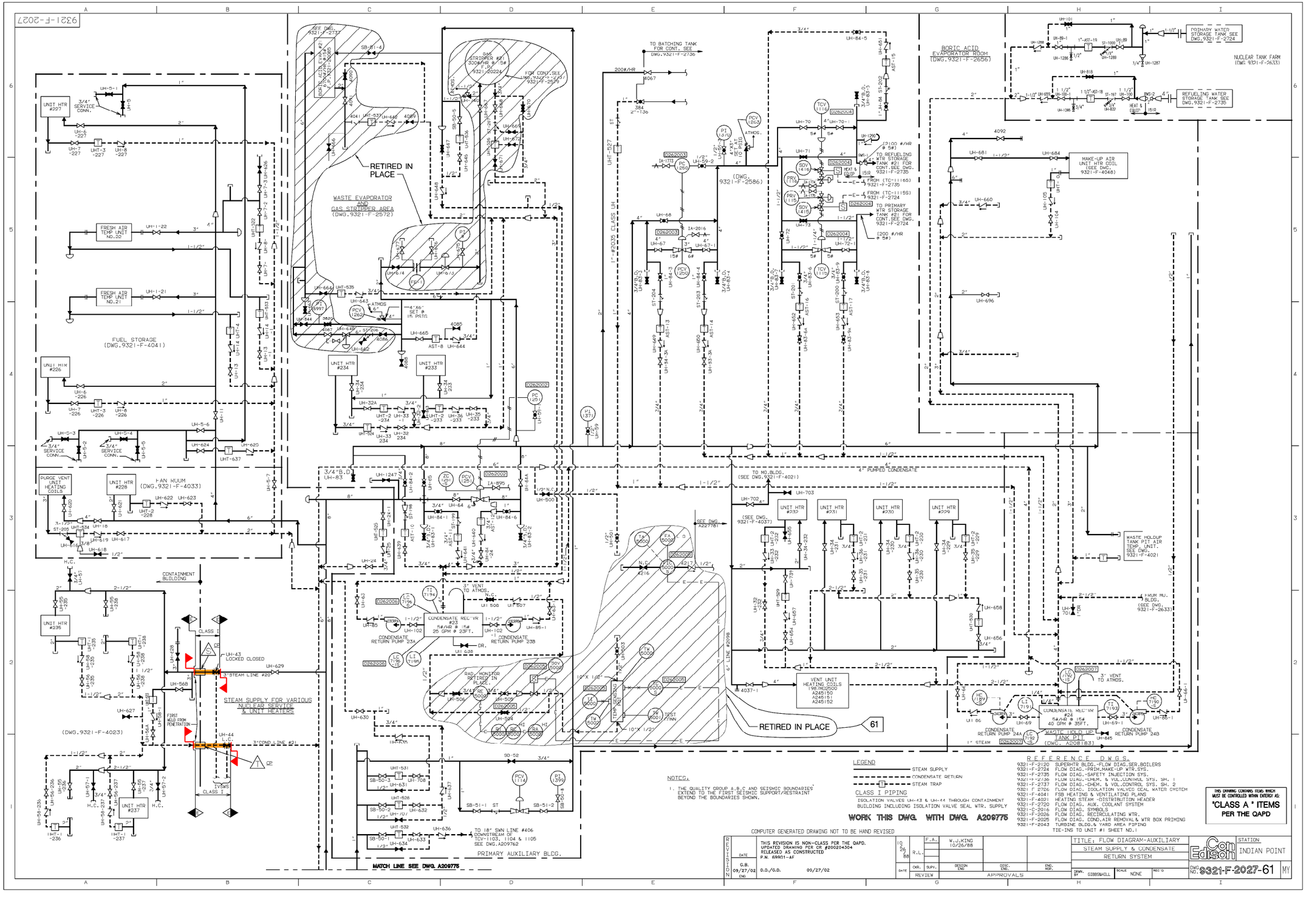
9321-F-2027



NOTES:

1. THE QUALITY GROUP A,B,C AND SEISMIC BOUNDARIES EXTEND TO THE FIRST SEISMIC SUPPORT/RESTRAINT BEYOND THE BOUNDARIES SHOWN.

LEGEND

- STEAM SUPPLY
- CONDENSATE RETURN
- STEAM TRAP

CLASS I PIPING

ISOLATION VALVES UH-43 & UH-44 THROUGH CONTAINMENT BUILDING INCLUDING ISOLATION VALVE SEAL WTR. SUPPLY

WORK THIS DWG. WITH DWG. A209775

REFERENCE DWGS.

9321-F-2120	SUPERHTR BLDG.-FLOW DIAG.SER.BOILERS
9321-F-2724	FLOW DIAG.-PRIM.MAKE-UP WTR.SYS.
9321-F-2735	FLOW DIAG.-SAFETY INJECTION SYS.
9321-F-2736	FLOW DIAG.-CHEM. & VOL.CONTROL SYS. SH. 1
9321-F-2737	FLOW DIAG.-CHEM. & VOL.CONTROL SYS. SH. 2
9321-F-2726	FLOW DIAG. ISOLATION VALVCO OCAL WATCH CYCTEM
9321-F-4041	FSB HEATING & VENTILATING PLANS
9321-F-4021	HEATING STEAM -DISTRIBUTION HEADER
9321-F-2720	FLOW DIAG. AUX. COOLANT SYSTEM
9321-C-2016	FLOW DIAG. SYMBOLS
9321-F-2026	FLOW DIAG. RECIRCULATING WTR.
9321-F-2025	FLOW DIAG. COND.AIR REMOVAL & WTR BOX PRIMING
9321-F-2043	TURBINE BLDG.& YARD AREA PIPING TIE-INS TO UNIT #1 SHEET NO.1

THIS DRAWING CONTAINS ITEMS WHICH MUST BE CONTROLLED WITHIN ENTERGY AS: **"CLASS A " ITEMS PER THE QAPD**

COMPUTER GENERATED DRAWING NOT TO BE HAND REVISED

DATE		
09/27/02	G.B.	THIS REVISION IS NON-CLASS PER THE QAPD. UPDATED DRAWING PER CR #200204304 RELEASED AS CONSTRUCTED P.N. 69801-AF
END	D.D./G.D.	09/27/02

10/26/88	R.L.	F.A.	W.J.KING 10/26/88		
DATE	CKR.	SUPV.	DESIGN END	DISC. END	ENG. MGR.
	REVIEW		APPROVALS		

TITLE: FLOW DIAGRAM-AUXILIARY STEAM SUPPLY & CONDENSATE RETURN SYSTEM

DRWN. BY GIBBS&HILL | SCALE NONE | REC'D

STATION: INDIAN POINT

DWG NO. 9321-F-2027-61 MY

NO.	DATE	DESCRIPTION	BY	ENG	CHK	APP
0	7-10-06					

REVISIONS

LRA-9321-2027-0

CAD FILE LRA-9321-2027_61.DGN

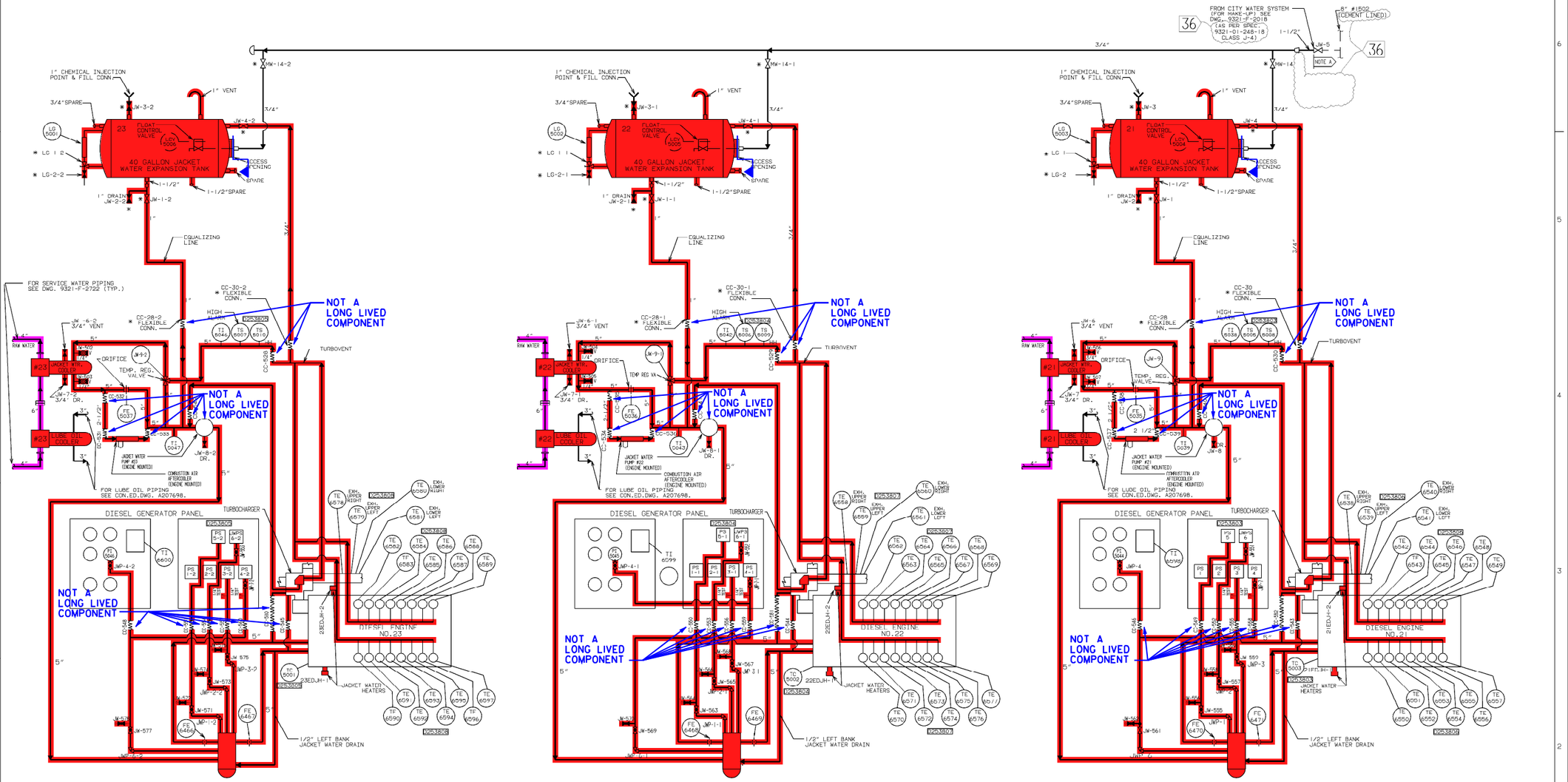
MASTER FILE 9321-2027_61.CAL

SYSTEM INTENDED FUNCTION BOUNDARY

COMPONENTS SUBJECT TO AMR

CONTAINMENT PENETRATIONS AMM-26

9321-F-2028



REFERENCE DWG'S.

U.E.& C. DWG. NO.

9321-C-2016	FLOW DIAGRAM SYMBOLS.
9321-F-2257	COOLING WATER PIPING RIVER WATER SYSTEM.
9321-F-2258	FUEL OIL,STARTING AIR & JACKET WATER PIPING-SHT.NO.1.
9321-F-2259	FUEL OIL,STARTING AIR & JACKET WATER PIPING-SHT.NO.2.
9321-F-2260	FUEL OIL,STARTING AIR & JACKET WATER PIPING-SHT.NO.3.
9321-F-2261	FUEL OIL,STARTING AIR & JACKET WATER PIPING-SHT.NO.4.
B207698	FLOW DIAGRAM JACKET WATER SYSTEM.

U.E.& C. F.P. NO.

9321-20364	OUTLINE OF DIESEL GAUGE PANEL.
9321-20209	EXPANSION TANK ASSEMBLY.

NOTE :

1. ALL VALVES, INSTRUMENTS, EQUIPMENT ETC. IS SUPPLIED WITH DIESEL EXCEPT ITEMS IDENTIFIED THUS * .
2. THE QUALITY GROUP A,B,C AND SEISMIC BOUNDARIES EXTEND TO THE FIRST SEISMIC SUPPORT/RESTRAINT BEYOND THE BOUNDARIES SHOWN.

36

THIS DRAWING CONTAINS ITEMS WHICH MUST BE CONTROLLED WITHIN CON EDISON AS "CLASS A" ITEMS PER CI-240-1

CLASS I PIPING

WHOLE SYSTEM TO BE CLASS I INCLUDING DIESEL ENGINES & GENERATORS.

EVERYTHING ON THIS DWG. IS PART OF THE EMERGENCY DIESEL GENERATOR AUXILIARY SYSTEMS DESCRIBED AS PART OF ON-SITE EMERGENCY A-C POWER SYSTEM LISTED IN EXHIBIT "A". CI-240-1.

NOTE A - THE BOUNDARY OF THIS LINE IS LOCATED AT VALVE JW-5 ON DWG. 9321-F-2018

TO BE REVISED ONLY IN CUSTOMIZED AUTOPLANT

REVISION	DES							
	G. BHALLA 01/30/01 ENG	THIS REVISION IS NON CLASS PER CI-240-1. UPDATED DRAWING PER CRS #200009771. RELEASED FOR RECORD. P.N. 69901-AF JF/SW	10/31/87 DATE	EC CKR.	F.A. SUPV.	W.J.KING 10-31-87 DESIGN MGR.	CHIEF DESIGN ENG.	DISC. ENG. ENG. MGR.
			REVIEW			APPROVALS		

TITLE: FLOW DIAGRAM JACKET WATER TO DIESEL GEN.

STATION: Con Edison INDIAN POINT

DRAWN BY: B. JOHN | SCALE: NONE | REC'D

DWG. NO. 9321-F-2028-36 MY

SYSTEM INTENDED FUNCTION BOUNDARY

COMPONENTS SUBJECT TO AMR

SERVICE WATER SYSTEMS AMM-12

EMERGENCY DIESEL GENERATOR SYSTEM AMM-17

NO.	DATE	DESCRIPTION	BY	ENG	CHK	APP
0	1-19-07	.	.	.	.	.

