



- REFERENCE DRAWINGS:
- 9321-D-20163 FLOW DIAGRAM SYMBOLS
 - 9321-F-20173 MAIN STEAM-FLOW DIAGRAM
 - 9321-F-20233 MOISTURE SEPARATOR-REHEATER
 - 9321-F-21293 DRAINS & VENTS-FLOW DIAGRAM
 - 9321-F-21293 TURBINE BLDG. & YARD AREA
 - 9321-F-21293 MAIN STEAM SYSTEM-TRAP
 - 9321-F-41573 PIPING-SH.1
 - 9321-F-41573 AUXILIARY BOILER REBOILER
 - 9321-F-41573 STEAM SYSTEM

- NOTES:
- CLASS-I TRAPS
 - ALL PIPING, VALVES & SPECIALTIES IN CLASS-I TRAP ASSEMBLIES ARE CLASS-I TO OUTLET OF BY-PASS VALVE & TRAP.
 - CLASS-III TRAPS

SYSTEM INTENDED FUNCTION BOUNDARY

COMPONENTS SUBJECT TO AMR

AUXILIARY FEEDWATER SYSTEM AMM-24

MAIN STEAM SYSTEM AMM-23

REV NO	DATE	DESCRIPTION	BY	CHK	APP
25	12/12/11	AS BUILT PER DCP 00-3-011	VR	JM	REG
24	9/16/11	AS BUILT PER DCR 100140883	IS	NV	FR
23	7/27/10	AS BUILT PER DCR 100028575	VR	MM	FR
22	1/16/10	AS BUILT PER DC 95-3-320 MS	VR	MM	REG
21	7/13/09	AS BUILT PER DCR 100028276 & DCR 100028575	VR	MM	REG
20	7/1/09	AS BUILT PER DC 95-3-296 MS, DC-95-3-319 MS AND DCR 100028575	VR	MM	REG
19	12/26/08	AS BUILT PER DCR'S 100123529, 100123716 & DC 94-3-359 MS	VR	MM	REG
18	9/16/08	AS BUILT PER DCR 100112001 & DC 95-03-137MS	VR	MM	REG
17	10/16/08	AS BUILT PER DC 95-03-086MS.	VR	MM	REG

THIS IS A COMPUTER AIDED DESIGN DRAWING. A RECORD OF THE REVISIONS OF THIS DOCUMENT WITH APPROVAL NOTICES/SIGNATURES, IS MAINTAINED IN THE FILES OF ENTERGY NUCLEAR NORTHEAST

INDIAN POINT NO.3 NUCLEAR POWER PLANT

FLOW DIAGRAM
MAIN STEAM TRAPS
SHEET NO. 1

SCALE: NONE

DWG NO 9321-F-20413

REV 25

Entergy
Nuclear Northeast

0 9-6-06

NO.	DATE	DESCRIPTION	BY	CHK	APP
REVISIONS					
LRA-9321-20413-0					
LRA-9321-20413_25.DGN					
9321-20413_25.CAL					

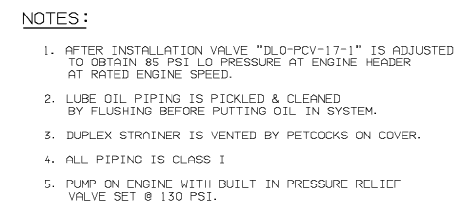


 SYSTEM INTENDED
FUNCTION BOUNDARY

COMPONENTS SUBJECT TO AMR

MAIN STEAM SYSTEM
AMM-23

0	9-6-06					
NO.	DATE	DESCRIPTION	BY	ENG	CHK	APP
REVISIONS						
LRA-9321-20423-0						
CAD FILE						
LRA-9321-20423_12.DGN						
RASTER FILE						
9321-20423_12.CAL						




REFERENCES DWGS.

9521-D-20163 FLOW DIAGRAM SYMBOLS

NO.	PIPE SIZE	FLOW-GPM	VEL-FPS	TEMP. °F
1	ON-ENGINE	280	—	180
2	3" IPS	150	6.5	180
3	3" IPS	150	6.5	180
4	3" IPS	150	6.5	156
5	3" IPS	125	5.4	156
6	2 1/2" IPS	25	1.6	156

[illegible]

DWN	CHK'D	INDIAN POINT NO.3 NUCLEAR POWER PLANT
DES. SUPV		
DISCIPLINE. ENG		
DISCIPLINE. MOR.		
PROJ. APPROVAL		<p style="text-align: center;">FLOW DIAGRAM LUBE OIL TO DIESEL GENERATORS</p>
DATE		
 Entergy Nuclear Northeast		SCALE: NONE DWG NO 9321-F-21193 SHEET
		REV 7

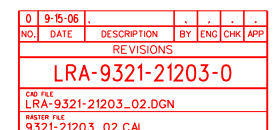
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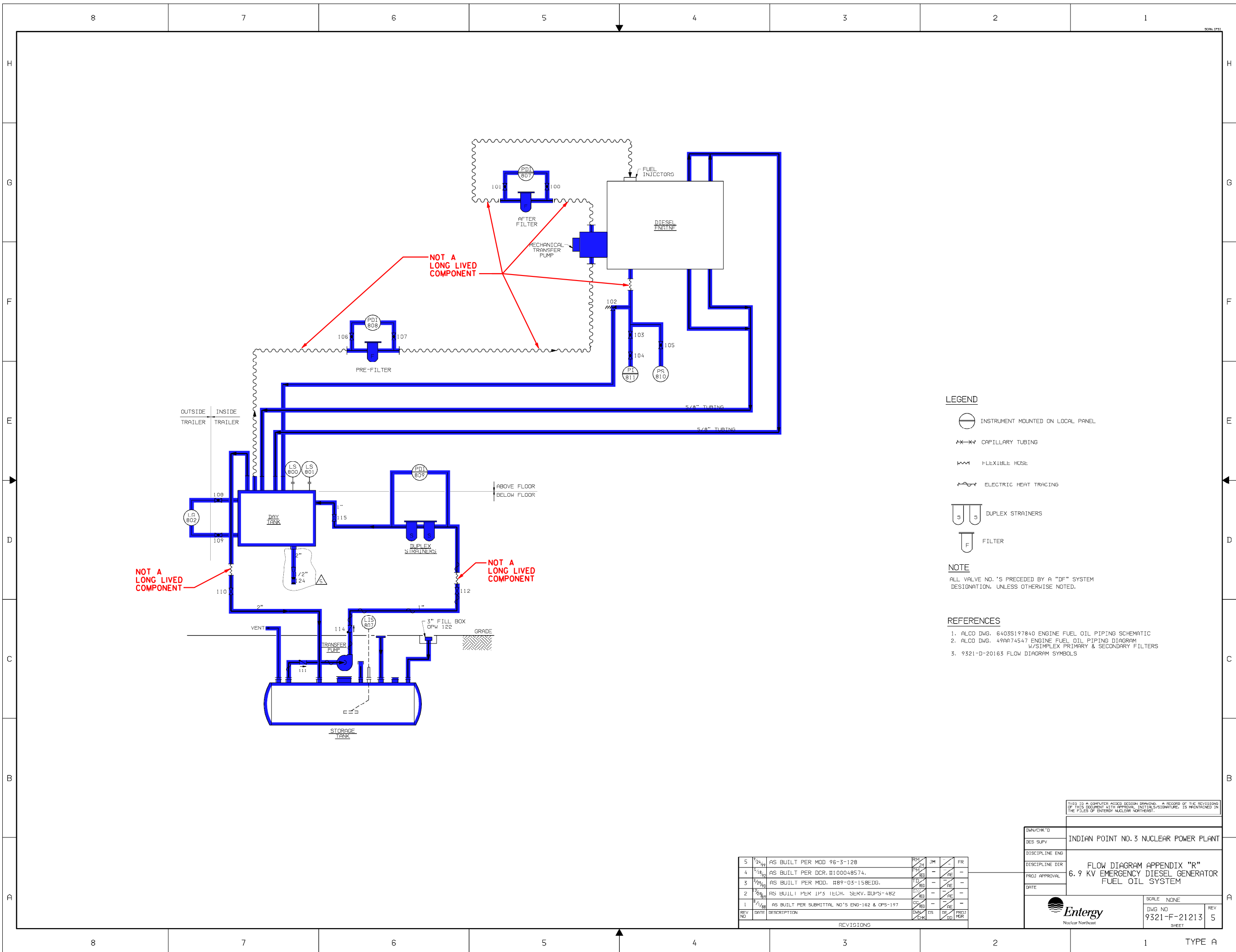
 SYSTEM INTENDED
FUNCTION BOUNDARY

COMPONENTS SUBJECT TO AMR

EMERGENCY DIESEL
GENERATOR SYSTEM AMM-17

0	9-5-06					
NO.	DATE	DESCRIPTION	BY	ENG	CHK	APP
REVISIONS						
LRA-9321-21193-0						
CAD FILE						
LRA-9321-21193_07.DGN						
RASTER FILE						
9321-21193_07.CAL						





LEGEND

- INSTRUMENT MOUNTED ON LOCAL PANEL
- CAPILLARY TUBING
- FLEXIBLE HOSE
- ELECTRIC HEAT TRACING
- DUPLEX STRAINERS
- FILTER

NOTE

ALL VALVE NO.'S PRECEDED BY A "DF" SYSTEM DESIGNATION, UNLESS OTHERWISE NOTED.

REFERENCES

- ALCO DWG. 6403S197840 ENGINE FUEL OIL PIPING SCHEMATIC
- ALCO DWG. 49AP74547 ENGINE FUEL OIL PIPING DIAGRAM W/SIMPLEX PRIMARY & SECONDARY FILTERS
- 9321-D-20163 FLOW DIAGRAM SYMBOLS

