



- NOTES**
1. ALL INSTRUMENTATION ON THIS DRAWING TO BE PREFIXED BY "SGT" UNLESS SPECIFICALLY NOTED OTHERWISE. (E) IS IDENTIFIED AS SGT-TE-9A
 2. ISOLATION SIGNAL CODES
A - REACTOR VESSEL LOW WATER LEVEL
F - HIGH DRYWELL PRESSURE
Z - HIGH RADIATION REACTOR BUILDING VENTILATION SYSTEM
3. FOR FLOW DIAGRAM LEGEND, SYMBOLS, AND ABBREVIATIONS SEE DRAWING M501 EXCEPT AS NOTED HEREIN
4. (SP) FILTER TEST INJECTION AND SAMPLING POINT
5. INSTRUMENTS AND ACCESSORIES FURNISHED BY EQUIPMENT SUPPLIER (CONTRACT #18) ALL TAGS FOR CHECK VALVES WILL BE FURNISHED AND INSTALLED BY OWNER.
6. ALL PIPING, VALVES, AND ASSOCIATED COMPONENTS ON THIS DWG. ARE CLASSIFIED AS FOLLOWS EXCEPT 18"CEP(2)-1 AND AS NOTED OTHERWISE:
SEISMIC CATEGORY I
QUALITY CLASS I
CODE GROUP B (CODE STAMP IS NOT REQ'D)
18"CEP(2)-1 IS CLASSIFIED AS FOLLOWS:
SEISMIC CATEGORY II
QUALITY CLASS II
CODE GROUP D
7. AIR QUANTITIES INDICATED AS CFM ARE STANDARD (SCFM) ACTUAL CFM INDICATED AT FAN ARE ACT. CONTRACTOR SHALL ADJUST VARIABLE INLET VANES AT FANS TO SUIT RANGE OF 500 TO 4000 CFM.
8. ALL TAGS FOR INSTRUMENT ROOT VALVES WILL BE FURNISHED AND INSTALLED BY OWNER.
9. ALL PRESSURE AND FLOW INSTRUMENT ROOT VALVES NOT LABELED WILL BE 3/4" GLOBE VALVES UNLESS SPECIFICALLY NOTED OTHERWISE.
10. DRAIN PIPING AS NOTED ONLY:
SEISMIC CATEGORY I
QUALITY CLASS I
CODE GROUP D
11. INSTRUMENT AND ACCESSORIES FURNISHED BY CONTRACT 215 AS REPLACEMENT PARTS IDENTICAL TO ORIGINAL EQUIPMENT.
12. THIS SECTION OF LINE IS CLASSIFIED AS FOLLOWS:
SEISMIC CATEGORY I
QUALITY CLASS I
CODE GROUP B
• NO CODE STAMP REQUIRED. DESIGN, FABRICATION, INSTALLATION, & EXAMINATION SHALL MEET THE REQUIREMENTS OF ASME III-2, HOWEVER THE PNEUMATIC TEST IS WAIVED.
13. DELETED
14. INSTRUMENT TUBING ON UNITS SGT-FU-1A & 1B ARE CLASSIFIED AS FOLLOWS:
SEISMIC CATEGORY I
QUALITY CLASS I
CODE GROUP D
15. THE 20" x 20" DUCT (SHOWN AS DOTTED LINE) (CONTRACT 216) NO LONGER SERVES ANY PURPOSE AND IS ABANDONED IN PLACE. THE EXTENSION OF THE 6"OFF-GAS LINE (CONTRACT 215) IS CLASSIFIED AS FOLLOWS:
SEISMIC CATEGORY II
QUALITY CLASS II
CODE GROUP D
16. AIR OPERATED VALVE IS FAIL CLOSED AND SEISMIC CATEGORY I
QUALITY CLASS I
CODE GROUP C
ALL OTHER COMPONENTS IN DETAIL ARE QC II, CODE GROUP D, SC II (SEE 150.215 SPEC FOR SUPPORTS, PG 150-49b).
17. TRUE ORIENTATION IS OPPOSITE THAN SHOWN: FACING INLET ENDS, "A" TRAIN IS ON THE RIGHT, "B" TRAIN IS ON THE LEFT.
REFERENCES TO CONTRACT NUMBERS, SUCH AS 215, 206, 220, FOUND IN THE NOTES ON THIS DRAWING REFER TO ORIGINAL CONSTRUCTION DESIGN REQUIREMENTS.
CURRENT DESIGN REQUIREMENTS ARE DOCUMENTED IN THE STATION DESIGN SPECIFICATIONS AND ACTIVE CONTRACT SPECIFICATIONS WHICH STILL APPLY.

TABLE 1

MAIN HEATER TEMP SWITCHES

EHC #	1ST STAGE CUTOFF	2ND STAGE CUTOFF	3RD STAGE CUTOFF	4TH STAGE CUTOFF
SGT-EHC-1A1	TS-EH1A11 TS-EH1A12	TS-EH1A14 TS-EH1A15	TS-EH1A17 TS-EH1A18	TS-EH1A10 THRU
SGT-EHC-1A2	TS-EH1A21 TS-EH1A22	TS-EH1A24 TS-EH1A25	TS-EH1A27 TS-EH1A28	TS-EH1A20 THRU
SGT-EHC-1B1	TS-EH1B11 TS-EH1B12	TS-EH1B14 TS-EH1B15	TS-EH1B17 TS-EH1B18	TS-EH1B10 THRU
SGT-EHC-1B2	TS-EH1B21 TS-EH1B22	TS-EH1B24 TS-EH1B25	TS-EH1B27 TS-EH1B28	TS-EH1B20 THRU

- LEGEND**
1. ESH - ELECTRIC STRIP HEATER
ED - EQUIPMENT DRAIN
2. ALL VALVES SUFFIXED WITH A (TH) DENOTE A THROTTLED VALVE

REV	DATE	DESCRIPTION	DWN	CHK	APVD	SIGNATURE	DATE	TITLE
66	2-8-02	REDRAWN PER Q1475-004.	HW/BS	KL	SRP	APPROVED	SCOTT PAYNE	2-8-02
67	9-12-02	REV PER 55-2887-0A-201 (B/8,10,12, G/9,10,12), 55-2887-0A-202 (B/8,10,12, G/9,10,12).	BLS	KL	SRP	CHECKED	K. LUCAS	2-7-02
68	9-21-04	REV PER 03261-200 (A/B-12, C/6-7,9-12, D/8-8, D-E/1-2, E/6, F/9-12, G/5-6, G-H/10-12, H/5-7, J/5-7).	JFT	HL	DRJ	DRAWN	B. L. STAFFORD	8-8-00
69	9-1-05	REV PER 03587-200 (A-B/8-13, B/14-15, F-G/8-13)	HAL	BLS	DRJ	SCALE	N.T.S.	8-17-99

SERVER:R4\CHW\MS501\M544.DWG

DWG NO. **M544**

REV. **69**

FSAR FIG.

ENERGY NORTHWEST
People Vision Solutions

COLUMBIA GENERATING STATION

FLOW DIAGRAM
HVAC-STAND-BY GAS TREATMENT
REACTOR BUILDING