REVISIONS

LRA-9321-2028-0

CAD FILE: LRA-9321-2028_36.DGN

MASTER FILE: 9321-2028_36.CAL

9321-H-2029

1-1/2" EQUALIZING LINE

LIQUID SEPARATOR #23
23EDGLS

LIQUID SEPARATOR #22
22EDGLS

LIQUID SEPARATOR #21
21EDGLS

CLASS "A" 10 CFR 21
SEISMIC CLASS I
NON CLASS "A"

CLASS "N-2" EXCEPT MAT'L. TO BE 316 SS (TYPICAL)

53 CU.FT. STARTING AIR TANK NO.23

53 CU.FT. STARTING AIR TANK NO.22

53 CU.FT. STARTING AIR TANK NO.21

23EDAC

22EDAC

21EDAC

12 CFM-AIR COMPRESSOR

AIR INLET FILTER

1-1/2" LINE #2050

1-1/2" LINE #2048

1-1/2" LINE #2046

1-1/2" LINE #2051

1-1/2" LINE #2049

1-1/2" LINE #2047

TO FLOOR DRAIN

DRAINAGE CHANNEL

AIR RECEIVER (30 GAL.)

TO VENTILATION PNUEMATIC CONTROL PANEL DWG. 9321-F-4046

NOT A LONG LIVED COMPONENT

TURBO CHARGER BEARINGS

SPRAY NOZZLE

DTFSFI ENGINE NO.23

DTFSFI ENGINE NO.22

DTFSFI ENGINE NO.21

AIR MOTORS

AIR MANIFOLD PRESSURE GAGE

DUPLEX GAGE

ENGINE GAGE PANEL

LOW PRESSURE ALARM LAPS-2

LOW PRESSURE ALARM LAPS-1

FLEX HOSE

TEST CONN.

CLASS I PIPING

WHOLE SYSTEM TO BE CLASS I INCLUDING DIESEL ENGINES AND GENERATORS

NOTE

EVERYTHING ON THIS DWG. IS PART OF THE EMERGENCY DIESEL GENERATOR AUXILIARY SYSTEMS DESCRIBED AS PART OF ON-SITE EMERGENCY A.C. POWER SYSTEM, LISTED IN EXHIBIT A CI-240-1 ALL VALVES,INSTRUMENTS,EQUIPMENT ETC. IS SUPPLIED WITH DIESEL EXCEPT ITEMS IDENTIFIED THUS *

REFERENCE DWGS.

UE&C. DWG. NO.	DESCRIPTION
9321-C-2016	FLOW DIAGRAM SYMBOLS
9321-F-2257	COOLING WATER PIPING RIVER WATER SYSTEM
9321-F-2258	FUEL OIL,STARTING AIR & JACKET WATER PIPING-SHT.NO. 1
9321-F-2259	FUEL OIL,STARTING AIR & JACKET WATER PIPING-SHT.NO. 2
9321-F-2260	FUEL OIL,STARTING AIR & JACKET WATER PIPING-SHT.NO. 3
9321-F-2261	FUEL OIL,STARTING AIR & JACKET WATER PIPING-SHT.NO. 4

UE&C. F.P. NO.

9321-20199 FLOW DIAGRAM-STARTING AIR SYSTEM

NOTES:

1. THE QUALITY GROUP A,B,C AND SEISMIC BOUNDARIES EXTEND TO THE FIRST SEISMIC SUPPORT/RESTRAINT BEYOND THE BOUNDARIES SHOWN.

THIS DRAWING CONTAINS ITEMS WHICH MUST BE CONTROLLED WITHIN ENTERGY AS "CLASS A" ITEMS PER THE QAPD

THIS DWG. TO BE REVISED ONLY IN AUTOCAD.

REVISION	DES	DATE	W.S.	F.A.	CKR.	SUPV.
THIS REV. IS CLASS A PER QAPD. UPDATED DWG. PER TECHNICAL EVALUATION TE 03-000377. ISSUED AS CONSTRUCTED. P.N. 69901-AF MPH	RADVANSKY 03-05-2003 ENG	9/1/87		W.J.KING 9-1-87	REVIEW	APPROVALS

DESIGN ENG	DISC. ENG.	ENG. MGR.

TITLE: FLOW DIAGRAM STARTING AIR TO DIESEL GENERATORS

DRWN. BY GIBBS&HILL | SCALE NONE | REC'D

Con Edison | STATION INDIAN POINT

DWG. NO. 9321-H-2029-49 | MY

SYSTEM INTENDED FUNCTION BOUNDARY

COMPONENTS SUBJECT TO AMR

EMERGENCY DIESEL GENERATOR SYSTEM AMM-17

NO.	DATE	DESCRIPTION	BY	ENG	CHK	APP
0	1-19-07					

REVISIONS

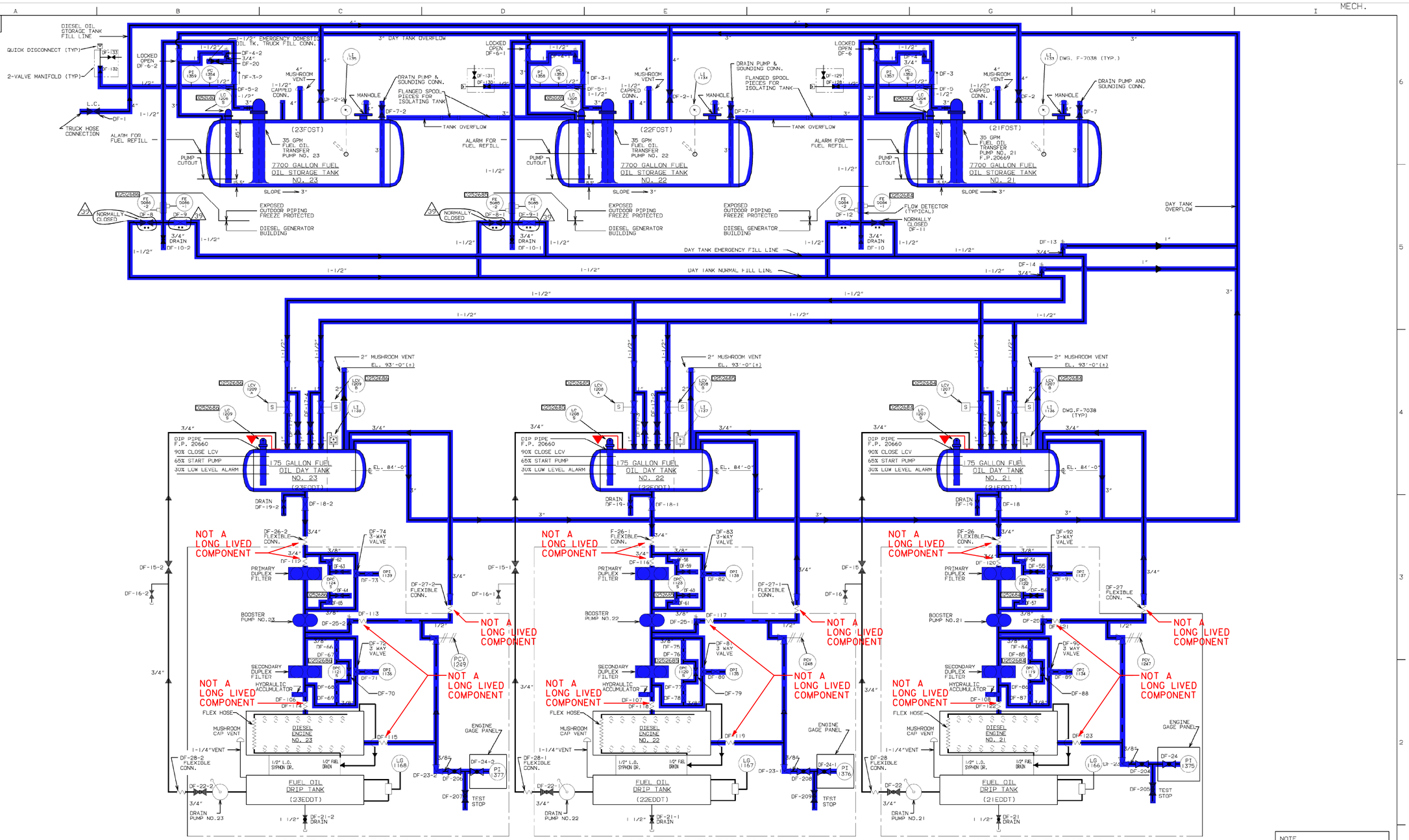
LRA-9321-2029-0

CAD FILE LRA-9321-2029_49.DGN

MASTER FILE 9321-2029_49.CAL

9321-F-2030

MECH.



NOTES:

REFER TO F.P.9321-20172 FOR DIESEL HFO'S FLOW DIAGRAM OF FUEL OIL SYSTEM AND F.P.9321-20364 OUTLINE OF DIESEL GAGE PANEL.

——— INDICATES PIPING BY UE&C

——— INDICATES PIPING ,VALVES,INSTRUMENTS, EQUIPMENT ETC. SUPPLIED WITH DIESEL.

M2926684 -INDICATES REF. DWG. FOR ADDITIONAL INSTRUMENTATION & CONTROLS (TYPICAL).

** PER COL 27.3.1-TWO ALLOWABLE 7,700 GALLON FUEL OIL STORAGE TANK CONFIGURATIONS:

1. TWO TANKS ALIGNED TO THE EMERGENCY FILL LINE & ONE TANK ALIGNED TO THE NORMAL FILL LINE.

2. TWO TANKS ALIGNED TO THE NORMAL FILL LINE & ONE TANK ALIGNED TO THE EMERGENCY FILL LINE.

REFERENCE DWGS.:

9321-C-2016 FLOW DIAGRAM SYMBOLS
9321-F-2258 FUEL OIL, ST'G AIR & JACKET WTR. PIPING SHT. #1
9321-F-2259 DIESEL GEN. BLDG. F.O., STARTING AIR & JACKET WTR PIPING SHT. #2
A20611 REPLACEMENT OF PRESSURE SWITCHES ON SECONDARY FUEL OIL FILTERS- DIESEL GENERATORS #21 #22 & #23

CLASS 1 PIPING

WHOLE SYSTEM CLASS 1 EXCEPT TRUCK LOADING LINE INTO FUEL STORAGE TANKS

TIC QUALITY GROUP A,B,C AND SEISMIC BOUNDARIES EXTEND TO THE FIRST SEISMIC SUPPORT/RESTRAINT BEYOND THE BOUNDARIES SHOWN.

NOTE

EVERYTHING ON THIS DRAWING IS PART OF THE EMERGENCY DIESEL GENERATOR AUXILIARY SYSTEMS DESCRIBED AS PART OF ON-SITE EMERGENCY A.C. POWER SYSTEM LISTED IN EXHIBIT A, CI-240-1

THIS DRAWING CONTAINS ITEMS WHICH MUST BE CONTROLLED WITHIN ENTERGY AS

"CLASS A " ITEMS PER THE QAPD

SYSTEM INTENDED FUNCTION BOUNDARY

COMPONENTS SUBJECT TO AMR

FUEL OIL SYSTEM AMM-21

REV	DESCRIPTION	DATE	BY	CHK'D	APP.
39	INCORPORATED DRN-05-03367, ER IP2-05-16902		GH		

REVISIONS

DATE	CHR.	SUPV.	DESIGN MGR.	CHIEF DESIGN ENG.	DISC. ENG.	ENG. MGR.
5/14/87	J.M.		W.J.KING 5-14-87			

REVIEW APPROVALS

DRWN. BY GIBBS&HILL | SCALE NONE | REC'D

TITLE: FLOW DIAGRAM FUEL OIL TO DIESEL GENERATORS

Entergy Nuclear Northeast

STATION INDIAN POINT

DWG. NO. 9321-F-2030-39 MY

NO.	DATE	DESCRIPTION	BY	ENG	CHK	APP
0	1-19-07	.	.	.	.	.

REVISIONS

LRA-9321-2030-0

CAD FILE LRA-9321-2030_39.DGN

RASTER FILE 9321-2030_39.CAL

9321-F-2035

1/4" PNEUMATIC SEAL

DETAIL "A"

TO RAD.MONITOR #5976 SEE DWG.8241648

TO SANDBLASTER DEGREASER & DECONTAM.ROOM

M & O BLDG.

WASTE HOLD UP TANK PIT

FUEL STORAGE BUILDING

3/4" SA-21-41

1/2" FOR CONT. SEE DETAIL "A"

FAN ROOM

CONTAINMENT BUILDING

68' EL PAB PIPE TUNNEL

PRIMARY AUXILIARY BUILDING

CONTROL BUILDING

FIRST WELD FROM PENETRATION

CP CLASS I

H.C. EL.95'-0"

3/4" STA. AIR

DWGS-SEE DWG. 9321-F-2746

CONVENTIONAL PLANT STATION AIR HEADER

4" STATION AIR TIE TO UNIT #1 DWG.A257429

2" STATION AIR SUPPLY FROM UNIT #1 DWG.A257429

3" EMERGENCY SUPPLY TO INSTRUMENT AIR HEADER SYS. & EMERGENCY INSTRUMENT AIR SYSTEM. SEE DWG. 9321-F-2036

4" DRIP POCKET

TEMP.PRESS. TAP CONN.

VENT

INLET AIR FILTER

AFTER COOLER

INTERCOOLER

650 SCFM STATION AIR COMPRESSOR (2 STAGE)

STATION AIR RECEIVER

EXPANSION JOINT (SA-22)

3" DRIP POCKET

TO PALL FILTER INST.AIR BACK UP FOR MBPB CONTROLS DWG.9321-F-2036

1/2" EQUALIZING LINE

CONVENTIONAL PLANT-STATION AIR HEADER

AUX. FEED PUMP BLDG.

INTAKE STRUCTURE

CONVENTIONAL PLANT
T.G. BLDG. & HTR. BAY

CLASS I PIPING

DOUBLE ISOLATION VALVE THROUGH CONTAINMENT INCLUDING ISOLATION VALVE SEAL WATER SUPPLY.

THE QUALITY GROUP A,B,C AND SEISMIC BOUNDARIES EXTEND TO THE FIRST SEISMIC SUPPORT/RESTRAINT BEYOND THE BOUNDARIES SHOWN.

