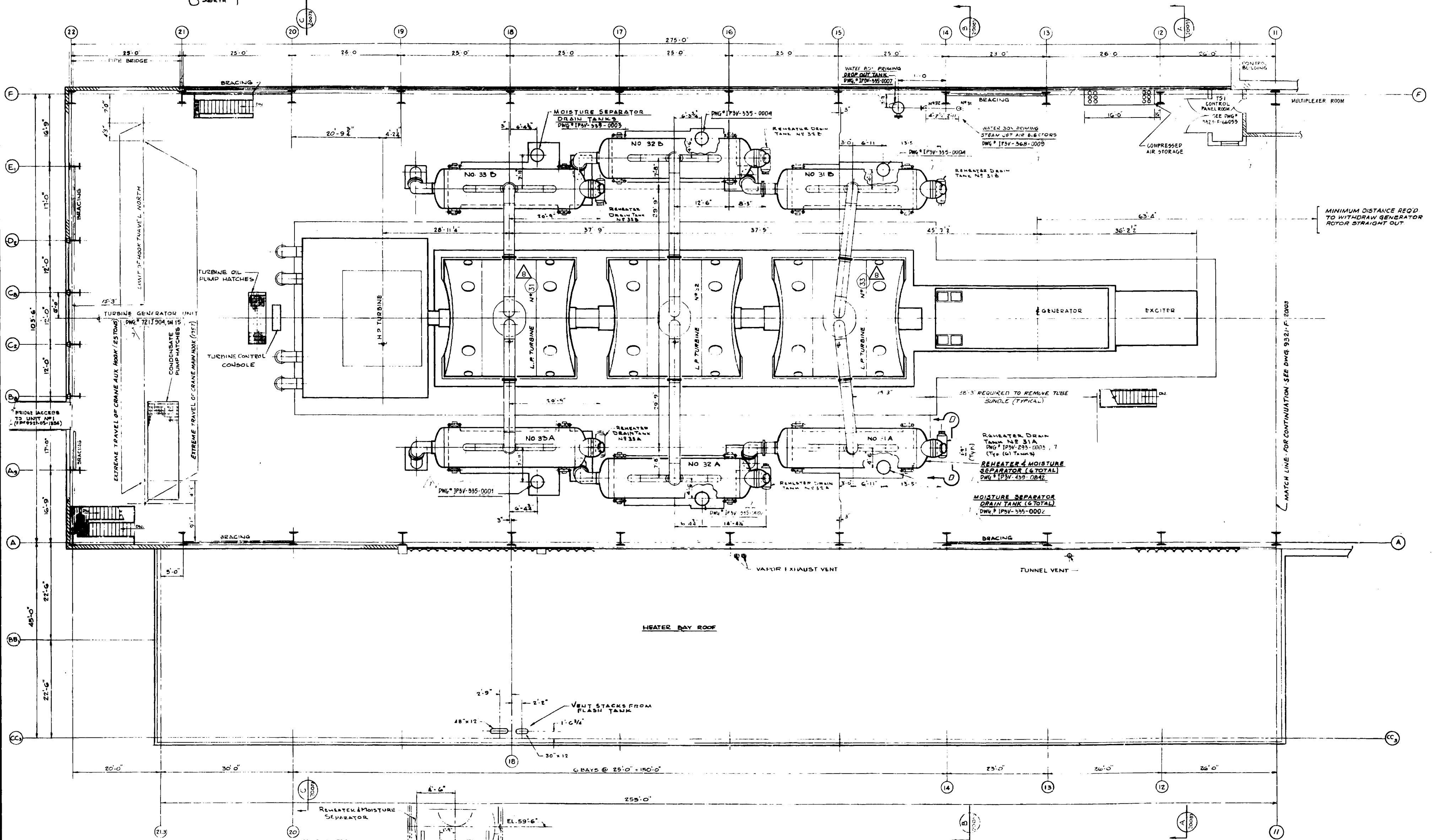


201803
JUN 11 2003
INDIAN POINT

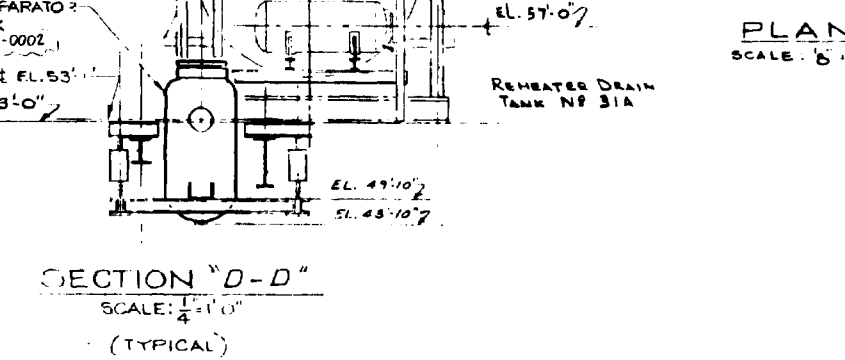
PLANT
ABETH



BRIDGE JACQUES TO UNIT #1 (ELEVATION 53'-0")
 BRIDGE JACQUES TO UNIT #2 (ELEVATION 53'-0")
 BRIDGE JACQUES TO UNIT #3 (ELEVATION 53'-0")
 BRIDGE JACQUES TO UNIT #4 (ELEVATION 53'-0")
 BRIDGE JACQUES TO UNIT #5 (ELEVATION 53'-0")
 BRIDGE JACQUES TO UNIT #6 (ELEVATION 53'-0")
 BRIDGE JACQUES TO UNIT #7 (ELEVATION 53'-0")
 BRIDGE JACQUES TO UNIT #8 (ELEVATION 53'-0")
 BRIDGE JACQUES TO UNIT #9 (ELEVATION 53'-0")
 BRIDGE JACQUES TO UNIT #10 (ELEVATION 53'-0")
 BRIDGE JACQUES TO UNIT #11 (ELEVATION 53'-0")
 BRIDGE JACQUES TO UNIT #12 (ELEVATION 53'-0")
 BRIDGE JACQUES TO UNIT #13 (ELEVATION 53'-0")
 BRIDGE JACQUES TO UNIT #14 (ELEVATION 53'-0")
 BRIDGE JACQUES TO UNIT #15 (ELEVATION 53'-0")
 BRIDGE JACQUES TO UNIT #16 (ELEVATION 53'-0")
 BRIDGE JACQUES TO UNIT #17 (ELEVATION 53'-0")
 BRIDGE JACQUES TO UNIT #18 (ELEVATION 53'-0")
 BRIDGE JACQUES TO UNIT #19 (ELEVATION 53'-0")
 BRIDGE JACQUES TO UNIT #20 (ELEVATION 53'-0")
 BRIDGE JACQUES TO UNIT #21 (ELEVATION 53'-0")
 BRIDGE JACQUES TO UNIT #22 (ELEVATION 53'-0")

EXTREME TRAVEL OF CRANE AUX HOOD (ESTD)
 CONDENSATE PUMP HATCHES
 TURBINE CONTROL CONSOLE
 TURBINE OIL PUMP HATCHES
 EXTREME TRAVEL OF CRANE MAIN HOOD (EST)

REHEATER & MOISTURE SEPARATOR
 MOISTURE SEPARATOR DRAIN TANK
 REHEATER DRAIN TANK NO 31A
 FLOOR EL. 53'-0"



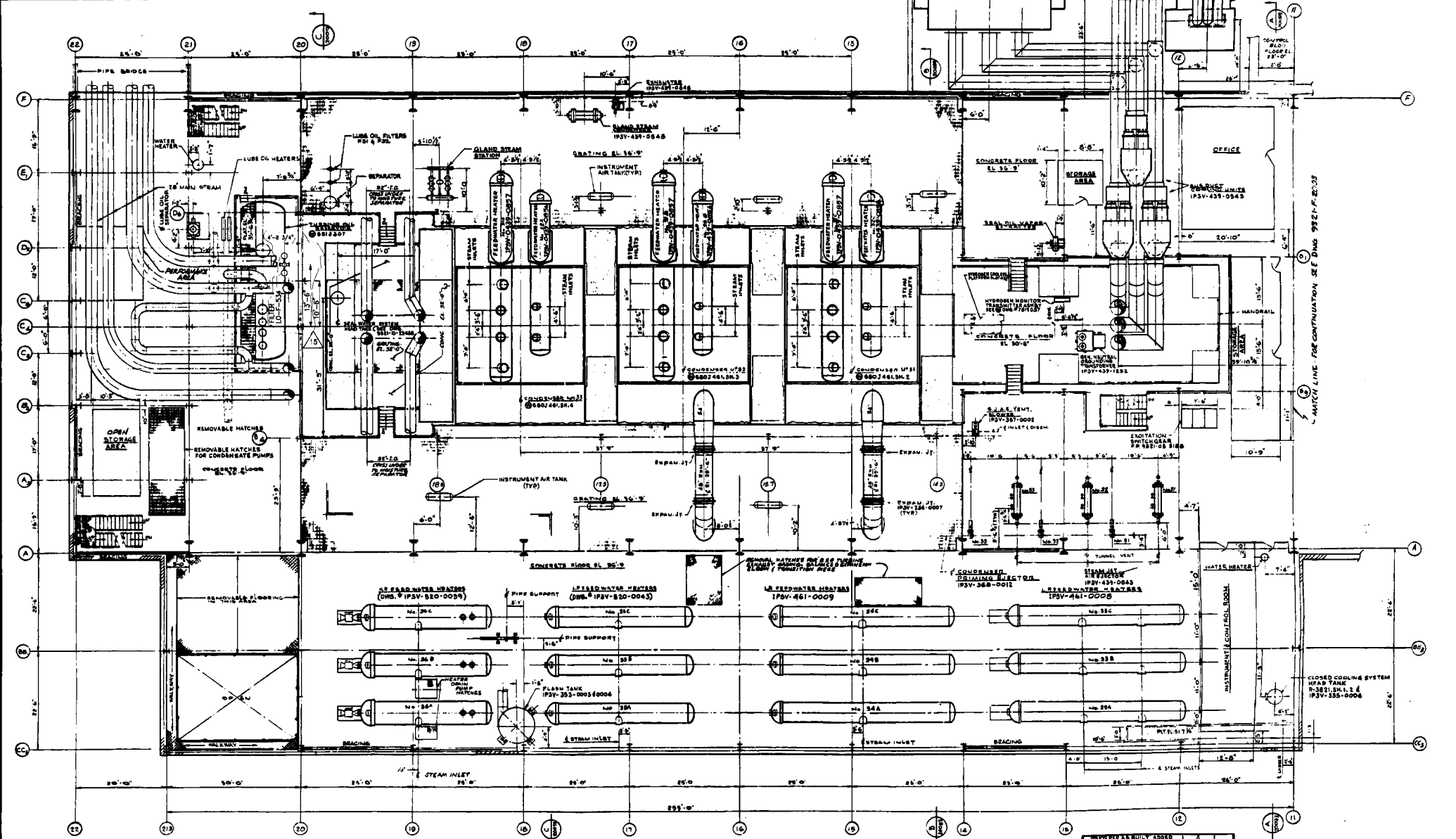
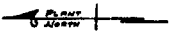
PLAN SCALE: 1/4" = 1'-0"

FOR GENERAL NOTES & REFER DWGS SEE DWG. NO. 9321-F-20063

8	INCORPORATED EC-18077	10/19/09	AI	APPROVAL SIGNATURES ON FILE
REV	DESCRIPTION	DATE	BY	CHKD BY

6	REV. PER AS BUILT	10/19/09	AI	APPROVAL SIGNATURES ON FILE
5	FINAL ISSUE	10/19/09	AI	APPROVAL SIGNATURES ON FILE
4	REV. PER AS BUILT	10/19/09	AI	APPROVAL SIGNATURES ON FILE
3	REV. PER AS BUILT	10/19/09	AI	APPROVAL SIGNATURES ON FILE
2	REV. PER AS BUILT	10/19/09	AI	APPROVAL SIGNATURES ON FILE
1	REV. PER AS BUILT	10/19/09	AI	APPROVAL SIGNATURES ON FILE

WESTINGHOUSE ELECTRIC CORPORATION
TURBINE BUILDING & HEATER BAY
GENERAL ARRANGEMENT
OPERATING FLOOR - PLAN AT ELEV. 53'-0"
 FOR
INDIAN POINT GENERATING STATION
 UNIT NO. 3
 U.E.C. DWG. NO. 9321-F-20043-8
 COR. EC. CO. DWG. NO. A 201803
 UNITED ENGINEERS & CONSTRUCTORS INC.



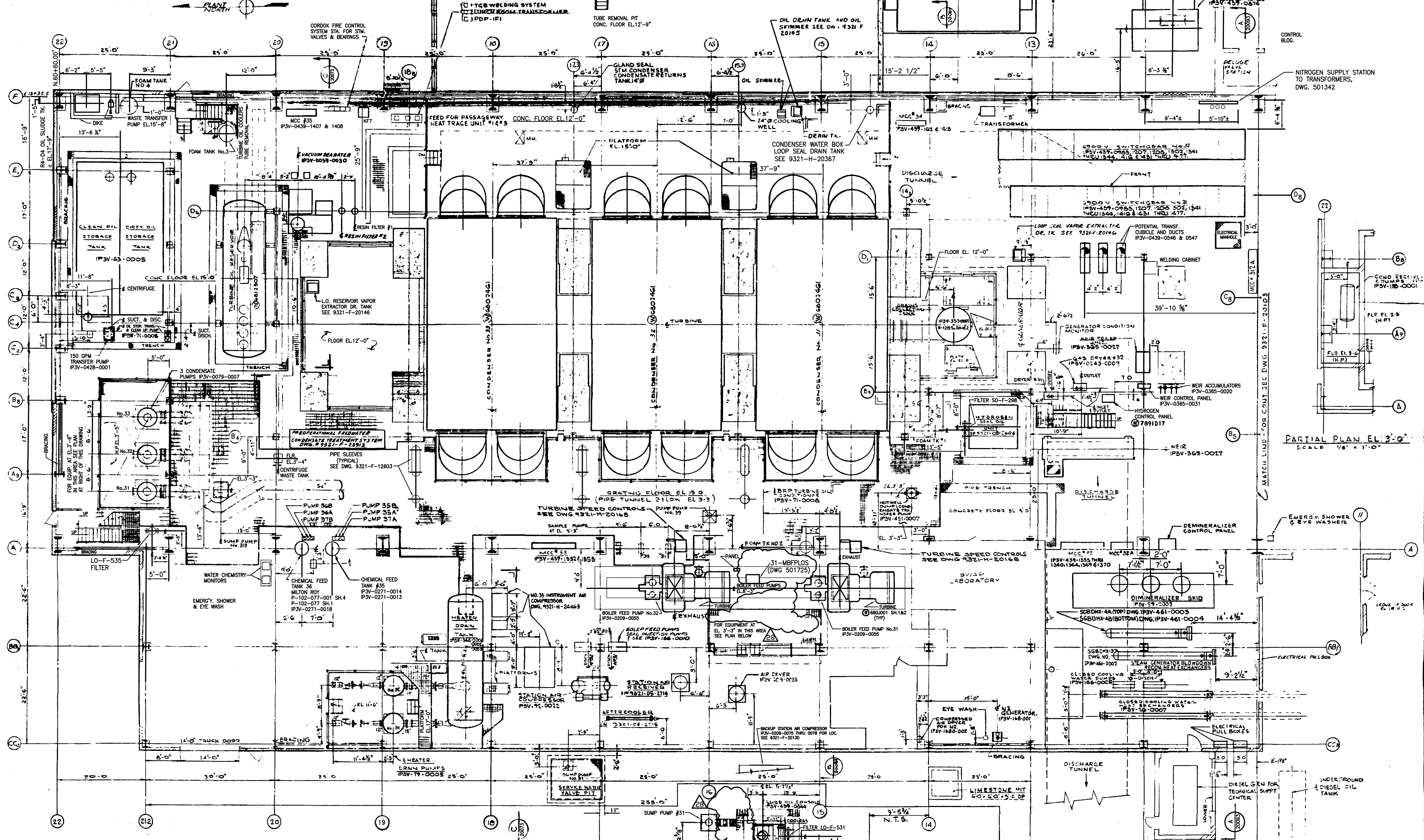
PLAN
 SCALE: 1/8" = 1'-0"

10	AS BUILT	NO. 100	NO. 100
11	AS BUILT	NO. 101	NO. 101
12	AS BUILT	NO. 102	NO. 102
13	AS BUILT	NO. 103	NO. 103
14	AS BUILT	NO. 104	NO. 104
15	AS BUILT	NO. 105	NO. 105
16	AS BUILT	NO. 106	NO. 106
17	AS BUILT	NO. 107	NO. 107
18	AS BUILT	NO. 108	NO. 108
19	AS BUILT	NO. 109	NO. 109
20	AS BUILT	NO. 110	NO. 110
21	AS BUILT	NO. 111	NO. 111
22	AS BUILT	NO. 112	NO. 112

NO. 113
 NO. 114
 NO. 115
 NO. 116
 NO. 117
 NO. 118
 NO. 119
 NO. 120
 NO. 121
 NO. 122
 NO. 123
 NO. 124
 NO. 125
 NO. 126
 NO. 127
 NO. 128
 NO. 129
 NO. 130

FOR GENERAL NOTES (REFERENCE DWG. NOS. SEE 9321-F-2003)
WESTINGHOUSE ELECTRIC CORPORATION
 TURBINE BUILDING & HEATER BAY
 GENERAL ARRANGEMENT
 MEZZANINE FLOOR - PLAN AT ELEV. 38'-9"
 FOR
 CONSOLIDATED EDISON COMPANY
 INDIAN POINT GENERATING STATION
 UNIT NO. 3
 U.S. PAT. OFF. DES. OFF. MAR. 24 1912
 NEW YORK
 9321-F-20053-15 A 201804
 UNITED ENGINEERS & CONTRACTORS, INC.

MATCH LINE FOR CONTINUATION SEE DWG. 9321-F-2003



REFERENCE DRAWINGS

U.E.C. DWG. NO.	DESCRIPTION
9321-F-20043	OPERATING FLOOR PLAN @ 35'-0"
9321-F-20053	MEZANINE FLOOR PLAN @ 36'-3"
9321-F-20019	CROSS SECTION 'C-C'
9321-F-20083	CROSS SECTION 'B-B'
9321-F-20093	CROSS SECTION 'A-A'
9321-F-20103	3 DAY EXTENSION PLAN & ELEVATION HEATING - P.I.M.