SYSTEM INTENDED FUNCTION BOUNDARY

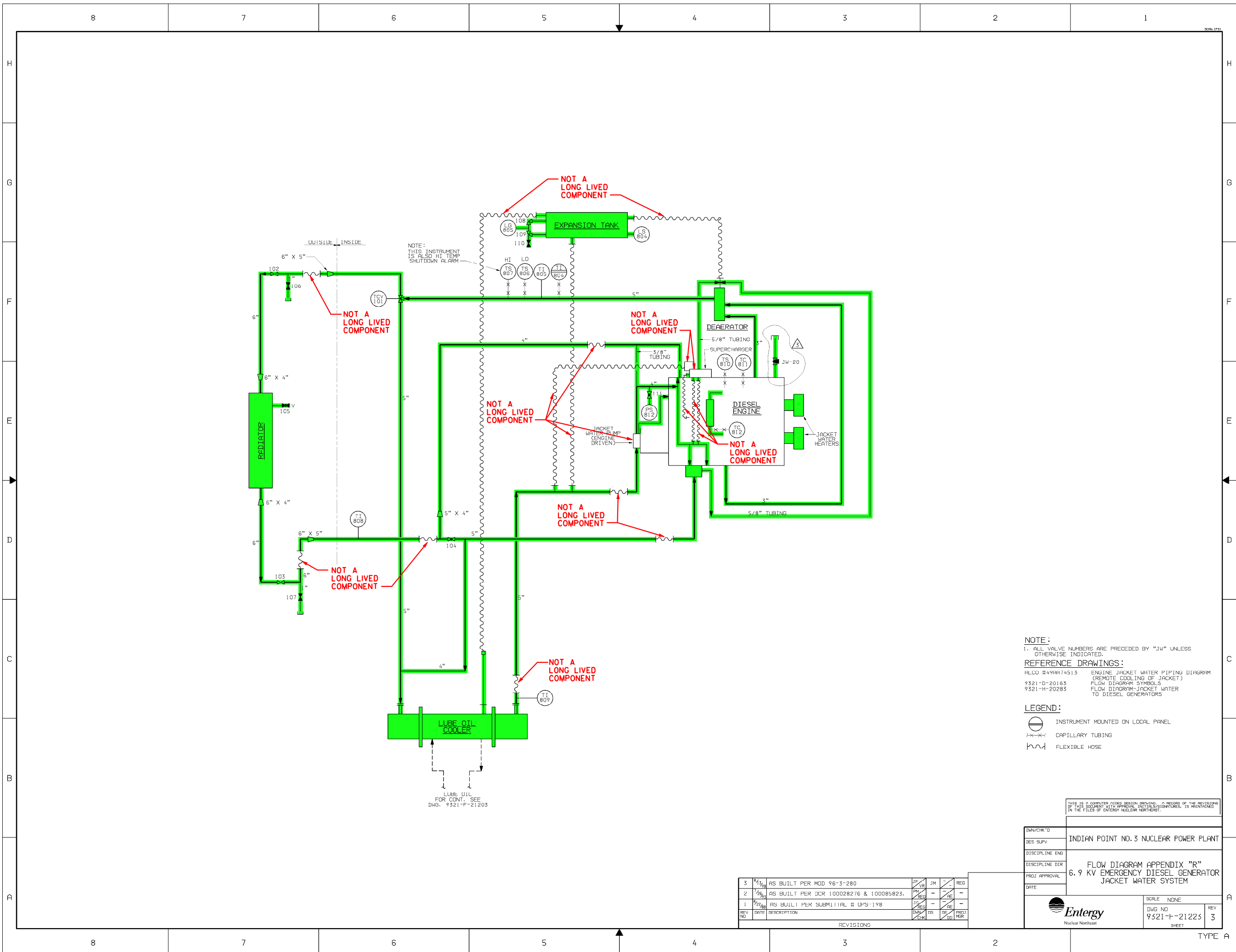
COMPONENTS SUBJECT TO AMR

FUEL OIL SYSTEM
AMM-21

REV NO	DATE	DESCRIPTION	BY	CHK	APP
5	9/24/99	AS BUILT PER MOD 96-3-128	RM	JM	FR
4	6/18/92	AS BUILT PER DCR. #100048574.	RM	RE	RE
3	9/29/90	AS BUILT PER MOD. #89-03-158EDG.	TD	RE	RE
2	2/28/89	AS BUILT PER IFS TECH. SERV. #DPS-482	ES	RE	RE
1	8/1/88	AS BUILT PER SUBMITTAL NO'S ENG-182 & OPS-197	CS	RE	RE

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DESIGN/CHK'D	INDIAN POINT NO. 3 NUCLEAR POWER PLANT
DES SUPV	
DISCIPLINE ENG	
DISCIPLINE DIR	FLOW DIAGRAM APPENDIX "R"
PROJ APPROVAL	6.9 KV EMERGENCY DIESEL GENERATOR FUEL OIL SYSTEM
DATE	
Entergy Nuclear Northeast	
SCALE	NONE
DWG NO	9321-F-21213
REV	5
SHEET	

NO.	DATE	DESCRIPTION	BY	CHK	APP
REVISIONS					
LRA-9321-21213-0					
C&P FILE LRA-9321-21213_05.DGN					
P&ID FILE 9321-21213_05.CAL					



NOTE:
1. ALL VALVE NUMBERS ARE PRECEDED BY "JW" UNLESS OTHERWISE INDICATED.

REFERENCE DRAWINGS:
ALCO #49A74513 ENGINE JACKET WATER PIPING DIAGRAM (REMOTE COOLING OF JACKET)
9321-D-20163 FLOW DIAGRAM SYMBOLS
9321-H-20283 FLOW DIAGRAM-JACKET WATER TO DIESEL GENERATORS

LEGEND:
○ INSTRUMENT MOUNTED ON LOCAL PANEL
--- CAPILLARY TUBING
~ FLEXIBLE HOSE

SYSTEM INTENDED FUNCTION BOUNDARY

COMPONENTS SUBJECT TO AMR

UNIT 3 APPENDIX R EDG AMM-22

REV NO	DATE	DESCRIPTION	BY	CHK	APP
3	8/15/98	AS BUILT PER MOD 96-3-280	JF	VM	REG
2	7/26/93	AS BUILT PER DCR 100028276 & 100085823.	PM	REG	RE
1	8/22/88	AS BUILT PER SUBMITTAL # QP5-198	JS	REG	RE

REV NO	DATE	DESCRIPTION	BY	CHK	DS	DE	DO	PRD	MR
1	8/22/88	AS BUILT PER SUBMITTAL # QP5-198	JF	VM	REG	RE	RE	RE	RE

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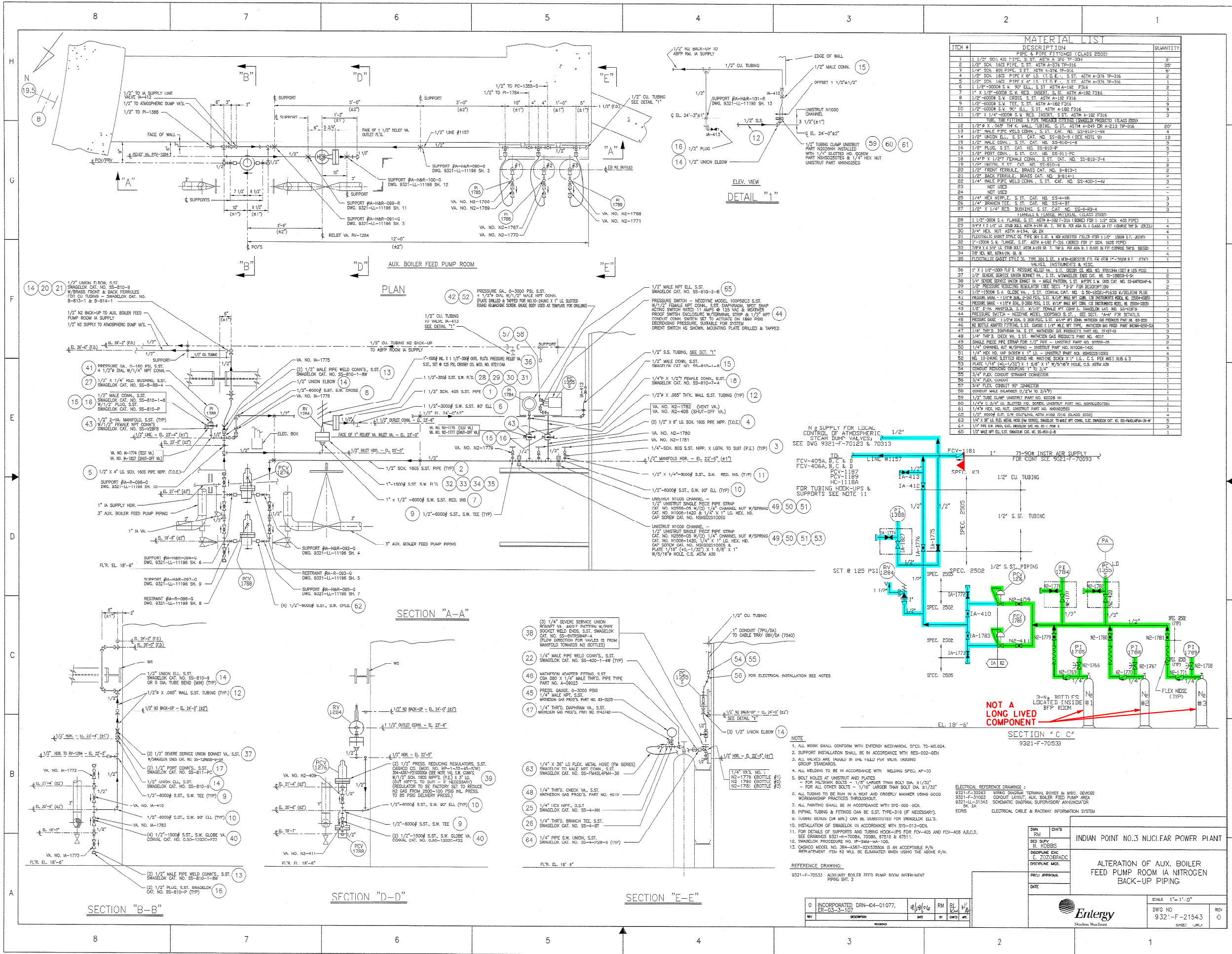
DESIGN/CHK'D	INDIAN POINT NO. 3 NUCLEAR POWER PLANT
DES. SUPV.	
DISCIPLINE ENG.	
DISCIPLINE DIR.	FLOW DIAGRAM APPENDIX "R"
PROJ. APPROVAL	6.9 KV EMERGENCY DIESEL GENERATOR JACKET WATER SYSTEM
DATE	

SCALE	NONE
DWG NO	9321-H-21223
REV	3
SHEET	

Entergy
Nuclear Northeast

0	8-25-06								
NO.	DATE	DESCRIPTION	BY	CHK	APP	REVISIONS			
LRA-9321-21223-0									
CAB FILE LRA-9321-21223-03.DGN									
XREF FILE 9321-21223-03.CAL									

0	8-25-06					
NO.	DATE	DESCRIPTION	BY	ENG	CHK	APP
REVISIONS						
LRA-9321-21233-0						
CAD FILE LRA-9321-21233-0						
RASTER FILE 9321-21233_03.CAL						



SYSTEM INTENDED FUNCTION BOUNDARY

COMPONENTS SUBJECT TO AMR

NITROGEN SYSTEMS AMM-10

COMPRESSED AIR SYSTEMS AMM-14

INDIAN POINT NO.3 NUCLEAR POWER PLANT

ALTERATION OF AUX. BOILER FEED PUMP ROOM IA NITROGEN BACK-UP PIPING

SCALE 1"=1'-0"

