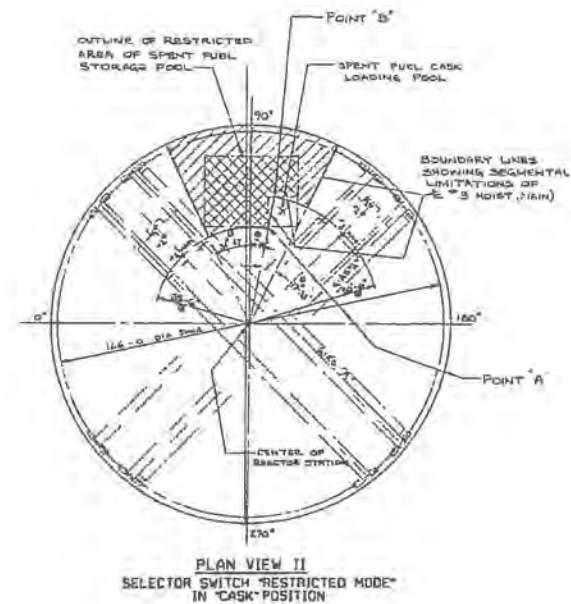
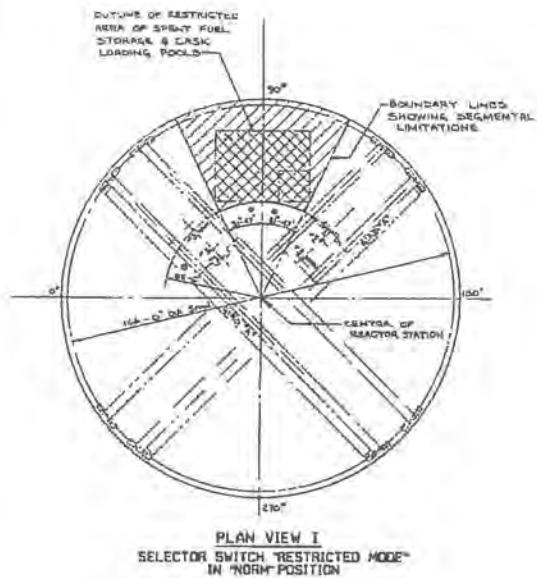






USAR REVISION 10 NOVEMBER 1998





SOURCE: 0002410044006

FIGURE 5-4

CRANE RESTRICTED AREA  
SHEET 1 OF 2

NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT

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OCTOBER 2016



CRANE OPERATION DATA

BOTH THE CAB CONTROL CONSULE AND THE RADIO 'BELLY BOX' HAVE A KEY OPERATED SELECTOR SWITCH LABELED 'RESTRICTED MODE'. THIS SWITCH HAS THREE POSITIONS LABELED:  
1) 'NORM' - THIS POSITION IS THE ONLY POSITION IN WHICH THE KEY MAY BE REMOVED  
2) 'CASK'  
3) 'BYPASS'

I SELECTOR SWITCH 'RESTRICTED MODE' IN 'NORM' POSITION: BRIDGE AND TROLLEY TRAVEL WILL BE AS FOLLOWS: (SEE PLAN VIEW II)

Bridge Travel Restriction

With the trolley at either end of bridge, and with trolley proximity switch in the tripped position; any bridge motion from either direction which would position hooks over restricted area, will trip the bridge proximity switch and in conjunction with the bridge switch, de-energize all crane motions and set brakes. The bridge will come to rest with the center line of hooks at the edge of a circular segmental section determined by the center of reactor station to either inner corner of the pool areas. ADDITIONALLY, THE BRIDGE TRAVEL LIMIT SWITCH STATUS LIGHT WILL CONTINUOUSLY FLASH.

Trolley Travel Restriction

With either end of the bridge positioned over the restricted area; and with bridge proximity switch in tripped position, any trolley motion which would position hooks over the restricted area, will trip the trolley proximity switch and in conjunction with the bridge switch, de-energize all crane motions and set brakes. The trolley will come to rest with either the center line #3 hook (main) or the center line #1 hook (aux.) (depending upon which end of the bridge is positioned over the restricted area) on the inner arc line of a segmental section determined by the minimum distance from the center of reactor station to the nearest edge of the storage pool area. ADDITIONALLY, THE BRIDGE TRAVEL LIMIT SWITCH STATUS LIGHT WILL ILLUMINATE.

