



- REFERENCES:**
1. PROCESS FLOW DIAGRAM @ DWG.
  2. DEFINITION OF SYMBOLS  
 @ E SPEC. 6675176 REV. 2 AND  
 @ E SPEC. 6675164 REV. 0
  3. INSTALLATION OF INSTRUMENTATION  
 @ PROC. SPEC. CAP 294367 REV. 1
  4. MATERIAL SPEC. PIPE AND FITTINGS  
 @ E. SPEC. 6569866 REV. 2 AND  
 @ E. SPEC 6676398 REV. 0

- REFERENCE DRAWINGS:**
- 9321-F-27193 WDS - WASTE DISPOSAL SYSTEM (SH. 1 & SH. 2)
  - 27303 WDS - WASTE DISPOSAL SYSTEM - GAS
  - 27383 RCS - REACTOR COOLANT SYSTEM
  - 27475 RCS - REACTOR COOLANT SYSTEM
  - 27353 SIS - SAFETY INJECTION SYSTEM
  - 27503 SIS - SAFETY INJECTION SYSTEM
  - 27233 ACS - AUXILIARY COOLANT SYSTEM
  - 27513 ACS - AUXILIARY COOLANT SYSTEM (SHT. 1)
  - 27373 CVCS - CHEMICAL & VOLUME CONTROL SYSTEM
  - 27233 N - NITROGEN TO NUCLEAR EQUIP.
  - 27243 PW - PRIMARY MAKE-UP WATER SYSTEM
  - 27283 DH - NUCLEAR EQUIPMENT DRAINS
  - 27453 SS - SAMPLING SYSTEM
  - 27253 GA - AUX. STEAM & CONDENSATE FOR P.A. BLDG.
  - 27253 GA - AUTOMATIC GAS ANALYZER SYSTEM
  - 9321-C-27413 - NUCLEAR LINE SCHEDULE

- LEGEND:**
- V - LOCAL VENT
  - WH - WENT HEADER (WDS)
  - DH - DRAIN HEADER (WDS)
  - D - CONTAINMENT ISOLATION SIGNAL
  - D - LOCAL DRAIN
  - HSC - HAND SPEED CONTROL
  - GA - GAS ANALYZER (WDS)
  - FC - FAIL AS IS
  - FO - FAIL CLOSED
  - LO - FAIL OPEN
  - LO - LOCKED OPEN
  - ATM - ATMOSPHERE
  - IVSWS - ISOLATION VALVE SEAL WATER SYSTEM
  - PRT - PRESSURIZER RELIEF TANK
  - WHIT - WASTE HOLDUP TANK
  - ST - TEMPORARY STRAINER
  - SRST - SPENT RESIN STORAGE TANK
  - HUT - HOLDUP TANK
  - WCPC - WASTE GAS COMPRESSOR PACKAGE (WDS)
  - △ - CONTAINMENT PENETRATIONS
  - - SEISMIC CLASSIFICATION

- NOTES:**
- A. VALVE FAILS WITH FLOW TO VOLUME CONTROL TANK
  - B. SPECIAL VALVE-FUNCTIONS AS BOTH ISOLATION VALVE AND RELIEF VALVE
  - C. SPECIAL SPRING LOADED CHECK VALVE
  - D. DIAPHRAGM SEAL
  - E. ELECTROMAGNETIC-METER LOCATED IN VERT. PIPE RUN
  - F. .06" DIA. HOLE IN CLAMP OR CLIP
  - G. ADDITIONAL VENTS & DRAINS MAY BE INSTALLED - SEE PIPING LAYOUT
  - H. GLOBE VALVES ARE NORMALLY INSTALLED WITH FLOW UNDER THE SEAT. EXCEPTIONS ARE VALVES NO. 230, 232, 233, 235, 236, 238, 240A THRU D INCL. AND 333
  - J. LOOP SEAL EXTENDS 12" BELOW AND ABOVE OVERFLOW NOZZLE
  - M. CHECK VALVES 251E, F, G, ARE LOCATED NEAR CONTAINMENT WALL
  - N. CHECK VALVES 251A, B, C, ARE LOCATED NEAR REACTOR COOLANT PUMPS
  - P. TEMPORARY (START-UP) STRAINER ST-1, ST-2, ST-3, ST-4 & ST-5 WERE INSTALLED FOR INITIAL FLUSH. STRAINER BASKETS HAVE BEEN REMOVED UNDER MMR'S 93-10097, 93-10098, 93-10101, 93-10102, & 93-10103.

**NOTE:**  
 ALL PIPING ON THIS DRAWING IS SEISMIC CLASS I EXCEPT AS NOTED

**INFORMATION ONLY**

NO.	DATE	DESCRIP.	BY	CHK'D	APP'D
37		AS BUI	REG	BY	AE
38		AS BUILT PER MOD 86-03-150SIS	REG	BY	AE
39		AS BUILT PER DCR 100106563, 100106561 & 100105235	REG	BY	AE
40		AS BUILT PER DCR 100126184	REG	BY	AE
41		AS BUILT PER MOD 96-3-146 CCW	REG	BY	AE
42		AS BUILT PER DCR 100141929	REG	BY	AE
43		AS BUILT PER DCR 100142445	REG	BY	AE

INDIAN POINT NO. 3 NUCLEAR POWER PLANT	
DISCIPLINE ENG.	FLOW DIAGRAM
DISCIPLINE MGR.	CHEMICAL & VOLUME CONTROL SYSTEM
PROJ APPROVAL	SHEET NO. 1
DATE	
SCALE: NONE	DWG NO: 9321-F-27363
	REV: 43

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