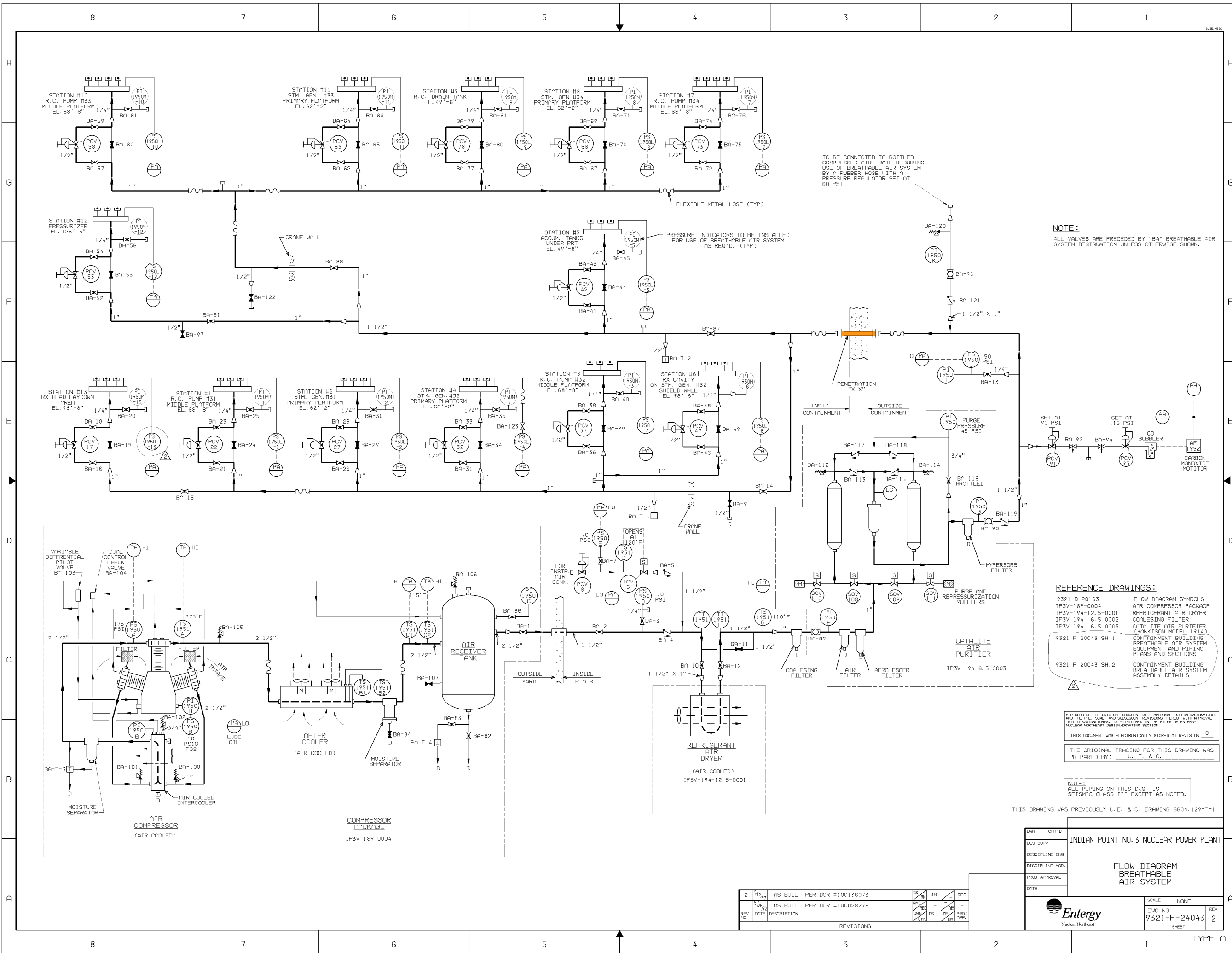
DWG NO 9321-F-21543

REVISIONS

NO.	DATE	DESCRIPTION	BY	CHK	APP
1	12-1-06	REVISED

LRA-9321-21543-0

9321-21543-00.DGN




NOTE:
ALL VALVES ARE PRECEDED BY "BA" BREATHABLE AIR SYSTEM DESIGNATION UNLESS OTHERWISE SHOWN.

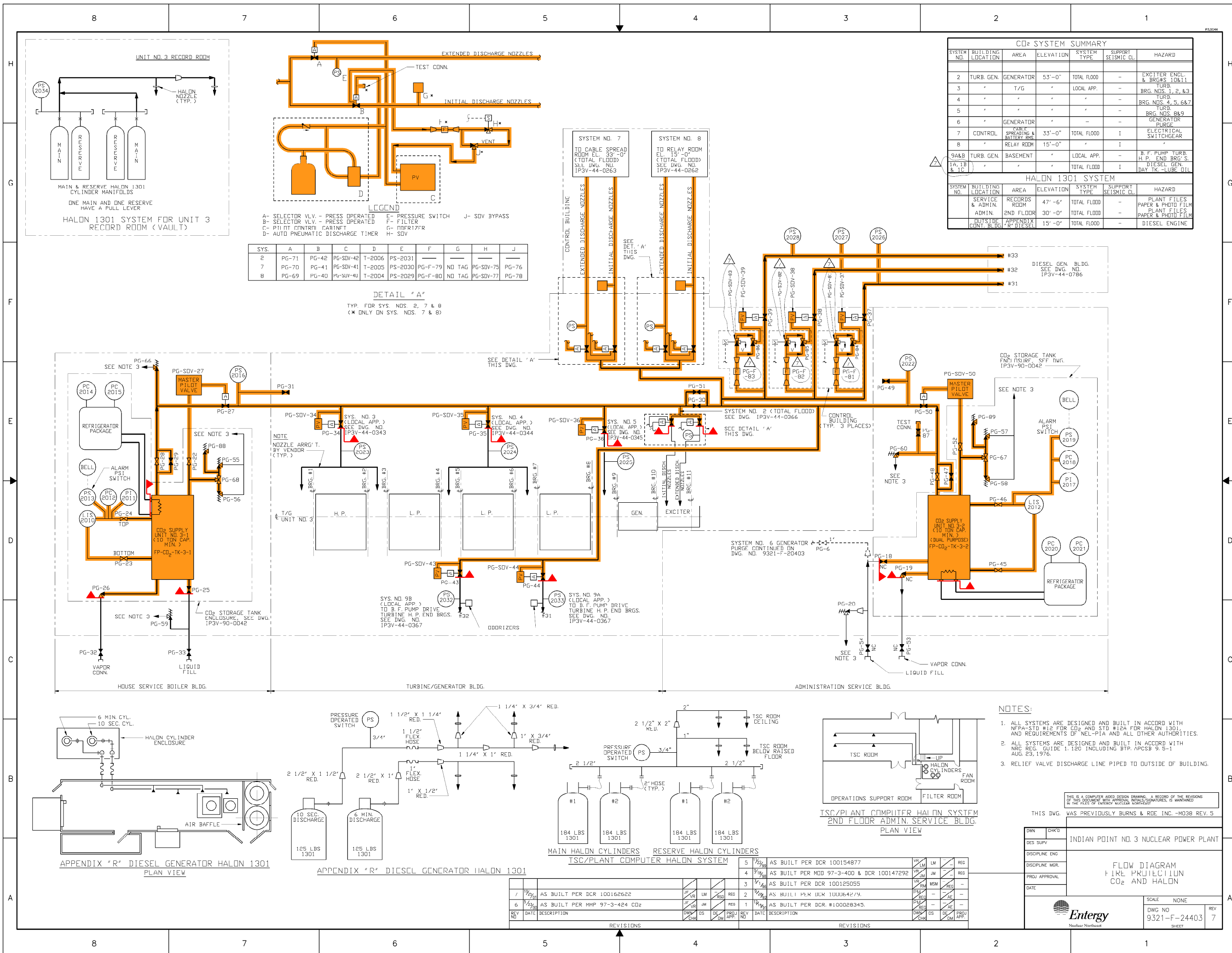
REFERENCE DRAWINGS:
9321-D-20163 FLOW DIAGRAM SYMBOLS
IP3V-189-0004 AIR COMPRESSOR PACKAGE
IP3V-194-12.5-0001 REFRIGERANT AIR DRYER
IP3V-194-6.5-0002 COALESCING FILTER
IP3V-194-6.5-0003 CATALYTE AIR PURIFIER
9321-F-20043 SH.1 CONTAINMENT BUILDING BREATHABLE AIR SYSTEM EQUIPMENT AND PIPING PLANS AND SECTIONS
9321-F-20043 SH.2 CONTAINMENT BUILDING BREATHABLE AIR SYSTEM ASSEMBLY DETAILS

A RECORD OF THE ORIGINAL DOCUMENT WITH APPROVAL INITIALS/STAMP(S) AND THE P.E. SEAL, AND SUBSEQUENT REVISIONS THEREOF WITH APPROVAL INITIALS/STAMP(S), IS MAINTAINED IN THE FILES OF ENTERTY NUCLEAR NORTHWEST DESIGN/DRAFTING SECTION.
THIS DOCUMENT WAS ELECTRONICALLY STORED AT REVISION 0
THE ORIGINAL TRACING FOR THIS DRAWING WAS PREPARED BY: U. E. & C.

NOTE:
ALL PIPING ON THIS DWG. IS SEISMIC CLASS III EXCEPT AS NOTED.

THIS DRAWING WAS PREVIOUSLY U.E. & C. DRAWING 6604.129-F-1

DWN	CHK'D	INDIAN POINT NO. 3 NUCLEAR POWER PLANT	
DES. SUPV.			
DISCIPLINE ENG.		FLOW DIAGRAM BREATHABLE AIR SYSTEM	
DISCIPLINE MGR.			
PROJ. APPROVAL			
DATE			
 Entergy Nuclear Northeast		SCALE NONE	REV
		DWG NO 9321-F-24043	2
		SHEET	



CO2 SYSTEM SUMMARY						
SYSTEM NO.	BUILDING LOCATION	AREA	ELEVATION	SYSTEM TYPE	SUPPORT SEISMIC CL.	HAZARD
2	TURB. GEN.	GENERATOR	53'-0"	TOTAL FLOOD	-	EXCITER ENCL. & BRGS 10&11
3	"	T/G	"	LOCAL APP.	-	TURB. BRG. NOS. 1, 2, & 3
4	"	"	"	"	-	TURB. BRG. NOS. 4, 5, 6&7
5	"	"	"	"	-	TURB. BRG. NOS. 8&9
6	"	GENERATOR	"	"	-	GENERATOR PURGE
7	CONTROL	CABLE SPREADING & MATERIAL RM.	33'-0"	TOTAL FLOOD	I	ELECTRICAL SWITCHGEAR
8	"	RELAY ROOM	15'-0"	"	I	"
9A&B 1A, 1B & 1C	TURB. GEN.	BASEMENT	"	LOCAL APP.	-	B.F. PUMP TURB. H.P. END BRG'S
	"	"	"	TOTAL FLOOD	I	DIESEL GEN. DAY TK. - LUBE OIL

HALON 1301 SYSTEM						
SYSTEM NO.	BUILDING LOCATION	AREA	ELEVATION	SYSTEM TYPE	SUPPORT SEISMIC CL.	HAZARD
	SERVICE & ADMIN. ROOM	RECORDS	47'-6"	TOTAL FLOOD	-	PLANT FILES
	ADMIN. 2ND FLOOR	"	30'-0"	TOTAL FLOOD	-	PAPER & PHOTO FILM
	OUTSIDE CONT. BLDG.	APPENDIX "R" DIESEL	15'-0"	TOTAL FLOOD	-	PLANT FILES PAPER & PHOTO FILM
	"	"	"	"	-	DIESEL ENGINE

SYS.	A	B	C	D	E	F	G	H	J
2	PG-71	PG-42	PG-SDV-42	T-2006	PS-2031				
7	PG-70	PG-41	PG-SDV-41	T-2005	PS-2030	PG-F-79	NO TAG	PG-SDV-75	PG-76
8	PG-69	PG-40	PG-SDV-40	T-2004	PS-2029	PG-F-80	NO TAG	PG-SDV-77	PG-78

DETAIL "A"
TYP. FOR SYS. NOS. 2, 7 & 8
(* ONLY ON SYS. NOS. 7 & 8)

- NOTES:
- ALL SYSTEMS ARE DESIGNED AND BUILT IN ACCORD WITH NFPA-STD #12 FOR CO2 AND STD #12A FOR HALON 1301, AND REQUIREMENTS OF NEL-PIA AND ALL OTHER AUTHORITIES.
 - ALL SYSTEMS ARE DESIGNED AND BUILT IN ACCORD WITH NRC REG. GUIDE 1.120 INCLUDING BTP, APCSB 9.5-1 AUG. 1976.
 - RELIEF VALVE DISCHARGE LINE PIPED TO OUTSIDE OF BUILDING.

