

- THE OFF GAS VENT PIPE GAS SAMPLE LINE SHALL BE 1" X 0.058" WALL THICKNESS SEAMLESS STAINLESS STEEL TUBING. THE TUBING MIN. BEND RADIUS SHALL BE 20". THE TUBING LENGTH SHALL BE JOINED WITH SWAGelok TYPE 1610-6-316 UNIONS. THE TUBING SHALL SLOPE SO THAT THE CONDENSATE WILL RUN TO DRAIN TEE.
- REMOVABLE SECTION SHALL BE PROVIDED NEAR THE ISOKINETIC PROBE FOR THE INSERTION OF A CHARCOAL FILTER HOLDER. THE FITTINGS, ETC. SHALL PROVIDE SMOOTH TRANSITIONS WITHOUT DISCONTINUITIES OR REDUCING THE CROSS-SECTIONAL AREA OF THE FLOW STREAM.
- TEE SHALL BE UNION TEE SWAGelok TYPE 1610-3-316.
- ALARMS ARE ACTUATED BY RELAYS IN TRIP AUX. UNIT. TRIP AUX. UNITS TO BE SUPPLIED AS REQUIRED. DOWNSCALE ALARMS FOR LIQUID RADIATION MONITORS ARE ANNOUNCIATED ON A SINGLE COMMON ANNUNCIATOR.
- THE DETECTORS (NO03) SHALL BE LOCATED WITHIN THE STEAM LINE TUNNEL AS CLOSE AS PRACTICAL TO THE PRIMARY CONTAINMENT. THE DETECTORS SHALL BE ARRANGED SUCH THAT EACH DETECTOR WILL VIEW ALL STEAM LINES WITH APPROXIMATELY THE SAME RESPONSE. IT IS RECOMMENDED THAT THE DETECTOR OR DETECTOR ASSEMBLY BE FASTENED TO A ROD OR A PIPE AND INSERTED INTO SEALED PIPE WALLS FROM OUTSIDE THE STEAM TUNNEL. CAREFULLY ROUTE CABLES TO MINIMIZE HEAT EXPOSURE. NO LEAD SHIELDING IS REQUIRED. SAFEGUARD SEPARATION IS REQUIRED.
- ALL CABLES SHALL COMPLY WITH GE ENGR. SPEC REF 2.
- ADDITIONAL ALARM IN RADWASTE BLDG. (RAH) RADWASTE MONITOR ONLY.
- DRAIN AT THE LOWER POINT OF OFF GAS SAMPLE LINE.
- ONE HIGH-HIGH RADIATION TRIP (RAHH) OR INOPERATIVE TRIP OUT OF TWO IN TRIP SYSTEM "A" AND ONE HIGH-HIGH RADIATION TRIP (RAHH) OR INOPERATIVE TRIP OUT OF TWO IN TRIP SYSTEM "B" SHALL: TURN OFF MECHANICAL VACUUM PUMP & CLOSE MECHANICAL LINE VALVE. (REF. 3) ANY ONE HIGH-HIGH RADIATION SHALL ALARM (RAHH)
- TWO UPSCALE TRIPS (RAHH), CHANNELS A & B, SHALL:
  - SHUT DOWN REACTOR BLDG. VENT SUPPLY FANS, POTENTIAL CONTAMINATED AREA EXHAUST FANS, & ACCESSIBLE AREA EXHAUST FANS.
  - CLOSE REACTOR BLDG. VENT SUPPLY, POTENTIAL CONTAMINATED AREA EXHAUST, & ACCESSIBLE AREA EXHAUST ISOLATION VALVES.
  - START STANDBY GAS TREATMENT SYSTEM CHANNEL A.
  - CLOSE PRIMARY CONTAINMENT PURGE & VENT VALVES (INBOARD).
  - SHUT DOWN REFUELING FLOOR VENT, SUPPLY & EXHAUST FANS, UNIT 1 AND UNIT 2 (BY AE).
  - CLOSE REFUELING FLOOR VENT SUPPLY AND EXHAUST INBOARD ISOLATION VALVES, UNIT 1 AND UNIT 2 (BY AE).