SYSTEM INTENDED FUNCTION BOUNDARY

COMPONENTS SUBJECT TO AMR

COMPRESSED AIR SYSTEMS AMM-14

REFERENCE DRAWINGS

U.E.&C. DWG. NO.	DESCRIPTION
9321-F-2113	TURB. BLDG. & HTR. BAY-STA.& INSTR. AIR PIP'G SHT. #1
9321-F-2114	TURB. BLDG. & HTR. BAY-STA.& INSTR. AIR PIP'G SHT. #2
9321-F-2115	TURB. BLDG. & HTR. DAY STA.& INSTR. AIR PIP'G SHT. #3
9321-C-2016	FLOW DIAGRAM SYMBOLS
9321-F-2687	CONTAINMENT BLDG SERVICE AIR CITY WATER PIPING

THIS DRAWING CONTAINS ITEMS WHICH MUST BE CONTROLLED WITHIN QUALITY ASSURANCE

"CLASS A" ITEMS

PER CT-240-1

COMPUTER GENERATED DRAWING NOT TO BE HAND REVISED

REVISION						
L.A. 12/20/99	THIS REVISION IS NON CLASS PER CI-240-1 UPDATED DWG. PER CRS #199904407, OR FILE NO. Q-2602 RCLEASCD AS DUALT P/N 69982-02 GB/SW 12/20/99	7/30/87	E.C.	F.A.	W.J.KING 7-30-87			TITLE: FLOW DIAGRAM STATION AIR -	STATION INDIAN POINT
DCO								UFSAR FIGURE No. 9.6-7	
ENG		DATE	LKW.	SUPV.	DESIGN ENG	DISC. ENG.	ENG. MGR.	DWN. BY GIBBS & HILL	SCALE NONE REC'D
			REVIEW		APPROVALS				DWG. NO. 9321-2035-43 MY

NO.	DATE	DESCRIPTION	BY	ENG	CHK	APP
0	1-19-07					

REVISIONS

LRA-9321-2035-0

CAD FILE LRA-9321-2035_43.DGN

MASTER FILE 9321-2035_43.CAL

9321-F-2036-95

CLASS I PIPING

1. INSTRUMENT AIR FROM INLET AIR FILTER TO NUCLEAR SERVICES & PENETRATION & WELD CHANNEL PRESSURIZATION SYSTEM.
2. TO SECONDARY PLANT SERVICES THROUGH RESTRICTION ORIFICE ONLY.
3. EMERGENCY MAKE UP TO PENETRATION & WELD CHANNEL PRESSURIZATION SYSTEM FROM INLET OF CHECK VALVE IA-17.
4. INSTRUMENT AIR FOR OUTSIDE SERVICES TO AUX FEED PUMP HOUSE.
5. EMERGENCY STATION AIR FROM INLET OF IA-20-2 INSTRUMENT AIR HEADER.
6. INSTRUMENT AIR SUPPLY TO THE SERVICE WATER PUMP SCREEN BY-PASS GATE AIR RECEIVER & TO SCREEN WASH CONTROL & TO HYPOCHLORITE SYSTEM.
7. THE QUALITY GROUP A,B,C AND SEISMIC BOUNDARIES EXTEND TO THE FIRST SEISMIC SUPPORT/RESTRAINT BEYOND THE BOUNDARIES SHOWN.

NOTE:

ALL 1" SOURCE VALVE TO BE NO. IA-40

* ~ FURNISHED BY OTHERS

EVERYTHING ON THIS DRAWING IS PART OF THE INSTRUMENT AIR SYSTEM (IA) AS LISTED IN EXHIBIT A, CI-240-1. EXCEPT AS SPECIFICALLY INDICATED HEREIN:

NOTE

7. THESE LINES ARE PART OF THE STATION AIR SUPPLY SYSTEM WHICH IS NOT LISTED IN CI-240-1.
8. THE LINES BEYOND THIS POINT ARE OUTSIDE THE INSTRUMENT AIR BOUNDARIES AS DESCRIBED IN CI-240-1 EXHIBIT "A".

WCPPS — WELD CHANNEL & PENETRATION PRESSURIZATION

REFERENCE DRAWINGS

DRAWING NO.	TITLE
9321-C-2016	FLOW DIAGRAM SYMBOLS
9321-F-2113	STATION & INSTR. AIR PIPING SH.1
9321-F-2114	STATION & INSTR. AIR PIPING SH.2
9321-F-2115	STATION & INSTR. AIR PIPING SH.3
9321-F-2116	STATION & INSTR. AIR PIPING SH.4
A237247	STATION & INSTR. AIR PIPING SH.5
A242688	CONTAINMENT BLDG & AUX BFP HOUSE
A242656	PAB,DES.GEN BLDG,NUCL TK PAD

THIS DRAWING CONTAINS ITEMS WHICH MUST BE CONTROLED WITHIN ENTERGY NUCLEAR AS "CLASS A" ITEMS PER THE QAPD

COMPUTER GENERATED DRAWING NOT TO BE HAND REVISED

SYSTEM INTENDED FUNCTION BOUNDARY

COMPONENTS SUBJECT TO AMR

COMPRESSED AIR SYSTEMS AMM-14

REVISION

USE .1 SIZE TEXT ONLY

V. MYERS 8/04/03 — 94

THIS REVISION IS CLASS "A" PER THE QAPD. UPDATED DRAWING PER MOD. PROC. # FFX-91-07049-M, DMD9321-2036-BC-00. RELEASE AS CONSTRUCTED. P/N 07049-91 SW/VM

V. MYERS 08/29/03 — 95

THIS REVISION IS CLASS "A" PER THE QAPD. DRAWING REVISED TO SHOW WORK COMPLETED IN FIELD PER MOD. PROC. No. MFI-88-01408-M GMT SHT. 86. INCORPORATED DMD9321-2036-BG. RELEASE "AS-CONSTRUCTED".

P/N: 01408-88

S. O'BRIEN 08/29/03

REVISION SIGNATURES

REV	DES	ENG
95	S. O'BRIEN 08-29-03	V. MYERS 08-29-03

DWG. NO. 9321-F-2036-95

DWG. SIZE A — DWG. TYPE COMPANY

CON EDISON — STATION INDIAN POINT

BORO: WESTCHESTER

TITLE: FLOW DIAG. INSTR. AIR CONTROL BLDG. CONVENTIONAL PLANT, ETC. - UFSAR FIGURE No. 9.6-6

APPROVALS

ENGINEERING

ENGINEER MANAGER:

DISCIPLINE ENGINEER:

DESIGN

DESIGN MANAGER: W.J. KING 7-30-87

DESIGN SUPERVISOR: F.A. 7-30-87

DRAWN BY: GIBBS & HILL

DESIGN CHECKER: L.H. 7-30-87

SCALE: NONE — DISCIPLINE CODE: MY

NO.	DATE	DESCRIPTION	BY	ENG	CHK	APP
0	1-19-07	.	.	.	.	.

REVISIONS

LRA-9321-2036-0

CAD FILE LRA-9321-2036_95.DGN

RASTER FILE 9321-2036_95.CAL

9321-F-2036-95

REV	DESCRIPTION	DATE	BY	CHK'D	APP.
50	INCORPORATED DRN-04-04082, ER-IP2-04-29724		GH		

REVISIONS

CHEMICAL FEED SYSTEM

COMPUTER GENERATED DRAWING NOT TO BE HAND REVISED

SYSTEM INTENDED FUNCTION BOUNDARY

COMPONENTS SUBJECT TO AMR

AUXILIARY FEEDWATER SYSTEM AWM-24

NO.	DATE	DESCRIPTION	BY	ENG	CHK	APP
0	5-26-06	REVISIONS				

LRA-9321-2038-0

CAD FILE LRA-9321-2038_50.DGN

MASTER FILE 9321-2038_50.CAL

MECH.

9321-F-2041

THOSE PORTIONS OF THIS DRAWING IDENTIFIED AS SEISMIC CLASS I CONSTITUTE THE MAIN STEAM TRAP & ATMOS. DUMP DRAINS SYSTEM PORTION OF THE SECONDARY SYSTEM LISTED IN EXHIBIT "A",CI-240-1. WORK THIS DRAWING MAIN STEAM FLOW DIAGRAM 9321-F-2017.

CLASS I PIPING

INAP PIPING FROM MAIN STEAM HEADER & NON RETURN VALVES TO AND INCLUDING TRAP BYPASS VALVES & TRAPS MST-1,-2,-3,-4,-5,-6,-8,-9,-10,-12,-13, -14,-16,-18,-20,-64,-65,-67,-68 & 69.

REFERENCE DRAWINGS

1. FLOW DIAGRAM SYMBOLS 9321-C-2016
2. MAIN STEAM FLOW DIAGRAM 9321-F-2017
3. MOISTURE SEPARATOR-REHEATER UNAIN & UNIT FLOW DIAGRAM 9321-F-2023
4. MAIN STEAM SYSTEM TRAP PIPING DIT. NO.1 9321-F-2129
5. MAIN STEAM FLOW DIAGRAM A235308
6. THE QUALITY GROUP A,B,C AND SEISMIC BOUNDARIES EXTEND TO THE FIRST SEISMIC SUPPORT/RESTRAINT BEYOND THE BOUNDARIES SHOWN.

THIS DWG. TO BE REVISED ONLY IN AUTOCAD

REV	DESCRIPTION	DATE	BY	CHK'D	APP.
34	INCORPORATED DRN-05-05821, ER-05-2-047		DM		

REVISION: L.ALIBUTO 12/20/99 DES; ENG — THIS REVISION IS NON CLASS AS PER CI-240-1. DWG UPDATED PER ORS NO. 199904331 DIR FILE NO. D-2601 DWG UPDATED PER ORS NO. 199905321 DIR FILE NO. D-2601S RELEASED AS BUILT. P.N. 69982-CD GB/SW

D.P. 1/13 / 88

	F.A.	W.J.KING/G.C. 1 13 88
DES'GN ENG	DISC. ENG.	ENG. MGR.
REVIEW	APPROVALS	

TITLE: FLOW DIAGRAM MAIN STEAM TRAPS SHEET NO.1

Entergy Nuclear Northeast

STATION: INDIAN POINT

DWN. BY GIBBS&HILL | SCALE NONE | REC'D

DWG.NO. 9321-F-2041-34 MY

SYSTEM INTENDED FUNCTION BOUNDARY

COMPONENTS SUBJECT TO AMR

AUXILIARY FEEDWATER SYSTEM AMM-24

MAIN STEAM SYSTEM AMM-23

NO.	DATE	DESCRIPTION	BY	ENG	CHK	APP
0	1-19-07					

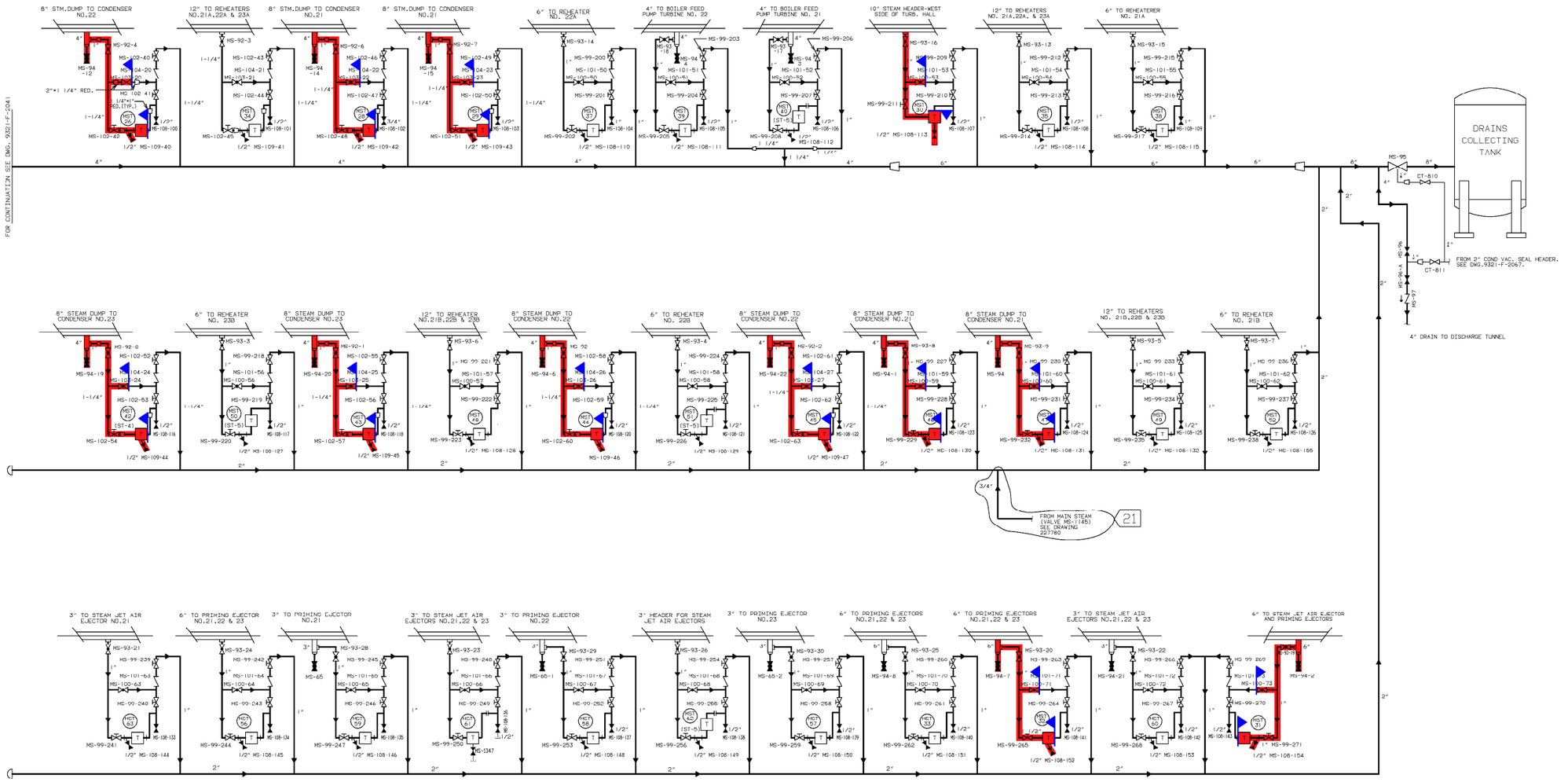
REVISIONS

LRA-9321-2041-0

CAD FILE: LRA-9321-2041_34.DGN

RASTER FILE: 9321-2041_34.CAL

MECH.