PLAN
SCALE 1/8" = 1'-0"

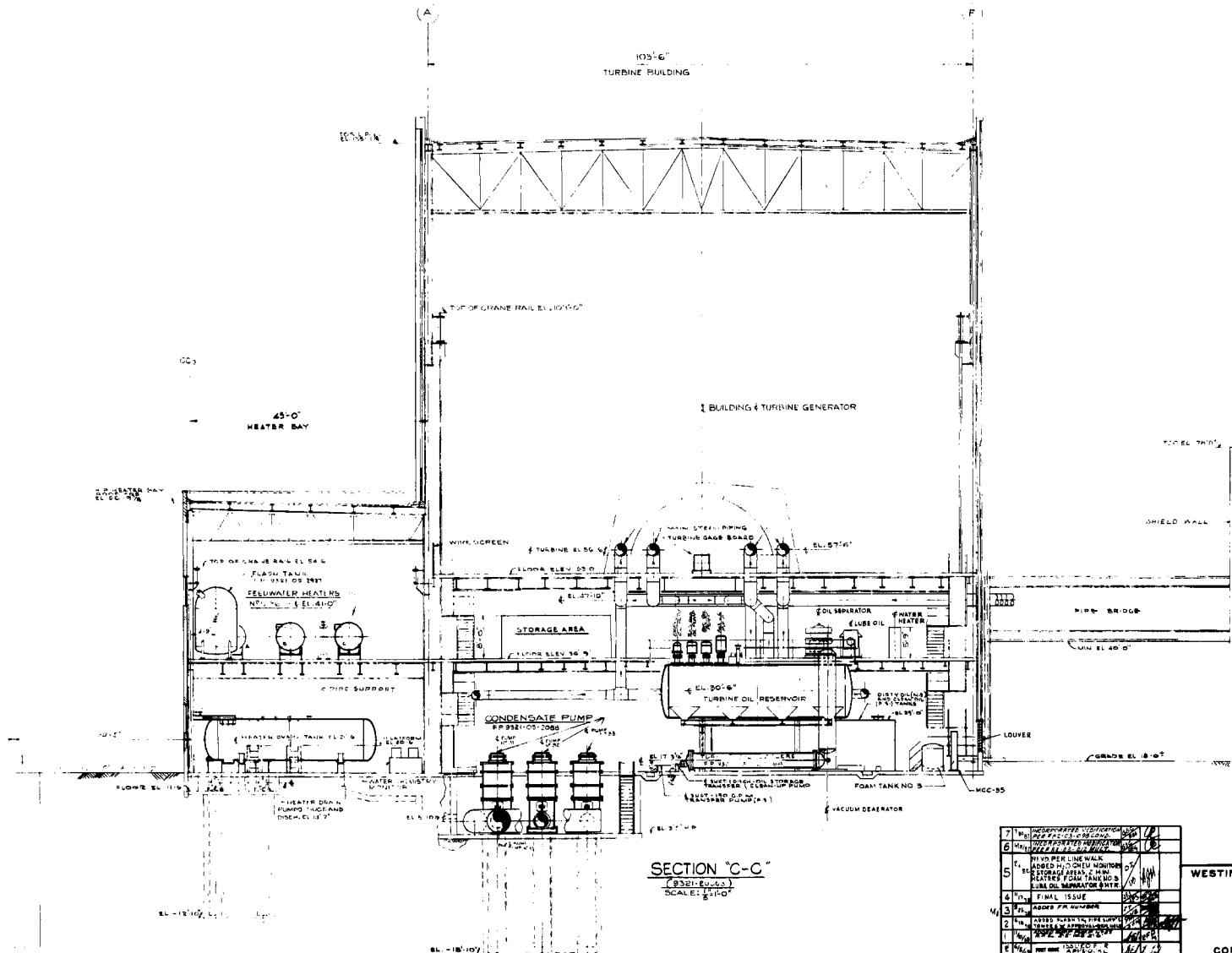
NO.	DATE	DESCRIPTION	BY	CHKD.	APP'D.
24	2003	AS BUILT PER DCP 01-3-066			
23	7/03	AS BUILT PER MNP 06-3-290			
22	7/03	AS BUILT PER DC 46-3-122			
21	7/03	AS BUILT PER DCR 100144737			
20	7/03	AS BUILT PER MOD 06-03-OBISG			
19	7/03	AS BUILT PER MOD 03-03-0310			
18	7/03	AS BUILT PER MOD 03-03-0310			
17	7/03	AS BUILT PER MOD 03-03-0310			
16	7/03	AS BUILT PER MOD 03-03-0310			
15	7/03	AS BUILT PER MOD 03-03-0310			
14	7/03	AS BUILT PER MOD 03-03-0310			
13	7/03	AS BUILT PER MOD 03-03-0310			
12	7/03	AS BUILT PER MOD 03-03-0310			
11	7/03	AS BUILT PER MOD 03-03-0310			
10	7/03	AS BUILT PER MOD 03-03-0310			
9	7/03	AS BUILT PER MOD 03-03-0310			
8	7/03	AS BUILT PER MOD 03-03-0310			
7	7/03	AS BUILT PER MOD 03-03-0310			

WESTINGHOUSE ELECTRIC CORPORATION
TURBINE BUILDING & HEATER BAY
GENERAL ARRANGEMENT
GROUND FLOOR - PLAN AT ELEV. 15'-0"

FOR
ENERGY NUCLEAR NORTHEAST
INDIAN POINT GENERATING STATION
UNIT NO. 3

U.E.C. DWG. NO. **9321-F-20063-28** A 201805
COR. ED. DWG. NO. 44132
UNITED ENGINEERS & CONSTRUCTORS INC.

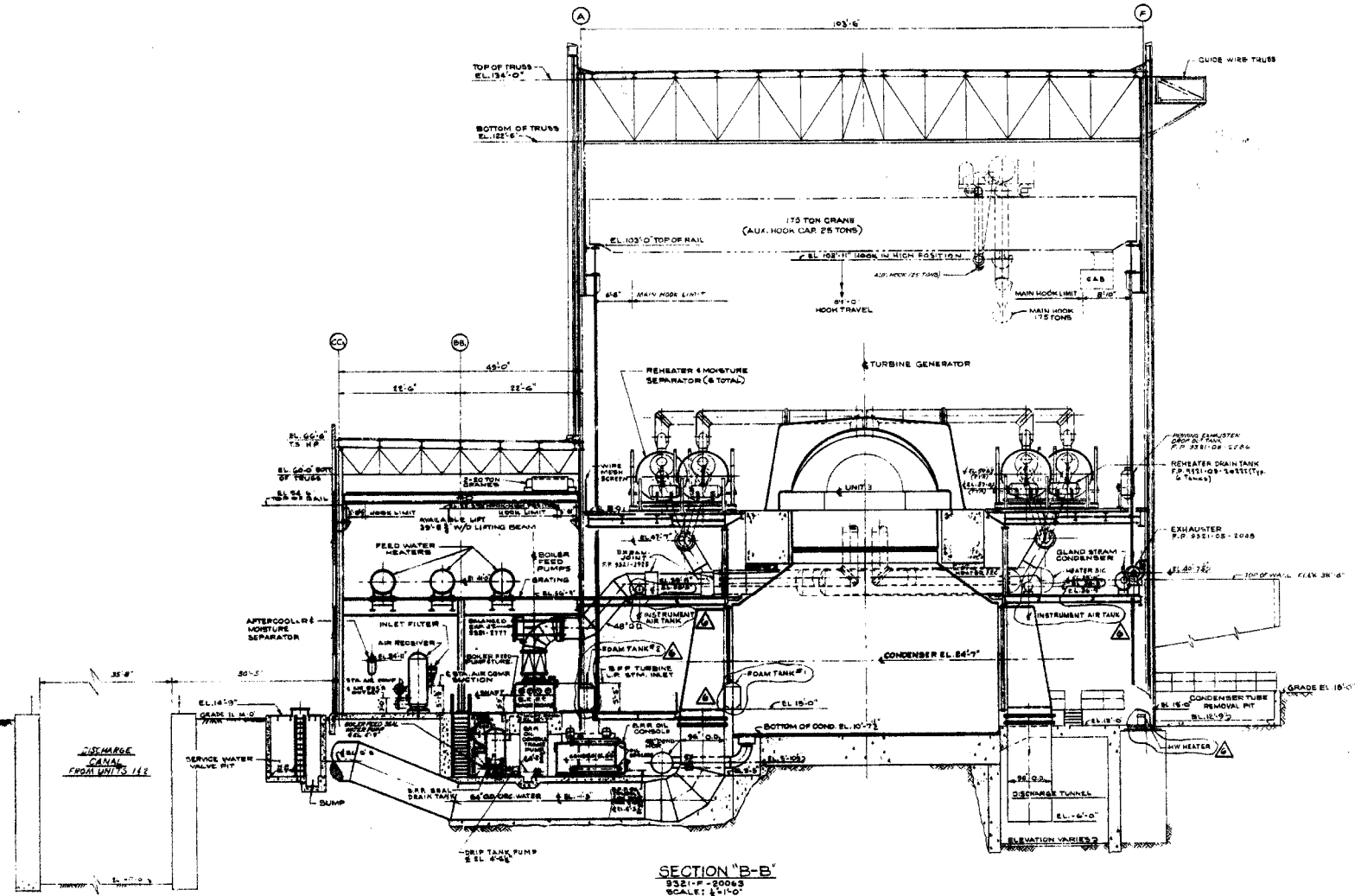
909102
 5' ON LINE
 1/2" = 1'-0"



SECTION "C-C"
 SCALE: 1/4" = 1'-0"

7	REVISION	DATE	BY	CHECKED
6	REVISION	DATE	BY	CHECKED
5	REVISION	DATE	BY	CHECKED
4	REVISION	DATE	BY	CHECKED
3	REVISION	DATE	BY	CHECKED
2	REVISION	DATE	BY	CHECKED
1	REVISION	DATE	BY	CHECKED
0	REVISION	DATE	BY	CHECKED

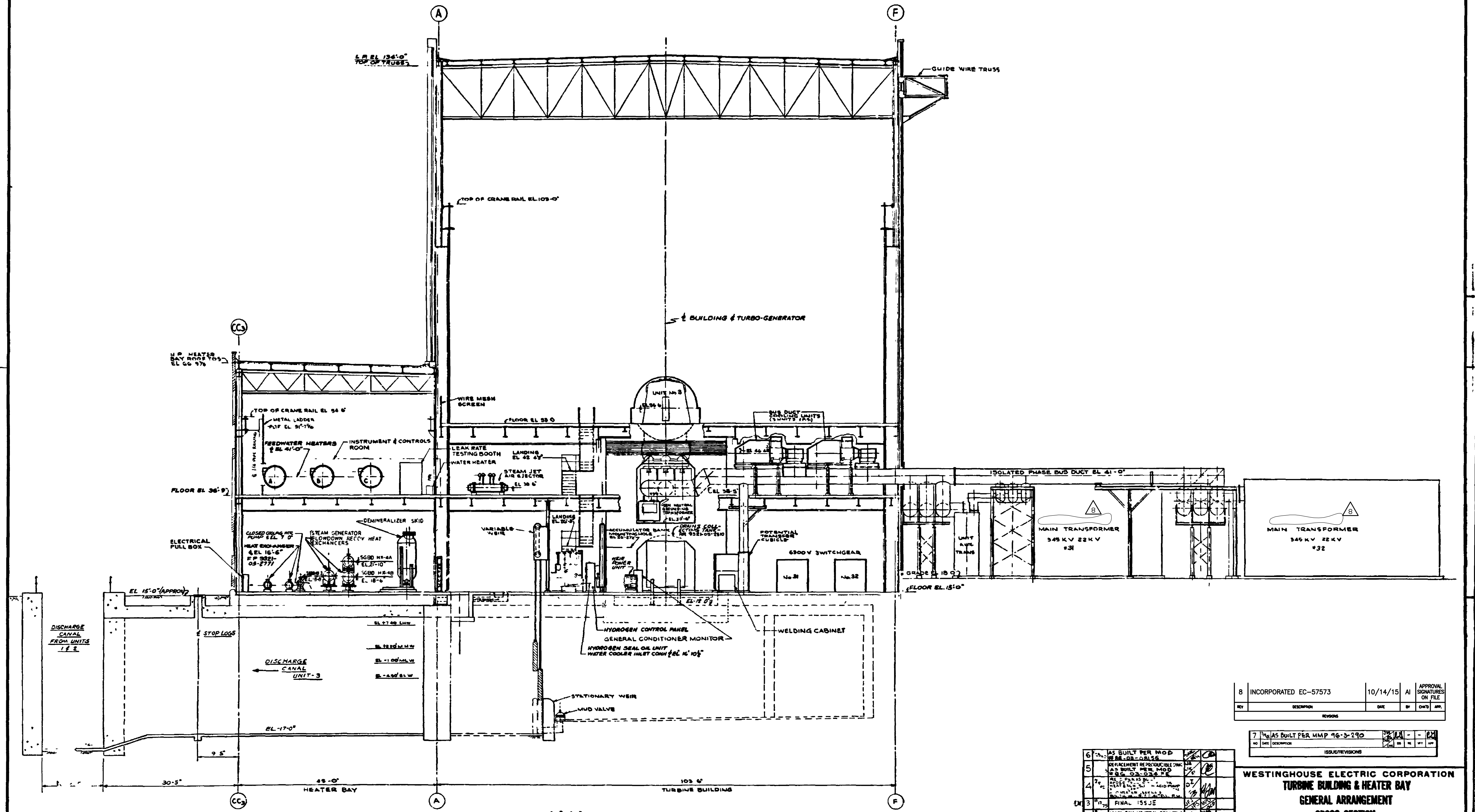
WESTINGHOUSE ELECTRIC CORPORATION
 TURBINE BUILDING & HEATER BAY
 GENERAL ARRANGEMENT
 CROSS SECTION
 FOR
 CONSOLIDATED EDISON COMPANY
 INDIAN POINT GENERATING STATION
 UNIT NO. 3
 U.E. & C. NEW YORK, N.Y. 10017
 9321-F-20073-7 A 201806



SECTION "B-B"
 9321-F-20063
 SCALE: 1/4"=1'-0"

6	REVISED AS PER AS	
5	UNIT CONNECTIONS AND	
4	FINAL ISSUE	
3	REVISIONS	
2	REVISIONS	
1	REVISIONS	
0	ISSUED AS PER AS	

WESTINGHOUSE ELECTRIC CORPORATION
 TURBINE BUILDING & HEATER BAY
 GENERAL ARRANGEMENT
 CROSS SECTION
 CONSOLIDATED EDISON COMPANY
 INDIAN POINT GENERATING STATION
 UNIT NO. 3
 9321-F-20063-6 1201847



SECTION A-A
 (LOOKING NORTH)
 (9321-F-20063)

SCALE 1/8" = 1'-0"

8	INCORPORATED EC-57573	10/14/15	AI	APPROVAL SIGNATURES ON FILE
REV	DESCRIPTION	DATE	BY	CHKD
REVISIONS				

7	AS BUILT PER MMP 46-3-290	10/14/15	AI	APPROVAL SIGNATURES ON FILE
NO	DESCRIPTION	DATE	BY	CHKD
ISSUE/REVISIONS				

6	AS BUILT PER MOD	10/14/15	AI	APPROVAL SIGNATURES ON FILE
5	REPLACEMENT REPRODUCIBLE Dwg	10/14/15	AI	APPROVAL SIGNATURES ON FILE
4	AS BUILT PER MOD	10/14/15	AI	APPROVAL SIGNATURES ON FILE
3	FINAL 155 JE	10/14/15	AI	APPROVAL SIGNATURES ON FILE
2	ADD GEN NEUTRAL GROUNDING	10/14/15	AI	APPROVAL SIGNATURES ON FILE
1	RELEASED WITH APPROVAL	10/14/15	AI	APPROVAL SIGNATURES ON FILE
0	ISSUED FOR APPROVAL	10/14/15	AI	APPROVAL SIGNATURES ON FILE
DATE				
DRAWN				
CHECKED				
DATE				
SCALE				
UNITED ENGINEERS & CONSTRUCTORS INC.				

WESTINGHOUSE ELECTRIC CORPORATION
 TURBINE BUILDING & HEATER BAY
 GENERAL ARRANGEMENT
 CROSS SECTION
 FOR

 INDIAN POINT GENERATING STATION
 UNIT NO 3

9321-F-20093-8 A 201808

DRAWING NUMBER

DRAWING NUMBER
2003

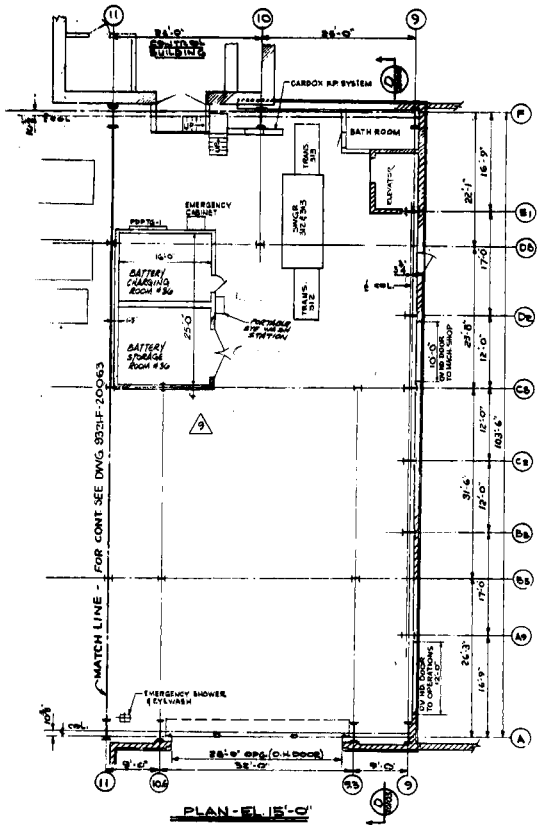
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DRAWING NUMBER

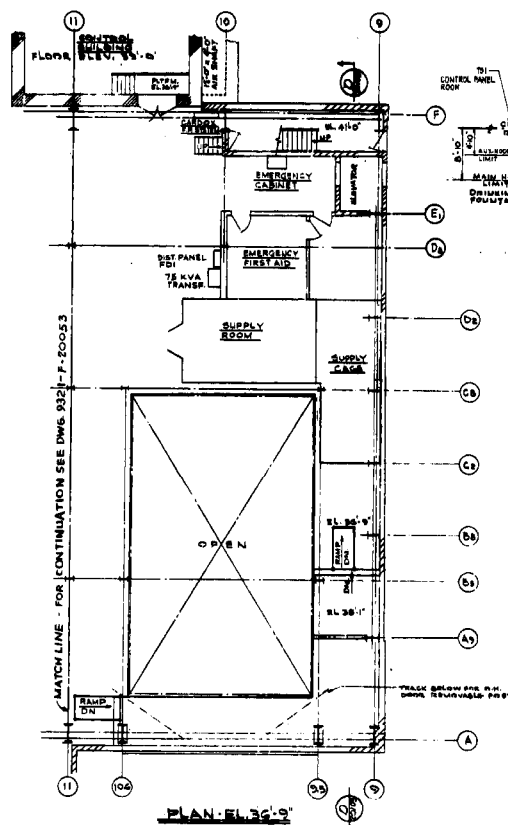
DRAWING NUMBER
9321-F-20103

DRAWING NUMBER

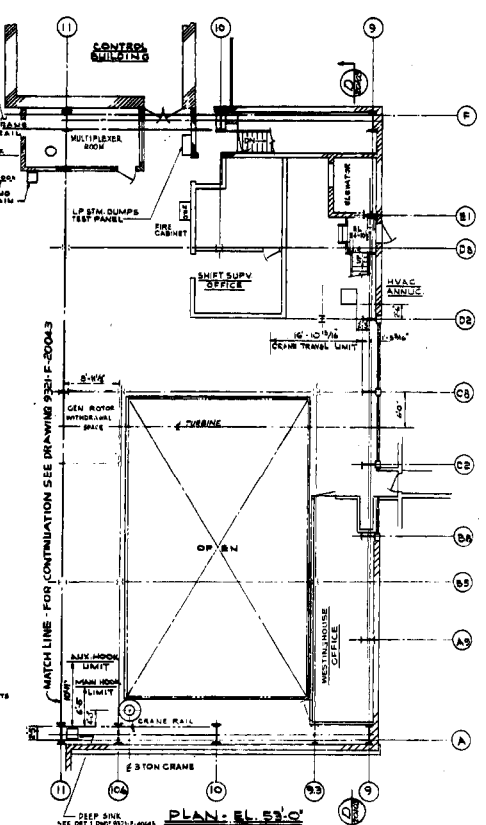
9321-F-20103
TURBINE BUILDING - TWO BAY EXTENSION
GENERAL ARRANGEMENT
PLANS & ELEVATIONS