- TWO UPSCALE TRIPS (RAHH), CHANNELS C & D, SHALL:
  - SHUT DOWN REACTOR BLDG VENT SUPPLY FANS, POTENTIAL CONTAMINATED AREA EXHAUST FANS, & ACCESSIBLE AREA EXHAUST FANS.
  - CLOSE REACTOR BLDG VENT SUPPLY, POTENTIAL CONTAMINATED AREA EXHAUST, & ACCESSIBLE AREA EXHAUST ISOLATION VALVES.
  - START STANDBY GAS TREATMENT SYSTEM CHANNEL B.
  - CLOSE PRIMARY CONTAINMENT PURGE & VENT VALVES (OUTBOARD).
  - SHUT DOWN REFUELING FLOOR VENT, SUPPLY & EXHAUST FANS, UNIT 1 AND UNIT 2 (BY AE).
  - CLOSE REFUELING FLOOR VENT SUPPLY AND EXHAUST INBOARD ISOLATION VALVES, UNIT 1 AND UNIT 2 (BY AE).
- ANY ONE UPSCALE TRIP (RAH) SHALL CLOSE BYPASS LINE VALVE, OPEN TREATMENT LINE VALVE AND ALARM.
- ISOLATE OFF-GAS SYSTEM OUTLET AND DRAIN VALVES & ALARM. (REF. 8)
- FOR LOCATION AND IDENTIFICATION OF INSTRUMENTS SEE INSTRUMENT DATA SHEET LISTED IN MPL FOR EACH INSTRUMENT.
- ALL PART NUMBERS ARE PREFIXED BY D11 UNLESS OTHERWISE SPECIFIED.
- TWO UPSCALE TRIPS (RAHH), CHANNELS A & B SHALL:
  - SHUT DOWN REFUELING FLOOR VENT, SUPPLY & EXHAUST FANS, UNIT 1 AND UNIT 2 (BY AE).
  - CLOSE REFUELING FLOOR VENT SUPPLY AND INBOARD ISOLATION VALVES, UNIT 1 AND UNIT 2 (BY AE).
- START STANDBY GAS TREATMENT SYSTEM CHANNEL A.
  - TWO UPSCALE TRIPS (RAHH), CHANNELS C & D, SHALL:
    - SHUT DOWN REFUELING FLOOR VENT, SUPPLY & EXHAUST FANS, UNIT 1 AND UNIT 2 (BY AE).
    - CLOSE REFUELING FLOOR VENT, SUPPLY & OUTBOARD ISOLATION VALVES, UNIT 1 AND UNIT 2 (BY AE).
  - START STANDBY GAS TREATMENT SYSTEM CHANNEL C.
- TWO UPSCALE TRIPS (RAH), CHANNELS A & B SHALL:
  - SHUT DOWN REACTOR BLDG VENT ACCESSIBLE AREA EXHAUST FANS.
  - PARTIALLY CLOSE REACTOR BLDG VENT SUPPLY FANS INLET CONTROL VAINS.
- START STANDBY GAS TREATMENT SYSTEM CHANNEL C.
- TWO UPSCALE TRIPS (RAH), CHANNELS A & B SHALL:
  - SHUT DOWN REACTOR BLDG VENT ACCESSIBLE AREA ISOLATION DAMPER.
- USE 1/4" X 0.049" SA-213 GR TP 316 SS TUBING.
- NUMBERS WITHIN O INDICATE ANALOG INPUT NUMBER AS DESCRIBED IN THE FUNCTIONAL DESIGN CRITERIA FOR EMERGENCY RESPONSE FACILITY TABLE "D" UNIT 1 ANALOG INPUT SIGNALS TO THE SPDS/ERF COMPUTER SYSTEMS.
- HIGH ALARM CONTACT FROM D11-RIS-K619 AB WILL TRIP THE NORMAL RANGE EFFLUENT MONITOR D11-PO02 AND START THE ACCIDENT RANGE EFFLUENT MONITOR D11-PO05.
- HEAT TRACING EXTENDS TO 34" STACK PIPE.