NOTES:

1. THE QUALITY GROUP A,B,C AND SEISMIC BOUNDARIES EXTEND TO THE FIRST SEISMIC SUPPORT/RESTRAINT BEYOND THE BOUNDARIES SHOWN.

FOR REFERENCE DWG'S. SEE 9321-F-2041

SYSTEM INTENDED FUNCTION BOUNDARY

COMPONENTS SUBJECT TO AMR

MAIN STEAM SYSTEM AMM-23

THIS DWG. TO BE REVISED ONLY IN AUTOCAD.

REVISION							
DES	THIS REVISION IS NON-CLASS AS PER THE QAPD. UPDATED DWG. AS PER MOD. PROC. DCP-200202552-M, DMD9321-2042-AD	10/30/86	D.P.	F.A.	W.J.KING 10-31-86		
RADVANSKY 03/04/03	TSSUFD ASBUILT	DATE	CKR.	SUPV.	DESIGN ENG	DISC. ENG	ENG. MGR.
ENG	P.N. 02552-02 MPH		REVIEW		APPROVALS		

TITLE: FLOW DIAGRAM
MAIN STREAM TRAPS
SHEET NO. 2

NONE
DRWN. BY | SCALE | REC'D

Con Edison

STATION INDIAN POINT

DWG. NO. 9321-F-2042-21 MY

NO.	DATE	DESCRIPTION	BY	ENG	CHK	APP
0	1-19-07	.	.	.	.	.

REVISIONS

LRA-9321-2042-0

CAD FILE LRA-9321-2042_21.DGN

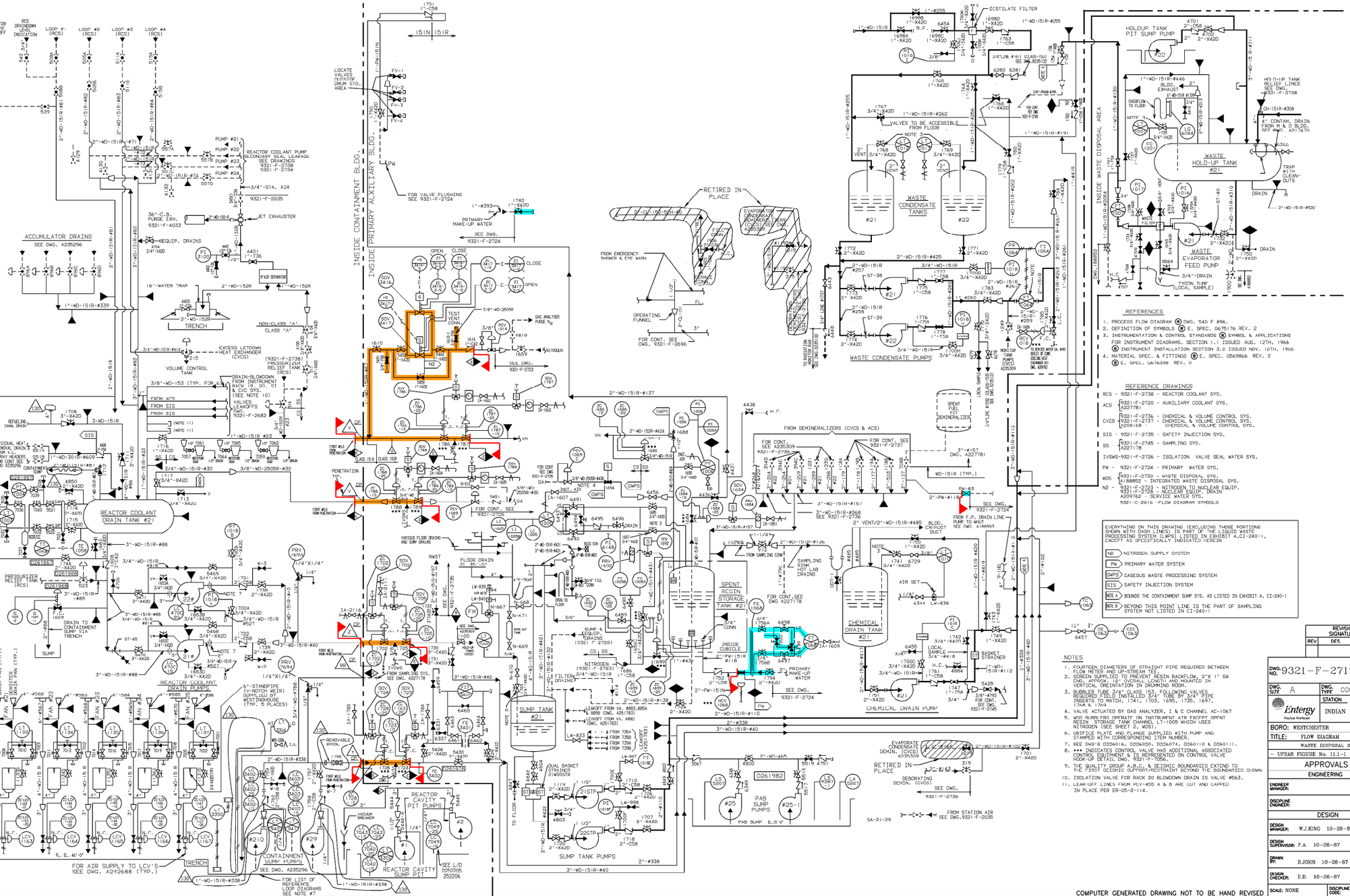
MASTER FILE 9321-2042_21.CAL

9321-F-2719-130

REV	DESCRIPTION	DATE	BY	CHK'D	APP.
130	INCORPORATED DRN-05-06213, & DRN-06-02422, ER-04-2-234		GH		

REVISIONS

REVISION
USE .1 SIZE TEXT ONLY



REFERENCES

1. PROCESS FLOW DIAGRAM (M) DWG. 540 F #96.
2. DEFINITION OF SYMBOLS (E) E. SPEC. 6676176 REV. 2
3. INSTRUMENTATION & CONTROL STANDARDS (E) SYMBOL & APPLICATIONS FOR INSTRUMENT DIAGRAMS. SECTION 1.1 ISSUED AUG. 12TH, 1966 (B) INSTRUMENT INSTALLATION SECTION 3.0 ISSUED NOV. 16TH, 1966
4. MATERIAL SPEC. & FITTINGS (E) E. SPEC. 0569866 REV. 2 (B) E. SPEC. 6676398 REV. 0

REFERENCE DRAWINGS

RCS - 9321-F-2738 - REACTOR COOLANT SYS.
ACS - 9321-F-2720 - AUXILIARY COOLANT SYS. A227781
CVCS - 9321-F-2736 - CHEMICAL & VOLUME CONTROL SYS. 9321-F-2737 - CHEMICAL & VOLUME CONTROL SYS. A208168 - CHEMICAL & VOLUME CONTROL SYS.
SIS - 9321-F-2735 - SAFETY INJECTION SYS.
SS - 9321-F-2745 - SAMPLING SYS. A227178
IVSWS-9321-F-2726 - ISOLATION VALVE SEAL WATER SYS.
PW - 9321-F-2724 - PRIMARY WATER SYS.
WDS - 9321-F-2730 - WASTE DISPOSAL SYS. 188852 - INTEGRATED WASTE DISPOSAL SYS.
N2 - 9321-F-2293 - NITROGEN TO NUCLEAR EQUIP. 9321-F-2728 - NUCLEAR EQUIP. DRAIN A209762 - SERVICE WATER SYS.
9321-E-2016 -FLOW DIAGRAM SYMBOLS

EVERYTHING ON THIS DRAWING (EXCLUDING THOSE PORTIONS SHOWN WITH DASH LINES) IS PART OF THE LIQUID WASTE PROCESSING SYSTEM (LWPS) LISTED IN EXHIBIT A,CI-240-1, EXCEPT AS SPECIFICALLY INDICATED !CRCIN

- N2 NITROGEN SUPPLY SYSTEM
- PW PRIMARY WATER SYSTEM
- GWPS GASEOUS WASTE PROCESSING SYSTEM
- SIS SAFETY INJECTION SYSTEM
- NOTE A BOUNDS THE CONTAINMENT SUMP SYS. AS LISTED IN EXHIBIT A, CI-240-1
- NOTE B BEYOND THIS POINT LINE IS THE PART OF SAMPLING SYSTEM NOT LISTED IN CI-240-1

SYSTEM INTENDED FUNCTION BOUNDARY

COMPONENTS SUBJECT TO AMR

- PRIMARY MAKEUP WATER SYSTEM AMM-06
- PLANT DRAINS AMM-08

NOTES

1. FOURTEEN DIAMETERS OF STRAIGHT PIPE REQUIRED BETWEEN FLOW METER AND UP-STREAM TEE.
2. SCREEN SUPPLIED TO PREVENT RESIN BACKFLOW, 2"X 1" SW CND, APPROX. 12" OVERALL LENGTH AND MOUNTED IN VERTICAL ORIENTATION IN DRUMMING ROOM.
3. BUBBLER TUBE 3/4" CLASS 153, FOLLOWING VALVES REQUIRED FIELD INSTALLED 3/4" TUBE BY 3/4" PIPE INSERTS TO MATCH. 1741, 1703, 1695, 1735, 1697, 1744 & 1746
4. VALVE ACTUATED BY GAS ANALYZER, I & C CHANNEL AC-1067
5. WDS RUNS FRN OPERATE ON INSTRUMENT AIR EXCEPT SPENT RESIN STORAGE TANK CHANNEL LT-1005 WHICH USES NITROGEN (SEE SHEET 2, #283).
6. ORIFICE PLATE AND FLANGE SUPPLIED WITH PUMP AND STAMPED WITH CORRESPONDING ITEM NUMBER.
7. SEE DWG'S D0260416, D0260609, D0260764, D0601101 & D0601111.
8. ••• INDICATES CONTROL VALVE HAS ADDITIONAL ASSOCIATED CONTROL EQUIPMENT & IS REPRESENTED ON CONTROL VALVE HOOK-UP DETAIL DWG. 9321-F-7056.
9. THE QUALITY GROUP A,B,C, & SEISMIC BOUNDARIES EXTEND TO THE FIRST SEISMIC SUPPORT/RESTRAINT BEYOND THE BOUNDARIES SHOWN
10. ISOLATION VALVE FOR RACK 20 BLOWDOWN DRAIN IS VALVE #563.
11. LEAK-OFF LINES FROM PCV-405 A & B ARE CUT AND CAPPED IN PLACE PER ER-05-2-114.

REVISION SIGNATURES		
REV	DES	ENG

DWG. NO.	9321-F-2719-130
DWG. SIZE	A
DWG. TYPE	COMPANY
STATION	INDIAN POINT
BORO:	WESTCHESTER
TITLE:	FLOW DIAGRAM WASTE DISPOSAL SYSTEM
– UFSAR FIGURE No. 11.1-1 (SHT. 1)	

APPROVALS

ENGINEERING	
ENGINEER MANAGER:	
DISCIPLINE ENGINEER:	
DESIGN	
DESIGN MANAGER:	W.J.KING 10-26-87
DESIGN SUPERVISOR:	F.A. 10-26-87
DRAWN BY:	B.JOHN 10-26-87
DESIGN CHECKER:	E.D. 10-26-87
SCALE: NONE	DISCIPLINE CODE: MY

