



- 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, M107 & M108 WILL BE LOCATED AS CLOSE TO M1 TANK AS POSSIBLE.
 - FOR M1 PUMP INSTRUMENTATION SEE BECHTEL DRAWING 7749-516-30 (B & W DRAWING 173915E).
 - DELETED
 - FOR TYPICAL HEAT TRACING CIRCUIT SEE P & ID M-045. FOR HEAT TRACING INSTRUMENTATION AND DETAILS SEE THERMOM DRAWING 14-147A.
 - 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-0P-0009 (FORMERLY AD1839.03). THE ACTUAL TERMINATION OF ALL OTHER VENTS OR DRAINS ARE NOT SHOWN AND INSTEAD, AN OPEN ENDED PIPE IS DISPLAYED.
 - CERTAIN COMPONENTS WITHIN THIS BOUNDARY REQUIRED FOR EMERGENCY FEED AND BLEED COOLING WERE PURCHASED TO LESS STRINGENT QUALITY REQUIREMENTS PRIOR TO UPDATING OF THIS FUNCTION VIA FOR 86-0452 AND 86B-0145. THESE COMPONENTS WILL BE DESIGNATED AS QUALITY CLASS AA UNTIL SUCH TIME AS THEY ARE REPLACED. REFER TO THE QUALITY CLASSIFICATION LIST, PROCEDURE DB-0P-01139 (CLASSIFICATION RULES 2.2.3.A AND 2.3.6.B) AND INTRA-COMPANY MEMORANDUM NEN-91-10215 "FEED AND BLEED SYSTEM DESIGN CRITERIA" FOR FURTHER DETAILS.
 - DELETED
 - WHERE NOTED THE TANK CAPACITY IS NOMINAL. WHERE APPLICABLE, SEE DB-0P-00785 (TANK LEVEL CALIBRATION CURVES) FOR INDICATED LEVEL VS. VOLUME RELATIONSHIP. (REF: PCMR 96-09761).
 - VALVES P208 AND P209 ARE DISABLED IN THE CLOSED POSITION. REFERENCE M05-0050.
 - SOME VALVES NUMBERED WITH A "PM" DESIGNATION (I.E. P232) ARE BEING USED TO SUPPLY DEMINERALIZED WATER. REFERENCE M05-0050.

LR NOTES:

A. FOR GENERAL LICENSE RENEWAL NOTES REFER TO [REDACTED]

B. LINE CONTRIBUTION INFORMATION WAS CHANGED BY REV. 82 TO P&ID M-031A.

LICENSE RENEWAL BOUNDARY DRAWING LR-88031A REV. 3

SYSTEMS SHOWN ON THIS DRAWING:
 02: REACTOR COOLANT
 10: MAKEUP & PURIFICATION
 13: COMPONENT COOLING & DEMINERALIZED WATER STORAGE
 18: REACTOR COOLANT VENT & DRAIN
 23: 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.

D03