SYSTEM INTENDED FUNCTION BOUNDARY

COMPONENTS SUBJECT TO AMR

FIRE PROTECTION CO2, HALON AND RCP OIL COLLECTION SYSTEMS AMM-19

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THIS DWG. WAS PREVIOUSLY BURNS & RDE INC. -M038 REV. 5

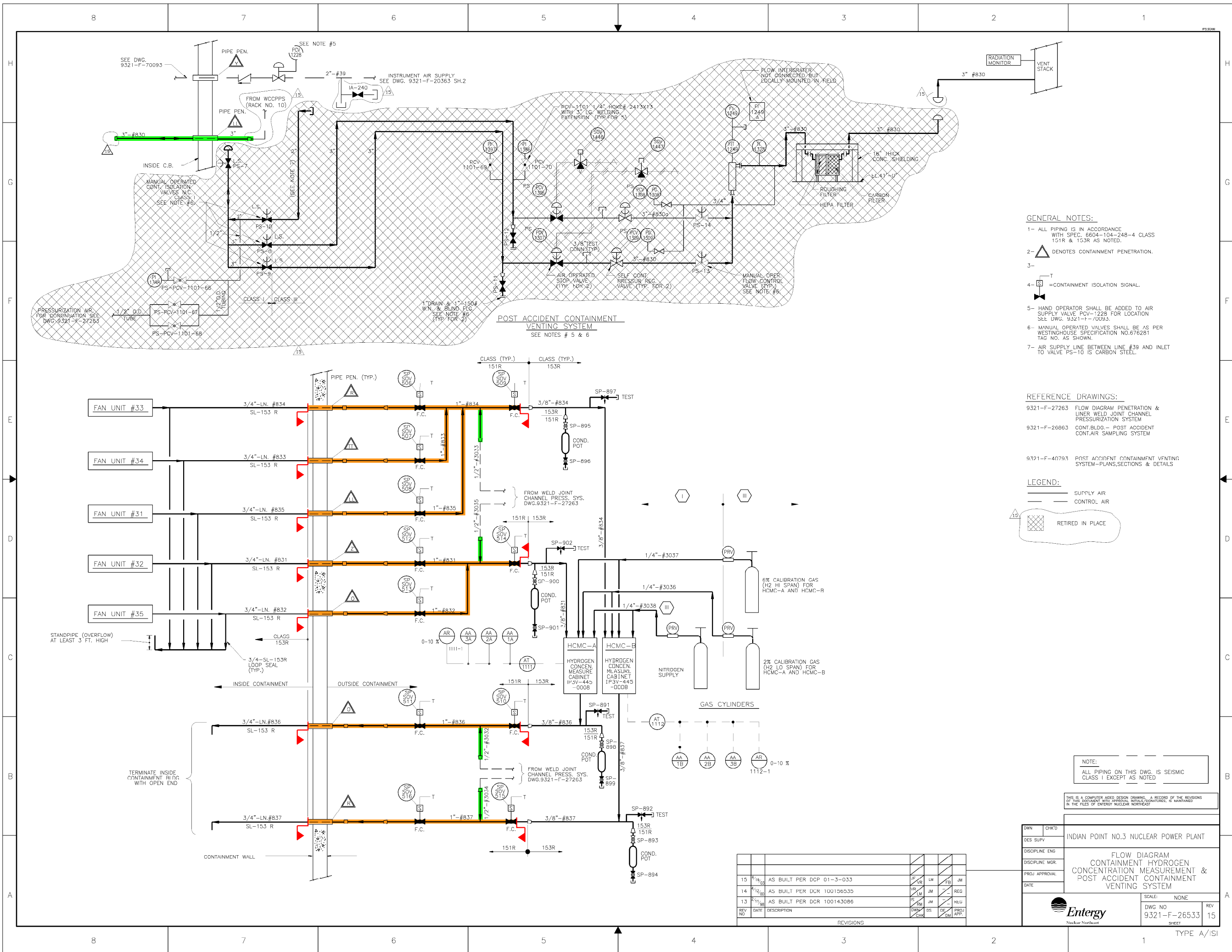
DWN	CHK'D	INDIAN POINT NO. 3 NUCLEAR POWER PLANT
DES. SUPV		
DISCIPLINE ENG.		
DISCIPLINE MGR.		
PROJ. APPROVAL		
DATE		

SCALE	NONE
DWG NO	9321-F-24403
REV	7



Entergy
Nuclear Northeast

REV. NO.	DATE	DESCRIPTION	BY	CHK'D	DES. APP.	REV. NO.	DATE	DESCRIPTION	BY	CHK'D	DES. APP.
1	10/27/01	AS BUILT PER DCR 100162622	JF	VR	LM	5	12/29/99	AS BUILT PER DCR 100154877	VR	LM	LM
6	2/23/04	AS BUILT PER MMP 97-3-424 CO2	JF	VR	JM	4	7/19/98	AS BUILT PER MOD 97-3-400 & DCR 100147292	VR	JM	JM
						3	1/14/98	AS BUILT PER DCR 100125055	VR	JM	MSM
						2	1/19/97	AS BUILT PER DCR 100064279.	PM	REG	AE
						1	1/19/97	AS BUILT PER DCR #100028345.	PM	REG	AE

0 5-22-06					
NO.	DATE	DESCRIPTION	BY	ENG	CHK
REVISIONS					
LRA-9321-24403-0					
LRA-9321-24403-07.DGN					
9321-24403-07.CAL					



GENERAL NOTES:

- 1- ALL PIPING IS IN ACCORDANCE WITH SPEC. 6604-104-248-4 CLASS 151R & 153R AS NOTED.
- 2-  DENOTES CONTAMINATION PENETRATION.
- 3-
- 4-  =CONTAINMENT ISOLATION SIGNAL.
- 5- HAND OPERATOR SHALL BE ADDED TO AIR SUPPLY VALVE PCV-1228 FOR LOCATION SEE DWG. 9321-T-0093.
- 6- MANUAL OPERATED VALVES SHALL BE AS PER WESTINGHOUSE SPECIFICATION NO.676281 TAG NO. AS SHOWN.
- 7- AIR SUPPLY LINE BETWEEN LINE #39 AND INLET TO VALVE PS-10 IS CARBON STEEL.

REFERENCE DRAWINGS:

- | | |
|--------------|---|
| 9321-F-27263 | FLOW DIAGRAM PENETRATION &
LINER WELD JOINT CHANNEL
PRESSURIZATION SYSTEM |
| 9321-F-26863 | CONT.BLDG.- POST ACCIDENT
CONT.AIR SAMPLING SYSTEM |
| 9321-F-40793 | POST ACCIDENT CONTAINMENT VENTING
SYSTEM-PLANS,SECTIONS & DETAILS |

LEGEND:

-
- The diagram shows a cross-section of a roof assembly. At the top, there are two horizontal lines representing the roof surface. The top line is labeled "SUPPLY AIR" and the line below it is labeled "CONTROL AIR". Below these lines is a wavy line representing the roof membrane. Below the wavy line is a cross-hatched area representing the insulation. Below the insulation is a solid line representing the structural deck. The label "RETIRED IN PLACE" is positioned below the cross-hatched area, indicating the location of the retired membrane.

 SYSTEM INTENDED
FUNCTION BOUNDARY


COMPONENTS SUBJECT TO AMR

- CONTAINMENT ISOLATION
SYSTEM (HPC, IVSW,
WCPS & WCCPP) AMM-02
- CONTAINMENT PENETRATIONS
AMM-26

NOTE:

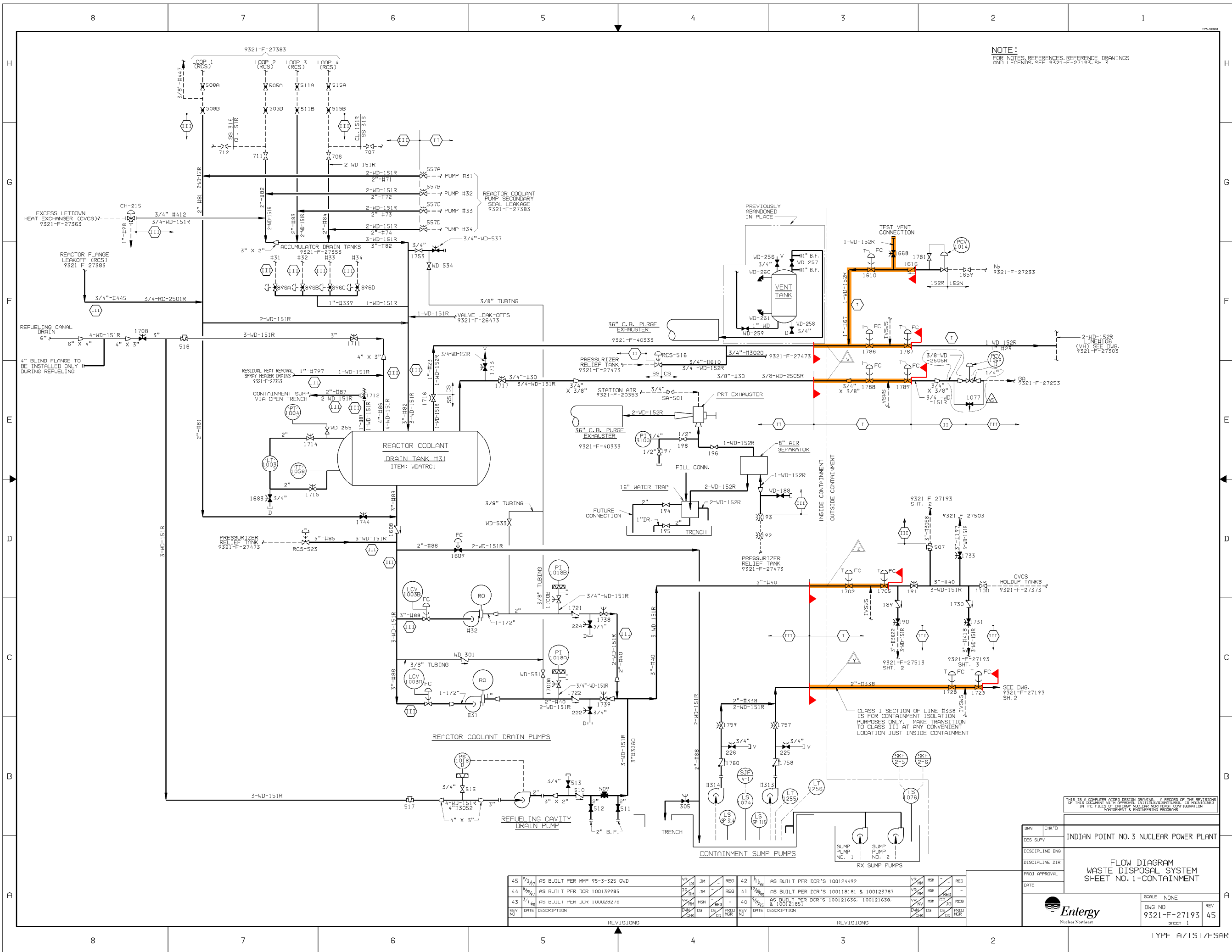
ALL PIPING ON THIS DWG. IS
CLASS 1 EXCEPT AS NOTED

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OWN	CHK'D	INDIAN POINT NO.3 NUCLEAR POWER PLANT		
DES SUPV				
DISCIPLINE ENG				
DISCIPLINE MOR				
PRJ. APPROVAL				
DATE		FLOW DIAGRAM CONTAINMENT HYDROGEN CONCENTRATION MEASUREMENT & POST ACCIDENT CONTAINMENT VENTING SYSTEM		
 Entergy Nuclear Northeast		SCALE: NONE		REV
		DWG NO 9321-F-26533		15
		SHEET		

[illegible]

0	9-25-06					
NO.	DATE	DESCRIPTION	BY	ENG	CHK	APP
REVISIONS						
LRA-9321-26533-0						
CAD FILE						
LRA-9321-26533_15.DGN						
RASTER FILE						
9321-26533_15.CAL						




NOTE:
FOR NOTES, REFERENCES, REFERENCE DRAWINGS
AND LEGENDS, SEE 9321-F-27193, SH. 3.