NO.	DATE	DESCRIPTION	BY	ENG	CHK	APP
0	10-18-06					

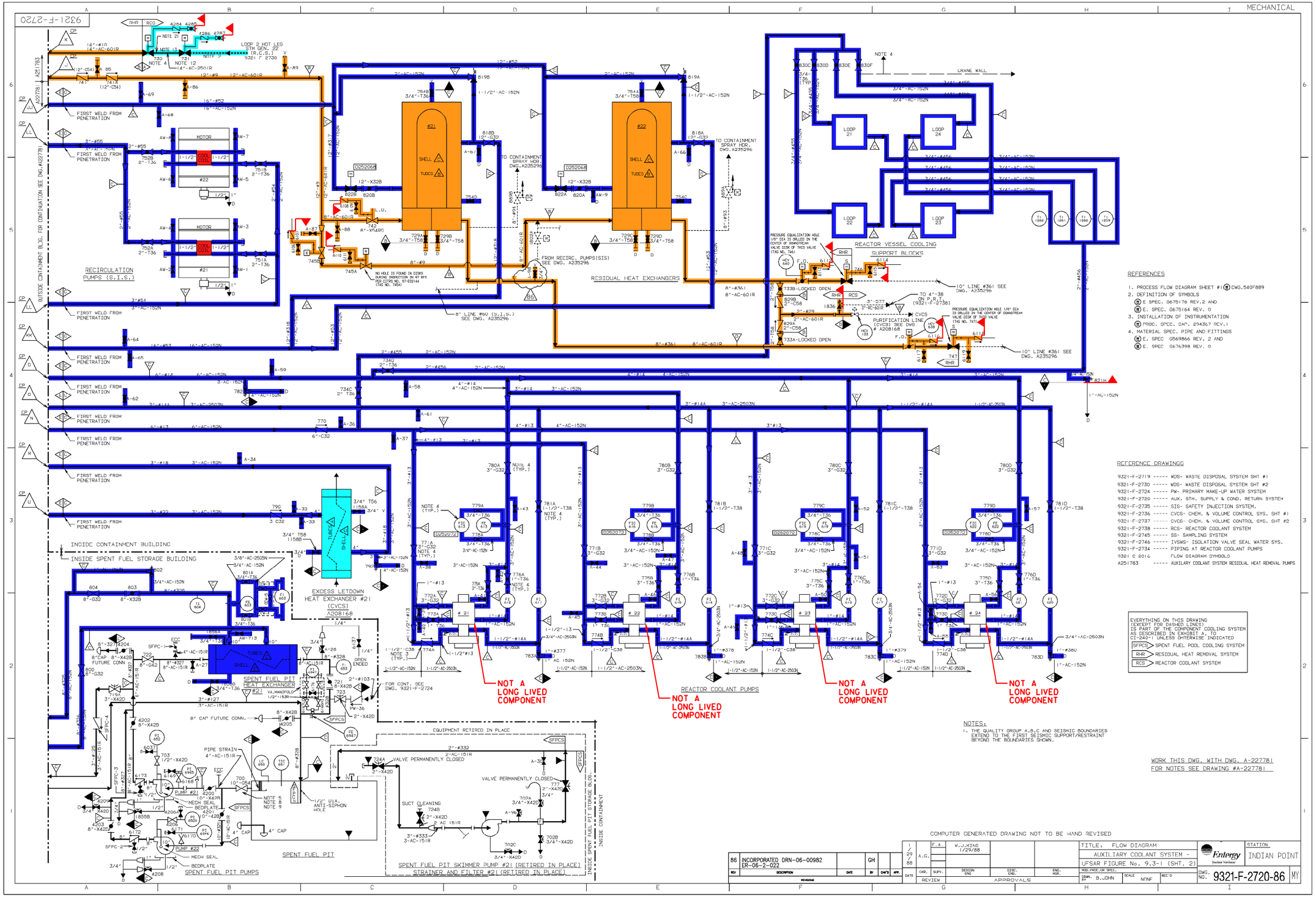
REVISIONS

LRA-9321-2719-0

CAD FILE LRA-9321-2719_130.DGN
RASTER FILE 9321-2719_130.CAL

COMPUTER GENERATED DRAWING NOT TO BE HAND REVISED

9321-F-2719-130



REFERENCES

1. PROCESS FLOW DIAGRAM SHEET #1 (R) DWG.540F889
2. DEFINITION OF SYMBOLS
   (R) E SPEC. G675176 REV.2 AND
   (R) E. SPEC. G675164 REV. 0
3. INSTALLATION OF INSTRUMENTATION
   (R) PROC. SPEC. CAP. 294367 REV.1
4. MATERIAL SPEC. PIPE AND FITTINGS
   (R) E. SPEC G569866 REV. 2 AND
   (R) E. SPEC G676398 REV. 0

REFERENCE DRAWINGS

9321-F-2719 ----- WDS- WASTE DISPOSAL SYSTEM SHT #1
9321-F-2730 ----- WDS- WASTE DISPOSAL SYSTEM SHT #2
9321-F-2724 ----- PW- PRIMARY MAKE-UP WATER SYSTEM
9321-F-2720 ----- AUX. STM. SUPPLY & COND. RETURN SYSTEM
9321-F-2735 ----- SIS- SAFETY INJECTION SYSTEM.
9321-F-2736 ----- CVCS- CHEM. & VOLUME CONTROL SYS. SHT #1
9321-F-2737 ----- CVCS- CHEM. & VOLUME CONTROL SYS. SHT #2
9321-F-2738 ----- RCS- REACTOR COOLANT SYSTEM
9321-F-2745 ----- SS- SAMPLING SYSTEM
9321-F-2746 ----- IVSWS- ISOLATION VALVE SEAL WATER SYS.
9321-F-2734 ----- PIPING AT REACTOR COOLANT PUMPS
9321 C 2016 FLOW DIAGRAM SYMBOLS
A251783 ----- AUXILARY COOLANT SYSTEM RESIDUAL HEAT REMOVAL PUMPS

EVERYTHING ON THIS DRAWING (EXCEPT FOR DASHED LINES) IS PART OF THE COMPONENT COOLING SYSTEM AS DESCRIBED IN EXHIBIT A. TO CI-240-1 UNLESS OHTERWISE INDICATED

SFPCS	SPENT FUEL POOL COOLING SYSTEM
RHR	RESIDUAL HEAT REMOVAL SYSTEM
RCS	REACTOR COOLANT SYSTEM

NOTES:

1. THE QUALITY GROUP A,B,C AND SEISMIC BOUNDARIES EXTEND TO THE FIRST SEISMIC SUPPORT/RESTRAINT BEYOND THE BOUNDARIES SHOWN.

WORK THIS DWG. WITH DWG. A-227781
FOR NOTES SEE DRAWING #A-227781

SYSTEM INTENDED FUNCTION BOUNDARY

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

COMPUTER GENERATED DRAWING NOT TO BE HAND REVISED

REV	DESCRIPTION	DATE	BY	CHK'D	APP.
86	INCORPORATED DRN-06-00982 ER-06-2-022		GH		

REVISIONS

DATE	CKR.	SUPV.	DESIGN ENG	DISC. ENG.	ENG. MGR.
1/29/88	A.G.	F.A.	W.J.KING 1/29/88		

REVIEW — APPROVALS

TITLE: FLOW DIAGRAM
AUXILIARY COOLANT SYSTEM -
UFSAR FIGURE No. 9.3-1 (SHT. 2)

MED.PROC.OR SPEC.
DRWN. BY B.JOHN
SCALE NONE
REC'D

Entergy Nuclear Northeast

STATION INDIAN POINT

DWG. NO. 9321-F-2720-86 MY

NO.	DATE	DESCRIPTION	BY	ENG	CHK	APP
0	11-27-06	.	.	.	.	.

REVISIONS

LRA-9321-2720-0

CAD FILE LRA-9321-2720_86.DGN
RASTER FILE 9321-2720_86.CAL

9321-F-2722

MECH

MATCH LINE, DWG. A209762

NOTES
* CLASS-NF,CLASS-SS & CLASS-CS REFER TO PIPING CLASS REFERENCED IN U.E.& C. SPEC. 9321-01-248-35-R4A AS SWN-NF,SWN-SS & SWN-CS.

** INSTRUMENT RETIRED IN PLACE.

THE QUALITY GROUP A,B,C AND SEISMIC BOUNDARIES EXTEND TO THE FIRST SEISMIC SUPPORT/RESTRAINT BEYOND THE BOUNDARIES SHOWN.

REF DWG.
9321-C-2016-----FLOW DIAGRAM SYMBOLS

EVERYTHING ON THIS DRAWING,EXCEPT AS NOTED BELOW IS PART OF NUCLEAR SERVICE WATER SYSTEM LISTED IN EXHIBIT "A",CI-240-1 EXCEPTIONS;
1.CLOSED COOLING WATER SYSTEM (BROKEN LINES).
2.ALL FEEDS TO CONVENTION PLANTS DOWN STREAM OF SWN-667 & FCV-1111&1112.
3.THE CLOSED COOLING WATER SYSTEM (SHOWN WITH BROKEN LINES) IS PART OF INSTRUMENT AIR SYSTEM (TITLED IN EXHIBIT "A", CI-240-1. WORK THIS DRAWING WITH DRAWING A209762.

21EDJC JACKET WATER COOLER (9321-F-2028)
21EDLC LUBE OIL COOLER (A207698)
22EDJC JACKET WATER COOLER (9321-F-2028)
22EDLC LUBE OIL COOLER (A207698)
23EDJC JACKET WATER COOLER (9321 F 2026)
23EDLC LUBE OIL COOLER (A207698)

INSIDE OF CONTROL BLDG.

INSTRUMENT AIR COMPRESSORS
AFTER COOLER 21IACA
22IACA AFTER COOLER

21IACCHX
22IACCHX
COOLING WATER HEAT EXCHANGERS

EXPANSION TANK
CHEMICAL TANK
SAMPLE
DRAIN

PUMP 22IACCMP
PUMP 21IACCMP
3 G.P.M.

CONTINUED FROM DRAWING 9321-2036
CONTN'D FROM DWG. 9321-2036
CONTN'D ON DWG. 9321-2030
CONTROLLER FOR CITY WATER FILL
1" CITY WATER SEE B192506
3" OVER FLOW
FOR CONT. SEE DWG.#2261940

DISCHARGE CHANNEL
OUTLINE OF MANHOLE #12355

TO TURBINE OIL COOLERS B.F. PUMP TURBINE OIL COOLERS, AND SFAI OIL COOLERS (SEE 9321-F-2033)

TO VARIOUS CONVENTIONAL PLANT SERVICES (SEE 9321-F-2033)

E.T. SERVICE WATER LINES IN PIT

FOR CONT. SEE A208368

8" STRAINER CONTINUOUS BLOWDOWN TO WASTE (RETIRED IN PLACE)

6" STRAINER CONTINUOUS BLOWDOWN TO SERVICE WATER PUMP BAY

DIESEL GEN. BUILDING

DIESEL GENERATORS
400 G.P.M. TO EACH OF 3 COOLERS
INTAKE STRUCTURE SEE 9321-F-2033
FOR NUCLEAR AND CONVENTIONAL SERVICE WATER SYSTEM

26SWPS 25SWPS 24SWPS 23SWPS 22SWPS 21SWPS
26SWT 25SWT 24SWT 23SWT 22SWT 21SWT
AUTOMATIC STRAINER (TYP.)
VACUUM BKR. (TYP)
2"-2034-SWN-SS
TYPICAL FOR SWN-502,SWN-503 SWN-504,SWN-505 & SWN-506

NOT A LONG LIVED COMPONENT

NUCLEAR SERVICE WATER PUMPS CONVENTIONAL

NOTES
- CLOSED COOLING WATER SYSTEM
- RIVER WATER SERVICE
- CONVENTIONAL PLANT SYSTEM, SEE 9321-F-2033 FOR DETAILS
- ELECTRICAL TRACED

CLASS "I" PIPING
WHOLE SYSTEM CLASS "I" EXCEPT AS NOTED BELOW:
A. IF NO DANGER OF FLOODING DISCHARGE SYSTEM FROM COOLERS IS NOT CLASS "I"
B. 16" SERVICE WATER LEAD TO VARIOUS CONVENTIONAL PLANT SERVICES DOWN-STREAM OF CONTROL VALVES FCV-1111 & FCV-1112 IS NOT CLASS "I"
C. 10" SERVICE WATER LEAD TO OIL COOLERS DOWN-STREAM OF VALVES SWN-6 AND SWN-7 IS NOT CLASS "I"

WORK THIS DWG.WITH DWG.A209762

SYSTEM INTENDED FUNCTION BOUNDARY

COMPONENTS SUBJECT TO AMR
- SERVICE WATER SYSTEMS AMM-12
- EMERGENCY DIESEL GENERATOR SYSTEM AMM-17

REV	DESCRIPTION	DATE	BY	CHK'D	APP.
114	INCORPORATED DRN-05-04009 ER-05-2-059		JF		

REVISIONS

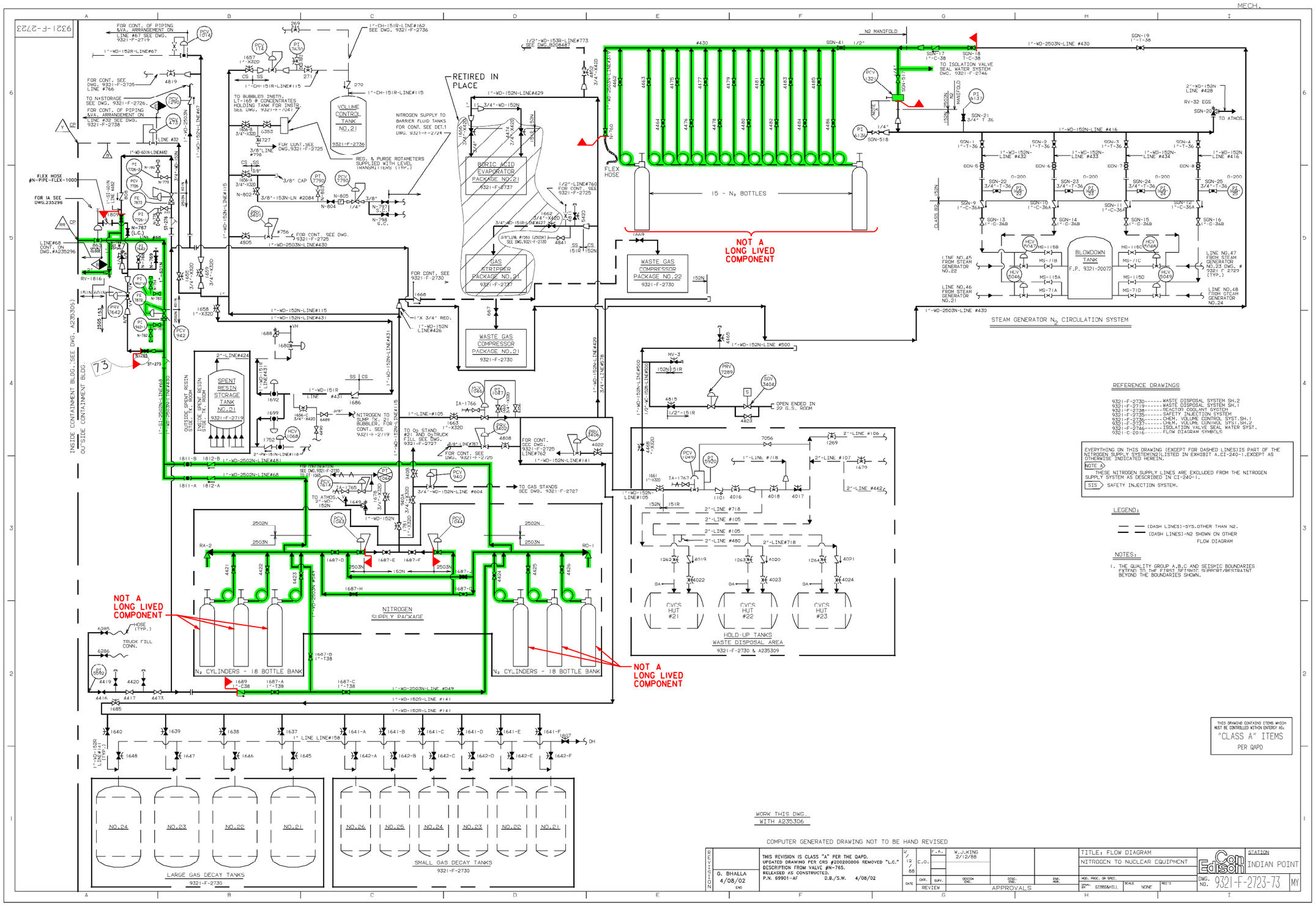
F.A. W.J.KING 12-16-87
W.S. 12/16/87
DES'R. SUPV. DESIGN ENG. DISC. ENG. ENG. MGR.
DATE REVIEW APPROVALS

TITLE;FLOW DIAGRAM SERVICE WATER SYSTEM NUCLEAR STEAM SUPPLY PLANT SHEET 1 OF 2 - UFSAR FIGURE No. 9.6-1 (SHT. 1)
DRWN. BY GIBBSW-ILL SCALE NONE MED'D

Entergy Nuclear Northeast
STATION INDIAN POINT
DWG-NO. 9321-F-2722-114 MY

NO.	DATE	DESCRIPTION	BY	ENG	CHK	APP
0	11-27-06	REVISIONS LRA-9321-2722-0				

CAD FILE LRA-9321-2722_114.DGN
MASTER FILE 9321-2722_114.CAL



REFERENCE DRAWINGS

9321-F-2730------WASTE DISPOSAL SYSTEM SH.2
9321-F-2719------WASTE DISPOSAL SYSTEM SH.1
9321-F-2736------REACTOR COOLANT SYSTEM
9321-F-2735------SAFETY INJECTION SYSTEM
9321-F-2736------CHEM. VOLUME CONTROL SYST.SH.1
9321-F-2737------CHEM. VOLUME CONTROL SYST.SH.2
9321-F-2746------ISOLATION VALVE SEAL WATER SYST.
9321-C-2016------FLOW DIAGRAM SYMBOLS

EVERYTHING ON THIS DRAWING (EXCEPT FOR DASHED LINES)IS PART OF THE NITROGEN SUPPLY SYSTEM(N2)LISTED IN EXHIBIT A.CI-240-1.EXCEPT AS OTHERWISE INDICATED HEREIN.