LEGEND:

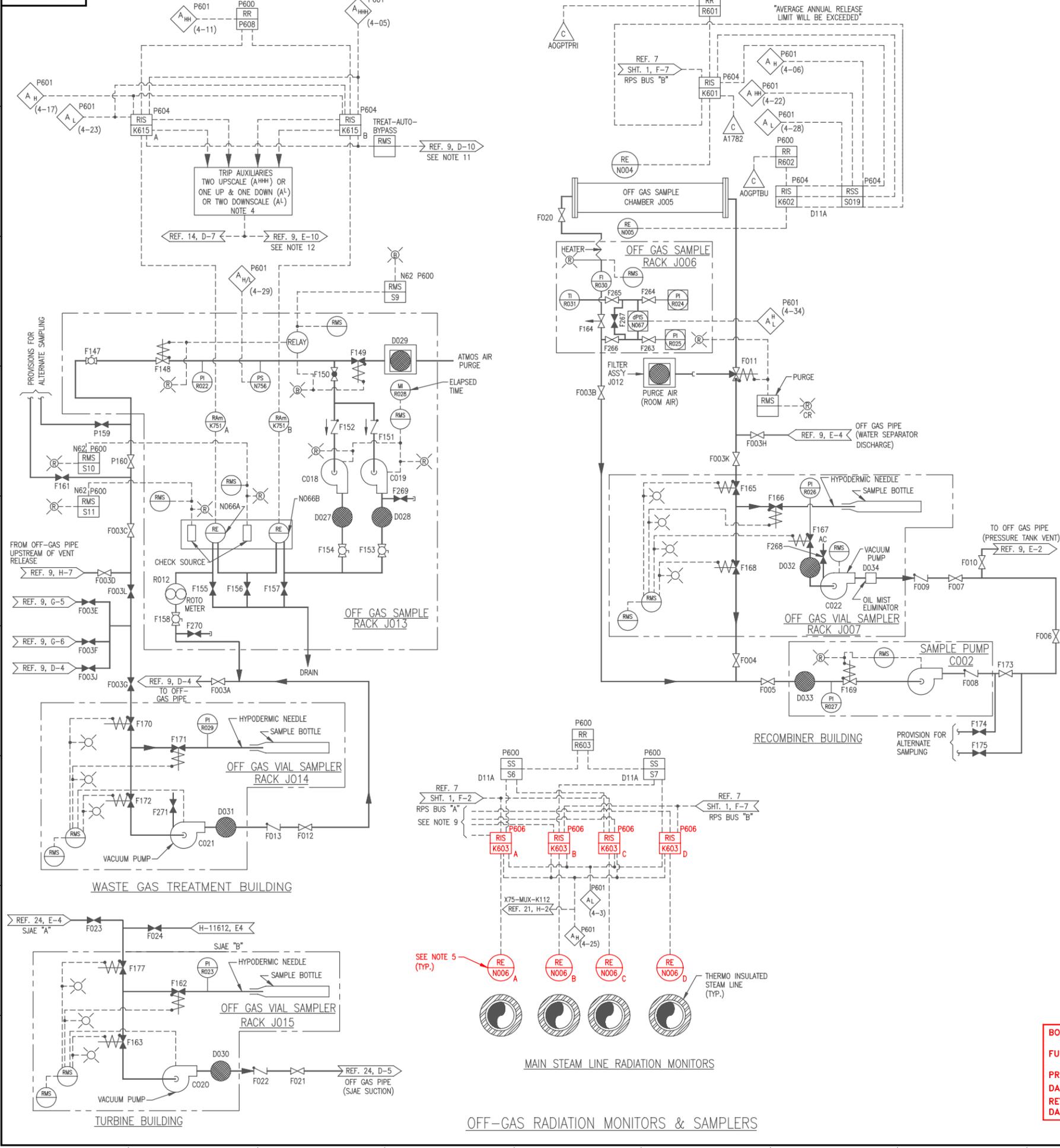
SJAE STEAM JET AIR EJECTOR  
 DET GAMMA DETECTOR  
 RAHHH RADIATION ALARM HIGH HIGH HIGH  
 RAHH RADIATION ALARM HIGH HIGH  
 RAH RADIATION ALARM HIGH  
 RAL INSTRUMENT TROUBLE (RADIATION ALARM LOW)  
 CR LOCATED IN CONTROL ROOM  
 FA H/L FLOW ALARM HIGH/LOW

REFERENCE DOCUMENTS:

