



- NOTES:**
- UNLESS OTHERWISE INDICATED, ALL PRESSURE AND/OR FLOW INSTRUMENT ROOT LINES SHALL BE 3/4" WITH 3/4" V253X EXCEPT WHERE NOTED. LINE UP TO AND INCLUDING ROOT VALVE SHALL BE FURNISHED & INSTALLED UNDER CONTRACT E-69-4.
  - AT SAMPLING POINTS, CONNECTIONS, PROBES & ROOT VALVES SHALL BE FURNISHED & INSTALLED UNDER CONTRACT E-69-4. PROBES SHALL BE FURNISHED & INSTALLED IN ACCORDANCE WITH CONTRACT PARA. 3.4.2 & DWG. SP-07211 FIG. NUMBER AS NOTED. CONTINUATION OF SAMPLE PIPING BY E-70-3.
  - FOR PORTIONS OF PIPING EMBEDDED AND NOT IN CONTRACT E-69-4, SEE DWG. 2158, 2159 & 2160.
  - DIFFUSER PIPES IN REACTOR WELL AND FUEL STORAGE POOL SHALL EACH BE 6'-0" LONG WITH THREE (3) 1/2" DIA. DRILLED HOLES AT 45 DEGREES AND 2" O.C.
  - REFUELING DRAINS ARE DESIGNATED AS FOLLOWS:  
 A= 2" LINER DRAIN  
 B= 4" SEAL RUPTURE DRAIN  
 C= 2" DRYWELL TO REACTOR WELL SEAL DRAIN  
 D= 6" REACTOR WELL DRAIN  
 E= 3" GATE DRAIN  
 F= 2" FUEL POOL SUMP DRAIN  
 G= 2" DRYER SEPARATOR STORAGE POOL LINER DRAIN  
 H= 4" DRYER SEPARATOR STORAGE POOL DRAIN
  - LOCATE CONTINUOUS DRAIN CONNECTION FROM LINE 10" FC-2 AT LEAST 8 FEET ABOVE FIS-64-- SIMILAR ARR'GT REQ'D FOR FIS-63.
  - HIGH POINT VENTS AND LOW POINT DRAINS ARE NOT SHOWN. CONNECTIONS, VALVES AND PIPING SHALL BE FURNISHED UNDER CONTRACT E-69-4.
  - ARRANGE PIPE BREAK FLANGES ON FUEL POOL F/D TO PERMIT REMOVAL FROM FLOOR ABOVE WITHOUT ENTERING CELL.
  - ALL VALVE NUMBERS IN PARENTHESIS ( ) ARE NUMBERS TO BE USED IN OPERATING PROCEDURES. THESE NUMBERS ARE ASSIGNED BY NPPD AND WILL NOT BE SHOWN ON PIPING DRAWINGS.
  - SYPHON BREAKERS AT EL. 996'-10" - (3) 7/16" HOLES AT 45°.
  - WHERE LINES ARE INTERCONNECTED AND CONTINUED ON OTHER DRAWINGS, ZONE NUMBERS ARE APPROXIMATE ONLY.
  - 4", 6", 8" AND 10" FC-1S PIPING AND FITTINGS MAY BE SCHEDULE 10 OR SCHEDULE 40. REFER TO BURNS & ROE LETTERS (MICROFILM RETENTION 1090112182 AND 1090501707) AND ASSOCIATED ISOMETRIC DRAWINGS.
- NOTE: ALL ITEMS MARKED [A] ARE "AS BUILT" ITEMS AND ARE NOT SHOWN ON PIPING DRAWINGS.

**LEGEND**  
 FLEX FLOWPATH  
 COLOR SIGNIFICANT

REVISIONS TO THIS DRAWING  
 REQUIRES A REVISION TO THE  
 CORRESPONDING ISOKEY.

**AS BUILT**  
 454003620  
 STATUS: Release  
 DATE: 08/26/2020  
 DES. APPROVED: LJWENSE  
 VER: AE REV: 36 SIZE: E

NO.	DESCRIPTION	ORDER/DATE	DATE	ENG.
AP/2/19-0001	60333/RT/07/18/PROCKUP			
AP/7/19-0001	008/RT/07/18/PROCKUP			
AP/7/19-0002	008/RT/07/18/PROCKUP			
AP/7/19-0003	008/RT/07/18/PROCKUP			
AP/7/19-0004	008/RT/07/18/PROCKUP			
AP/7/19-0005	008/RT/07/18/PROCKUP			
AP/7/19-0006	008/RT/07/18/PROCKUP			
AP/7/19-0007	008/RT/07/18/PROCKUP			
AP/7/19-0008	008/RT/07/18/PROCKUP			
AP/7/19-0009	008/RT/07/18/PROCKUP			
AP/7/19-0010	008/RT/07/18/PROCKUP			

SYMBOL	GROUP	NO.	DATE	DATE
1	1	1	1/15/01	
2	2	2		
3	3	3		
4	4	4		
5	5	5		

**COOPER NUCLEAR STATION  
 FLOW DIAGRAM  
 FUEL POOL COOLING AND  
 CLEAN-UP SYSTEM**

**BURNS & ROE**

2030 SH 1

9800 FILE: 0017930