NOTE A

THESE NITROGEN SUPPLY LINES ARE EXCLUDED FROM THE NITROGEN SUPPLY SYSTEM AS DESCRIBED IN CI-240-1.

SIS SAFETY INJECTION SYSTEM.

LEGEND:

(DASH LINES)-SYS.OTHER THAN N2.
(DASH LINES)-N2 SHOWN ON OTHER FLOW DIAGRAM

NOTES:

1. THE QUALITY GROUP A,B,C AND SEISMIC BOUNDARIES EXTEND TO THE FIRST SEISMIC SUPPORT/RESTRAINT BEYOND THE BOUNDARIES SHOWN.

SYSTEM INTENDED FUNCTION BOUNDARY

COMPONENTS SUBJECT TO AMR

NITROGEN SYSTEMS AMM-10

THIS DRAWING CONTAINS ITEMS WHICH MUST BE CONTROLLED WITHIN ENTERGY AS:
"CLASS A" ITEMS
PER QAPD

WORK THIS DWG. WITH A235306

COMPUTER GENERATED DRAWING NOT TO BE HAND REVISED

REVISION								
	G. BHALLA 4/08/02 ENG	THIS REVISION IS CLASS "A" PER THE QAPD. UPDATED DRAWING PER CRS #200200806 REMOVED "L.C." DESCRIPTION FROM VALVE #N-765. RELEASED AS CONSTRUCTED. P.N. 69901-AF D.B./S.W. 4/08/02	2/12/88	C.G.	F.A. W.J.KING 2/12/88			TITLE: FLOW DIAGRAM NITROGEN TO NUCLEAR EQUIPMENT
			DATE	CKR. REVIEW	SUPV.	DESIGN ENG.	DISC. ENG.	ENG. MGR.

APPROVALS

MOD. PROC. OR SPEC. DRWN. BY GIBBS&HILL SCALE NONE REC'D

Con Edison STATION INDIAN POINT

DWG. NO. 9321-F-2723-73 MY

NO.	DATE	DESCRIPTION	BY	ENG	CHK	APP
0	12-21-06	.	.	.	.	.

REVISIONS

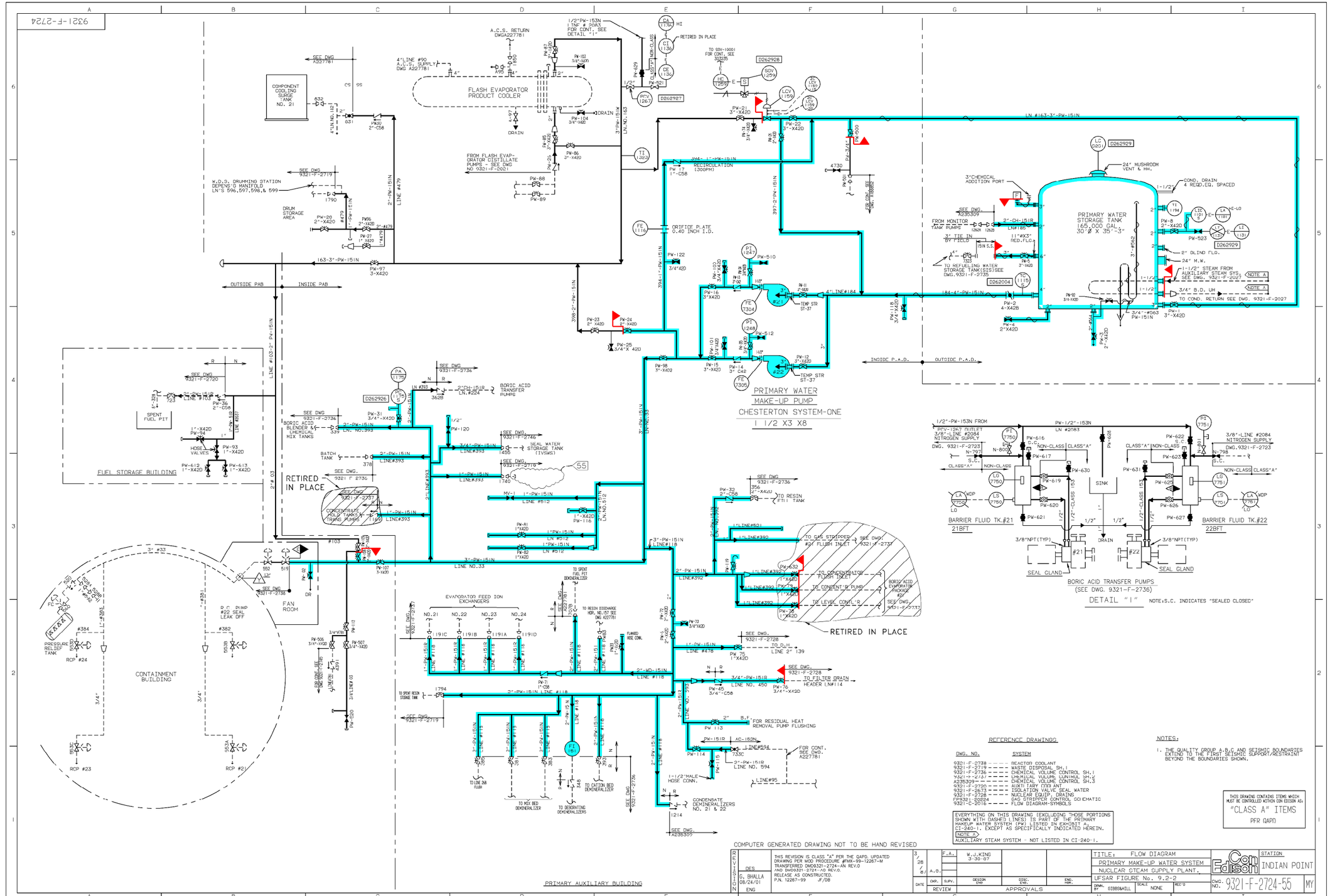
LRA-9321-2723-0

CAD FILE LRA-9321-2723_73.DGN

MASTER FILE 9321-2723_73.CAL

MECHANICAL

9321-F-2724



SYSTEM INTENDED FUNCTION BOUNDARY

COMPONENTS SUBJECT TO AMR

PRIMARY MAKEUP WATER SYSTEM AMM-06

REFERENCE DRAWINGS

DWG. NO.	SYSTEM
9321-F-2738	REACTOR COOLANT
9321-F-2719	WASTE DISPOSAL SH.1
9321-F-2736	CHEMICAL VOLUME CONTROL SH.1
9321-F-2737	CHEMICAL VOLUME CONTROL SH.2
A235309	CHEMICAL VOLUME CONTROL SH.3
9321-F-2720	AUXILIARY (TMI) ANT
9321-F-2673	ISOLATION VALVE SEAL WATER
9321-F-2728	NUCLEAR EQUIP. DRAINS
PFR9321-00224	GAS STRIPPER CONTROL SCHEMATIC
9321-E-2016	FLOW DIAGRAM-SYMBOLS

EVERYTHING ON THIS DRAWING (EXCLUDING THOSE PORTIONS SHOWN WITH DASHED LINES) IS PART OF THE PRIMARY MAKEUP WATER SYSTEM (PW) LISTED IN EXHIBIT A CI-240-1, EXCEPT AS SPECIFICALLY INDICATED HEREIN.
NOTE <1>
AUXILIARY STEAM SYSTEM - NOT LISTED IN CI-240-1.

NOTES:

1. THE QUALITY GROUP A-B-C AND SEISMIC BOUNDARIES EXTEND TO THE FIRST SEISMIC SUPPORT/RESTRAINT BEYOND THE BOUNDARIES SHOWN.

THIS DRAWING CONTAINS ITEMS WHICH MUST BE CONTROLLED WITHIN CON EDISON AS:
"CLASS A" ITEMS
PFR QAPD

COMPUTER GENERATED DRAWING NOT TO BE HAND REVISED

CHANGE NUMBER	DES	DESCRIPTION
	G. BHALLA 08/24/01 ENG	THIS REVISION IS CLASS "A" PER THE QAPD. UPDATED DRAWING PER MOD PROCEDURE #MX-99-12267-M TRANSFERRED DWG9321-2724-AN REV.0 AND DWG9321-2724-AO REV.0. RELEASE AS CONSTRUCTED. P.N. 12267-99 JF/DB

DATE	3/26/01	A.O.	F.A.	W.J.KING 3-30-07	
DWR.	SUPV.		DESIGN ENG.	DISC. ENG.	ENG. MGR.
REVIEW	APPROVALS				

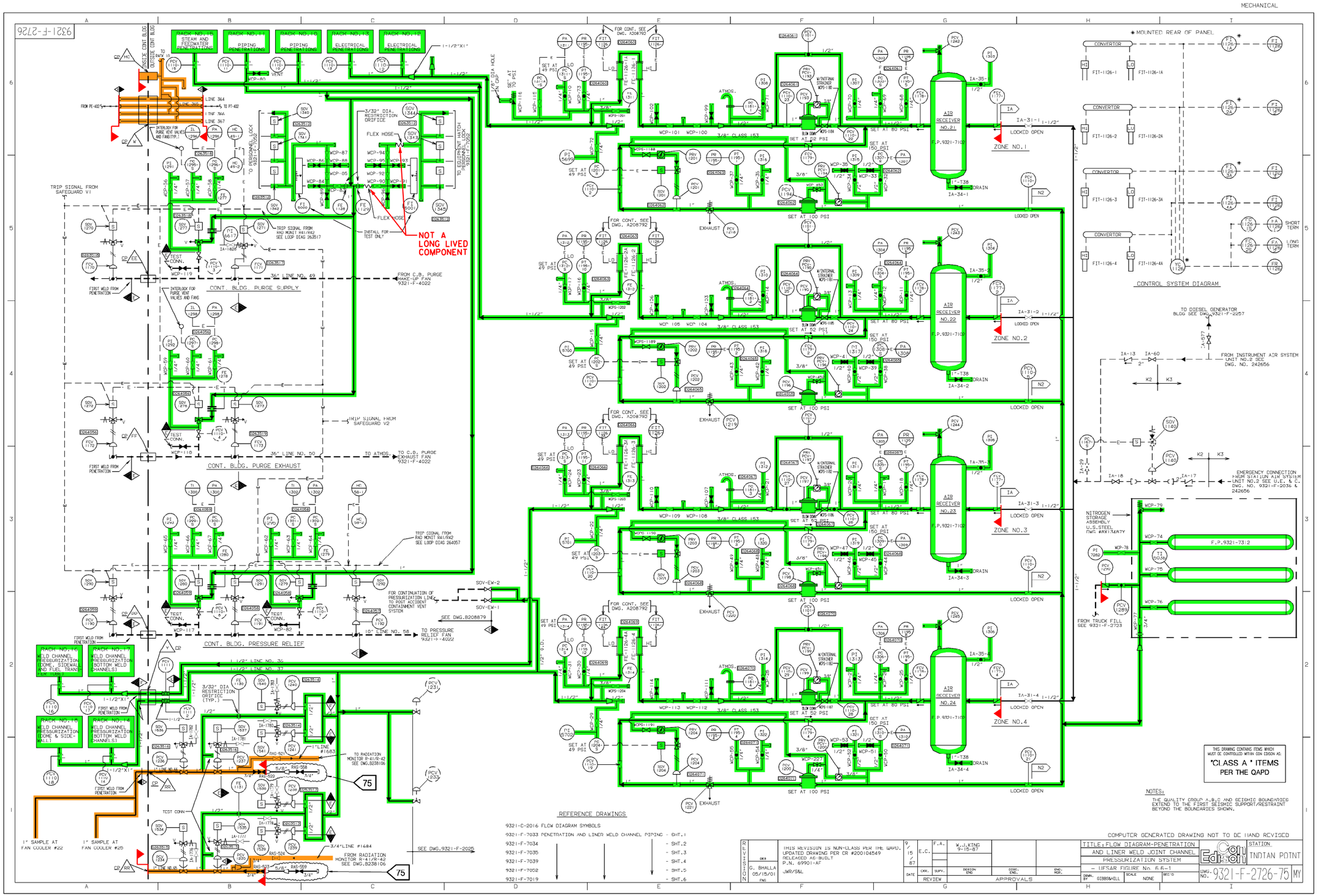
TITLE:	FLOW DIAGRAM PRIMARY MAKE-UP WATER SYSTEM NUCLEAR STEAM SUPPLY PLANT, UFSAR FIGURE No. 9.2-2
DRWN. BY	GIBBSWHILL
SCALE	NONE
DWG. NO.	9321-F-2724-55
REV'D	MY
STATION	INDIAN POINT