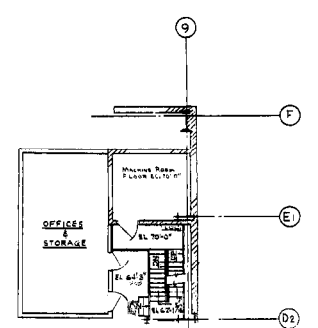
PLAN-EL 15'-0"



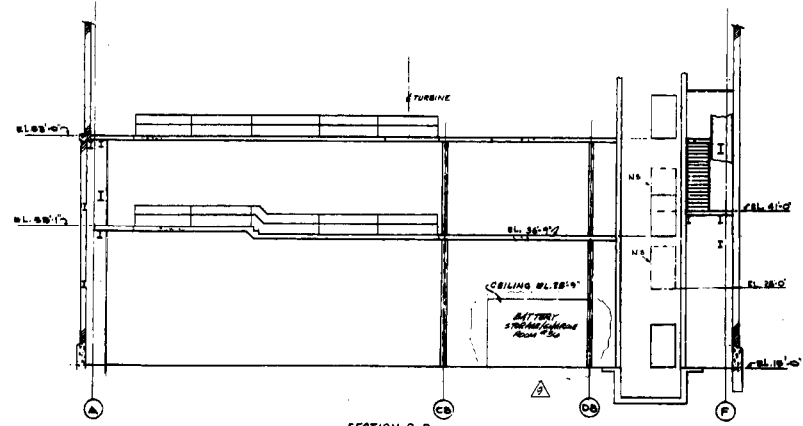
PLAN-EL 36'-9"



PLAN-EL 53'-0"



**MACHINE ROOM FLOOR PLAN
EL. 70'-0"**

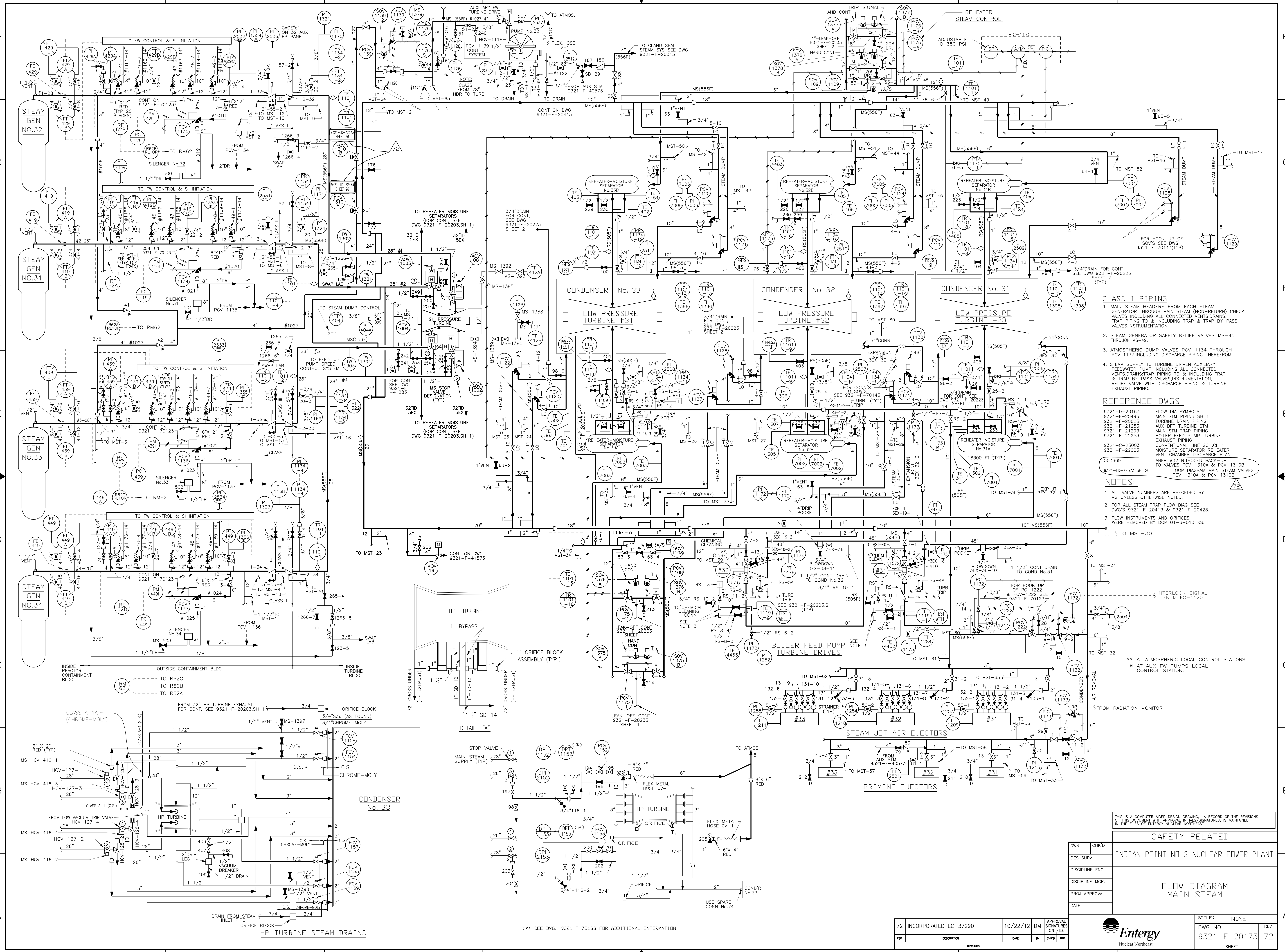


SECTION D-D
244 CIV. 1327-A-10703

SCALE 1/8" = 1'-0"

NO.	REV'D PER LINE WALK	DATE
1	REV'D PER LINE WALK	12/15/02
2	REV'D PER LINE WALK	12/15/02
3	REV'D PER LINE WALK	12/15/02
4	REV'D PER LINE WALK	12/15/02
5	REV'D PER LINE WALK	12/15/02
6	REV'D PER LINE WALK	12/15/02
7	REV'D PER LINE WALK	12/15/02
8	REV'D PER LINE WALK	12/15/02
9	REV'D PER LINE WALK	12/15/02
10	REV'D PER LINE WALK	12/15/02
11	REV'D PER LINE WALK	12/15/02
12	REV'D PER LINE WALK	12/15/02
13	REV'D PER LINE WALK	12/15/02
14	REV'D PER LINE WALK	12/15/02
15	REV'D PER LINE WALK	12/15/02
16	REV'D PER LINE WALK	12/15/02
17	REV'D PER LINE WALK	12/15/02
18	REV'D PER LINE WALK	12/15/02
19	REV'D PER LINE WALK	12/15/02
20	REV'D PER LINE WALK	12/15/02
21	REV'D PER LINE WALK	12/15/02
22	REV'D PER LINE WALK	12/15/02
23	REV'D PER LINE WALK	12/15/02
24	REV'D PER LINE WALK	12/15/02
25	REV'D PER LINE WALK	12/15/02
26	REV'D PER LINE WALK	12/15/02
27	REV'D PER LINE WALK	12/15/02
28	REV'D PER LINE WALK	12/15/02
29	REV'D PER LINE WALK	12/15/02
30	REV'D PER LINE WALK	12/15/02

WESTINGHOUSE ELECTRIC CORPORATION
TURBINE BUILDING - TWO BAY EXTENSION
GENERAL ARRANGEMENT
PLANS & ELEVATIONS
 FOR
CONSOLIDATED EDISON COMPANY
 INDIAN POINT GENERATING STATION
 UNIT NO. 1
 WESTINGHOUSE
 9321-F-20103-9 1201809



- CLASS I PIPING**
1. MAIN STEAM HEADERS FROM EACH STEAM GENERATOR THROUGH MAIN STEAM (NON-RETURN) CHECK VALVES INCLUDING ALL CONNECTED VENTS, DRAINS, TRAP PIPING TO & INCLUDING TRAP & TRAP BY-PASS VALVES, INSTRUMENTATION.
 2. STEAM GENERATOR SAFETY RELIEF VALVES MS-45 THROUGH MS-49.
 3. ATMOSPHERIC DUMP VALVES PCV-1134 THROUGH PCV 1137, INCLUDING DISCHARGE PIPING THEREFROM.
 4. STEAM SUPPLY TO TURBINE DRIVEN AUXILIARY FEEDWATER PUMP INCLUDING ALL CONNECTED VENTS, DRAINS, TRAP PIPING TO & INCLUDING TRAP & TRAP BY-PASS VALVES, INSTRUMENTATION, RELIEF VALVE WITH DISCHARGE PIPING & TURBINE EXHAUST PIPING.

- REFERENCE DWGS**
- 9321-D-20163 FLOW DIA SYMBOLS
 - 9321-F-20493 MAIN STM PIPING SH 1
 - 9321-F-20823 TURBINE DRAIN PIPING
 - 9321-F-21253 AUX BFP TURBINE STM
 - 9321-F-21293 MAIN STM TRAP PIPING
 - 9321-F-22253 BOILER FEED PUMP TURBINE EXHAUST PIPING
 - 9321-C-23003 CONVENTIONAL LINE SCH. CL 1
 - 9321-F-29003 MOISTURE SEPARATOR REHEATER VENT CHAMBER DISCHARGE PLAN
 - 503669 ABFP #32 NITROGEN BACK-UP TO VALVES PCV-1310A & PCV-1310B
 - 9321-D-72373 SH 26 LOOP DIAGRAM MAIN STEAM VALVES PCV-1310A & PCV-1310B

- NOTES:**
1. ALL VALVE NUMBERS ARE PRECEDED BY MS UNLESS OTHERWISE NOTED.
 2. FOR ALL STEAM TRAP FLOW DIAG SEE DWG'S 9321-F-20413 & 9321-F-20423.
 3. FLOW INSTRUMENTS AND ORIFICES WERE REMOVED BY DCP 01-3-013 RS.

- INTERLOCK SIGNAL FROM FC-1120**
- AT ATMOSPHERIC LOCAL CONTROL STATIONS
 - AT AUX. FW. PUMPS LOCAL CONTROL STATION.

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 ENERGY NUCLEAR DIVISION.

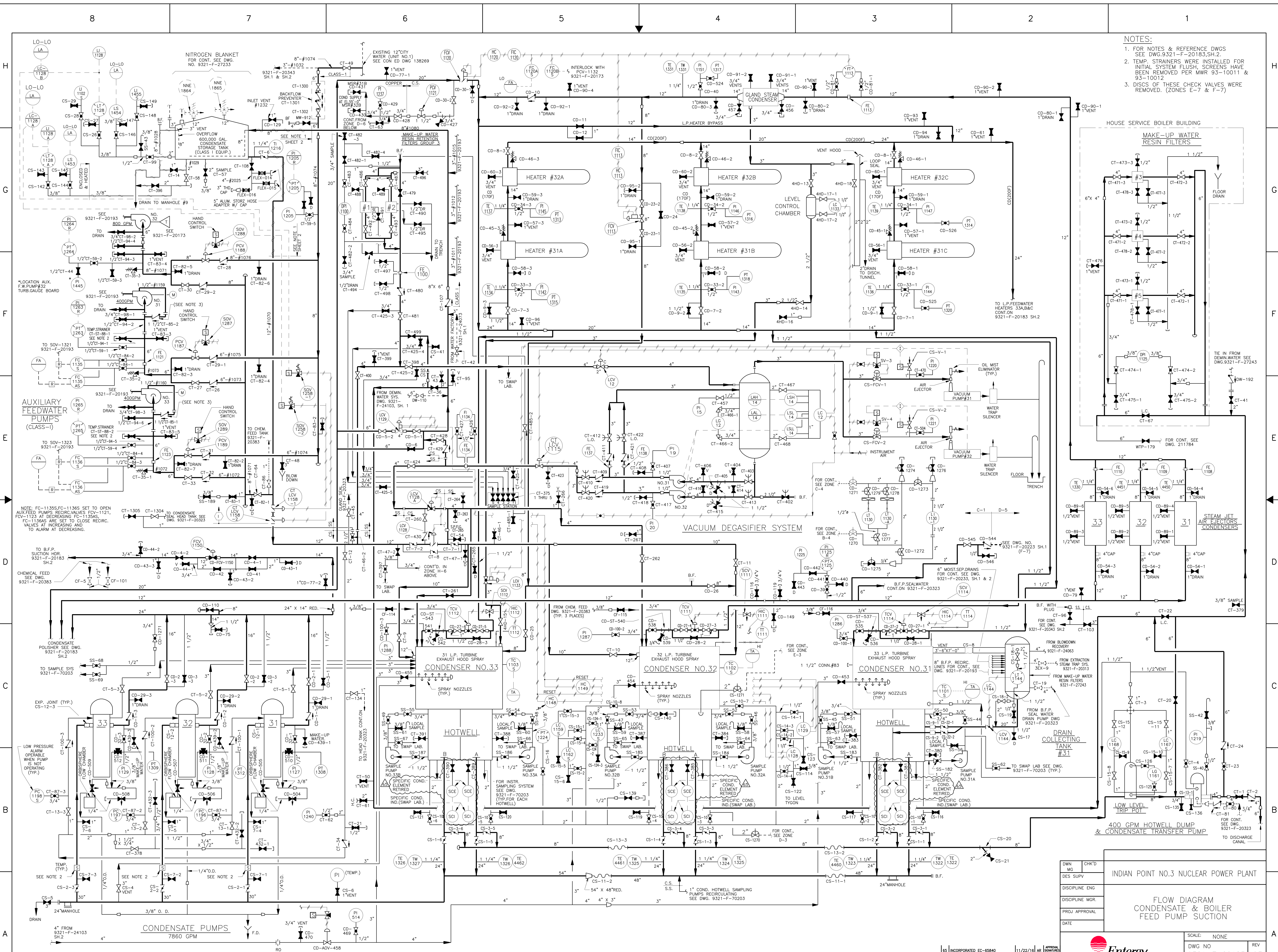
SAFETY RELATED	
DWN	CHK'D
DES SUPV	INDIAN POINT NO. 3 NUCLEAR POWER PLANT
DISCIPLINE ENG	
DISCIPLINE MGR.	
PROJ APPROVAL	
DATE	
FLOW DIAGRAM MAIN STEAM	

SCALE: NONE	REV
DWG NO 9321-F-20173	72
SHEET	

REV	DESCRIPTION	DATE	BY	CHK'D	APP.
72	INCORPORATED EC-37290	10/22/12	DM		

(*) SEE DWG. 9321-F-70133 FOR ADDITIONAL INFORMATION

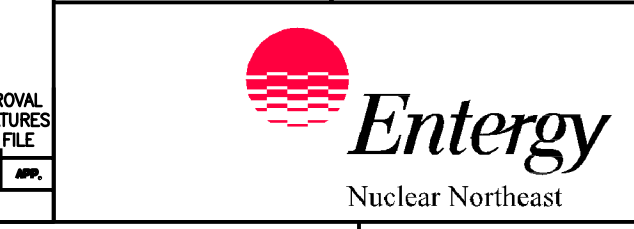
- NOTES:**
- FOR NOTES & REFERENCE DWGS SEE DWG. 9321-F-20183, SH. 2.
 - TEMP. STRAINERS WERE INSTALLED FOR INITIAL SYSTEM FLUSH. SCREENS HAVE BEEN REMOVED PER MWR 93-10011 & 93-10012
 - DISCS OF THESE CHECK VALVES WERE REMOVED. (ZONES E-7 & F-7)



INDIAN POINT NO.3 NUCLEAR POWER PLANT
 FLOW DIAGRAM
 CONDENSATE & BOILER
 FEED PUMP SUCTION

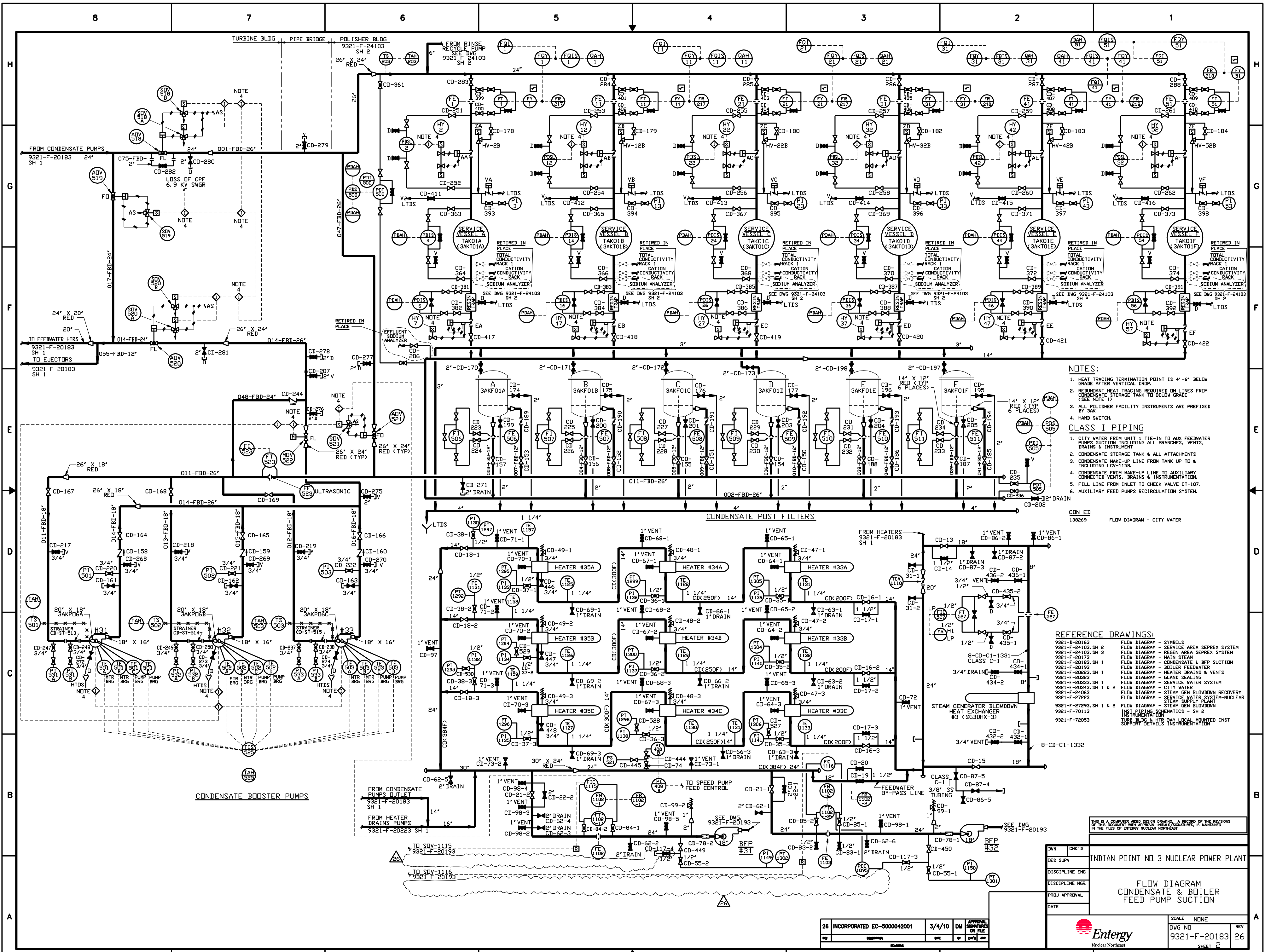
SCALE: NONE
 DWG NO 9321-F-20183 REV 65
 SHEET 1

TYPE A/ISI/FSAR/EC



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65 INCORPORATED ENG-65840 11/22/16 AR APPROVAL SIGNATURES



- NOTES:**
- HEAT TRACING TERMINATION POINT IS 4" - 6" BELOW GRADE AFTER VERTICAL DROP.
 - REUNDANT HEAT TRACING REQUIRED ON LINES FROM CONDENSATE STORAGE TANK TO BELOW GRADE (SEE NOTE 1).
 - ALL POLISHER FACILITY INSTRUMENTS ARE PREFIXED BY 3AK.
 - HAND SWITCH.
- CLASS I PIPING**
- CITY WATER FROM UNIT 1 TIE-IN TO AUX FEEDWATER PUMPS SUCTION INCLUDING ALL BRANCHES, VENTS, DRAINS & INSTRUMENT.
 - CONDENSATE STORAGE TANK & ALL ATTACHMENTS.
 - CONDENSATE MAKE-UP LINE FROM TANK UP TO & INCLUDING LOV-1158.
 - CONDENSATE FROM MAKE-UP LINE TO AUXILIARY CONNECTED VENTS, DRAINS & INSTRUMENTATION.
 - FILL LINE FROM INLET TO CHECK VALVE CT-107.
 - AUXILIARY FEED PUMPS RECIRCULATION SYSTEM.

