



- NOTES:**
- DELETED
  - ALL VENT, DRAIN, LEAK TEST & INSTRUMENT CONNECTION RATED AT 1500 POUNDS SHALL HAVE DOUBLE VALVE ISOLATION.
  - UNLESS OTHERWISE NOTED, ALL DRAIN CONNECTIONS ARE 1" AND ALL VENT CONNECTIONS 3/4" LINE IDENTIFICATION SAME AS HEADER.
  - SYSTEMS FUNCTIONS SHOWN ARE FOR NORMAL PLANT OPERATION UNDER FULL LOAD.
  - FOR GENERAL NOTES, PIPING SYMBOLS AND P & ID INDEX SEE DRAWING M-001.
  - FOR INSTRUMENTATION SYMBOLS SEE DRAWING M-002.
  - DELETED
  - TEST CONNECTIONS ARE 3/4" UNLESS OTHERWISE NOTED.
  - CHECK VALVES M106, M187 & M385 WILL BE LOCATED AS CLOSE TO NO TANK AS POSSIBLE.
  - FOR MUI PUMP INSTRUMENTATION SEE BECHTEL DRAWING 7749-M-516-30 (B & W DRAWING 17391E).
  - DELETED
  - FOR TYPICAL HEAT TRACING CIRCUIT SEE P & ID M-045. FOR HEAT TRACING INSTRUMENTATION AND DETAILS SEE THERMOMETER DRAWING 14-17A.
  - ISOLATION VALVE AND HOSE CONNECTION, FOR CONTAINMENT ISOLATION AIR VOLUME TANK TO BE LOCATED OUTSIDE NEGATIVE PRESSURE AREA.
  - DELETED
  - DELETED
  - THE ONLY VENT OR DRAIN LINE CAPS REQUIRED TO BE SHOWN ON PIPING AND INSTRUMENTATION DIAGRAMS ARE THOSE CONTROLLED UNDER DB-OP-00009 (FORMERLY AD1839, 031). THE ACTUAL TERMINATION OF ALL OTHER VENTS OR DRAINS ARE NOT SHOWN AND INSTEAD, AN OPEN CLOSED PIPE IS DISPLAYED.
  - CERTAIN COMPONENTS WITHIN THIS BOUNDARY REQUIRED FOR EMERGENCY FEED AND BLEED COOLING WERE PURCHASED TO LESS STRINGENT QUALITY REQUIREMENTS PRIOR TO UPGRADING OF THIS FUNCTION VIA FOR 86-0432 AND MOD 88-0145. THESE COMPONENTS WILL BE DESIGNATED AS QUALITY CLASS AD (MUI). SUCH TIME AS THEY ARE REPLACED, REFER TO THE QUALITY CLASSIFICATION LIST, PROCEDURE EN-OP-0130 (CLASSIFICATION RULES 2.2.P, 2.3.4.A AND 2.3.4.B) AND INTRA-COMPANY MEMORANDUM M-91-0215 'FEED AND BLEED SYSTEM DESIGN CRITERIA' FOR FURTHER DETAILS.
  - DELETED
  - WHERE NOTED THE TANK CAPACITY IS NOMINAL, WHERE APPLICABLE, SEE DB-PP-06705 (TANK LEVEL CALIBRATION CURVES) FOR INDICATED LEVEL VS. VOLUME RELATIONSHIP. (REF: PCAR 96-0976).
  - VALVES PW28 AND PW29 ARE DISABLED IN THE CLOSED POSITION. REFERENCE MOD 95-0050.
  - SOME VALVES NUMBERED WITH A "PM" DESIGNATION (I.E. PW32) ARE BEING USED TO SUPPLY DEMINERALIZED WATER. REFERENCE MOD 95-0050.

**LR NOTES:**

A. FOR GENERAL LICENSE RENEWAL NOTES REFER TO LR-M031A-1

**LICENSE RENEWAL BOUNDARY DRAWING LR-M031A REV. 2**

SYSTEMS SHOWN ON THIS DRAWING:

- 03: REACTOR COOLANT
- 10: MAKEUP & PURIFICATION
- 13: COMPONENT COOLING & DEMINERALIZED WATER STORAGE
- 18: REACTOR COOLANT VENT & DRAIN
- 20: SAMPLING
- 24: NONSAFETY AFFECTING SAFETY
- 25: BORON RECOVERY

**BECHTEL ASSOCIATES**  
**PROFESSIONAL CORPORATION (OHIO)**  
 GAITHERSBURG, MARYLAND

**DAVIS-BESSE NUCLEAR POWER STATION**  
 UNIT NO. 1

THE TOLEDO EDISON COMPANY

**PIPING & INSTRUMENT DIAGRAM**  
**MAKE UP & PURIFICATION SYSTEM**

JOB NO.	DRAWING NO.	REV.
12501	M-031A	50

THIS DRAWING REV. 0 SUPERSEDES IN PART Dwg. M-031 REV. 45. WORK THIS Dwg. WITH M-031B.

DATE: 10-30-07 14 34X44 E' SIZE

01237