NO.	DATE	DESCRIPTION	BY	ENG	CHK	APP
0	10-19-06					

REVISIONS

LRA-9321-2724-0

CAD FILE: LRA-9321-2724_55.DGN
MASTER FILE: 9321-2724_55.CAL


MECHANICAL
9321-F-2726
NOT A LONG LIVED COMPONENT
CONT. BLDG. PURGE SUPPLY
CONT. BLDG. PURGE EXHAUST
CONT. BLDG. PRESSURE RELIEF
CONTROL SYSTEM DIAGRAM
ZONE NO.1
ZONE NO.2
ZONE NO.3
ZONE NO.4
AIR RECEIVER NO.21
AIR RECEIVER NO.22
AIR RECEIVER NO.23
AIR RECEIVER NO.24
REFERENCE DRAWINGS
9321-C-2016 FLOW DIAGRAM SYMBOLS
9321-F-7033 PENETRATION AND LINER WELD CHANNEL PIPING - SHT.1
9321-F-7034 - SHT.2
9321-F-7035 - SHT.3
9321-F-7039 - SHT.4
9321-F-7052 - SHT.5
9321-F-7019 - SHT.6
THIS DRAWING CONTAINS ITEMS WHICH MUST BE CONTROLLED WITHIN CON EDISON AS:
"CLASS A" ITEMS PER THE QAPD
NOTES:
THE QUALITY GROUP A,B,C AND SEISMIC BOUNDARIES EXTEND TO THE FIRST SEISMIC SUPPORT/RESTRAINT BEYOND THE BOUNDARIES SHOWN.
COMPUTER GENERATED DRAWING NOT TO BE HAND REVISED
TITLE: FLOW DIAGRAM-PENETRATION AND LINER WELD JOINT CHANNEL PRESSURIZATION SYSTEM - UFSAR FIGURE No. 6.6-1
STATION TNDTAN POINT
DWG. NO. 9321-F-2726-75 MY
G. BHALLA 05/15/01
W.J.KING 9-15-87
THIS REVISION IS NON-CLASS PER THE QAPD. UPDATED DRAWING PER CR #200104549 RELEASED AS-BUILT P.N. 69901-AF
JWR/S&L
SYSTEM INTENDED FUNCTION BOUNDARY
COMPONENTS SUBJECT TO AMR
CONTAINMENT ISOLATION SYSTEM (HPC, IVSW, WCPS & WCCPP) AMM-02
CONTAINMENT PENETRATIONS AMM-26
0 3-12-07
REVISIONS
LRA-9321-2726-0
CAD FILE LRA-9321-2726_75.DGN
MASTER FILE 9321-2726_75.CAL

9321-F-2727

MECHANICAL

OUTSIDE CONTAINMENT BLDG | INSIDE CONTAINMENT BLDG

RETIRED IN PLACE

FIELD O_2 STAND #21 PIPING

1"-OXYGEN-#589
1"-WD-152N

FILTER

VENT

CLASS 2505N

1"-#589
1"-WD-2503N

OXYGEN FILL TRUCK

1"-WD-152N
1"-WD-2503N

1"-T38S 1882S
1"-T38S 1882C
1"-C38S

3/4"-T28S 1883A
3/4"-T28S 1883B

O_2 LOW PRESS ALARM 21 RECOMBINER
LOW O_2 SUPPLY TO 21 RECOMBINER
O_2 LOW PRESS ALARM 22 RECOMBINER
LOW O_2 SUPPLY TO 22 RECOMBINER

LOCAL PANEL WINDOW 1-2
LOCAL PANEL WINDOW 1-3
LOCAL PANEL WINDOW 1-4
LOCAL PANEL WINDOW 1-5

C.C.R SHF PANEL WINDOW 4-2
RECOMBINER TEST & OPERATION

C.C.R SHF PANEL WINDOW 4 I
RECOMBINER IMMEDIATE ACTION

1"-LINE #604

1-1/2" HYDROGEN-#588

GUARD PIPE

FIELD H_2 STAND #21 PIPING

1-1/2"-#602
1-1/2-WD-152N

3/4-WD-152N

3/4"-C38S 1879C
3/4"-X32D L.C. 940B
3/4"-X32D 4488
1"-#588
1-WD-152N
1"-C38S 1881D
1"-X32D L.C. 1887A
1"-X32D 1887B
1"-C38S 1881A

3/4"-#604
3/4-WD-152N

FROM NITROGEN SUPPLY PACKAGE DWG. 9321-F-2723

REMOVABLE LINK

FROM HYDROGEN SUPPLY PACKAGE DWG. 9321-F-2730

H2 STAND #22 (SECT. A) FIELD PIPING H2 STAND #21

FILTER #600
FILTER #601

1"-#600
1"-#601

SST PIPE

WELD CHANNEL TUBING FOR PIPE PENETRATION 'O' FROM WELD CHANNEL RACK NO. 11

1/2" TUBING
1"-#571
1"-C28S 1878
CLASS "A"

WELD CHANNEL TUBING FOR PIPE PENETRATION 'SS' FROM WELD CHANNEL RACK NO. 10

FIELD PIPING EXTRA STRONG COPPER PIPE

O2 STAND #2 VENT TO ATMOS.

1-1/2"

FIELD PIPING H2 STAND #21

3/4"-#576
3/4"-#575
2"-#575
3/4"-#574
2"-#573

3/4"-X32D 4429
2"-X32D 4430
3/4"-X32D 4431

3/8"-X58I 1875-8
3/8"-X58I 1876-8
3/8"-X58I 1875-9
3/8"-X58I 1876-9

4841 3/8"-X58I
4842 3/8"-X58I
4843 3/8"-X58I
4844 3/8"-X58I

1/2" TUBING
1/4" TUBING

CLASS "A"

H2 STAND #22 (SECT. B)

1-1/2"-VENT-#567

1-1/2"-#603
1-1/2"-WD-152N

1A-18/0

1A-1747

1A-1746

1A-1744

1A-1743

1A-1742

1A-1741

1A-1740

1A-1739

1A-1738

1A-1737

1A-1745

1A-1589

D260670 D260671 D260672 D260673 D260674 D260675 D260676 D260677 D260678 D260679 D260680 D260681 D260682 D260683 D260684

40

NOTE:
ORIGINAL INFORMATION SHOWN ON THIS DWG. WAS TRANSFERRED FROM FABRICATING ENGINEERING CORP. DWG.# D-11483 (A207665)

NOTE
PER MMC-80-02-13 TWELVE SOLENOID OPERATED VALVES NUMBERS SGV-1V1A,-1V2A,-1V1B,-1V2B,-1V3A,-1V3B, 1V5A,-1V5B,-3420,-3421,-3422 & -3423 ARE INSTALLED SO THAT THE FLOW ARROW STAMPED ON THE VALVE BODY ARE OPPOSITE TO THE NORMAL FLOW TO THE CONTAINMENT HYDROGEN RECOMBINERS. THIS WAY UNDER THE POSTULATED ** ACCIDENT CONDITION THE HIGH CONTAINMENT PRESSURE WILL NOT LIFT THEM OPEN.

THE QUALITY GROUP A,B,C & SEISMIC BOUNDARIES EXTEND TO THE FIRST SEISMIC SUPPORT/RESTRAINT BEYOND THE BOUNDARIES SHOWN

REFERENCE DWG.
9321-C-2016 - FLOW DIAGRAMS SYMBOLS

THIS DRAWING CONTAINS ITEMS WHICH MUST BE CONTROLLED WITHIN CON EDISON AS:
"CLASS A" ITEMS
PER CI-240-1

COMPUTER GEN. DWG. NOT TO BE HAND REVISED.

REVISION	DES	
0	G. BHALLA 06/26/01	THIS DRAWING IS CLASS "A" AS PER THE QAPD PARTIALLY TRANSFERRED DWG9321-2727-AE REV. 0 AND DWG9321-2727-AF REV. 1 MOD. FMX-95-1092-M RELEASE AS CONSTRUCTED P/N 10912-95 JF/SW

DATE	DWN.	SUPV.	DESIGN ENG.	MECH. ENG.	ELEC. ENG.
6/19/87	K.E.				
REVIEW	APPROVALS				

W.J. KING 6-19-87

DRAWN BY B.JOHN | SCALE NONE | REC'D

TITLE: FLOW DIAGRAM
HYDROGEN RECOMBINER SYSTEM
— UFSAR FIGURE No. 6.8-5

STATION: INDIAN POINT

DWG. NO. 9321-F-2727-40 MY

SYSTEM INTENDED FUNCTION BOUNDARY

COMPONENTS SUBJECT TO AMR

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

CONTAINMENT PENETRATIONS AMM-26

NO.	DATE	DESCRIPTION	BY	ENG	CHK	APP
0	8-1-06					

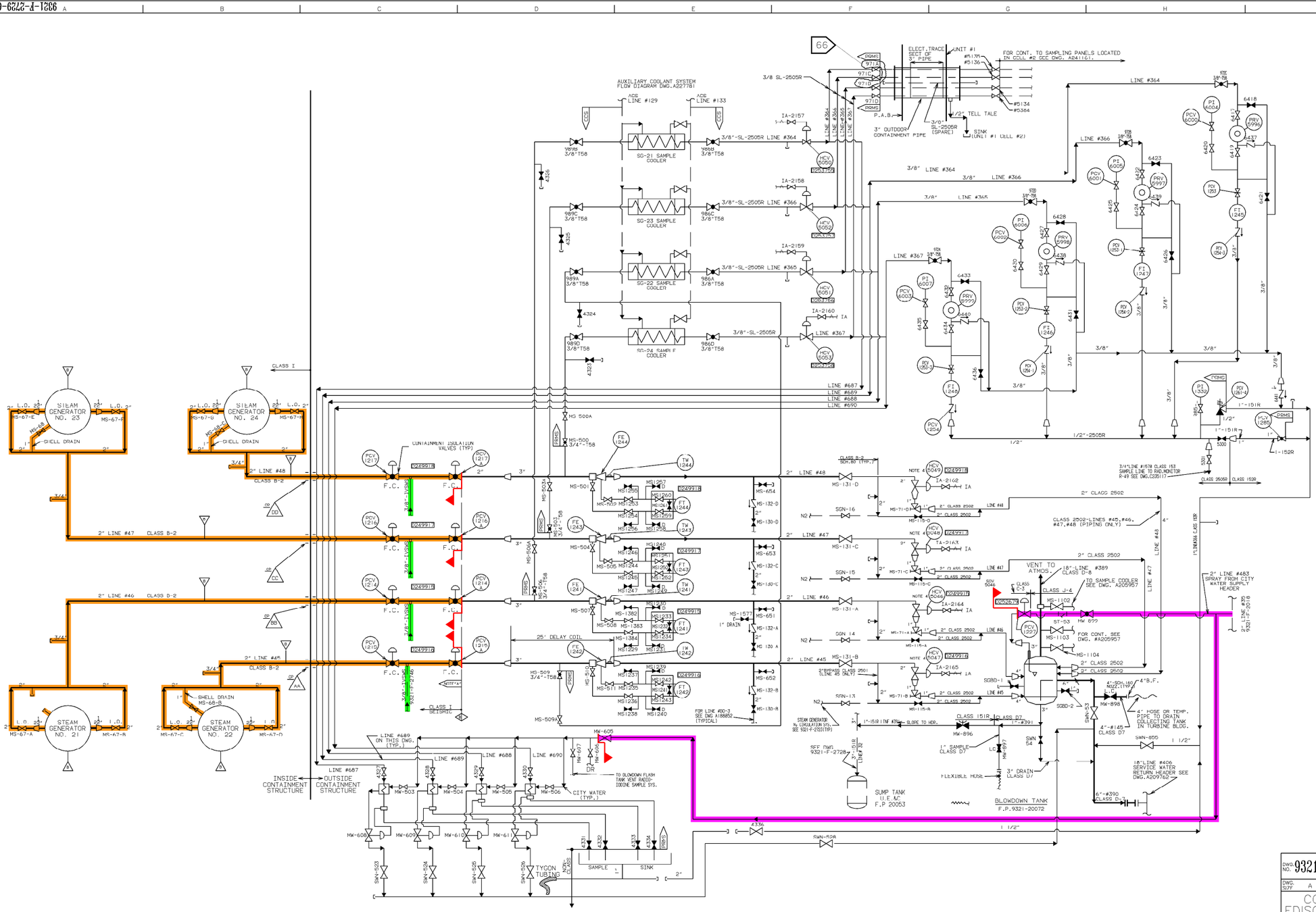
REVISIONS

LRA-9321-2727-0

CAD FILE LRA-9321-2727_40.DGN

MASTER FILE 9321-2727_40.CAL

9321-F-2729-66



REVISION
USE .1 SIZE TEXT ONLY

62 — THIS REVISION IS CLASS "A" AS PER CI-240-1, UPDATED DWG. PER CYPRS EVENT #199904175, FILE #0-2596 RELEASED AS CONSTRUCT. P.N. 69982-00 GB/DB

63 — THIS REVISION IS CLASS "A" AS PER CI-240-1, UPDATED DWG. PER MOD# FPV-91-07049-M & DMD9321-2729-AP-00. RELEASED AS CONSTRUCT. P.N. 07049-91 SW/DB

64 — THIS REVISION IS CLASS "A" AS PER CI-240-1, UPDATED DWG. PER MOD# FMX-00-52429-A & DMD9321-2729-AQ RELEASED FOR RECORD P.N. 52429-00 W.M.