COND ED
138269

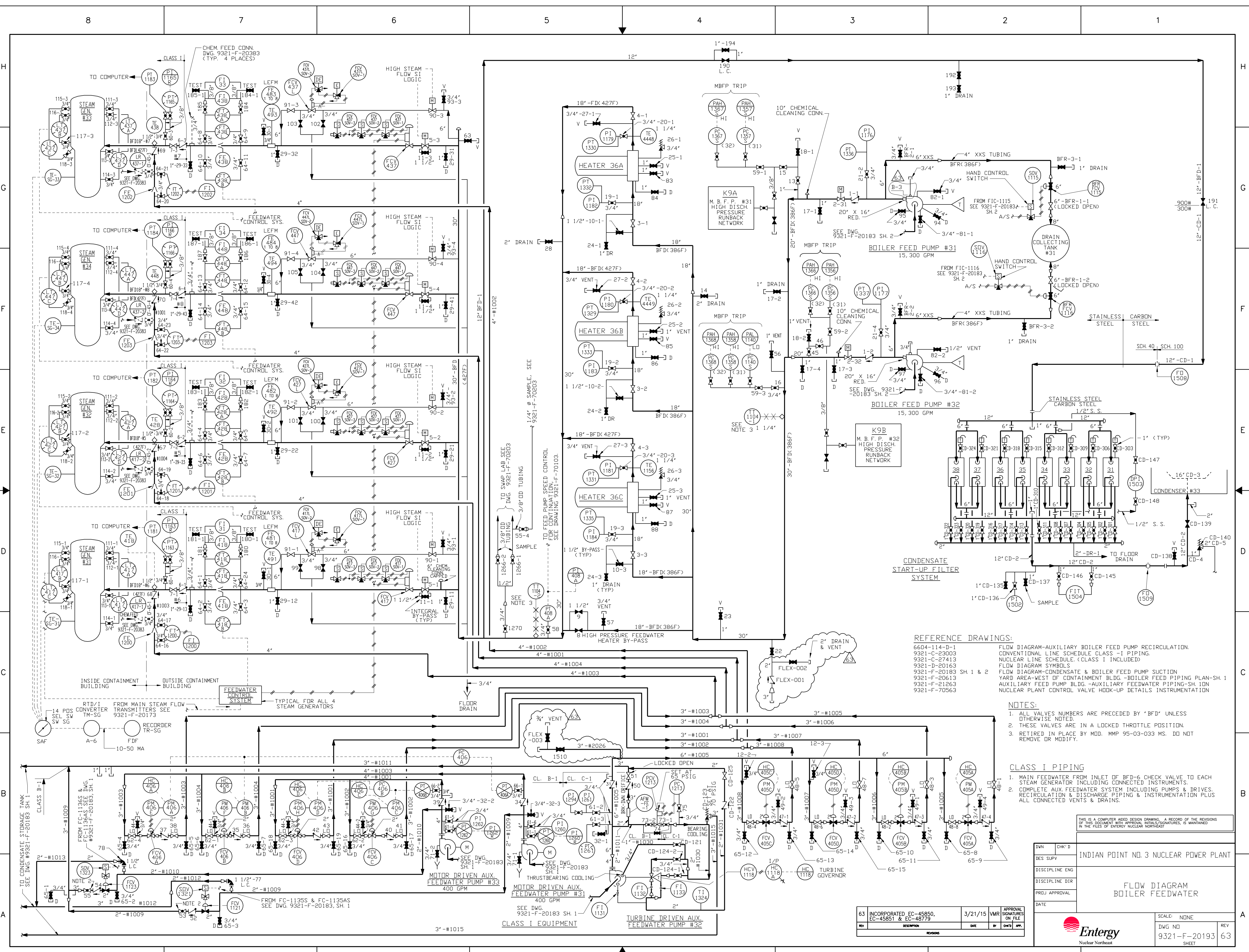
FLOW DIAGRAM - CITY WATER

- REFERENCE DRAWINGS:**
- 9321-D-20163 SH 2 FLOW DIAGRAM - SYMBOLS
 - 9321-F-24103, SH 2 FLOW DIAGRAM - SERVICE AREA SEPSEX SYSTEM
 - 9321-F-24103, SH 3 FLOW DIAGRAM - REGEN AREA SEPSEX SYSTEM
 - 9321-F-20173 FLOW DIAGRAM - MAIN STEAM
 - 9321-F-20185, SH 1 FLOW DIAGRAM - CONDENSATE & BFP SUCTION
 - 9321-F-20193 FLOW DIAGRAM - BOILER FEEDWATER
 - 9321-F-20223, SH 1 FLOW DIAGRAM - HEATER DRAINS & VENTS
 - 9321-F-20323, SH 1 FLOW DIAGRAM - SERVICE WATER SYSTEM
 - 9321-F-20343, SH 1 & 2 FLOW DIAGRAM - GLAND SEALING
 - 9321-F-24263 FLOW DIAGRAM - STEAM GEN. BLOWDOWN RECOVERY
 - 9321-F-27223 FLOW DIAGRAM - SERVICE WATER SYSTEM-NUCLEAR
 - 9321-F-27293, SH 1 & 2 FLOW DIAGRAM - STEAM GEN BLOWDOWN
 - 9321-F-70113 INST. PIPING SCHEMATICS - SH 2
 - 9321-F-72053 INSTRUMENTATION TUBB. BLDG & HTR BAY LOCAL MOUNTED INST SUPPORT DETAILS INSTRUMENTATION

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 ENTERTY NUCLEAR.

DWN	CHK'D	INDIAN POINT NO. 3 NUCLEAR POWER PLANT
DES SUPV		
DISCIPLINE ENG		
DISCIPLINE MGR.		
DATE		FLOW DIAGRAM CONDENSATE & BOILER FEED PUMP SECTION
PROJ APPROVAL		
SCALE	NONE	26
DWG NO	9321-F-20183	
SHEET	2	

26	INCORPORATED EC-5000042001	3/4/10	DM	APPROVAL
REV				ON FILE



REFERENCE DRAWINGS:
 6604-114-D-1
 9321-C-23003
 9321-C-27413
 9321-D-20163
 9321-F-20183 SH. 1 & 2
 9321-F-20613
 9321-F-21263
 9321-F-70563

FLOW DIAGRAM-AUXILIARY BOILER FEED PUMP RECIRCULATION.
 CONVENTIONAL LINE SCHEDULE CLASS -I PIPING.
 NUCLEAR LINE SCHEDULE (CLASS I INCLUDED).
 FLOW DIAGRAM SYMBOLS.
 FLOW DIAGRAM-CONDENSATE & BOILER FEED PUMP SUCTION YARD AREA-WEST OF CONTAINMENT BLDG.-BOILER FEED PIPING PLAN-SH. 1
 AUXILIARY FEED PUMP BLDG.-AUXILIARY FEEDWATER PIPING-SH. 10N
 NUCLEAR PLANT CONTROL VALVE HOOK-UP DETAILS INSTRUMENTATION

- NOTES:**
1. ALL VALVES NUMBERS ARE PRECEDED BY "BFD" UNLESS OTHERWISE NOTED.
 2. THESE VALVES ARE IN A LOCKED THROTTLE POSITION.
 3. RETIRED IN PLACE BY MOD. MMP 95-03-033 MS. DO NOT REMOVE OR MODIFY.

CLASS I PIPING

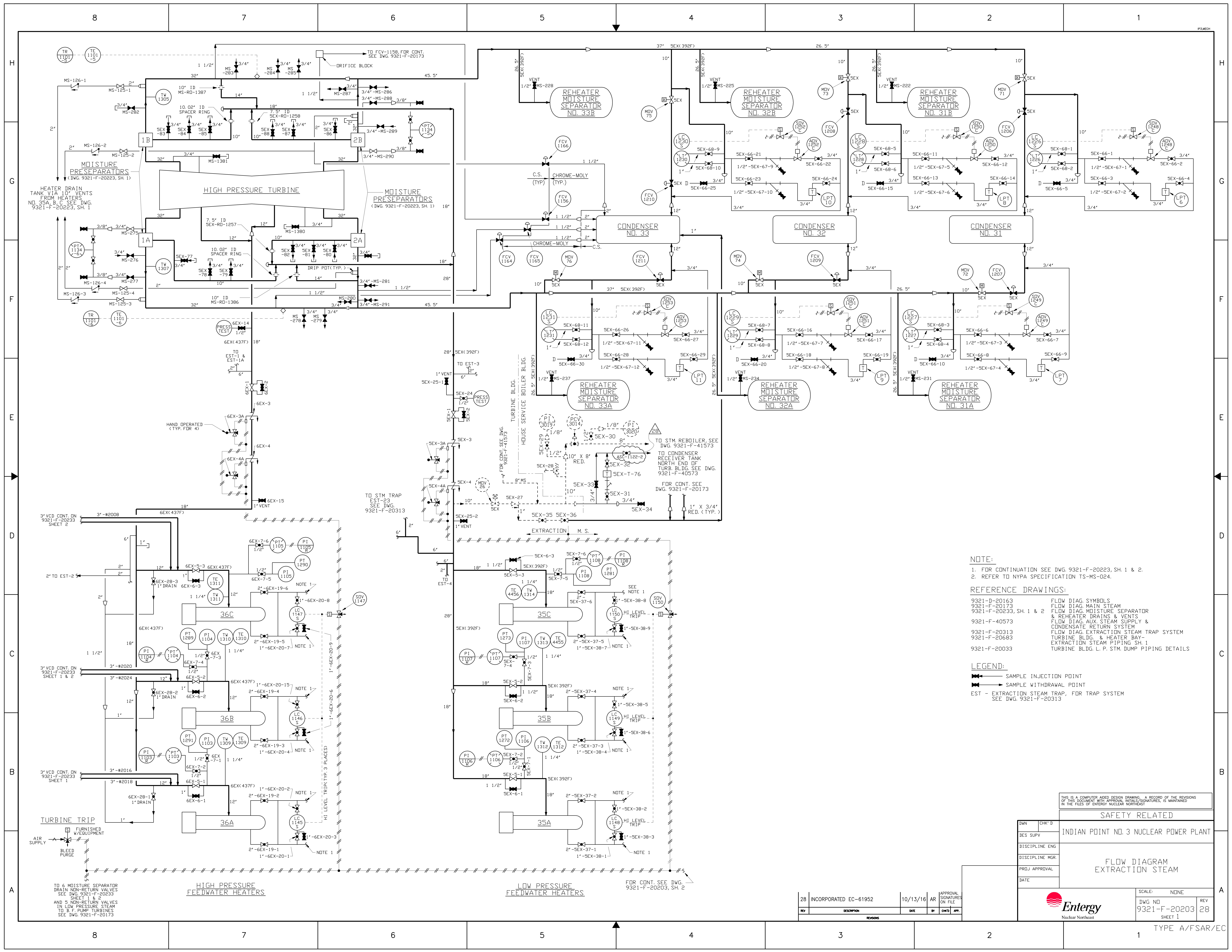
1. MAIN FEEDWATER FROM INLET OF BFD-6 CHECK VALVE TO EACH STEAM GENERATOR INCLUDING CONNECTED INSTRUMENTS.
2. COMPLETE AUX. FEEDWATER SYSTEM INCLUDING PUMPS & DRIVES, RECIRCULATION & DISCHARGE PIPING & INSTRUMENTATION PLUS ALL CONNECTED VENTS & DRAINS.

THIS IS A COMPUTER AIDED DESIGN DRAWING. A RECORD OF THE REVISIONS OF THIS DOCUMENT WITH APPROVAL INITIALS/DATE, IS MAINTAINED IN THE FILES OF ENTERTY NUCLEAR NORTHEAST

DWG NO	CHK'D	INDIAN POINT NO. 3 NUCLEAR POWER PLANT
DES SUPV		
DISCIPLINE ENG		
DISCIPLINE DIR		FLOW DIAGRAM BOILER FEEDWATER
PRJ. APPROVAL		
DATE		
SCALE	NONE	REV
DWG NO	9321-F-20193	REV
SHEET	63	

63	INCORPORATED EC-45850, EC-45851 & EC-48779	3/21/15	WVR	APPROVAL SIGNATURES ON FILE
REV	DESCRIPTION	DATE	BY	CHK'D





NOTE:
 1. FOR CONTINUATION SEE DWG. 9321-F-20223, SH. 1 & 2.
 2. REFER TO NYPA SPECIFICATION TS-MS-024.

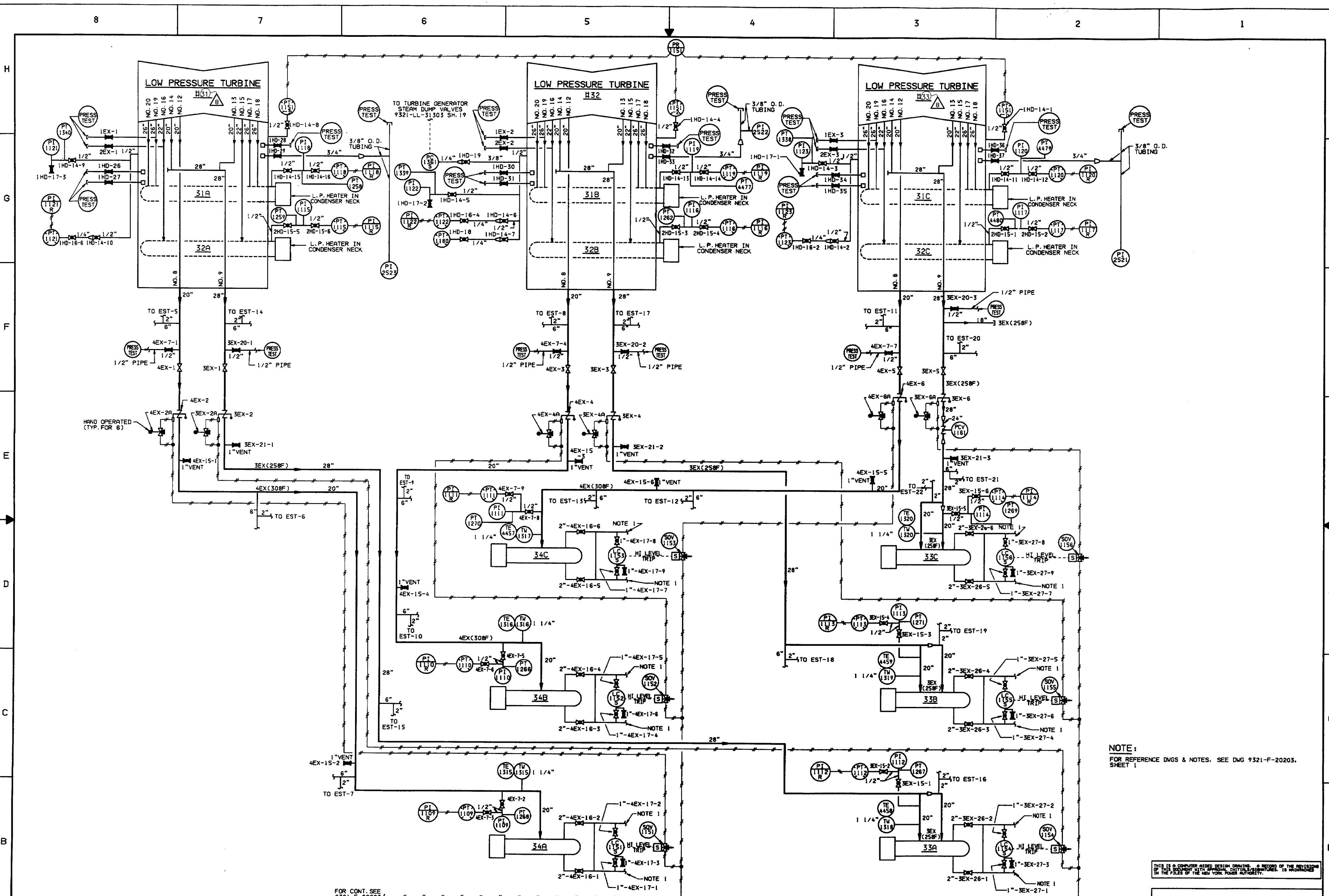
REFERENCE DRAWINGS:
 9321-D-20163 FLOW DIAG. SYMBOLS
 9321-F-20173 FLOW DIAG. MAIN STEAM
 9321-F-20233, SH. 1 & 2 FLOW DIAG. MOISTURE SEPARATOR & REHEATER DRAINS & VENTS
 9321-F-40573 FLOW DIAG. AUX. STEAM SUPPLY & CONDENSATE RETURN SYSTEM
 9321-F-20313 FLOW DIAG. EXTRACTION STEAM TRAP SYSTEM
 9321-F-20683 TURBINE BLDG. & HEATER BAY- EXTRACTION STEAM PIPING, SH. 1
 9321-F-20033 TURBINE BLDG. L.P. STM. DUMP PIPING DETAILS

LEGEND:
 [Symbol] SAMPLE INJECTION POINT
 [Symbol] SAMPLE WITHDRAWAL POINT
 EST - EXTRACTION STEAM TRAP, FOR TRAP SYSTEM SEE DWG. 9321-F-20313

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 ENTERGY NUCLEAR NORTHEAST.