1. RADIATION MONITORING OF PROCESS FLUIDS & GASES DES. SPEC.....	D11-4010
2. SPECIAL WIRE AND CABLE.....	A61-4010
3. PLANT REQUIREMENTS.....	A61-4010
4. SEPARATION & IDENT. OF ELEC. EQUIP. FOR ENGR'D SAFEGUARDS.....	A61-4010
5. PIPING & INST. SYMBOLS.....	A41-1010
6. INSTRUMENT SYMBOLS.....	A41-1020
7. REACTOR PROTECTION SYS. IED.....	C71-1010
8. OFF GAS SYSTEM P&ID.....	N62-1030
9. OFF GAS SYSTEM P&ID.....	H-16532
10. REMOVED.....	
11.	
12.	
13.	
14. OFF GAS SYSTEM P&ID.....	H-16021
15. RADWASTE SYSTEM P&ID (SHT. 1) G11-1010.....	H-16176
16. P&ID DIAGRAM KMG-HR-H.....	SX-18761
17. DIAGRAM: CONTROL AIR SYSTEM.....	H-11028
18. DATA ACQUISITION CHART, ERF ANALOG. SIGNAL-GIT SIGNAL CONDITIONING SH. 7 OF 7.....	X75-P601
19. DATA ACQUISITION CHART, ERF ANALOG. SIGNALS-GIT SIGNAL CONDITIONING SH. 7 OF 7.....	2X75-P601
20. CLASS IE ANALOG SIGNAL CONVERSION ISOLATION SYSTEM IED.....	X75-1010
21. ANNUNCIATOR SIGNALS TO ISC IED.....	X75-1010
22. PRIMARY CONTAINMENT ISOLATION SYSTEM C61 ELEMENTARY DIAGRAM.....	H-17802
23. PRIMARY CONTAINMENT ISOLATION SYSTEM C61 ELEMENTARY DIAGRAM.....	H-17803
24. CONDENSER VACUUM AND OFF GAS SYS. P&ID.....	H-11025
25. RADWASTE SYSTEM P&ID SHT.3.....	G11-1010

MPL ITEM NO.

TWO UPSCALE TRIPS (RAHH), CHANNELS C & D, SHALL:	
A. SHUT DOWN REACTOR BLDG VENT SUPPLY FANS, POTENTIAL CONTAMINATED AREA EXHAUST FANS, & ACCESSIBLE AREA EXHAUST FANS.	
B. CLOSE REACTOR BLDG VENT SUPPLY, POTENTIAL CONTAMINATED AREA EXHAUST, & ACCESSIBLE AREA EXHAUST ISOLATION VALVES.	
C. START STANDBY GAS TREATMENT SYSTEM CHANNEL B.	
D. CLOSE PRIMARY CONTAINMENT PURGE & VENT VALVES (OUTBOARD).	
E. SHUT DOWN REFUELING FLOOR VENT, SUPPLY & EXHAUST FANS, UNIT 1 AND UNIT 2 (BY AE).	
F. CLOSE REFUELING FLOOR VENT SUPPLY AND EXHAUST INBOARD ISOLATION VALVES, UNIT 1 AND UNIT 2 (BY AE).	
H-16021	
H-16176	
SX-18761	
(KAMAN SCIENCES DWG NO. 400447-001)	
H-11028	
SX-19339	
S-41968	
H-16394	
H-16402	
H-17802	
H-17803	
H-11025	
H-16178	



BOUNDARY DIAGRAM NO.: D11-B01-01  
 FUNCTION(S) NO.: 1D11-01  
 PREPARED BY: MARK CRISLER  
 DATE: 5/8/98  
 REVIEWED BY: RENEE RITCHEY  
 DATE: 5/12/98

LICENSE RENEWAL DOCUMENT  
 MPL No. 1D11 ACAD14 HL1656301

**SOUTHERN COMPANY**

LICENSE RENEWAL SCREENING FOR INFORMATION ONLY

EDWIN I. HATCH NUCLEAR PLANT UNIT No. 1  
 PROCESS RADIATION MONITORING SYSTEM P & ID SHEET 1

DATE	BY	SCALE	LOCATION	DOCUMENT NUMBER	REVISION
	TRM	LCF			
	DATE	None	10-502	HL-16563	A

Revision: A Date: 11-16-99  
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