

AOP 672.2

OFFGAS RADIATION/REACTOR COOLANT HIGH ACTIVITY

ABNORMAL OPERATING PROCEDURE 672.2
OFFGAS RADIATION/REACTOR COOLANT HIGH ACTIVITY

~~NOTE~~

Refer to EPIP 1.1 for EAL Assessment.

AOP 672.2
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PROBABLE ANNUNCIATORS

- 1C03A, A-2 POST TREAT RM-4101A/B HI-HI-HI RAD OR RAD MONITOR INOP
A-3 PRETREAT RM-4104 HI-HI RAD
A-4 OFFGAS VENT PIPE RM-4116A/B HI-HI RAD
B-2 POST TREAT RR-4101 HI-HI RAD
B-3 PRETREAT RM-4104 HI RAD
B-4 OFFGAS VENT PIPE RM-4116A/B HI RAD
C-2 POST TREAT RM-4101A/B HI RAD
- 1C05B, C-2 MAIN STEAM LINE HI RAD TRIP 3 X NORMAL
D-2 MAIN STEAM LINE HI RAD 1.5 X NORMAL
- 1C35A, C-2 OFFGAS STACK KAMAN 9 & 10 RAD TROUBLE

PROBABLE INDICATIONS1C02

- Increase or increasing trend in Off-Gas vent pipe activity at RR-4116
OFFGAS STACK VENT PIPE RAD MONITOR.
- Increase or increasing trend in Off-Gas post treatment activity at RR-4101
OFFGAS POSTTREAT RAD MONITOR.
- Increase or increasing trend in Off-Gas pretreatment activity at RR-4104
OFFGAS PRETREAT RAD MONITOR.
- Increase or increasing trend in Main Steam Line activity at RR-4448 MAIN
STEAM LINE RAD MONITOR.
- Increase or increasing trend in Drywell Radiation Level at RR-9184A[B].
- Increase or increasing trend in Offgas stack activity on KAMAN #10
(normal range) or KAMAN #9 (high range).

CONOITIONAL STATEMENTS

IF while performing the steps on Page 5:

IF a condition which requires an MSIV isolation occurs

THEN verify reactor scram per IPOI 5, Reactor Scram
AND
exit this procedure.

IF the offsite radioactivity release rate is above the offsite release rate which requires an ALERT

THEN enter EOP-4, Radioactivity Release Control
AND
perform concurrently with this procedure.

AUTOMATIC ACTIONS

- Offgas isolates by closing CV-4108 if posttreatment Offgas radiation has any two combinations of Hi-Hi-Hi, Downscale, or Inop.
- Reactor scram, Group 1 isolation, and mechanical vacuum pump is secured and suction valve closes if Main Steam Line radiation is above three times normal.
- SBT starts and Group III A and/or B isolation valves close, if Offgas vent pipe Hi-Hi radiation (1.5×10^4 cps) is reached or exceeded.

INFORMATION

Tech. Spec. release rate limits are listed in Section 3.15. Assistance from the Chemistry Department will be required to apply limits to current release rates.

CAUTION

If possible, establish reactor pressure control before closing MSIVs.

OPERATOR ACTIONS

1. IF either of the following parameters are increasing at a rate such that a scram or isolation is unavoidable
- a. Main Steam Line radiation at RR-4448
MAIN STEAM LINE RAD
MONITOR on Panel 1C02.
- b. Offgas Posttreatment System at RR-4101
OFFGAS POSTTREAT RAD
MONITOR on Panel 1C02.
- THEN manually scram the reactor per IPOI 5, Reactor Scram
AND
isolate Offgas by closing CV-4108
AND
exit this procedure.

2. IF control rod movement is in progress at the time of the increase
- THEN discontinue control rod motion
AND
consult Reactor Engineer.
3. Request Chemistry Department to perform STP-46B001, Reactor Coolant Isotopic Analysis.

NOTE

Refer to Tech. Spec. 3.6.B for equilibrium limits on dose equivalent I-131.

4. IF equilibrium iodine value is above 0.012 uCi/gm of dose equivalent I-131
- THEN continue sample and analysis of reactor coolant with STP-46B001 per Tech. Spec. 4.6.B.

NOTE

Whenever the I-131 dose equivalent exceeds 0.6 uCi/gm, notify the Regional Administrator, Region III, in writing within 10 days per Tech. Spec. 4.6.B.1.h.

5. IF equilibrium iodine value increases to 12 uCi/gm of dose equivalent I-131
- THEN manually scram the reactor per IPOI 5, and immediately close the MSIVs per Tech. Spec. 3.6.B.1.
6. Reduce power in accordance with IPOI 3, Power Operations, to minimize release rates and stabilize reactor coolant activity levels.
7. Verify RWCU Filter/Demineralizers in service per OI 261, Reactor Water Cleanup System, Section 4.0.
8. Notify Health Physics of increasing activity levels.
9. IF increase of reactor coolant activity or process radiation levels cannot be stopped
- THEN shutdown the reactor in accordance with IPOI 4, Reactor Shutdown.

References

1. OI 672, Offgas and Recombiner System
2. OI 879.1, Process Radiation Monitoring System
3. OI 879.3 Kaman Effluent Radiation Monitoring System
4. P and ID No. M-141, Offgas System
5. P and ID No. M-176, Ventilation System and Offgas Stack, Reactor Building
6. DAEC Technical Specifications Section 3.6.B for Coolant Chemistry
7. DAEC Technical Specifications Section 3.15 for Gaseous Effluents
8. STP-46B001, Reactor Coolant Isotopic Analysis
9. MM-163, DCRDR
10. MM-134, DCRDR
11. MM-131, DCRDR
12. MM-132, DCRDR
13. DCP-1451, DCRDR Annunciator Modification

DUANE ARNOLD ENERGY CENTER

UNIT NO. 1

IOWA ELECTRIC LIGHT AND POWER COMPANY

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