SAFETY RELATED	
INDIAN POINT NO. 3 NUCLEAR POWER PLANT	
FLOW DIAGRAM EXTRACTION STEAM	
DWN	CHK'D
DES. SUPV.	
DISCIPLINE ENG.	
DISCIPLINE MGR.	
PROJ. APPROVAL	
DATE	
SCALE: NONE	REV 28
DWG NO. 9321-F-20203	SHEET 1

28	INCORPORATED EC-61952	10/13/16	AR	APPROVAL SIGNATURES ON FILE
REV	DESCRIPTION	DATE	BY	CHK'D



NOTE:
FOR REFERENCE DWGS & NOTES, SEE DWG 9321-F-20203, SHEET 1

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FOR CONT. SEE
9321-F-20203
SHEET 1

LOW PRESSURE FEEDWATER HEATERS

8	INCORPORATED EC-18077	10/19/09	AI	APPROVAL	DATE	DESCRIPTION
7	AS-BUILT PER DCP 98-3-127 FW					

REV NO.	DATE	DESCRIPTION	BY	CHKD	DES	PROJ	REV	DATE	DESCRIPTION
6		AS BUILT PER DCR 100141598							
5		AS BUILT PER MOD 83-03-169CAR, DCR 100073823 & 100028278							
4		AS BUILT PER DCR 100047615							
3		AS BUILT PER PLANT WALKDOWN							
2		AS BUILT PER MOD 89-03-001MTG							
1		AS-BUILT PER VALVE NUMBERING CHECK							

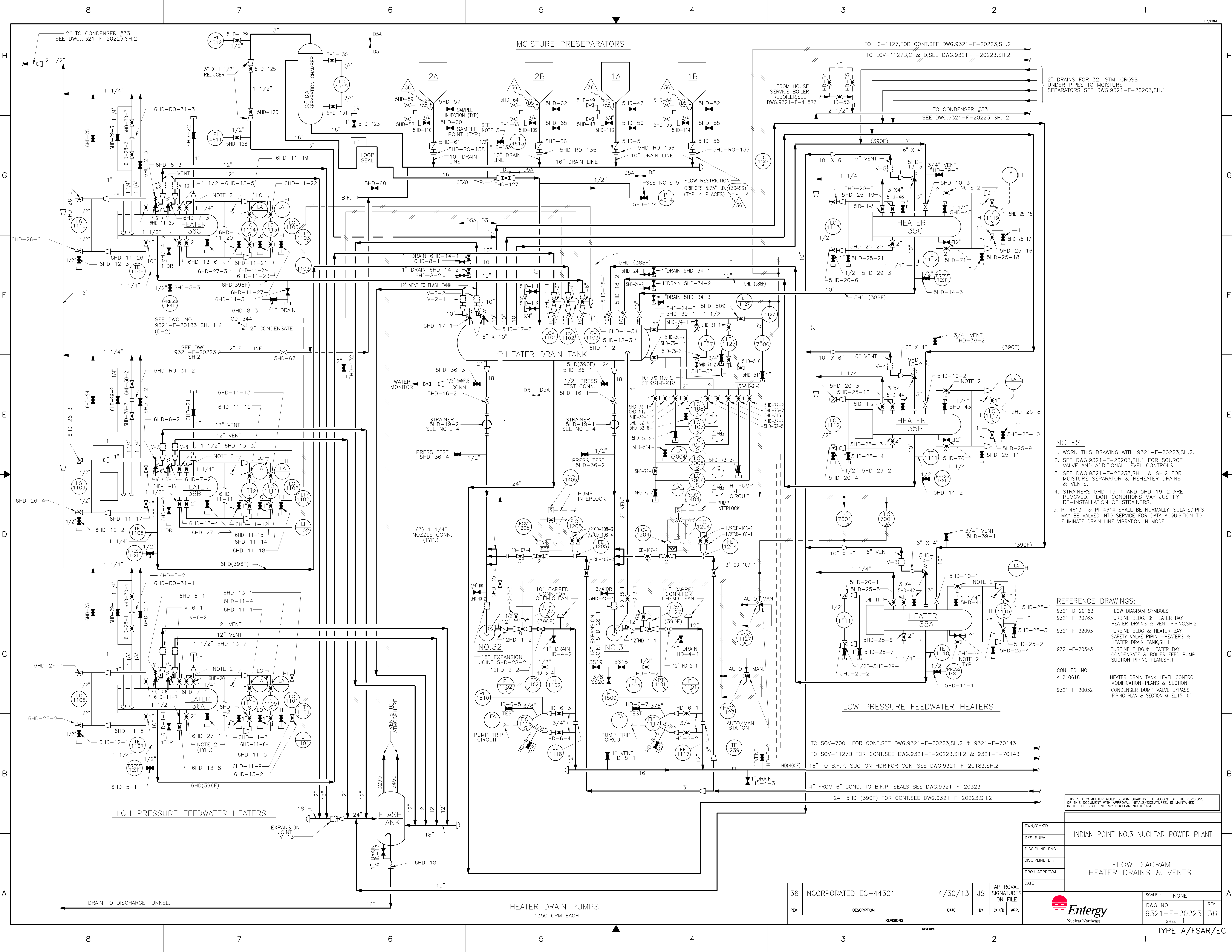
DWG/CHK'D	INDIAN POINT NO. 3 NUCLEAR POWER PLANT
DES. SUPV.	
DISCIPLINE ENG.	
DISCIPLINE ENR	
PROJ. APPROVAL	
DATE	

**FLOW DIAGRAM
EXTRACTION STEAM**

SCALE NONE
DWG NO 9321-F-20203
SHEET 2
REV 8

Enertgy
Nuclear Northeast

TYPE A/FSAR/EC



- NOTES:**
1. WORK THIS DRAWING WITH 9321-F-20223,SH.2.
 2. SEE DWG.9321-F-20203,SH.1 FOR SOURCE VALVE AND ADDITIONAL LEVEL CONTROLS.
 3. SEE DWG.9321-F-20233,SH.1 & SH.2 FOR MOISTURE SEPARATOR & REHEATER DRAINS & VENTS.
 4. STRAINERS SHD-19-1 AND SHD-19-2 ARE REMOVED. PLANT CONDITIONS MAY JUSTIFY RE-INSTALLATION OF STRAINERS.
 5. PI-4613 & PI-4614 SHALL BE NORMALLY ISOLATED. PI'S MAY BE VALVED INTO SERVICE FOR DATA ACQUISITION TO ELIMINATE DRAIN LINE VIBRATION IN MODE 1.

- REFERENCE DRAWINGS:**
- 9321-D-20163 FLOW DIAGRAM SYMBOLS
 - 9321-F-20763 TURBINE BLDG. & HEATER BAY-HEATER DRAINS & VENT PIPING,SH.2
 - 9321-F-22095 TURBINE BLDG & HEATER BAY-SAFETY VALVE PIPING-HEATERS & HEATER DRAIN TANK,SH.1
 - 9321-F-20543 TURBINE BLDG. & HEATER BAY CONDENSATE & BOILER FEED PUMP SUCTION PIPING PLAN,SH.1
- CON. ED. NO.**
A 210618
9321-F-20032 HEATER DRAIN TANK LEVEL CONTROL MODIFICATION-PLANS & SECTION CONDENSER DUMP VALVE BYPASS PIPING PLAN & SECTION @ EL.15'-0"

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 ENTERTY NUCLEAR NORTH EAST.

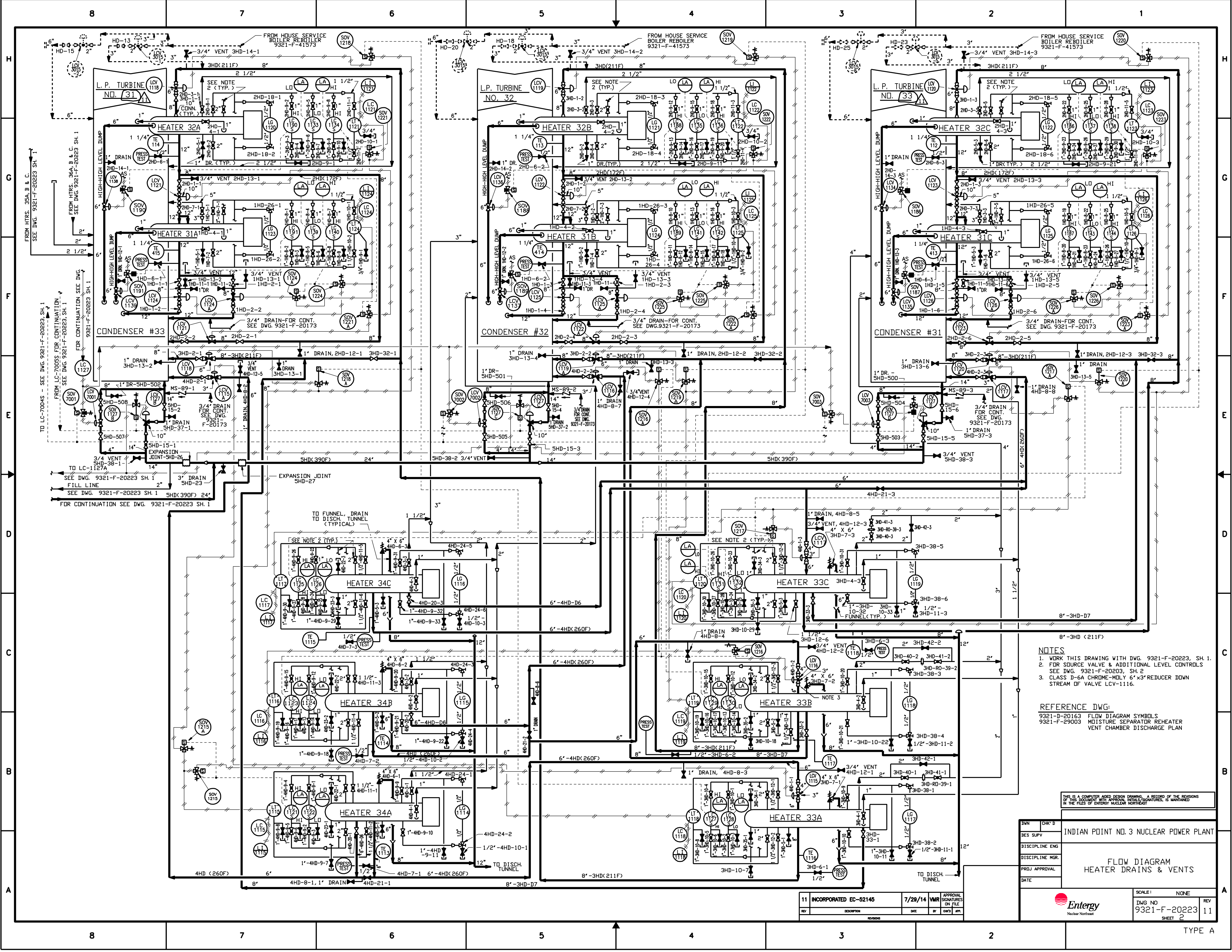
DWN/CHK'D	INDIAN POINT NO.3 NUCLEAR POWER PLANT		
DES SUPV	FLOW DIAGRAM HEATER DRAINS & VENTS		
DISCIPLINE ENG			
DISCIPLINE DIR			
PROJ APPROVAL			
DATE			

REV	DESCRIPTION	DATE	BY	CHK'D	APP.
36	INCORPORATED EC-44301	4/30/13	JS		APPROVAL SIGNATURES ON FILE

SCALE: NONE	DWG NO 9321-F-20223	REV 36
SHEET 1		



TYPE A/FSAR/EC



- NOTES**
1. WORK THIS DRAWING WITH DWG. 9321-F-20223, SH. 1.
 2. FOR SOURCE VALVE & ADDITIONAL LEVEL CONTROLS SEE DWG. 9321-F-20203, SH. 2.
 3. CLASS D-6A CHROME-MOLY 6" X 3" REDUCER DOWN STREAM OF VALVE LCV-1116.

REFERENCE DWG:
 9321-D-20163 FLOW DIAGRAM SYMBOLS
 9321-F-29003 MOISTURE SEPARATOR REHEATER VENT CHAMBER DISCHARGE PLAN

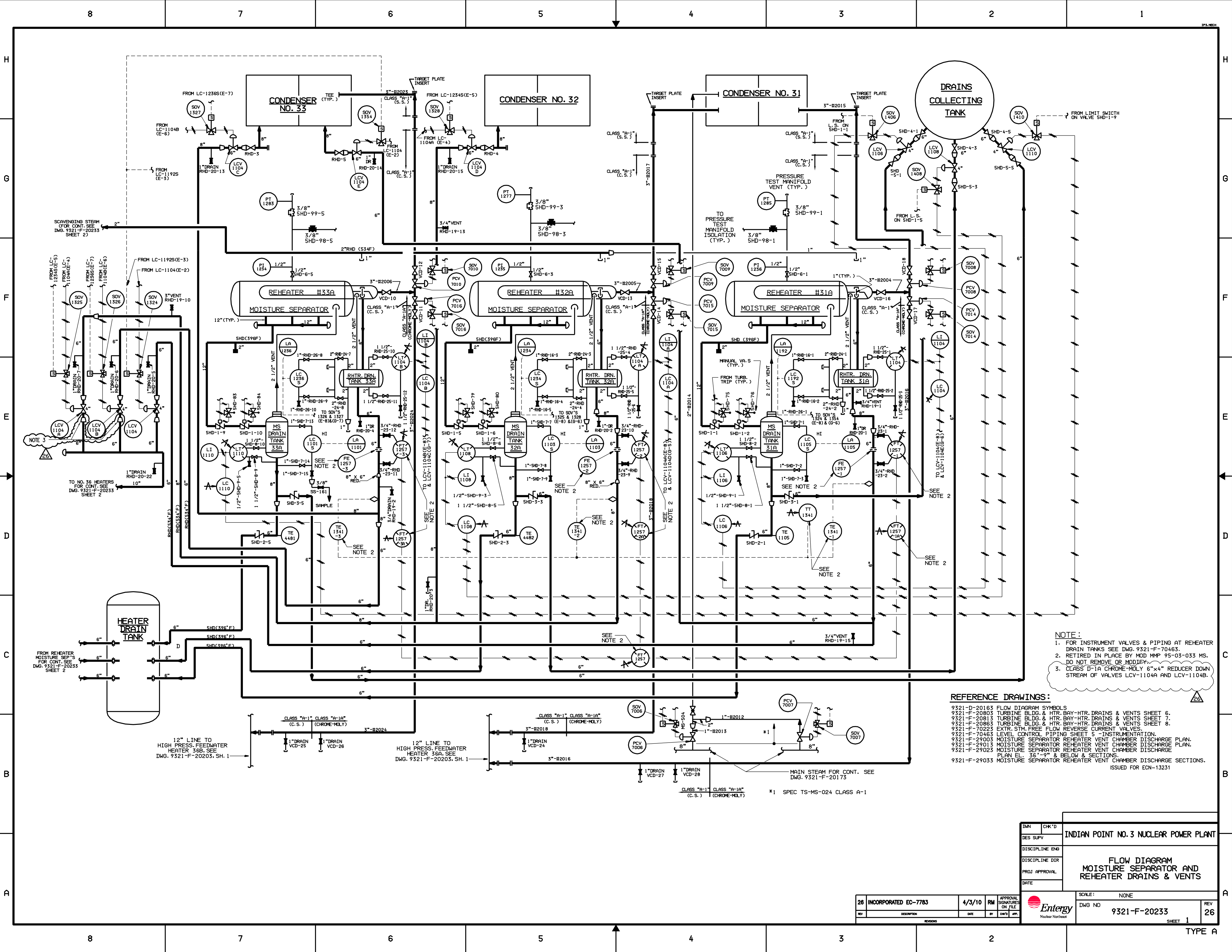
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DESIGN	CHK'D	INDIAN POINT NO. 3 NUCLEAR POWER PLANT
DES. SUPV		
DISCIPLINE ENG.		
DISCIPLINE MGR.		
PRD. APPROVAL		
DATE		FLOW DIAGRAM HEATER DRAINS & VENTS

11	INCORPORATED EC-52145	7/28/14	VMR	APPROVAL SIGNATURES ON FILE
REV	DESCRIPTION	DATE	BY	CHK'D

SCALE:	NONE
DWG NO	9321-F-20223
SHEET	2
REV	11

TYPE A



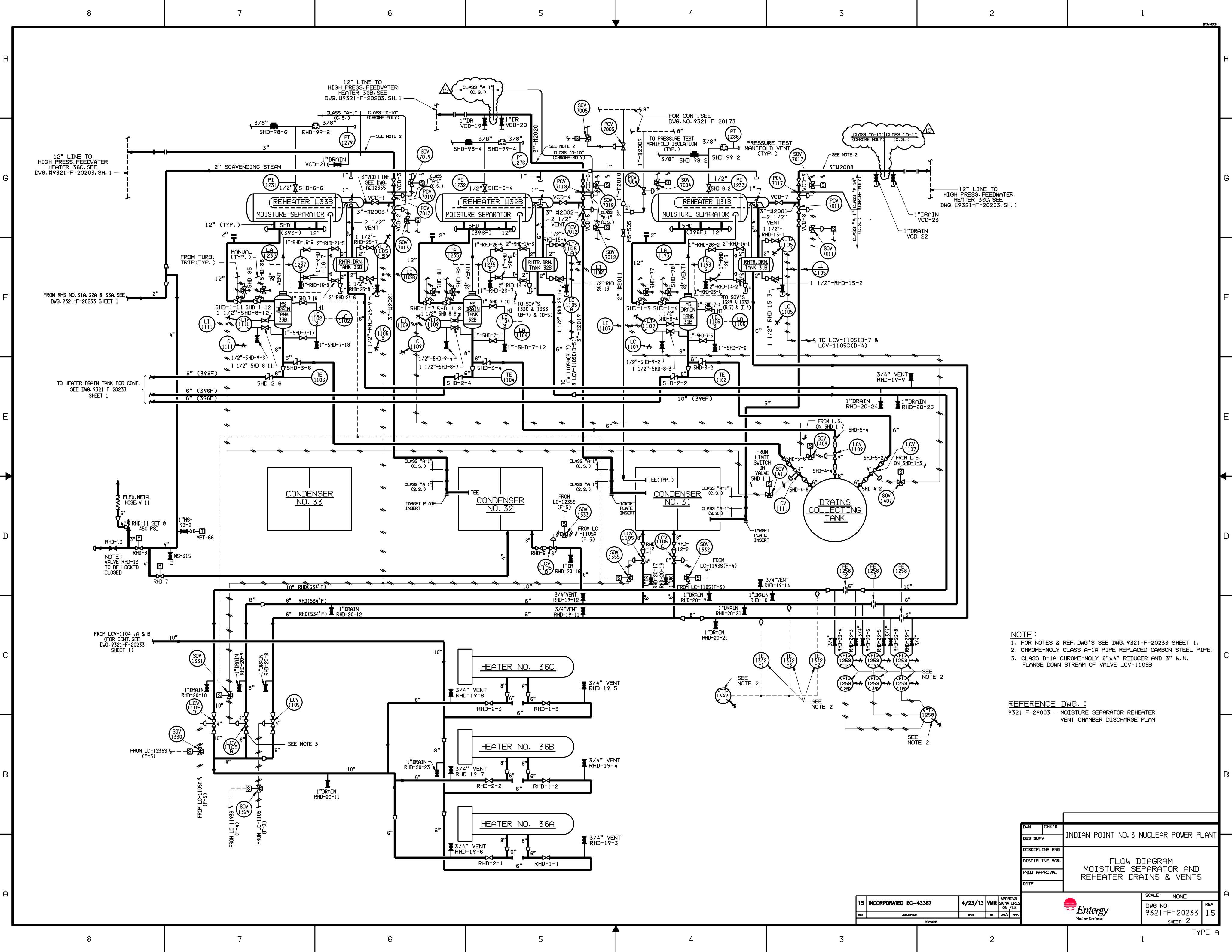
NOTE:
 1. FOR INSTRUMENT VALVES & PIPING AT REHEATER DRAIN TANKS SEE DWS. 9321-F-70463.
 2. RETIRED IN PLACE BY MOD MMP 95-03-033 MS. DO NOT REMOVE OR MODIFY.
 3. CLASS D-1A CHROME-MOLY 6"x4" REDUCER DOWN STREAM OF VALVES LCV-1104A AND LCV-1104B.

