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LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

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INSTRUMENTATION

TOXIC GAS SYSTEMS - CHLORINE DETECTION

LIMITING CONDITION FOR OPERATION

3.3.3.11.1 Two independent chlorine detection systems, with their alarm/trip setpoints adjusted to actuate at a chlorine concentration of less than or equal to 15 ppm, shall be OPERABLE.

APPLICABILITY: ALL MODES

ACTION:

- a. With one chlorine detection system inoperable, restore the inoperable detection system to OPERABLE status within 7 days or within the next 6 hours initiate and maintain operation of the Control Room ventilation system in the recirculation mode of operation using the normal duty fans.
- b. With both chlorine detection systems inoperable, within 1 hour initiate and maintain operation of the Control Room ventilation system in the recirculation mode of operation using the normal duty fans.
- c. The provisions of Specification 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.3.11.1 Each chlorine detection system shall be demonstrated OPERABLE by performance of a CHANNEL CHECK at least once per 12 hours, a CHANNEL FUNCTIONAL TEST at least once per 31 days and a CHANNEL CALIBRATION at least once per 18 months.

INSTRUMENTATION

TOXIC GAS SYSTEMS - SULFUR DIOXIDE DETECTION

LIMITING CONDITION FOR OPERATION

3.3.3.11.2 Two independent sulfur dioxide detection systems, with their alarm/trip setpoints adjusted to actuate at a sulfur dioxide concentration of less than or equal to 2.4 ppm, shall be OPERABLE.

APPLICABILITY: ALL MODES

ACTION:

- a. With one sulfur dioxide detection system inoperable, restore the inoperable detection system to OPERABLE status within 7 days or within the next 6 hours initiate and maintain operation of the Control Room ventilation system in the recirculation mode of operation using the normal duty fans.
- b. With both sulfur dioxide detection systems inoperable, within 1 hour initiate and maintain operation of the Control Room ventilation system in the recirculation mode of operation using the normal duty fans.
- c. The provisions of Specification 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.3.11.2 Each sulfur dioxide detection system shall be demonstrated OPERABLE by performance of a CHANNEL CHECK at least once per 12 hours, a CHANNEL FUNCTIONAL TEST at least once per 31 days and a CHANNEL CALIBRATION at least once per 18 months.

3/4.3 INSTRUMENTATION

BASES

3/4.3.3.8 RADIOACTIVE LIQUID EFFLUENT INSTRUMENTATION

The radioactive liquid effluent instrumentation is provided to monitor and control, as applicable, the releases of radioactive materials in liquid effluents during actual or potential releases of liquid effluents. The alarm/trip setpoints for these instruments shall be calculated in accordance with the procedures in the OFFSITE DOSE CALCULATION MANUAL (ODCM) to ensure that the alarm/trip will occur prior to exceeding the limits of 10 CFR Part 20. The OPERABILITY and use of this instrumentation is consistent with the requirements of General Design Criteria 60, 63 and 64 of Appendix A to 10 CFR Part 50.

3/4.3.3.9 RADIOACTIVE GASEOUS EFFLUENT INSTRUMENTATION

The radioactive gaseous effluent instrumentation is provided to monitor and control, as applicable, the releases of radioactive materials in gaseous effluents during actual or potential releases of gaseous effluents. The alarm/trip setpoints for these instruments are calculated in accordance with the procedures in the OFFSITE DOSE CALCULATION MANUAL (ODCM) to ensure that the alarm/trip will occur prior to exceeding the limits of 10 CFR Part 20. The OPERABILITY and use of this instrumentation is consistent with the requirements of General Design Criteria 60, 63 and 64 of Appendix A to 10 CFR Part 50.

3/4.3.3.10 WASTE GAS DECAY TANK - EXPLOSIVE GAS MONITORING INSTRUMENTATION

The OPERABILITY of the Waste Gas Decay Tank explosive gas monitoring instrumentation or the sampling and analysis program required by this specification provides for the monitoring (and controlling) of potentially explosive gas mixtures in the Waste Gas Decay Tanks.

3/4.3.3.11 TOXIC GAS SYSTEMS

The OPERABILITY of the toxic gas systems ensures that sufficient capability is available to promptly detect and initiate protective action in the event of an accidental toxic gas release. This capability is required to protect control room personnel and is consistent with guidance provided in Regulatory Guide 1.78, "Assumptions for Evaluating the Habitability of a Nuclear Power Plant During a Postulated Chemical Release", June 1974 and Regulatory Guide 1.95, "Protection of Nuclear Power Plant Control Room Operators Against an Accidental Chlorine Release", Revision 1, January 1977.

The chlorine detection system is designed so that a chlorine concentration of 15 ppm by volume is not exceeded in the control room within 2 minutes after detection.

The sulfur dioxide detection system is designed so that a sulfur dioxide concentration of 40 ppm by volume is not exceeded in the control room within 2 minutes after detection.