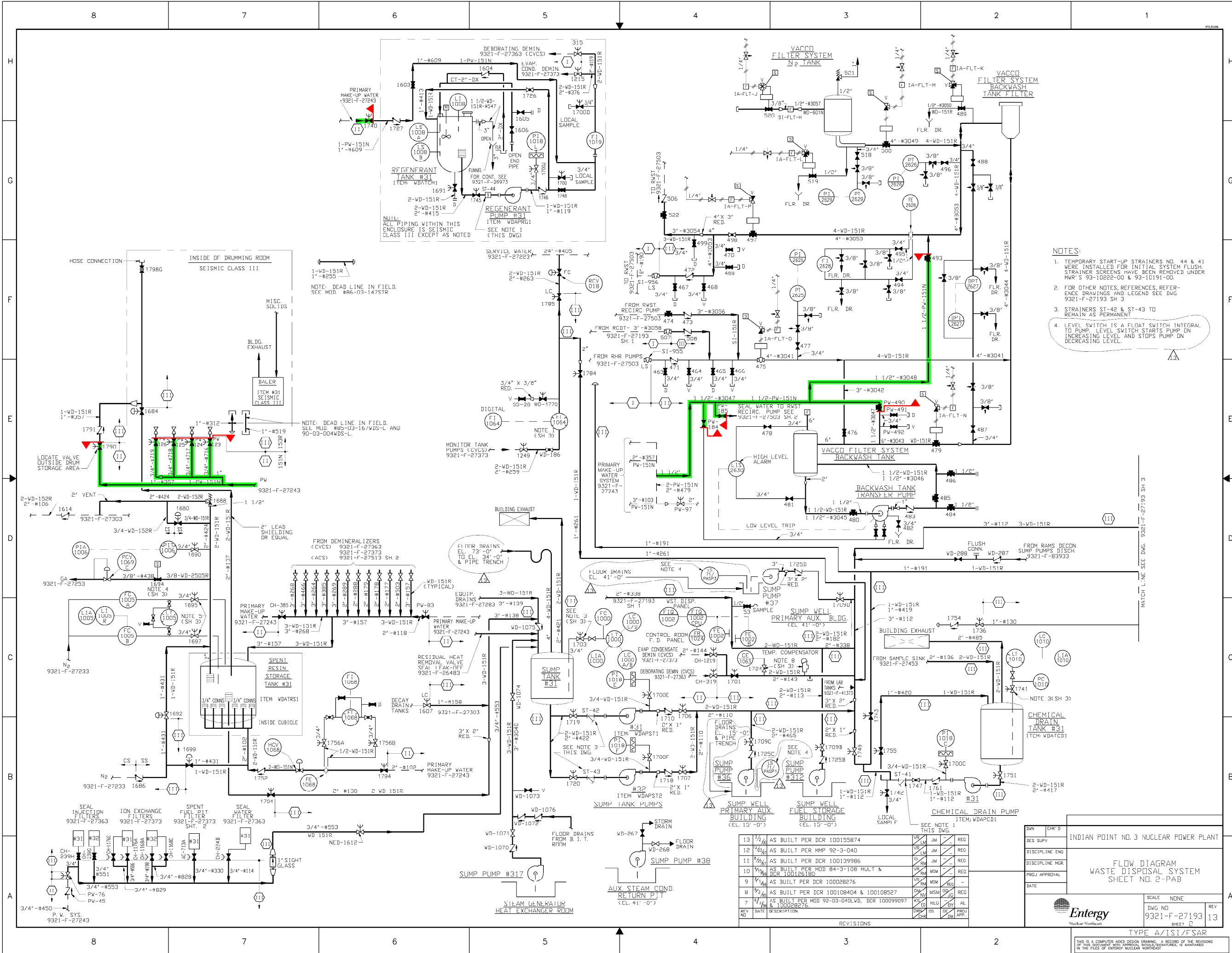
 SYSTEM INTENDED
FUNCTION BOUNDARY

COMPONENTS SUBJECT TO AMR

PLANT DRAINS
AMM-08

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INDIAN POINT NO.3 NUCLEAR POWER PLANT	
FLOW DIAGRAM WASTE DISPOSAL SYSTEM SHEET NO. 1-CONTAINMENT	
DATE	SCALE NONE
 Entergy Nuclear Northeast	DWG NO 9321-F-27193 SHEET 1
	REV 45


0	9-11-06					
NO.	DATE	DESCRIPTION	BY	ENG	CHK	APP
REVISIONS						
LRA-9321-27193-001-0						
CAD FILE						
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RASTER FILE						
9321-27193-001_45.CAL						



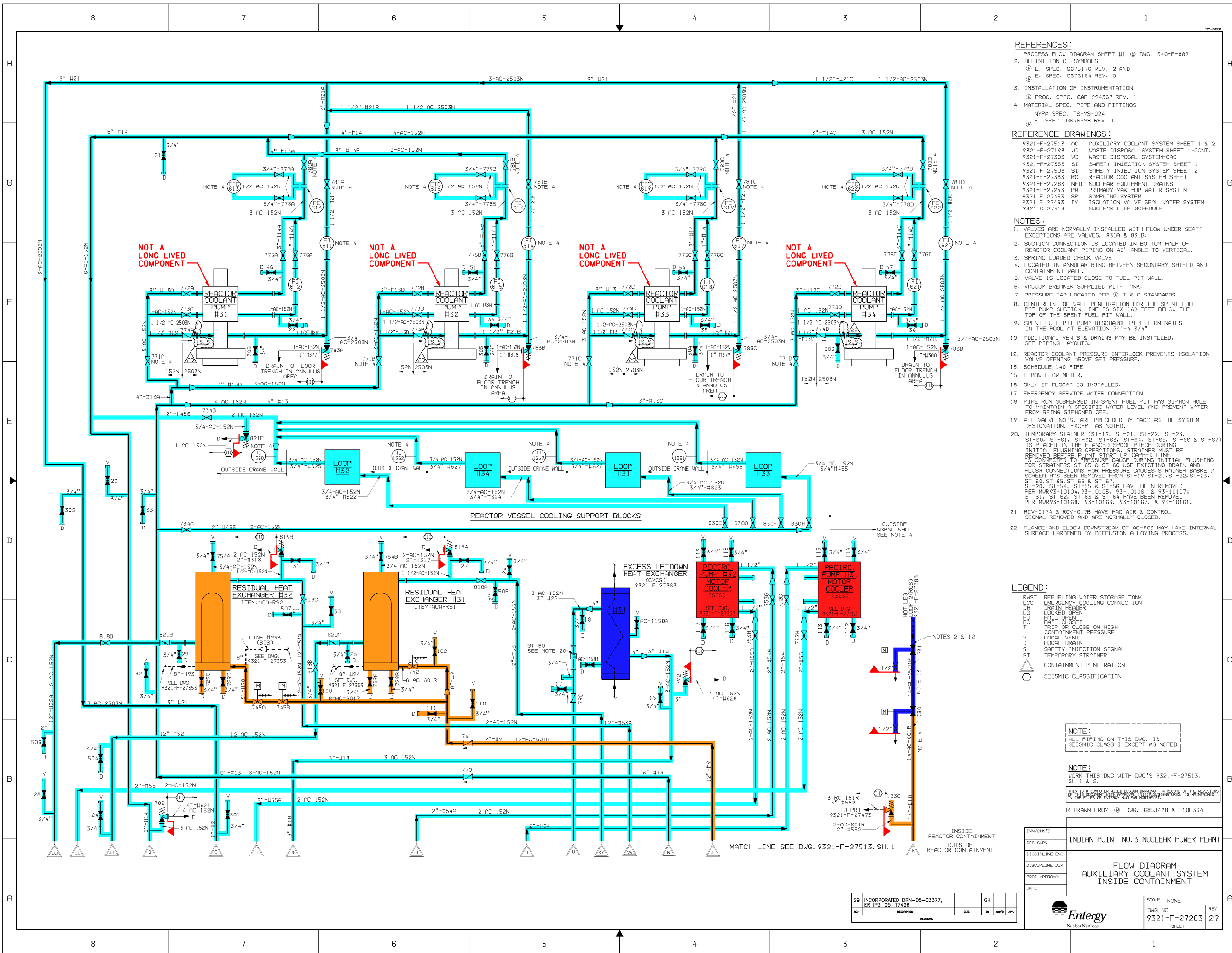
 SYSTEM INTENDED
FUNCTION BOUNDARY

COMPONENTS SUBJECT TO AMR

PRIMARY MAKEUP
WATER SYSTEM AMM-06

DWN	CHK'D	INDIAN POINT NO. 3 NUCLEAR POWER PLANT
DES SUPV		
DISCIPLINE ENG		
DISCIPLINE MGR		
PROJ APPROVAL		
DATE		FLOW DIAGRAM WASTE DISPOSAL SYSTEM SHEET NO. 2-PAB
 <i>Entergy</i>		SCALE NONE DWG NO 9321-F-27193
		REV 13

0	10-19-06					
NO.	DATE	DESCRIPTION	BY	ENG	CHK	APP
REVISIONS						
LRA-9321-27193-002-0						
CAD FILE						
LRA-9321-27193-002_13.DGN						
RASTER FILE						
9321-27193-002_13.CAL						