REFERENCE DRAWINGS:
 9321-D-20163 FLOW DIAGRAM SYMBOLS
 9321-F-20803 TURBINE BLDG. & HTR. BAY-HTR. DRAINS & VENTS SHEET 6.
 9321-F-20813 TURBINE BLDG. & HTR. BAY-HTR. DRAINS & VENTS SHEET 7.
 9321-F-20863 TURBINE BLDG. & HTR. BAY-HTR. DRAINS & VENTS SHEET 8.
 9321-F-70223 EXTR. STM. FREE FLOW REVERSE CURRENT VALVES.
 9321-F-70463 LEVEL CONTROL PIPING SHEET 5 - INSTRUMENTATION.
 9321-F-29003 MOISTURE SEPARATOR REHEATER VENT CHAMBER DISCHARGE PLAN.
 9321-F-29015 MOISTURE SEPARATOR REHEATER VENT CHAMBER DISCHARGE PLAN.
 9321-F-29023 MOISTURE SEPARATOR REHEATER VENT CHAMBER DISCHARGE PLAN EL. 36'-9" & BELOW & SECTIONS.
 9321-F-29033 MOISTURE SEPARATOR REHEATER VENT CHAMBER DISCHARGE SECTIONS.
 ISSUED FOR ECN-13231

DWN	CHK'D	INDIAN POINT NO. 3 NUCLEAR POWER PLANT
DES SUPV		
DISCIPLINE ENG		
DISCIPLINE DIR		
PROJ APPROVAL		FLOW DIAGRAM MOISTURE SEPARATOR AND REHEATER DRAINS & VENTS
DATE		
SCALE: NONE		
DWG NO. 9321-F-20233		REV 26

26	INCORPORATED EC-7783	4/3/10	RM	APPROVAL SIGNATURES ON FILE
REV	DESCRIPTION	DATE	BY	DWG'S APP.

TYPE A



- NOTE:**
- FOR NOTES & REF. DWG'S SEE DWG. 9321-F-20233 SHEET 1.
 - CHROME-MOLY CLASS A-1A PIPE REPLACED CARBON STEEL PIPE.
 - CLASS D-1A CHROME-MOLY 8"x4" REDUCER AND 3" W.N. FLANGE DOWN STREAM OF VALVE LCV-1105B

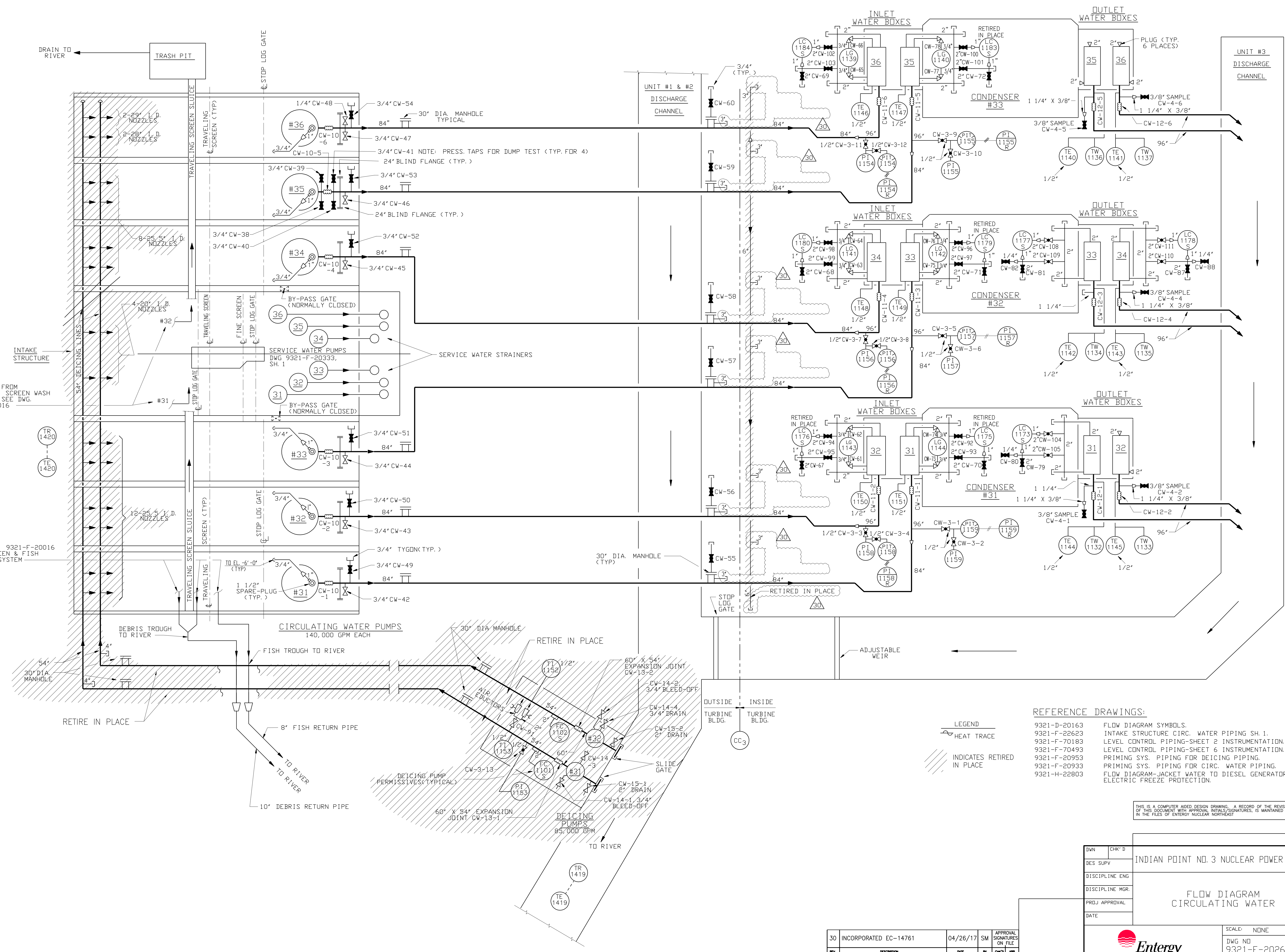
REFERENCE DWG.:
 9321-F-29003 - MOISTURE SEPARATOR REHEATER VENT CHAMBER DISCHARGE PLAN

DIN		CHK'D		INDIAN POINT NO. 3 NUCLEAR POWER PLANT	
DES. SUPV.		DISCIPLINE ENG.		FLOW DIAGRAM	
DISCIPLINE MGR.		PROJ. APPROVAL		MOISTURE SEPARATOR AND	
DATE				REHEATER VENTS	
				SCALE: NONE	
				DWG NO. 9321-F-20233	
				SHEET 2	
				REV 15	

15	INCORPORATED EC-43387	4/23/13	VMR	APPROVAL SIGNATURES ON FILE
REV	DESCRIPTION	DATE	BY	CHK'D



NOTE
 OUTLET WATER BOXES LEVEL
 CONTROLLERS LC-1177S
 LC-1178S & LC-1179S
 ARE "RETIRED IN PLACE"



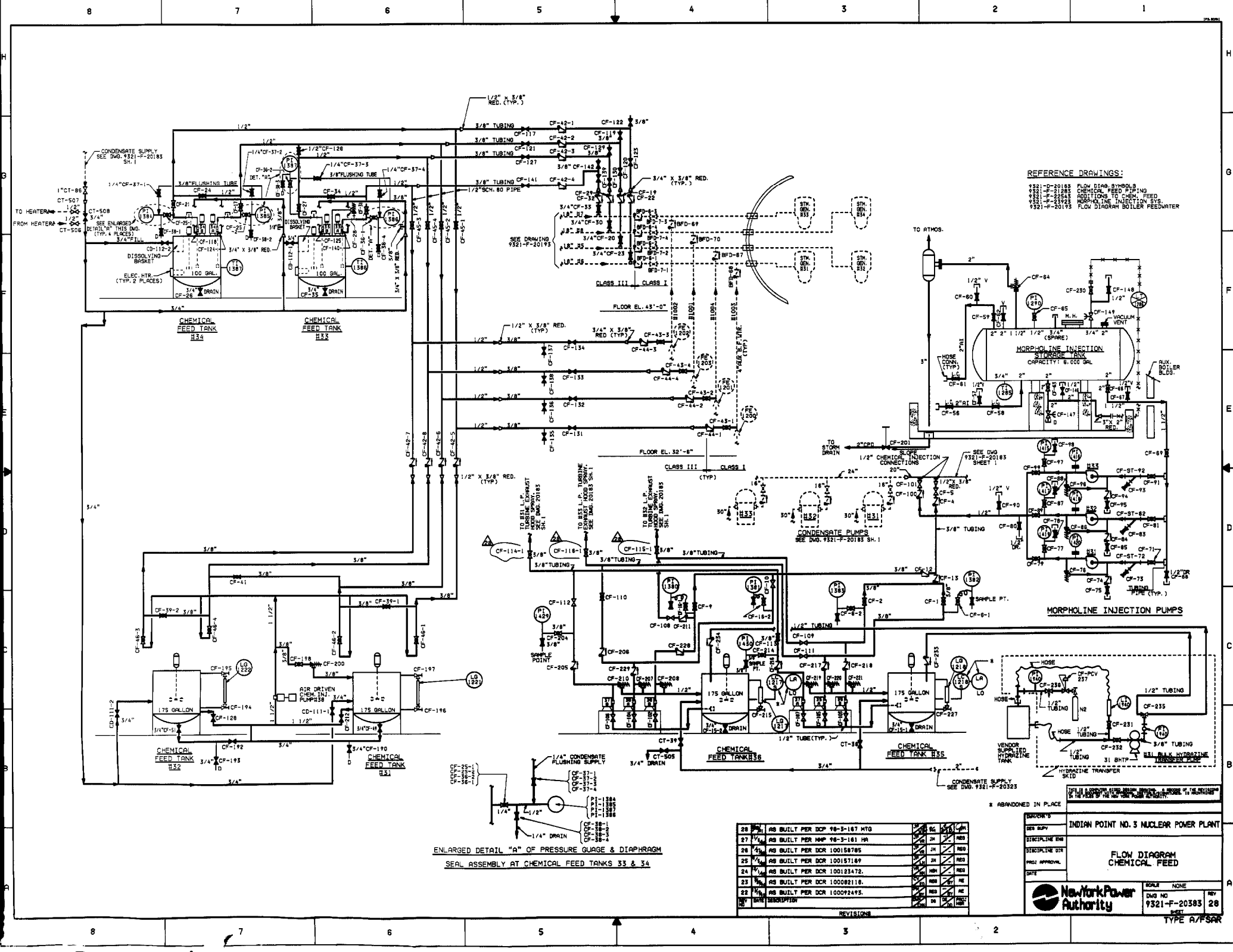
- REFERENCE DRAWINGS:
- 9321-D-20163 FLOW DIAGRAM SYMBOLS.
 - 9321-F-22623 INTAKE STRUCTURE CIRC. WATER PIPING SH. 1.
 - 9321-F-70183 LEVEL CONTROL PIPING-SHEET 2 INSTRUMENTATION.
 - 9321-F-70493 LEVEL CONTROL PIPING-SHEET 6 INSTRUMENTATION.
 - 9321-F-20953 PRIMING SYS. PIPING FOR DEICING PIPING.
 - 9321-F-20933 PRIMING SYS. PIPING FOR CIRC. WATER PIPING.
 - 9321-H-22803 FLOW DIAGRAM-JACKET WATER TO DIESEL GENERATORS. ELECTRIC FREEZE PROTECTION.

LEGEND
 HEAT TRACE
 INDICATES RETIRED IN PLACE

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DWN	CHR'D	INDIAN POINT NO. 3 NUCLEAR POWER PLANT	
DES SUPV		FLOW DIAGRAM WATER	
DISCIPLINE ENG		CIRCULATING WATER	
DISCIPLINE MGR			
PRJ APPROVAL			
DATE			
		SCALE: NONE	REV 30
		DWG NO 9321-F-20263	SHEET

30	INCORPORATED EC-14761	04/26/17	SM	APPROVAL SIGNATURES ON FILE
REV	DESCRIPTION	DATE	BY	CHK'D



REFERENCE DRAWINGS:
 9321-F-20183 FLOW DIAG. SYMBOLS
 9321-F-20183 CHEMICAL FEED PIPING
 9321-F-20183 ADDITIONS TO CHEM. FEED
 9321-F-20183 MORPHOLINE INJECTION SYS.
 9321-F-20183 FLOW DIAGRAM BOILER FEEDWATER

ENLARGED DETAIL "A" OF PRESSURE GAUGE & DIAPHRAGM
 SEAL ASSEMBLY AT CHEMICAL FEED TANKS 33 & 34

NO.	DATE	DESCRIPTION	BY	CHKD.	APP'D.
28	10/1/80	AS BUILT PER DCR 98-3-187 MTO	...	...	...
27	9/1/80	AS BUILT PER MWP 98-3-181 MR	...	...	...
26	8/1/80	AS BUILT PER DCR 100158785	...	...	...
25	7/1/80	AS BUILT PER DCR 100157189	...	...	...
24	6/1/80	AS BUILT PER DCR 100123472	...	...	...
23	5/1/80	AS BUILT PER DCR 100082118	...	...	...
22	4/1/80	AS BUILT PER DCR 100092495	...	...	...
21	3/1/80	AS BUILT PER DCR 100092495	...	...	...

INDIAN POINT NO. 3 NUCLEAR POWER PLANT

DISCIPLINE: ENR

DISCIPLINE: DIN

PROJECT: FLOW DIAGRAM CHEMICAL FEED

DATE: _____

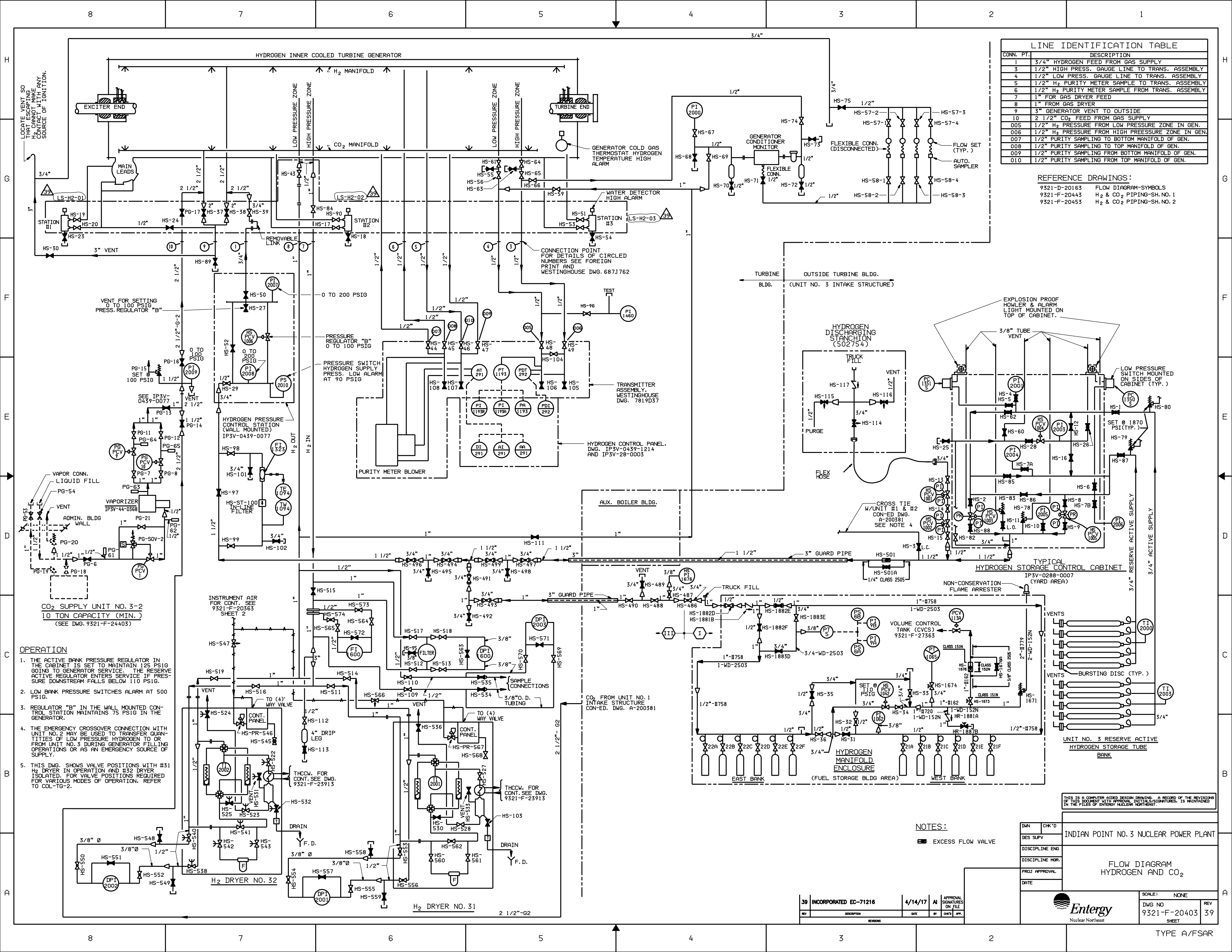
SCALE: NONE

DWG NO: 9321-F-20383

REV: 28

TYPE: A/F/SAR

New York Power Authority



CONN. PT.	DESCRIPTION
1	3/4" HYDROGEN FEED FROM GAS SUPPLY
3	1/2" HIGH PRESS. GAUGE LINE TO TRANS. ASSEMBLY
4	1/2" LOW PRESS. GAUGE LINE TO TRANS. ASSEMBLY
5	1/2" H ₂ PURITY METER SAMPLE TO TRANS. ASSEMBLY
6	1/2" H ₂ PURITY METER SAMPLE FROM TRANS. ASSEMBLY
7	1" FOR GAS DRYER FEED
8	1" FROM GAS DRYER
9	3" GENERATOR VENT TO OUTSIDE
10	2 1/2" CO ₂ FEED FROM GAS SUPPLY
005	1/2" H ₂ PRESSURE FROM LOW PRESSURE ZONE IN GEN.
006	1/2" H ₂ PRESSURE FROM HIGH PRESSURE ZONE IN GEN.
007	3" PURITY SAMPLING FROM BOTTOM MANIFOLD OF GEN.
008	1/2" PURITY SAMPLING FROM TOP MANIFOLD OF GEN.
009	1/2" PURITY SAMPLING FROM BOTTOM MANIFOLD OF GEN.
010	1/2" PURITY SAMPLING FROM TOP MANIFOLD OF GEN.

REFERENCE DRAWINGS:
 9321-D-20163 FLOW DIAGRAM-SYMBOLS
 9321-F-20443 H₂ & CO₂ PIPING-SH. NO. 1
 9321-F-20453 H₂ & CO₂ PIPING-SH. NO. 2

- OPERATION**
1. THE ACTIVE BANK PRESSURE REGULATOR IN THE CABINET IS SET TO MAINTAIN 125 PSIG GOING TO GENERATOR SERVICE. THE RESERVE ACTIVE REGULATOR ENTERS SERVICE IF PRESSURE DOWNSTREAM FALLS BELOW 110 PSIG.
 2. LOW BANK PRESSURE SWITCHES ALARM AT 500 PSIG.
 3. REGULATOR "B" IN THE WALL MOUNTED CONTROL STATION MAINTAINS 75 PSIG IN THE GENERATOR.
 4. THE EMERGENCY CROSSOVER CONNECTION WITH UNIT NO. 2 MAY BE USED TO TRANSFER QUANTITIES OF LOW PRESSURE HYDROGEN TO OR FROM UNIT NO. 3 DURING GENERATOR FILLING OPERATIONS OR AS AN EMERGENCY SOURCE OF SUPPLY.
 5. THIS DWG. SHOWS VALVE POSITIONS WITH #31 H₂ DRYER IN OPERATION AND #32 DRYER ISOLATED. FOR VALVE POSITIONS REQUIRED FOR VARIOUS MODES OF OPERATION, REFER TO COL-TG-2.