TO RESTORE THE CRANE OPERATION AND RESUME MOTION WITH THE SELECTOR SWITCH 'RESTRICTED MODE' IN THE 'NORM' POSITION, MOVE THE TROLLEY AWAY FROM THE RESTRICTED ZONE USING EITHER BRIDGE OR TROLLEY MOTION. NOTE THAT BRIDGE TRAVEL LIMIT STATUS LIGHT WILL FLASH FOR 4 SECONDS. IT WILL NOT BE POSSIBLE TO MOVE THE TROLLEY BACK TOWARDS THE ZONE FOR THE DURATION OF THE 4 SECONDS. AFTER THE 4 SECONDS, THE BRIDGE TRAVEL LIMIT STATUS LIGHT WILL TURN OFF.

II SELECTOR SWITCH 'RESTRICED MODE' IN 'CASK' POSITION: BRIDGE AND TROLLEY TRAVEL WILL BE AS FOLLOWS: (SEE PLAN VIEW III). NOTE THAT AUX #1 AND AUX #2 HOIST WILL BE INOPERABLE IN THE CASK AREA.

Bridge Travel Restriction

With the trolley at either end of bridge and with trolley proximity switch in tripped position; any bridge motion from either direction which will position #3 main hook over the restricted spent fuel storage pool area, will trip the bridge proximity switch, and in conjunction with the trolley switch, de-energize operable crane motion and set brakes. The bridge will come to rest with the center line of #3 main hook at edge of a circular segmental section determined by the center of reactor station to either inner corner of the pool areas. Hook has access to the cask loading pool area. Limitaions of this area will be determined by a line from the center of reactor station to the inner corner of the cask loading pool (point A), and by an arc line determined by the distance from the center of reactor station to the far edge at (point B) of the cask loading pool.

ADDITIONALLY, THE BRIDGE TRAVEL LIMIT STATUS LIGHT WILL CONTINUOUSLY FLASH WHEN TROLLEY TRAVEL MOTIONS EXCEED THE BOARDERS OF THE CASK POOL AREA.

Trolley Travel Restriction

With either end of the bridge positioned over the restricted spent fuel storage pool area, and with the bridge proximity switch in tripped position, any trolley motion which would position the #3 main hook over the storage pool area, will trip the trolley proximity switch and in conjunction with the bridge switch, de-energize operable crane motions and set brakes. The trolley will come to rest with the center line of main hook at the edge of an arc line determined by the minimum distance from the center of reactor station to the edge of the spent fuel storage pool; in the area of the cask loading pool, the hook will be at edge of an arc line determined by the distance from the center of the reactor station to the far edge at (point B) of the cask loading pool.

ADDITIONALLY, THE BRIDGE TRAVEL LIMIT STAUS LIGHT WILL CONTINUOUSLY FLASH WHEN TROLLEY TRAVEL MOTIONS EXCEED THE BOARDERS OF THE CASK LOADING POOL AREA.

TO RESTORE CRANE OPERATION AND RESUME MOTION WITH THE SELECTOR SWITCH 'RESTRICTED MODE' IN THE 'CASK' POSITION, MOVE THE TROLLEY AWAY FROM THE RESTRICTED ZONE USING EITHER BRIDGE OR TROLLEY MOTION. NOTE THAT BRIDGE TRAVEL LIMIT STATUS LIGHT WILL FLASH FOR 4 SECONDS. IT WILL NOT BE POSSIBLE TO MOVE THE TROLLEY BACK TOWARDS THE ZONE FOR THE DURATION OF THE 4 SECONDS. AFTER THE 4 SECONDS, THE BRIDGE TRAVEL STATUS LIGHT WILL TURN OFF.

III SELECTOR SWITCH 'RESTRICTED MODE' IN 'BYPASS' POSITION: BRIDGE AND TROLLEY TRAVEL WILL BE AS FOLLOWS.

THIS POSITION WILL ALLOW UN-RESTRICTED OPERATION OF ALL HOIST IN ALL AREAS OF THE STATION. THIS INCLUDES THOSE AREAS OF THE SPENT FUEL STORAGE AND CASK LOADING POOL.

SOURCE: 0002410044006

FIGURE 5-4

CRANE RESTRICTED AREA  
SHEET 2 OF 2

NINE MILE POINT-UNIT 2  
UPDATED SAFETY ANALYSIS REPORT