B&A

66 — THIS REVISION IS NON CLASS PER THE QAPD, UPDATED DRAWING PER CR# 20010523. RELEASED AS CONSTRUCTED P.N. 69901-AF RMT/S&L/SW

REVISION SIGNATURES

REV	DES	ENG
66		G. BHALLA 7/25/01

DWG NO. 9321-F-2729-66
DWG. SIZE A | DWG. TYPE COMPANY
CON EDISON | STATION INDIAN POINT
BORO: WESTCHESTER
TITLE: FLOW DIAGRAM
STEAM GENERATOR BLOWDOWN & BLOWDOWN SAMPLE SYSTEM

APPROVALS
ENGINEERING
ENGINEER MANAGER:
DISCIPLINE ENGINEER:
DESIGN
DESIGN MANAGER: W. KING 2-6-87
DESIGN SUPERVISOR: F.A. 2-6-87
DRAWN BY: GIBBS&HILL
DESIGN CHECKER: A.G. 2-6-87
SCALE: NONE | DISCIPLINE CODE: MY

NO.	DATE	DESCRIPTION	BY	ENG	CHK	APP
0	1-19-07					

REVISIONS
LRA-9321-2729-0
CAD FILE LRA-9321-2729_66.DGN
RASTER FILE 9321-2729_66.CAL

COMPUTER GENERATED DRAWING NOT TO BE HAND REVISED

9321-F-2729-66

REFERENCES:

1. PROCESS FLOW DIAGRAM Ⓐ DWG.540.F 897.
2. DEFINITION OF SYMBOLS SEE Ⓐ E.SPEC.G675176 REV2 AND Ⓐ ION E. SPEC. 676164 REV.0.
3. INSTALLATION OF INSTRUMENTATION Ⓐ PROC. SPEC. CAP.294367.REV.1

UE&C. DWG. NO.	REFERENCE DRAWINGS
9321-F-2720	AUXILIARY COOLANT SYS. SH.1. Ⓐ684J793
9321-F-2738	REACTOR COOLANT SYSTEM. Ⓐ110E014
9321-F-2736	CHEM.& VOLUME CONT. SYS. SH.1 Ⓐ684J627
9321-F-2737	CHEM.&VOLUME CONT SYS. SH.2 Ⓐ684J871(SH2) Ⓐ541F236(SH3)
9321-F-2745	SAMPLING SYSTEM Ⓐ540F902
9321-F-2719	WASTE DISPOSAL SYS. SH.1. Ⓐ684J729
9321-F-2522	SAFETY INJECTION SYSTEM Ⓐ684J730
9321-F-2728	NUCLEAR EQUIPMENT DRAINS
9321-F-2723	NITROGEN TO NUCLEAR EQUIP... Ⓐ684J918
9321-F-2727	NUCLEAR EQUIPMENT VENTS
9321-F-2725	AUTOMATIC GAS ANALYZER SYSTEM
9321-C-2016	FLOW DIAGRAM SYMBOLS

NOTE:

EVERYTHING ON THIS DRAWING IS PART OF GASEOUS WASTE PROCESSING SYSTEM(GWPS). LISTED IN EXHIBIT "A" CI-240-1 EXCEPT AS SPECIFICALLY INDICATED HEREIN H_2 HYDROGEN SUPPLY TO NUCLEAR EQUIPMENT.

LEGEND:

T - TRIP CLOSED ON HIGH CONTAINMENT PRESSURE.

⬡ - NO'S. IN HEXAGON ARE NASH ENGR. CO. NOS.

NOTES:

2. ALL PIPING IN THIS AREA IS ONE INCH CLASS 152R UNLESS OTHERWISE NOTED.
3. VALVE ACTUATED AUTOMATICALLY BY GAS ANALYZER I & C CHANNEL NO. AC-1067.
4. *** INDICATES CONTROL VALVE HAS ADDITIONAL ASSOCIATED CONTROL EQUIPMENT & IS REPRESENTED ON CONTROL VALVE HOOK-UP DETAIL DWG. 9321-F-7056.

   AND ZC-1039B-IS ARE NOT ELECTRICALLY CONNECTED.
5. THE QUALITY GROUP A, B, C AND SEISMIC BOUNDARIES EXTEND TO THE FIRST SEISMIC SUPPORT/RESTRAINT BEYOND THE BOUNDARIES SHOWN.

THIS DRAWING CONTAINS ITEMS WHICH MUST BE CONTROLLED WITHIN CON EDISON AS: "CLASS A" ITEMS PER CI-240-1

COMPUTER GENERATED DRAWING NOT TO BE HAND REVISED

REVISION
USE .1 SIZE TEXT ONLY

71 — THIS REVISION IS NON CLASS PER CI-240-1. UPDATED DRAWING TO SHOW RETIRED BORON RECOVERY EQUIPMENT PER CRS #199806527 RELEASED AS CONSTRUCTED P.N. 69901-AF. D.B./Y.J. 02/09/01

REVISION SIGNATURES

REV	DES	ENG
71		G. BHALLA 02/09/2001

DWG. NO. 9321-F-2730-71

DWG. SIZE: A — DWG. TYPE: COMPANY

CON EDISON — STATION: INDIAN POINT

BORO: WESCHESTER

TITLE: FLOW DIAGRAM WASTE DISPOSAL SYSTEM SHT. No. 2

UFSAR FIG. No. 11.1-1 (SHT. 2)

APPROVALS

ENGINEERING

ENGINEER MANAGER:

DISCIPLINE ENGINEER:

DESIGN

DESIGN MANAGER: W.J. KING/G.C. 1-13-88

DESIGN SUPERVISOR: F.A. 1-13-88

DRAWN BY: GIBBS & HILL

DESIGN CHECKER: A.G. 1-13-88

SCALE: NONE — DISCIPLINE CODE: MY

9321-F-2730-71

SYSTEM INTENDED FUNCTION BOUNDARY

COMPONENTS SUBJECT TO AMR

COMPONENT COOLING WATER SYSTEM AMM-13

NO.	DATE	DESCRIPTION	BY	ENG	CHK	APP
0	7-24-06	.	.	.	.	.

REVISIONS

LRA-9321-2730-0

CAD FILE: LRA-9321-2730_71.DGN

RASTER FILE: 9321-2730_71.CAL

9321-F-2735

REFERENCE DRAWINGS; U.E. & C. NO.

RCS- -REACTOR COOLANT SYSTEM -----9321-F-2738
CVSC -CHEMICAL AND VOLUME CONTROL SYSTEM
SHEET #1. ------9321-F-2736
SHEET #2. ------9321-F-2737
SHEET #3. ------9321-F-2737
ACS- -AUXILIARY COOLANT SYSTEM ----9321-F-2720
SS- -SAMPLING SYSTEM ------9321-F-2745
WDS- -WASTE DISPOSAL SYSTEM
SHEET #1. ------9321-F-2719
SHEET #2. ------9321-F-2730
IVSWG-ISOLATION VALVE SEAL WATER SYS.---9321-F-2746
N2- -NITROGEN TO NUCLEAR EQUIPMENT - 9321-F-2723
TEMPERATURE STRAINER TABULATION --9321-H-2739

REFERENCES:

1. PROCESS FLOW DIAGRAM DWG.561-F-154
2. DEFINITION OF SYMBOLS
E SPEC. G67517G REV.2 AND
E. SPEC. G67516A REV. 0
3. INSTALLATION OF INSTRUMENTATION
PROC. SPEC. CAP.-294367 REV.1
4. MATERIAL SPEC. PIPE AND FITTINGS
E. SPEC G569866 REV. 2 AND
E. SPEC G676398 REV. 0

NOTES;

A. PIPING IS SCHEDULE 140
B. LOCATE IN HIGH SIDE OF PIPE IN LOCAL HIGH POINT.
D. ORIFICE IS SUPPLIED WITH PUMP PACKAGE.
E. MOUNT WITH STEM VERTICAL
F. BALANCE PISTON FLOW LINE FOR S.I.PUMP #22 MUST BE INSIDE VALVES 887A & B.
G. LOCAL NITROGEN BOTTLE STATION - SEE DWG. 9321-F-2722.
H. LOCATE AT LOW POINT OF PIPE WORK.
J. INSTALL VALVES FOR FOR VERTICAL DISCHARGE.
K. FLUSH LINE TO BE INSTALLED AS CLOSE TO VALVE INLET AS POSSIBLE
L. HEAT TREATING TO CONTINUE APPROXIMATELY ONE FOOT PAST THE JUNCTURE.
M. *** INDICATES CONTROL VALVE HAS ADDITIONAL ASSOCIATED CONTROL EQUIPMENT & IS REPRESENTED ON CONTROL VALVE HOOK-UP DETAIL DWG. 9321-F-7056.
N. ALL BORIC ACID HEAT TRACE CIRCUITS HAVE BEEN DISCONNECTED; NWST FREEZE PROTECTION CIRCUITS REMAIN ENERGIZED.
O. THE QUALITY GROUP A,B,C AND SEISMIC BOUNDARIES EXTEND TO THE FIRST SEISMIC SUPPORT/RESTRAINT BEYOND THE BOUNDARIES SHOWN.

INSIDE CONTAINMENT BUILDING
FOR CONT SEE DWG A235296

INSIDE PRIMARY AUX. BUILDING

A235296 A251783

REFUELING WATER STORAGE TANK ITEM NO. 21RWST

24" MANWAY WITH MUSHROOM VENT

2" BF WITH 1" SS CPLG.

SEE NOTE "N" (TYP.)

TO SDV-1416 DWG. 9321-F-2027

PRESSURE EQUALIZATION HOLE IS DRILLED TOWARDS CONTAINMENT. HOLE IS OFF CENTER BUT ENTIRE HOLE IS WITHIN DISK SEAT RADIUS. (TAG NO. 8854)

PRESSURE EQUALIZATION HOLE IS DRILLED TOWARDS RHR LOOP SIDE. HOLE IS OFF CENTER BUT INSIDE THE DISK SEAT RADIUS. (TAG NO. 8858)

RESIDUAL HEAT REMOVAL PUMPS (ACS) A251783

#21 (ACS) AC-4245

#22 (ACS) AC-4246

CCW (ACS) 736A

CCW (ACS) 736B

PACKING GLAND LEAKOFF (9321-2719)

PRIMARY WATER PW-5 INITIAL FILL SEE DWG. 9321-F-2724

ELECTRICAL TRACE OUTDOOR ONLY

TO CONDENSATE RETURN 9321-F-2027

FROM AUX. STM. SYS. DWG. NO. 9321-F-2027

REACTOR COOLANT DRAIN TANK PUMPS 9321-F-2719

ELECTRICAL TRACE OUT-DOORS ONLY

LOCAL SAMPLE

9321-F-2726

TO 4" FLOOR DRAIN DWG.NO. 9321-F-2696

DISCHARGE PULSATION DAMPENER

SUCTION STABILIZER

ATTPDPD ATTP ATTPSS

ACCUMULATOR TANKS TOPPING PUMP

ITEM: 23SIP

ITEM: 22SIP

ITEM: 21SIP

SAFETY INJECTION PUMPS

ITEM: SPRAY PMP 21CSP

ITEM: SPRAY PMP 22CSP

CONTAINMENT SPRAY PUMPS

QUICK DISCONNECT (TYP)

MANIFOLD VALVE (TYP)

VA. MANIFOLD

ROTAMETER 2"-1500# FLG. ENDS

NOTE: 2" CONTROL VALVE WITH 1" ENDS

CHARGING PUMP SUCTION (CVCS) 9321-F-2736

REFUELING WATER PURIFICATION PUMP (ACS) A227781

FROM LINE #12/ DWG.A227781

BORIC ACID BLENDER (CVCS) 9321-F-2736

SAFETY INJECTION TEST LINE

SPRAY TEST LINE

N2 CSS

3/4"-LINE #578

NITROGEN DWG. 9321-F-2723

(RETIRED IN PLACE)

SI-3/4"-151R

SI-6"-151R

1/2"PL

6" CAP

NOTES:
1. THE QUALITY GROUP A,B,C & SEISMIC BOUNDARIES EXTEND TO THE FIRST SEISMIC SUPPORT/RESTRAINT BEYOND THE BOUNDARIES SHOWN.
2. FLAGS INDICATE SYSTEM BOUNDARIES PER EXHIBIT "A" TO CI-240-1. DASHED LINES ARE NOT ADDRESSED ON THIS DRAWING FOR DASHED RHR LINES SEE DWG.9321-F-2720 & DWG A251763

LEGEND;
SIS - SAFETY INJECTION SYSTEM.
CSS - CONTAINMENT SPRAY SYSTEM.
RHR - RESIDUAL HEAT REMOVAL SYSTEM.
RWST- REFUELING WATER STORAGE TANK.
LWPS- LIQUID WASTE PROCESSING SYSTEM.
SFPCS- SPENT FUEL POOL COOLING SYSTEM.

REFERENCE DRAWINGS
9321-C-2016------ FLOW DIAGRAM SYMBOLS

WORK THIS DWG. WITH A235296

THIS DRAWING CONTAINS ITEMS WHICH MUST BE CONTROLLED WITHIN ENTERGY AS: "CLASS A" ITEMS PER THE QAPD

THIS DWG. TO BE REVISED ONLY IN AUTOCAD.

REVISION								
	U&S T:\CDE\DWG\ 02/11/04 ENG	THIS REVISION IS NON-CLASS PER THE QAPD. DRAWING UPDATED IN RESPONSE TO CR-IP2-2004-00396 RELEASE FOR RECORD PN 69901-AF RL/TC	2 12 88	A.G.	F.A. W.J.KING 2/12/88			
			DATE	CKR.	SUPV.	DESIGN MGR.	CHIEF DESIGN ENG.	DISC. ENG.	ENG. MGR.
			REVIEW		APPROVALS				

TITLE: FLOW DIAGRAM
SAFETY INJECTION SYSTEM
-- UFSAR FIGURE No. 6.2-1 (SHT. 1)
DRWN BY B.JOHN SCALE NONE RECD

Con Edison STATION INDIAN POINT

DWG. NO. 9321-F-2735-136 MY

SYSTEM INTENDED FUNCTION BOUNDARY

COMPONENTS SUBJECT TO AMR

CONTAINMENT SPRAY SYSTEM AMM-01

SAFETY INJECTION SYSTEM AMM-03

RESIDUAL HEAT REMOVAL AMM-05

NO.	DATE	DESCRIPTION	BY	ENG	CHK	APP
0	1-19-07	.		.	.	.

REVISIONS

LRA-9321-2735-0

CAD FILE LRA-9321-2735_136.DGN

RASTER FILE 9321-2735_136.CAL