NOTES:
 EXCESS FLOW VALVE

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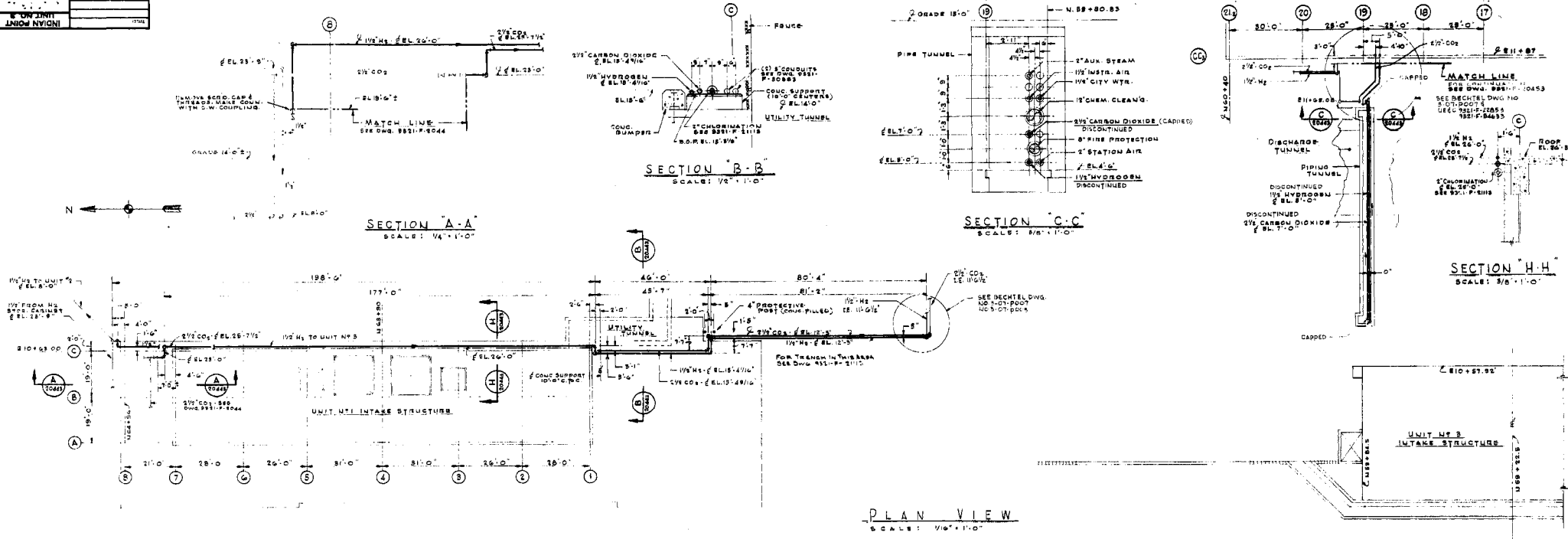
DWG NO	9321-F-20403
REV	39
DATE	4/14/17
BY	AW
CHK'D	
DES. SUPV	
DISCIPLINE ENG	
DISCIPLINE MGR.	
PROJ. APPROVAL	
DATE	

INDIAN POINT NO. 3 NUCLEAR POWER PLANT
 FLOW DIAGRAM
 HYDROGEN AND CO₂

39 INCORPORATED EC-71216
 4/14/17
 APPROVAL SIGNATURES ON FILE

SCALE: NONE
 DWG NO 9321-F-20403
 SHEET 39
 TYPE A/FSAR

UNION NVIGNI



- GENERAL NOTES:**
- SUBCONTRACTOR OF BULK HYDROGEN SYSTEM SHALL FURNISH STORAGE TUBES, FABRICATED CONTROL CABINET & PIPING. FABRICATED STORAGE TUBES & HANDHOLES. HE SHALL ALSO FURNISH PIPING BETWEEN STORAGE TUBES & CONTROL CABINET & SUBSTANTIAL VENT PIPING IN BULK QUANTITIES FOR FIELD FABRICATION. H₂ SUPPLY PIPING SHALL BE FURNISHED BY FIELD.
 - PIPING SHALL BE IN ACCORDANCE WITH HYPA SPECIFICATION 75-MS-022
 - ALL PIPING FURNISHED BY SUB-CONTRACTOR (H₂ SYSTEM) WILL BE BRASS PIPE OR COPPER TUBING.
 - (C) INDICATED WALL PENETRATIONS: NUMBERS SHOW 9321-F-21453

LEGEND:

----- PIPING SUPPLIED BY FIELD
 - - - - - PIPING SUPPLIED BY SUB-CONTRACTOR (HYDROGEN SYSTEM)

- REFERENCE DWG'S:**
- 9321-F-20405 FLOW DIAGRAM - H₂ & CO₂
 - 9321-F-20425 INTAKE STRUCT - H₂ & CO₂ PIPING - SH. 2
 - 9321-F-21118 INTAKE STRUCT - CALORIMETER PIPING
 - 9321-F-21685 YARD AREA - COMPOSITE PIPING
 - 9321-F-21453 TURB & HTR BAY FLOOR PENETRATIONS
 - 9321-F-20444 INTAKE STRUCT (UNIT 1) H₂ & CO₂ PIPING
 - 9307-001 YARD SERVICE PIPING H₂ & CO₂
 - 9307-005 YARD SERVICE PIPING H₂ & CO₂
- FOREIGN PRINTS:**
- 9321-08-20105 H₂ BOTTLE
 - 9321-08-20099 H₂ CONTROL CABINET
 - 9321-08-20101 H₂ VENT TUBING & MAINT. PLO.

1	AS PER LINE WALK		
2	FINAL ISSUE		
3	REVISED DRAWING		
4	REVISIONS		
5	REVISIONS		
6	REVISIONS		
7	REVISIONS		
8	REVISIONS		
9	REVISIONS		

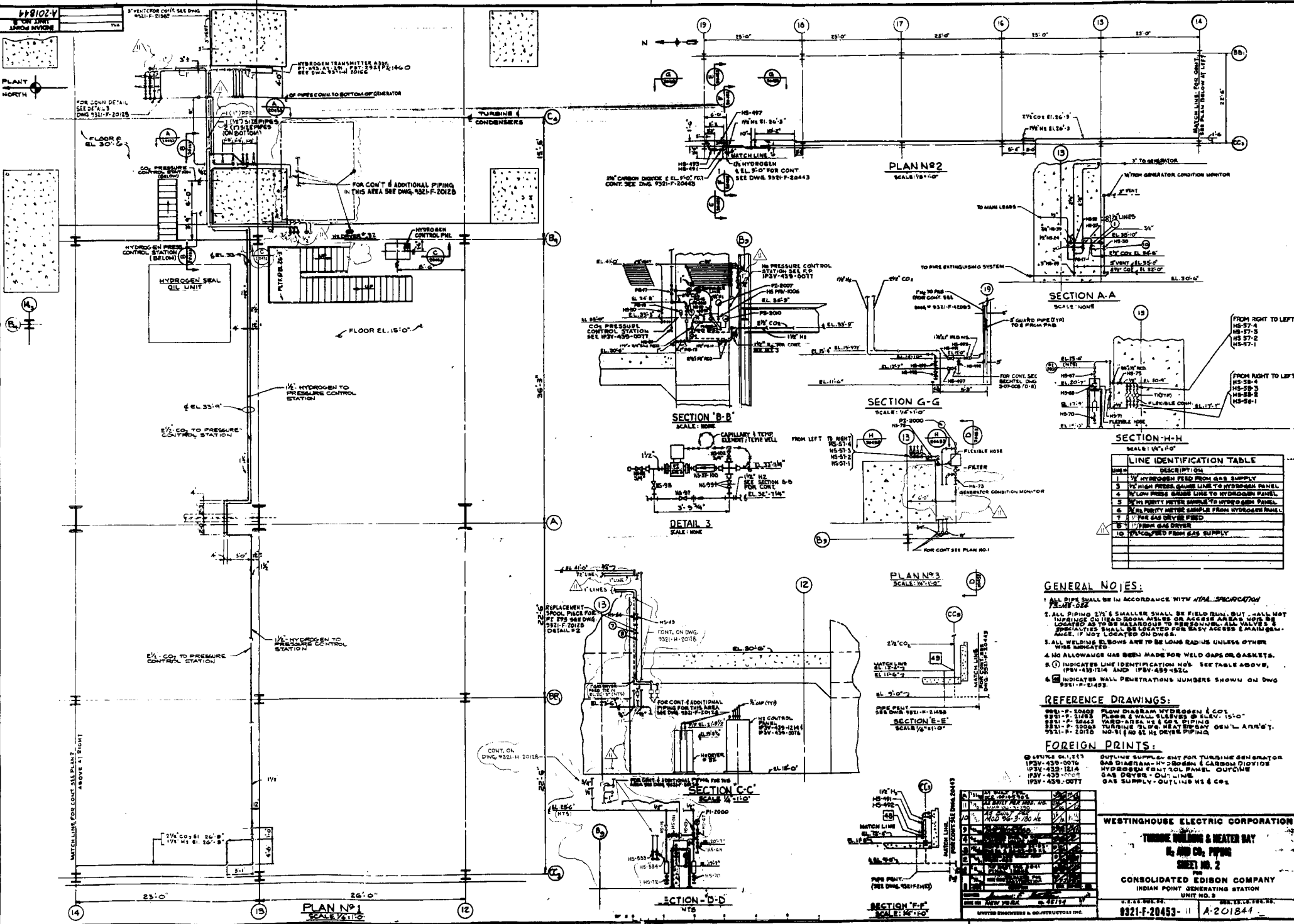
WESTINGHOUSE ELECTRIC CORPORATION
 YARD AREA
 H₂ AND CO₂ PIPING
 SHEET NO. 1
 FOR
 CONSOLIDATED EDISON COMPANY
 INDIAN POINT GENERATING STATION
 UNIT NO. 2

NEW YORK, N.Y. 10024
 U.S.A. 375-80
 8321-F-20443-9 Δ 701843

17/11/02

UK

17/11/02



LINE	DESCRIPTION
1	HYDROGEN FIELD FROM GAS SUPPLY
2	HIGH PRESS GASE LINE TO HYDROGEN PANEL
3	LOW PRESS GASE LINE TO HYDROGEN PANEL
4	PURITY METER SAMPLE FROM HYDROGEN PANEL
5	PURITY METER SAMPLE FROM HYDROGEN PANEL
6	PURITY METER SAMPLE FROM HYDROGEN PANEL
7	TO GAS DRYER FIELD
8	FROM GAS DRYER
9	TO GAS SUPPLY
10	TO GAS SUPPLY

- GENERAL NOTES:**
1. ALL PIPE SHALL BE IN ACCORDANCE WITH *MSA SPECIFICATION*
 2. ALL PIPING 2" & SMALLER SHALL BE FIELD BUILT, BUT SHALL NOT IMPROVE ON THE QUALITY OF WORKMANSHIP OR ACCESS AS FAR AS POSSIBLE TO THE MAINTENANCE PERSONNEL. ALL VALVES & FITTINGS SHALL BE LOCATED FOR EASY ACCESS & MAINTENANCE, IF NOT LOCATED ON DWG.
 3. ALL WELDING ELBOWS ARE TO BE LONG RADIUS UNLESS OTHER WISE INDICATED.
 4. NO ALLOWANCE HAS BEEN MADE FOR WELD CAPS OR GASKETS.
 5. (1) INDICATES LINE IDENTIFICATION NO'S. SEE TABLE ABOVE, (IPSV-439-1214 AND IPSV-439-1524)
 6. (2) INDICATES SMALL PENETRATIONS NUMBERS SHOWN ON DWG (IPSV-F-2148).

- REFERENCE DRAWINGS:**
- IPSV-F-2048 FLOW DIAGRAM HYDROGEN & CO₂
 - IPSV-F-2148 PIPING & WALL SHELVES @ EL. 15'-0"
 - IPSV-F-2243 WARD AREA HS & CO₂ PIPING
 - IPSV-F-2049 TURBINE & COND. HEAT EXCHANGER GEN'L ARR'GT.
 - IPSV-F-2010 NO. 91 (NO. 91) HS DRYER PIPING

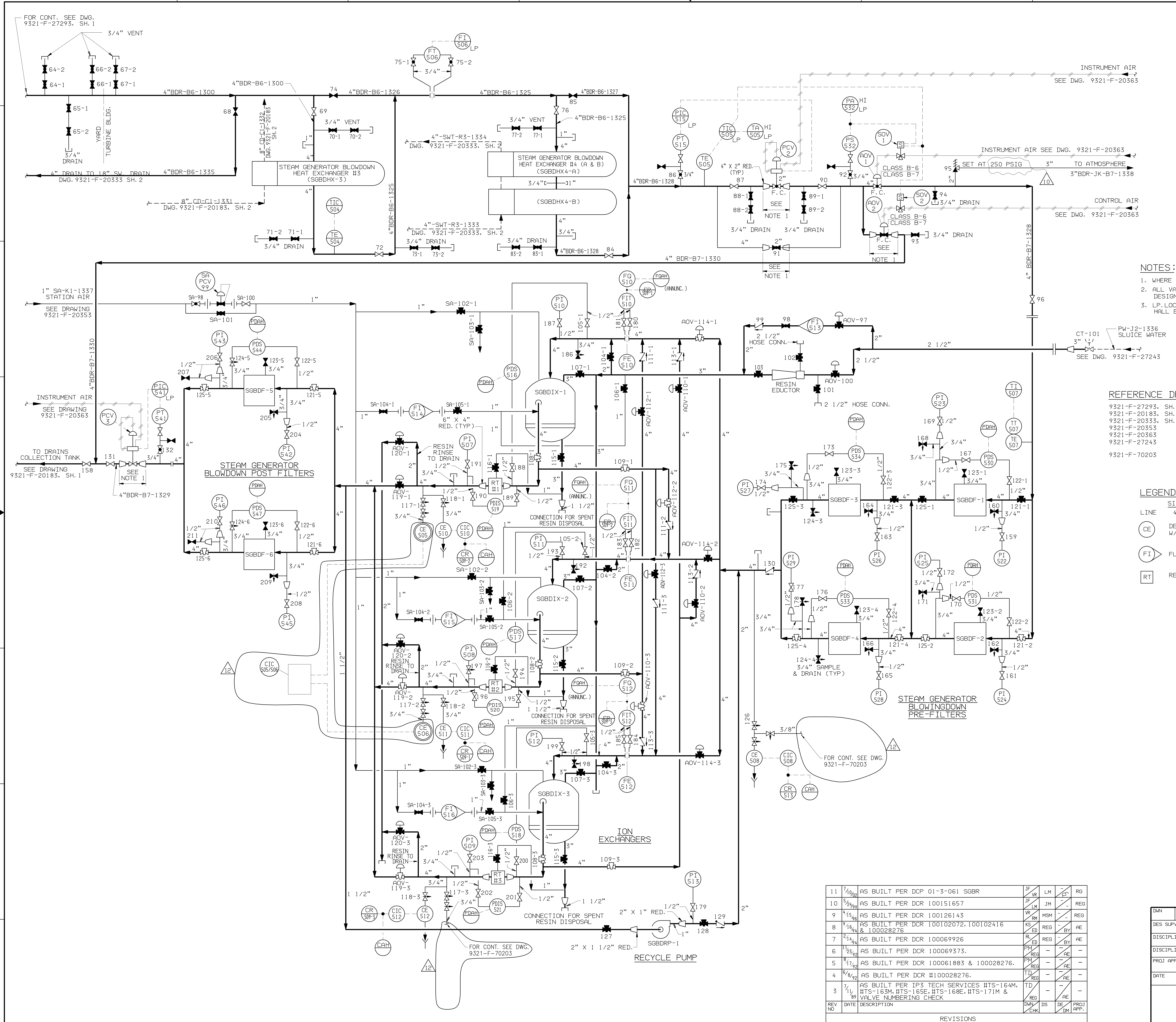
- FOREIGN PRINTS:**
- IPSV-439-0076 OUTLINE SUPPLY FOR TURBINE GENERATOR
 - IPSV-439-0076 GAS DIAGRAM HYDROGEN & CARBON DIOXIDE
 - IPSV-439-0076 HYDROGEN CONTROL PANEL OUTLINE
 - IPSV-439-0076 GAS DRYER - OUTLINE
 - IPSV-439-0076 GAS SUPPLY - OUTLINE HS & CO₂

WESTINGHOUSE ELECTRIC CORPORATION
TURBINE BUILDING & HEATER BAY
HS AND CO₂ PIPING
SHEET NO. 2
CONSOLIDATED EDISON COMPANY
INDIAN POINT GENERATING STATION
UNIT NO. 3

8/21-F-2045-11 A-201844

NO.	DATE	DESCRIPTION
1	8/21/02	ISSUED FOR CONSTRUCTION
2	8/21/02	REVISIONS
3	8/21/02	REVISIONS
4	8/21/02	REVISIONS
5	8/21/02	REVISIONS
6	8/21/02	REVISIONS
7	8/21/02	REVISIONS
8	8/21/02	REVISIONS
9	8/21/02	REVISIONS
10	8/21/02	REVISIONS

12	INCORPORATED EC-32015	9/23/11	RM	APPROVAL SIGNATURES ON FILE
REV	DESCRIPTION	DATE	BY	CHK'D



- NOTES:**
- WHERE INDICATED, REDUCERS FURNISHED WITH VALVES.
 - ALL VALVE NUMBERS ARE PRECEDED BY A "BD" SYSTEM DESIGNATION UNLESS NOTED OTHERWISE.
 - LP-LOCALLY MOUNTED PANEL LOCATED IN TURBINE HALL BLDG. 15'-0" E.L.

- REFERENCE DRAWINGS:**
- 9321-F-27293, SH. 1 FLOW DIAGRAM-S.G. BLOWDOWN SYSTEM
 - 9321-F-20183, SH. 1 & 2 FLOW DIAGRAM-COND. & B.F. PUMP SUCTION
 - 9321-F-20333, SH. 2 FLOW DIAGRAM-SERVICE WATER SYSTEM.
 - 9321-F-20353 FLOW DIAGRAM-STATION AIR
 - 9321-F-20363 FLOW DIAGRAM-INSTR. AIR
 - 9321-F-27243 FLOW DIAGRAM-PRIMARY MAKE-UP WATER SYSTEM
 - 9321-F-70203 NUCLEAR STEAM SUPPLY PLANT
STM. & WATER ANALYSIS SYSTEM
SAMPLING DIAGRAM - INSTM.