- REFERENCES:**
- PROCESS FLOW DIAGRAM SHEET #1 @ DWG. 540-F-889
 - DEFINITION OF SYMBOLS
 - E. SPEC. G675178 REV. 2 AND
 - E. SPEC. G676184 REV. 0
 - INSTALLATION OF INSTRUMENTATION
 - PROC. SPEC. CAP 294367 REV. 1
 - MATERIAL SPEC. PIPE AND FITTINGS
 - NYPA SPEC. TS-MS-024
 - E. SPEC. G676398 REV. 0
- REFERENCE DRAWINGS:**
- 9321-F-27513 AC AUXILIARY COOLANT SYSTEM SHEET 1 & 2
 - 9321-F-27193 WD WASTE DISPOSAL SYSTEM SHEET 1-CONT.
 - 9321-F-27303 WD WASTE DISPOSAL SYSTEM-GAS
 - 9321-F-27353 SI SAFETY INJECTION SYSTEM SHEET 1
 - 9321-F-27503 SI SAFETY INJECTION SYSTEM SHEET 2
 - 9321-F-27383 RC REACTOR COOLANT SYSTEM SHEET 1
 - 9321-F-27285 NFD NUCLEAR FUEL OIL TREATMENT TRAINS
 - 9321-F-27243 PW PRIMARY MAKE-UP WATER SYSTEM
 - 9321-F-27453 SP SAMPLING SYSTEM
 - 9321-F-27463 IV ISOLATION VALVE SEAL WATER SYSTEM
 - 9321-C-27413 NUCLEAR LINE SCHEDULE
- NOTES:**
- VALVES ARE NORMALLY INSTALLED WITH FLOW UNDER SEAT. EXCEPTIONS ARE VALVES, 831A & 831B.
 - SUCTION CONNECTION IS LOCATED IN BOTTOM HALF OF REACTOR COOLANT PIPING ON 45° ANGLE TO VERTICAL.
 - SPRING LOADED CHECK VALVE
 - LOCATED IN ANNULAR RING BETWEEN SECONDARY SHIELD AND CONTAINMENT WALL.
 - VALVE IS LOCATED CLOSE TO FUEL PIT WALL.
 - VACUUM BREAKER SUPPLIED WITH 1 INK.
 - PRESSURE TAP LOCATED PER @ I & C STANDARDS
 - CENTERLINE OF WALL PENETRATION FOR THE SPENT FUEL PIT PUMP SUCTION LINE IS SIX (6) FEET BELOW THE TOP OF THE SPENT FUEL PIT WALL.
 - SPENT FUEL PIT PUMP DISCHARGE PIPE TERMINATES IN THE POOL AT ELEVATION 74'-4 3/4".
 - ADDITIONAL VENTS & DRAINS MAY BE INSTALLED. SEE PIPING LAYOUTS.
 - REACTOR COOLANT PRESSURE INTERLOCK PREVENTS ISOLATION VALVE OPENING ABOVE SET PRESSURE.
 - SCHEDULE 140 PIPE
 - ELBOW FLOW MEIER.
 - ONLY IF "LOCAP" IS INSTALLED.
 - EMERGENCY SERVICE WATER CONNECTION.
 - PIPE RUN SUBMERGED IN SPENT FUEL PIT HAS SIPHON HOLE TO MAINTAIN A SPECIFIC WATER LEVEL AND PREVENT WATER FROM BEING SIPHONED OFF.
 - ALL VALVE NO.'S. ARE PRECEDED BY "AC" AS THE SYSTEM DESIGNATION, EXCEPT AS NOTED.
 - TEMPORARY STRAINER (ST-19, ST-21, ST-22, ST-23, ST-60, ST-61, ST-62, ST-63, ST-64, ST-65, ST-66 & ST-67) IS PLACED IN THE FLANGED SPOOL PIECE DURING INITIAL FLUSHING OPERATIONS. STRAINER MUST BE REMOVED BEFORE PLANT START-UP. CAPPED LINE IS CONNECTED TO PRESSURE GAUGE DURING INITIAL FLUSHING FOR STRAINERS ST-65 & ST-66 USE EXISTING DRAIN AND FLUSH CONNECTIONS FOR PRESSURE GAUGES. STRAINER BASKET/ SCREEN HAS BEEN REMOVED FROM ST-19, ST-21, ST-22, ST-23, ST-60, ST-65, ST-66 & ST-67.
 - ST-20, ST-54, ST-55 & ST-56 HAVE BEEN REMOVED PER MWR93-10104, 93-10105, 93-10106, & 93-10107.
 - ST-61, ST-62, ST-63 & ST-64 HAVE BEEN REMOVED PER MWR93-10168, 93-10163, 93-10167, & 93-10161.
 - RCV-017A & RCV-017B HAVE HAD AIR & CONTROL SIGNAL REMOVED AND ARE NORMALLY CLOSED.
 - FLANGE AND ELBOW DOWNSTREAM OF AC-803 MAY HAVE INTERNAL SURFACE HARDENED BY DIFFUSION ALLOYING PROCESS.

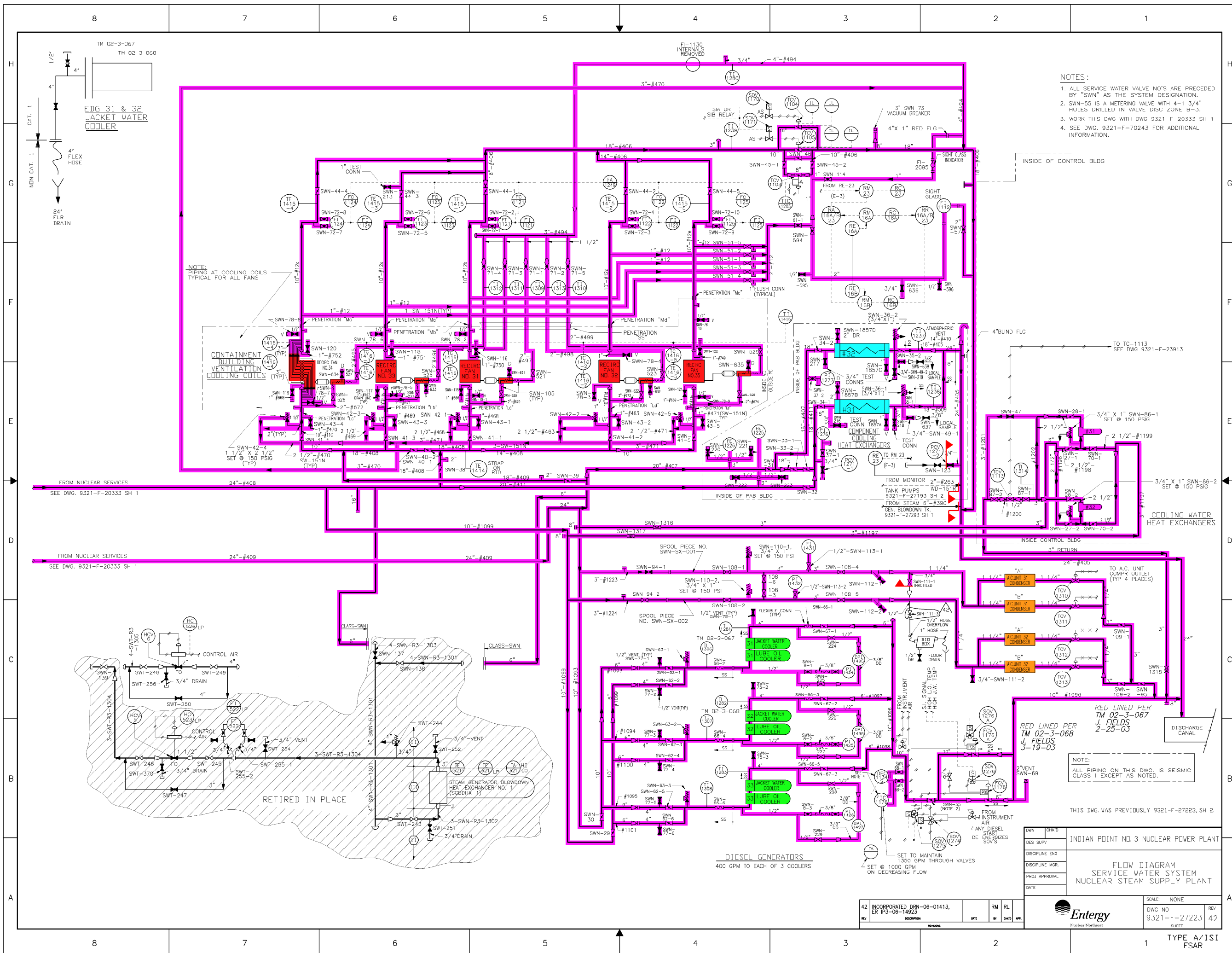
- LEGEND:**
- RWST REFUELING WATER STORAGE TANK
 - ECC EMERGENCY COOLING CONNECTION
 - DH DRAIN HEADER
 - LO LOCKED OPEN
 - CO FAIL OPEN
 - T FAIL CLOSED
 - V TRIP OR CLOSE ON HIGH CONTAINMENT PRESSURE
 - S LOCAL VENT
 - ST SAFETY INJECTION SIGNAL
 - TEMPORARY STRAINER
 - CONTAINMENT PENETRATION
 - SEISMIC CLASSIFICATION
- NOTE:**
- ALL PIPING ON THIS DWG. IS SEISMIC CLASS I EXCEPT AS NOTED
- NOTE:**
- WORK THIS DWG WITH DWG'S 9321-F-27513, SH 1 & 2.
- THIS IS A COMPUTER AIDED DESIGN DRAWING. A RECORD OF THE REVISIONS IN THE FILES OF EMERGENCY NUCLEAR NORTHWEST.
- REDRAWN FROM @ DWG. 685J428 & 110E364

COMPONENTS SUBJECT TO AMR				
SAFETY INJECTION SYSTEM AMM-03				
RESIDUAL HEAT REMOVAL AMM-05				
COMPONENT COOLING WATER SYSTEM AMM-13				
REACTOR COOLANT SYSTEM AMM-33				

DWG/CHK'D	DES. SLV	DISCIPLINE ENG	DISCIPLINE DIR	PROJ. APPROVAL	DATE
INDIAN POINT NO. 3 NUCLEAR POWER PLANT					
FLOW DIAGRAM AUXILIARY COOLANT SYSTEM INSIDE CONTAINMENT					
SCALE: NONE	DWG NO: 9321-F-27203	REV: 29			

29	INCORPORATED DRN-05-03377, ER IP3-05-17496	GH			
REV	DESCRIPTION	DATE	BY	CHKD	APP.

0	10-20-06				
NO.	DATE	DESCRIPTION	BY	ENG	CHK
REVISIONS					
LRA-9321-27203-0					
LRA-9321-27203-29.DGN					
9321-27203-29.CAL					



