



- NOTES:**
1. ALL INSTRUMENT NUMBERS ON THIS DRAWING ARE PREFIXED BY 1E31 UNLESS OTHERWISE NOTED.
 2. THIS P&ID REDRAWN FROM G.E. IED No. 762E293 LEAK DETECTION SYSTEM.
 3. FOR DUAL THERMOCOUPLES ON DRAWING M-1090B: TE1 IS FOR ISOLATION SIGNAL AND TE2 IS FOR INDICATION.
 4. ALL PIPING 2" & SMALLER ON DRAWING M-1090A IS CLASSIFIED AS 1-"E", 11-"C", OR 111-"B" RADIATION LEVEL.
 5. PIPING IS USED FOR INSTRUMENT LINES WITHIN THE DRYWELL. ALL INSTRUMENT LINES PENETRATING THE DRYWELL AT OR ABOVE EL. 135'-4" SHALL HAVE ROOT VALVES LOCATED AS CLOSE AS PRACTICAL TO THEIR PENETRATIONS ON CONTAINMENT SIDE. ALL INSTRUMENT LINES PENETRATING THE DRYWELL BELOW EL. 135'-4" SHALL CONFORM TO INSTRUMENT INSTALLATION DETAIL J-0138C. INSTRUMENT TUBING SHALL BE RUN BETWEEN THE ROOT VALVES & INSTRUMENTS LOCATED OUTSIDE THE DRYWELL.
 6. A SPECIAL COUPLING WITH 1/4" DIAMETER ORIFACE SHALL BE INSTALLED AS CLOSE AS PRACTICAL TO WHERE THE INSTRUMENT LINE CONNECTS TO THE REACTOR COOLANT SYSTEM.
 7. DISTANCE FROM VALVE LEAKOFF CONNECTION TO LOOP SEAL SHALL BE KEPT TO A MINIMUM. PIPING FROM LOOP SEAL TO DRYWELL EQUIP. DRAIN SUMP SHALL BE SLOPED CONTINUOUSLY DOWNWARD.
 8. ALL PIPING 2" & SMALLER ON DWG. M-1090B IS CLASSIFIED AS 111-"B" RADIATION LEVEL.
 9. ALL EQUIPMENT NUMBERS ON THIS DWG. ARE PREFIXED BY 1E31 UNLESS OTHERWISE NOTED.
 10. N829A, B, C, D, N844A, B, N847A, B AND N858A, B ARE LOCATED OUTSIDE OF THE ROOM AREA BEING MONITORED. AND N839A, B, C, D, N855A, B, N859A, B AND N851A, B ARE LOCATED INSIDE OF THE ROOM OR AREA BEING MONITORED.
 11. INSTRUMENT INSTALLATION OF FLOW TRANSMITTERS FT-N821, FT-N829A, B, C, D, FT-N839A, B, C IS EXEMPT FROM THE ASME CODES. 'N' STAMPING IS NOT REQUIRED.

- COMPONENTS SUBJECT TO AMR**
- REACTOR PRESSURE VESSEL SYSTEM AMM01
 - REACTOR COOLANT SYSTEM PRESSURE BOUNDARY AMM03
 - REACTOR CORE ISOLATION COOLING SYSTEM AMM09
 - LEAKAGE DETECTION AND CONTROL SYSTEM AMM19
 - NON-SAFETY RELATED SYSTEMS & COMPONENTS AFFECTING SAFETY RELATED SYSTEMS AMM20
 - FUEL POOL COOLING AND CLEANUP SYSTEM AMM21

019	AS-BUILT PER 7903	WE	N/A	N/A	BH	HDB	3-7-02
018	AS-BUILT PER DRN 7206 AND 7207	WE	N/A	N/A	N/A	SIP	9-21-00
017	AS-BUILT PER DRN 6491, 6492, 6493, 6494	SIP	OFF	N/A	BF	WE	3-16-99
016	AS-BUILT PER DRN 014 & DRN 222	REV	REV	REV	REV	REV	REV

GRAND GULF NUCLEAR STATION
 UNIT 1
 NUCLEAR PLANT ENGINEERING
UPDATED FINAL SAFETY ANALYSIS REPORT
 FIGURE NUMBER - 07.6-016
 P & I DIAGRAM
 LEAK DETECTION SYSTEM

0 10-13-2011						
NO.	DATE	DESCRIPTION	BY	ENG	CHK	APP
REVISIONS						
LRA-M-1090A						
G:\FILE						
m1090a.dgn						
PASTERFILE						

D036