- LEGEND:**
- | LINE | SIZE | SYMBOL | CLASS | LINE NO. |
|------|------|--------|-------|----------|
| | 4" | BDR | B6 | 45 |
- CE DENOTES REMOTE MOUNTED CONDUCTIVITY INSTRUMENTATION W/LARSON LANE COLUMN.
 - FI FLOW INDICATOR
 - RT RESIN TRAP

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

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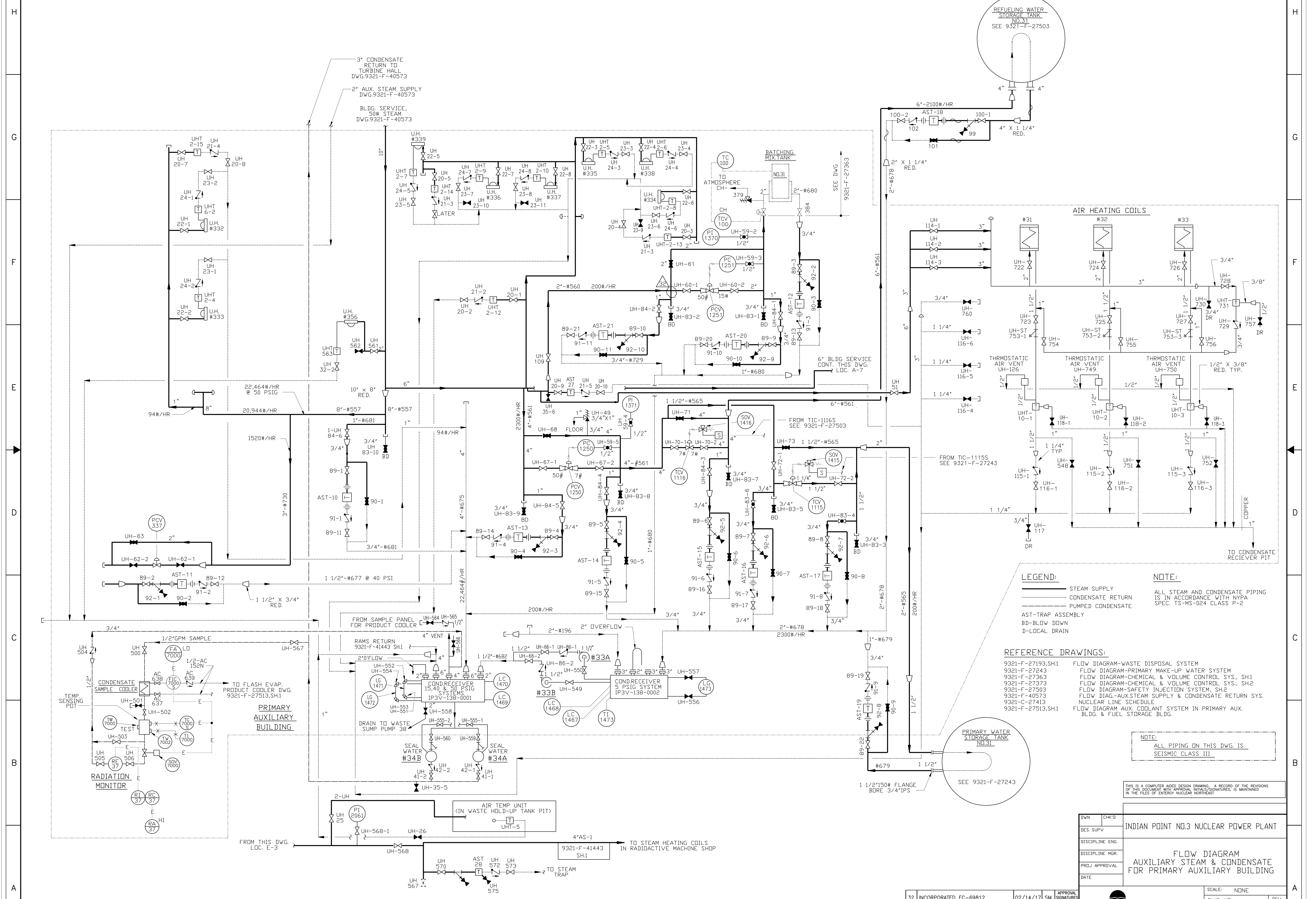
REV NO	DATE	DESCRIPTION	DESIGN	CHECK	DATE	BY	CHK'D	DATE	BY	CHK'D
11	1/10/09	AS BUILT PER DCP 01-3-061 SGBR	JF	VR	LM	CR	RG			
10	5/29/09	AS BUILT PER DCR 100151657	JF	LH	JM		REG			
9	4/13/08	AS BUILT PER DCR 100126143	VR	SM	MSM		REG			
8	9/16/04	AS BUILT PER DCR 100102072, 100102416 & 100028276	KS	ED	REG		BY	AE		
7	2/14/04	AS BUILT PER DCR 100069926	KS	ED	REG		BY	AE		
6	2/23/02	AS BUILT PER DCR 100069373.	PM	REG			AE			
5	8/17/02	AS BUILT PER DCR 100061883 & 100028276.	PM	REG			AE			
4	8/8/02	AS BUILT PER DCR #100028276.	TD	REG			AE			
3	1/11/01	AS BUILT PER IP3 TECH SERVICES HTS-164M, HTS-163M, HTS-165E, HTS-168E, HTS-171M & VALVE NUMBERING CHECK	TD	REG			AE			

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

**FLOW DIAGRAM
STEAM GENERATOR
BLOWDOWN RECOVERY
SYSTEM**

SCALE: NONE	REV
DWG NO 9321-F-24063	12
SHEET	





LEGEND:
 ——— STEAM SUPPLY
 - - - - - CONDENSATE RETURN
 - - - - - PUMPED CONDENSATE
 AST-TRAP ASSEMBLY
 BD-BLOW DOWN
 D-LOCAL DRAIN

NOTE:
 ALL STEAM AND CONDENSATE PIPING IS IN ACCORDANCE WITH NYP& SPEC. TS-MS-024 CLASS P-2

REFERENCE DRAWINGS:
 9321-F-27193,SH1 FLOW DIAGRAM-WASTE DISPOSAL SYSTEM
 9321-F-27243 FLOW DIAGRAM-PRIMARY MAKE-UP WATER SYSTEM
 9321-F-27363 FLOW DIAGRAM-CHEMICAL & VOLUME CONTROL SYS., SH1
 9321-F-27373 FLOW DIAGRAM-CHEMICAL & VOLUME CONTROL SYS., SH2
 9321-F-27503 FLOW DIAGRAM-SAFETY INJECTION SYSTEM, SH2
 9321-F-40573 FLOW DIAG-AUX. STEAM SUPPLY & CONDENSATE RETURN SYS.
 9321-C-27413 NUCLEAR LINE SCHEDULE
 9321-F-27513,SH1 FLOW DIAGRAM AUX. COOLANT SYSTEM IN PRIMARY AUX. BLDG. & FUEL STORAGE BLDG.

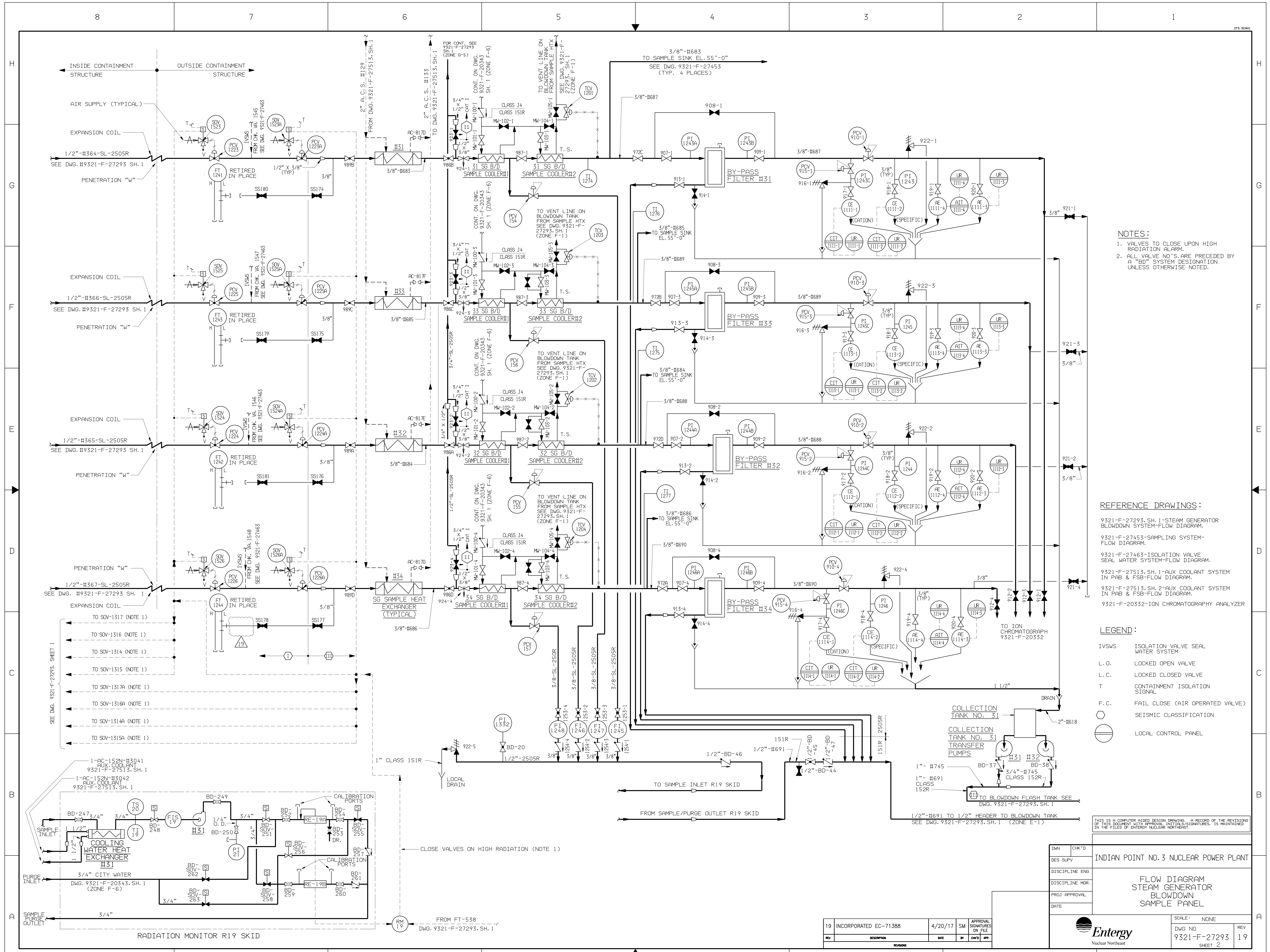
NOTE:
 ALL PIPING ON THIS DWG. IS SEISMIC CLASS III

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

OWN	CHK'D	INDIAN POINT NO.3 NUCLEAR POWER PLANT	
DES SUP'V		FLOW DIAGRAM	
DISCIPLINE ENG		AUXILIARY STEAM & CONDENSATE	
DISCIPLINE MGR		FOR PRIMARY AUXILIARY BUILDING	
PRJ APPROVAL			
DATE			

REV	DESCRIPTION	DATE	BY	CHK'D	APP.
32	INCORPORATED EC-69812	02/14/17	SM		APPROVAL SIGNATURES ON FILE

SCALE: NONE	REV: 32
DWG NO: 9321-F-27273	SHEET
Entergy Nuclear Northeast	



NOTES:

1. VALVES TO CLOSE UPON HIGH RADIATION ALARM.
2. ALL VALVE NO.'S ARE PRECEDED BY A "BD" SYSTEM DESIGNATION UNLESS OTHERWISE NOTED.

REFERENCE DRAWINGS:

- 9321-F-27293, SH. 1-STEAM GENERATOR BLOWDOWN SYSTEM-FLOW DIAGRAM.
- 9321-F-27453-SAMPLING SYSTEM-FLOW DIAGRAM.
- 9321-F-27463-ISOLATION VALVE SEAL WATER SYSTEM-FLOW DIAGRAM.
- 9321-F-27513, SH. 1-AUX COOLANT SYSTEM IN PAB & FSB-FLOW DIAGRAM.
- 9321-F-27513, SH. 2-AUX COOLANT SYSTEM IN PAB & FSB-FLOW DIAGRAM.
- 9321-F-20332-ION CHROMATOGRAPHY ANALYZER

LEGEND:

- IVSWS ISOLATION VALVE SEAL WATER SYSTEM
- L.O. LOCKED OPEN VALVE
- L.C. LOCKED CLOSED VALVE
- T CONTAINMENT ISOLATION SIGNAL
- F.C. FAIL CLOSE (AIR OPERATED VALVE)
- SEISMIC CLASSIFICATION
- LOCAL CONTROL PANEL

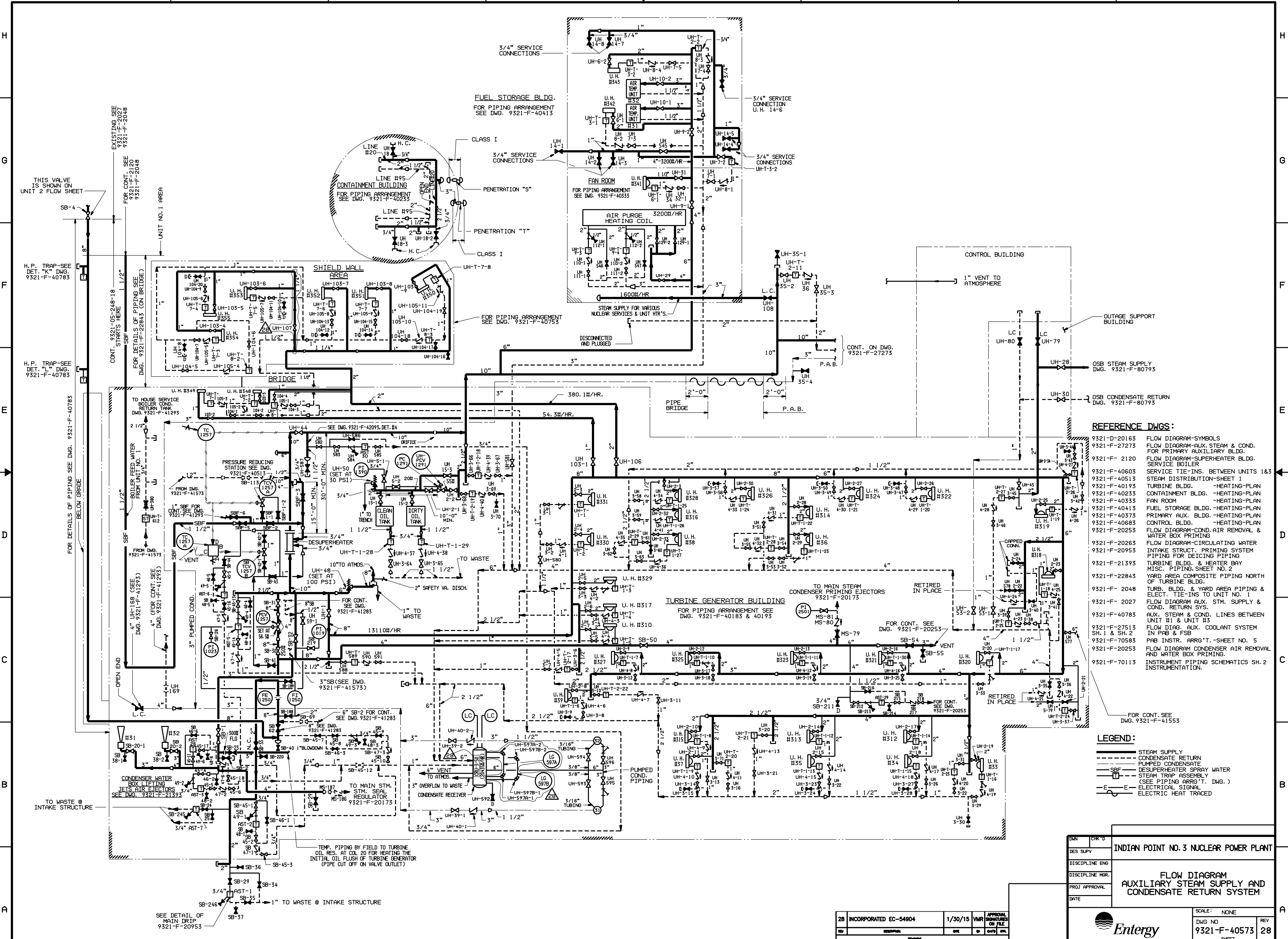
THIS IS A COMPUTER AIDED DESIGN DRAWING. A RECORD OF THE REVISIONS OF THIS DOCUMENT WITH APPROVAL, INITIALS/SIGNATURES, IS MAINTAINED IN THE FILES OF ENTERGY NUCLEAR NORTHWEST.

INDIAN POINT NO. 3 NUCLEAR POWER PLANT	
FLOW DIAGRAM STEAM GENERATOR BLOWDOWN SAMPLE PANEL	
SCALE: NONE	REV 19
DWG NO 9321-F-27293	SHEET 2

REV	DESCRIPTION	DATE	BY	CHK'D	APP.
19	INCORPORATED EC-71388	4/20/17	SM		APPROVAL SIGNATURES ON FILE

- SEE DWG. 9321-F-27293, SHEET 1
- TO SOV-1317 (NOTE 1)
 - TO SOV-1316 (NOTE 1)
 - TO SOV-1314 (NOTE 1)
 - TO SOV-1315 (NOTE 1)
 - TO SOV-1317A (NOTE 1)
 - TO SOV-1318A (NOTE 1)
 - TO SOV-1314A (NOTE 1)
 - TO SOV-1315A (NOTE 1)

CLOSE VALVES ON HIGH RADIATION (NOTE 1)



- REFERENCE DWGS:**
- 9321-D-20163 FLOW DIAGRAM-SYMBOLS
 - 9321-F-27273 FLOW DIAGRAM-AUX. STEAM & COND. FOR PRIMARY AUXILIARY BLDG.
 - 9321-F-2120 FLOW DIAGRAM-SUPERHEATER BLDG. SERVICE BOILER
 - 9321-F-40603 SERVICE TIE-INS. BETWEEN UNITS 1&3
 - 9321-F-40513 STEAM DISTRIBUTION-SHEET 1
 - 9321-F-40193 TURBINE BLDG. -HEATING-PLAN
 - 9321-F-40233 CONTAINMENT BLDG. -HEATING-PLAN
 - 9321-F-40333 FAN ROOM -HEATING-PLAN
 - 9321-F-40413 FUEL STORAGE BLDG. -HEATING-PLAN
 - 9321-F-40373 PRIMARY AUX. BLDG. -HEATING-PLAN
 - 9321-F-40683 CONTROL BLDG. -HEATING-PLAN
 - 9321-F-20253 FLOW DIAGRAM-COND. AIR REMOVAL & WATER BOX PRIMING
 - 9321-F-20263 FLOW DIAGRAM-CIRCULATING WATER INTAKE STRUCT. PRIMING SYSTEM PIPING FOR DEICING PIPING
 - 9321-F-20953 TURBINE BLDG. & HEATER BAY MISC. PIPING SHEET NO. 2
 - 9321-F-21393 YARD AREA COMPOSITE PIPING NORTH OF TURBINE BLDG.
 - 9321-F-2048 TURB. BLDG. & YARD AREA PIPING & ELECT. TIE-INS TO UNIT NO. 1
 - 9321-F-2027 FLOW DIAGRAM AUX. STM. SUPPLY & COND. RETURN SYS.
 - 9321-F-40783 AUX. STEAM & COND. LINES BETWEEN UNIT #1 & UNIT #3
 - 9321-F-27513 SH. 1 & SH. 2 FLOW DIAG. AUX. COOLANT SYSTEM IN PAB & FSB
 - 9321-F-70583 PAB INSTR. ARRG'T. -SHEET NO. 5
 - 9321-F-20253 FLOW DIAGRAM CONDENSER AIR REMOVAL AND WATER BOX PRIMING.
 - 9321-F-70113 INSTRUMENT PIPING SCHEMATICS SH. 2 INSTRUMENTATION.

- LEGEND:**
- STEAM SUPPLY
 - - - CONDENSATE RETURN
 - PUMPED CONDENSATE
 - DESUPERHEATER SPRAY WATER
 - STEAM TRAP ASSEMBLY (SEE PIPING ARRG'T. DWG.)
 - ELECTRICAL SIGNAL
 - ELECTRIC HEAT TRACED

INDIAN POINT NO. 3 NUCLEAR POWER PLANT	
FLOW DIAGRAM AUXILIARY STEAM SUPPLY AND CONDENSATE RETURN SYSTEM	
SCALE: NONE	REV 28
DWG NO. 9321-F-40573	SHEET 28

28 INCORPORATED EC-54904	1/30/15	VMR	APPROVAL SIGNATURES ON FILE
REV	DESCRIPTION	DATE	BY