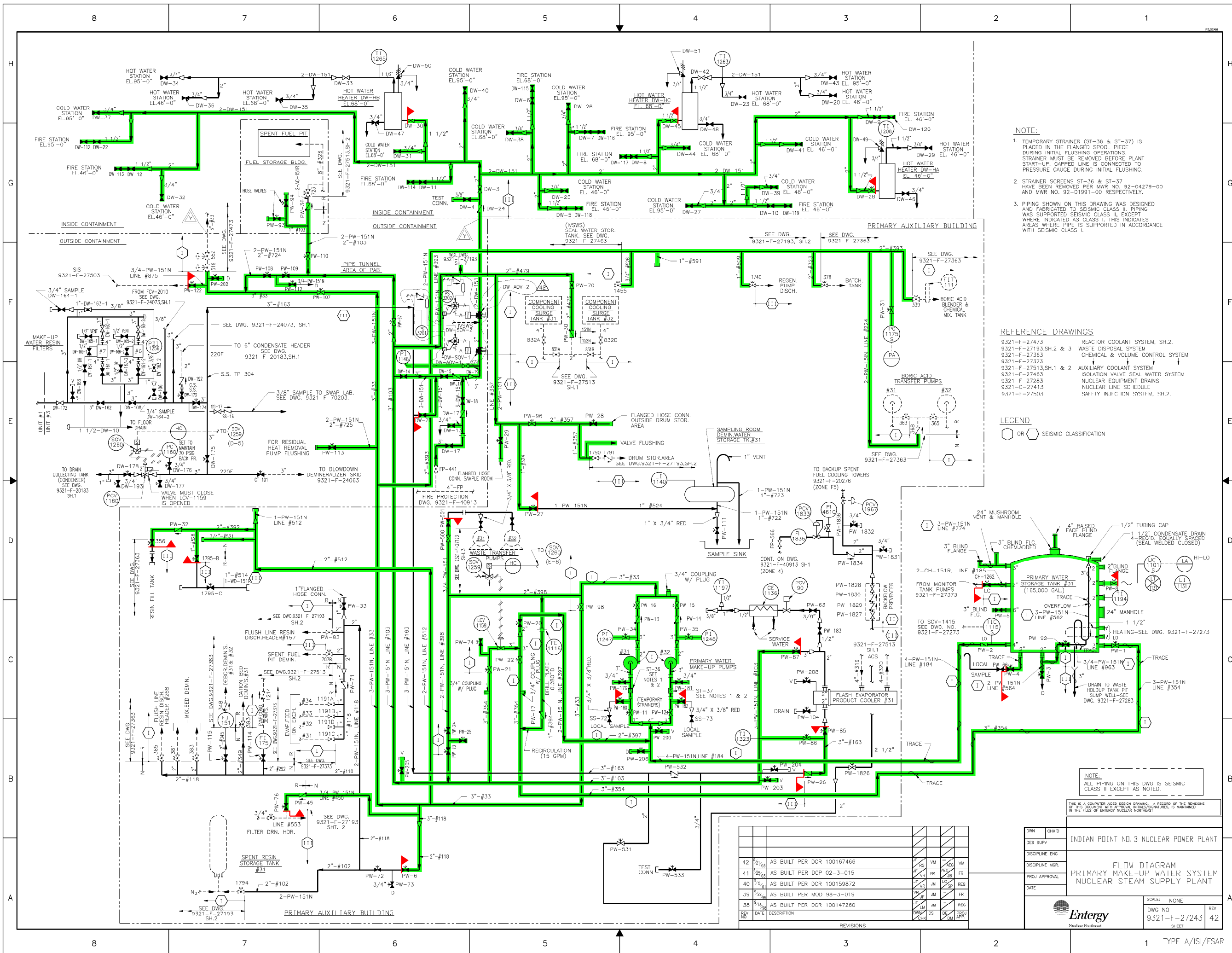
- NOTES:
1. ALL SERVICE WATER VALVE NO'S ARE PRECEDED BY "SWN" AS THE SYSTEM DESIGNATION.
 2. SWN-55 IS A METERING VALVE WITH 4-1 3/4" HOLES DRILLED IN VALVE DISC ZONE B-3.
 3. WORK THIS DWG WITH DWG 9321 F 20333 SH 1
 4. SEE DWG. 9321-F-70243 FOR ADDITIONAL INFORMATION.

- SYSTEM INTENDED FUNCTION BOUNDARY
- COMPONENTS SUBJECT TO AMR
- SERVICE WATER SYSTEMS AMM-12
 - COMPONENT COOLING WATER SYSTEM AMM-13
 - EMERGENCY DIESEL GENERATOR SYSTEM AMM-17
 - CONTAINMENT COOLING AND FILTRATION SYSTEMS AMM-28
 - CONTROL ROOM HEATING, VENTILATION AND AIR CONDITIONING SYSTEMS AMM-29

INDIAN POINT NO. 3 NUCLEAR POWER PLANT	
FLOW DIAGRAM SERVICE WATER SYSTEM NUCLEAR STEAM SUPPLY PLANT	
DWN	CHKD
DES SUPV	
DISCIPLINE ENG	
DISCIPLINE MGR	
PROJ APPROVAL	
DATE	
SCALE: NONE	
DWG NO	REV
9321-F-27223	42
SHEET	

0	2-19-07				
NO.	DATE	DESCRIPTION	BY	ENG	CHK APP
REVISIONS					
LRA-9321-27223-0					
LRA-9321-27223-42.DGN					
9321-27223-42.CAL					

0	12-4-06					
NO.	DATE	DESCRIPTION	BY	ENG	CHK	APP
REVISIONS						
LRA-9321-27233-0						
CAD FILE						
LRA-9321-27233_38.DGN						
RASTER FILE						
9321-27233_38.CAL						



- NOTE:
1. TEMPORARY STRAINER (ST-36 & ST-37) IS PLACED IN THE FLANGED SPOOL PIECE DURING INITIAL FLUSHING OPERATIONS. STRAINER MUST BE REMOVED BEFORE PLANT START-UP. CAPPED LINE IS CONNECTED TO PRESSURE GAUGE DURING INITIAL FLUSHING.
 2. STRAINER SCREENS ST-36 & ST-37 HAVE BEEN REMOVED PER MWR NO. 92-04279-00 AND MWR NO. 92-01991-00 RESPECTIVELY.
 3. PIPING SHOWN ON THIS DRAWING WAS DESIGNED AND FABRICATED TO SEISMIC CLASS II. PIPING WAS SUPPORTED SEISMIC CLASS II, EXCEPT WHERE INDICATED AS CLASS I. THIS INDICATES AREAS WHERE PIPE IS SUPPORTED IN ACCORDANCE WITH SEISMIC CLASS I.

- REFERENCE DRAWINGS
- | | |
|------------------------|-----------------------------------|
| 9321-F-27503 | REACTOR COOLANT SYSTEM, SH.2 |
| 9321-F-27193, SH.2 & 3 | WASTE DISPOSAL SYSTEM |
| 9321-F-27363 | CHEMICAL & VOLUME CONTROL SYSTEM |
| 9321-F-27373 | AUXILIARY COOLANT SYSTEM |
| 9321-F-27513, SH.1 & 2 | ISOLATION VALVE SEAL WATER SYSTEM |
| 9321-F-27463 | NUCLEAR EQUIPMENT DRAINS |
| 9321-F-27283 | NUCLEAR LINE SCHEDULE |
| 9321-C-27413 | SAFETY INJECTION SYSTEM, SH.2 |
| 9321-F-27503 | |

LEGEND

OR SEISMIC CLASSIFICATION

SYSTEM INTENDED FUNCTION BOUNDARY

COMPONENTS SUBJECT TO AMR

PRIMARY MAKEUP WATER SYSTEM AMM-06

NOTE:

ALL PIPING ON THIS DWG IS SEISMIC CLASS II EXCEPT AS NOTED.

THIS IS A COMPUTER AIDED DESIGN DRAWING. A RECORD OF THE REVISIONS OF THIS DOCUMENT WITH APPROVAL INITIALS/SIGNATURES, IS MAINTAINED IN THE FILES OF ENTENY NUCLEAR NORTHWEST

INDIAN POINT NO. 3 NUCLEAR POWER PLANT			
FLOW DIAGRAM			
PRIMARY MAKE-UP WATER SYSTEM			
NUCLEAR STEAM SUPPLY SYSTEM			
DWN	CHK'D		
DES. SUPV.			
DISCIPLINE ENG.			
DISCIPLINE MGR.			
PROJ. APPROVAL			
DATE			
SCALE: NONE		DWG NO.	REV
		9321-F-27243	42
		SHEET	

NO.	DATE	DESCRIPTION	BY	ENG	CHK	APP
REVISIONS						
42	2/1/03	AS BUILT PER DCR 100167466	VM	VM	VM	VM
41	2/5/03	AS BUILT PER DCP 02-3-015	VR	VR	VR	VR
40	2/5/03	AS BUILT PER DCR 100159872	VR	VR	VR	VR
39	9/22/99	AS BUILT PER MOD 98-3-019	VR	VR	VR	VR
38	9/18/99	AS BUILT PER DCR 100147260	VR	VR	VR	VR
37	9/18/99	AS BUILT PER DCR 100147260	VR	VR	VR	VR

0 12-4-06

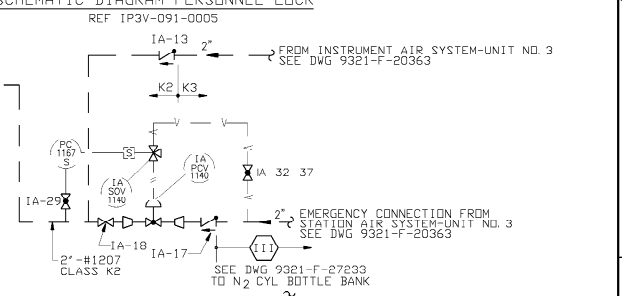
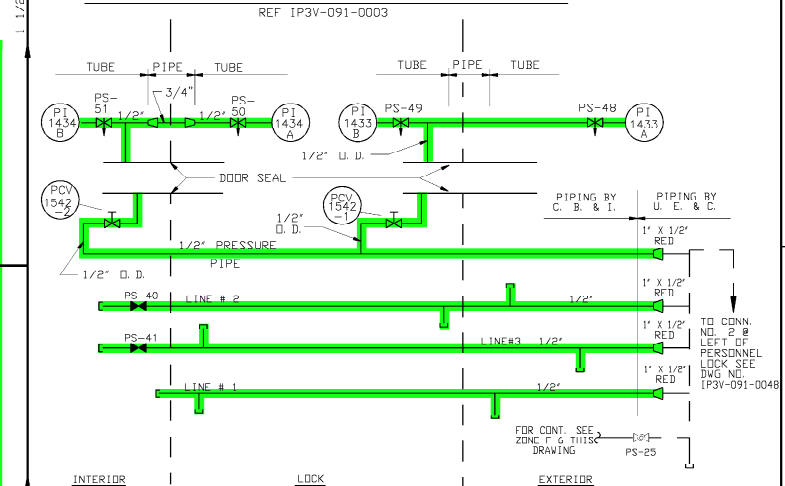
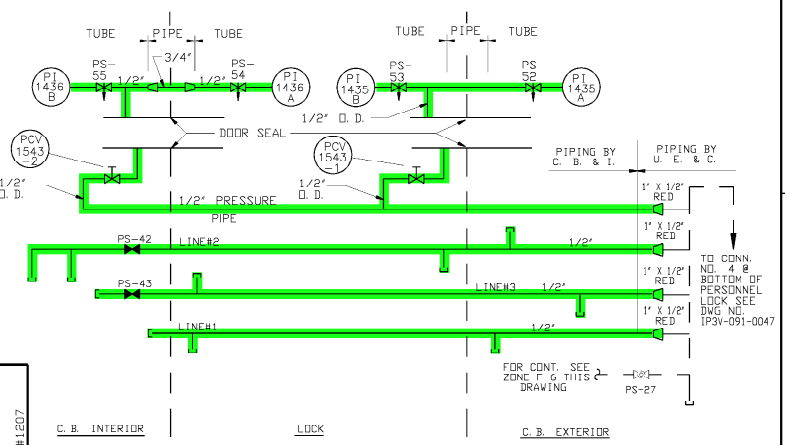
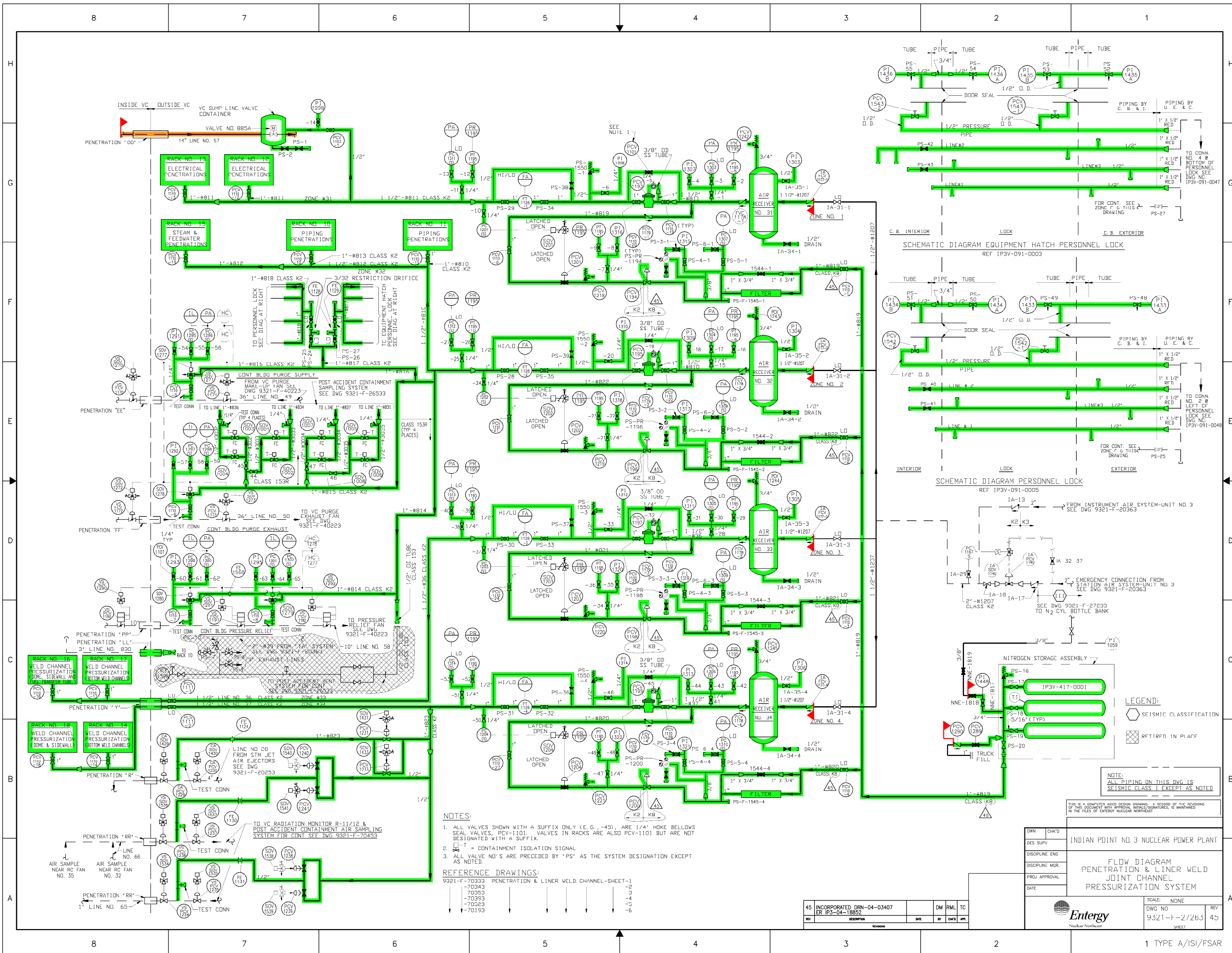
NO. DATE DESCRIPTION BY ENG CHK APP

REVISIONS

LRA-9321-27243-0

LRA-9321-27243_42.DGN

9321-27243_42.CAL



LEGEND:
○ SEISMIC CLASSIFICATION
□ RFTIRFD. IN PLACF

NOTE:
ALL PIPING ON THIS DWG IS
SEISMIC CLASS 1 EXCEPT AS NOTED

NOTES:
1. ALL VALVES SHOWN WITH A SUFFIX ONLY (E.G., -43), ARE 1/4" HOKE BELLOWS SEAL VALVES, PCV-1101. VALVES IN RACKS ARE ALSO PCV-1101 BUT ARE NOT DESIGNATED WITH A SUFFIX.
2. T = CONTAINMENT ISOLATION SIGNAL
3. ALL VALVE NO.'S ARE PRECEDED BY 'PS' AS THE SYSTEM DESIGNATION EXCEPT AS NOTED

REFERENCE DRAWINGS:
9321-F-70333 PENETRATION & LINER WELD CHANNEL-SHEET-1
-70343
-70353
-70393
-70623
-70193

45	INCORPORATED DRN-04-03407 ER IP3-04-18852	DM	RML	TC
REV	DESCRIPTION	DATE	BY	CHKD

DWN	CHK'D	INDIAN POINT NO. 3 NUCLEAR POWER PLANT
DES SUPV		
DISCIPLINE ENG		
DISCIPLINE MGR		
PROJ APPROVAL		
DATE		SCALE: NONE
DWG NO: 9321-F-27263		REV: 45
SHEET		

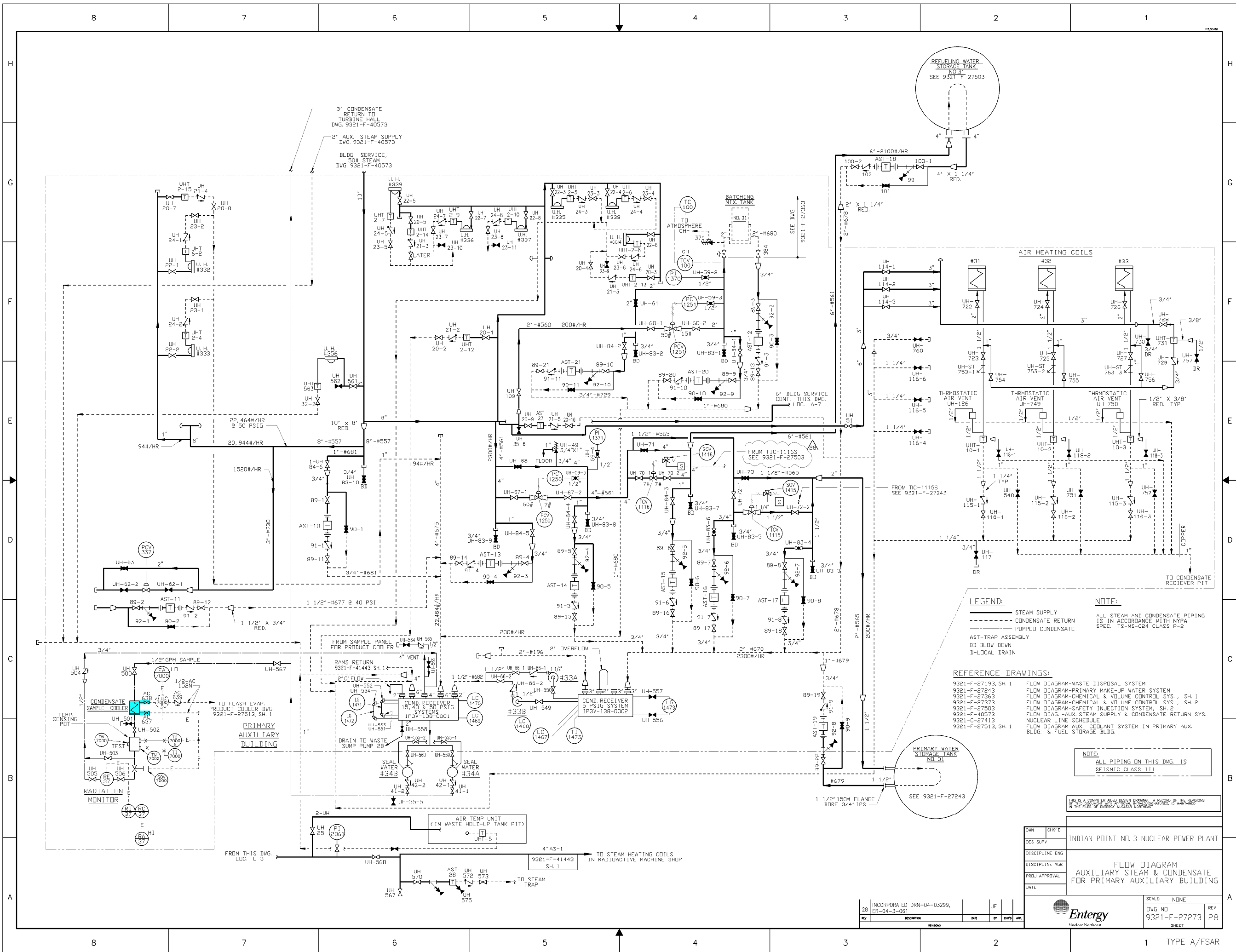


SYSTEM INTENDED
FUNCTION BOUNDARY

COMPONENTS SUBJECT TO AMR

- CONTAINMENT ISOLATION SYSTEM (HPC, IVSW, WCPs & WCCPs) AMM-02
- RESIDUAL HEAT REMOVAL AMM-05

NO.	DATE	DESCRIPTION	BY	CHK	APP
REVISIONS					
LRA-9321-27263-0					
C&E FILE LRA-9321-27263.45.DGN					
9321-27263.45.CAL					



SYSTEM INTENDED
FUNCTION BOUNDARY

COMPONENTS SUBJECT TO AMR

COMPONENT COOLING
WATER SYSTEM AMM-13

NOTE:
ALL PIPING ON THIS DWG. IS
SEISMIC CLASS III

THIS IS A COMPUTER AIDED DESIGN DRAWING. A RECORD OF THE REVISIONS
OF THIS DOCUMENT WITH ANY ADDITIONAL INITIALS/INITIALS, IS MAINTAINED
IN THE FILES OF INVERDY NUCLEAR NORTHWEST

DWG NO.	CHK'D	INDIAN POINT NO. 3 NUCLEAR POWER PLANT
DES. SUPV.		
DISCIPLINE ENG.		
DISCIPLINE MGR.		
PROJ. APPROVAL		
DATE		
SCALE:	NONE	
DWG NO.	9321-F-27273	REV
SHEET	28	

INCORPORATED DRN-04-03299, ER-04-3-061	JF	CHS	APP.
REV	DESCRIPTION	DATE	BY
28			

0 8-28-06	DESCRIPTION	BY	ENG	CHK	APP
NO.	DATE				
REVISIONS					
LRA-9321-27273-0					
CAD FILE					
LRA-9321-27273-28.DGN					
9321-27273-28.CAL					

TYPE A/FSAR