UNIT 3

LIMITING CONDITIONS FOR OPERATION	SURVEILLANCE REQUIREMENTS
3.8 RADIOACTIVE MATERIALS	4.8 RADIOACTIVE MATERIALS
B. Airborne Effluents	B. Airborne Effluents
1. The dose rate at any time in the unrestricted areas (see Figure 4.8.B.1) due to radioactivity released in gaseous effluents from the site shall be limited to the following values:	1. The gross β, γ and particulate activity of gaseous wastes released to the environment shall be monitored and recorded:
a. The dose rate limit for noble gases shall be ≤ 500 mrem/yr to the total body and ≤ 3000 mrem/yr to the skin, and	a. For effluent streams having continuous monitoring capability, the activity and flow rate shall be monitored and recorded to enable release rates of gross radioactivity to be determined on an hourly basis using instruments specified in Table 3.2.K.
b. The dose rate limit for all radioiodines for all radioactive materials in particulate form, and for radionuclides other than noble gases with half lives greater than 8 days shall be 1500 mrem/yr to any organ.	b. For effluent streams without continuous monitoring capability, the activity shall be monitored and recorded and the releases through these streams shall be controlled so that the release rates from all streams are within the limits specified in 3.8.B
2. If the limits of 3.8.B.1 are exceeded, appropriate corrective action shall be initiated to bring the releases within limits. Provide prompt notification to the NRC pursuant to section 6.7.2.a.	2. Radioactive gaseous waste sampling and activity analysis shall be performed in accordance with Table 4.8.B.

424 320

3.8.A LIQUID EFFLUENTS (cont'd)

the guides of Appendix I be shown by calculational procedures based on models and data such that the actual exposure of an individual through appropriate pathways is unlikely to be substantially underestimated. The equations specified in the ODCM for calculating the doses due to the actual release rates of radioactive materials in liquid effluents will be consistent with the methodology provided in Regulatory Guide 1.109, "Calculation of Annual Doses to Man from Routine Releases of Reactor Effluents for the Purpose of Effluents from Accidental and Routine Reactor Releases for the Purpose of Implementing Appendix I," April 1977. NUREG-0133 provides methods for dose calculations consistent with Regulatory Guides 1.109 and 1.113.

Specification 3.8.A.5 requires that the appropriate portions of the liquid radwaste treatment system be used when specified. This provides assurance that the releases of radioactive materials in liquid effluents will be kept "as low as is reasonably achievable." This specification implements the requirements of 10 CFR Part 50.36a, General Design Criterion 60 of Appendix A to 10 CFR Part 50 and design objective Section II.D of Appendix I to 10 CFR Part 50. The specified limits governing the use of appropriate portions of the liquid radwaste treatment system were specified as a suitable fraction of the guide set forth in Section II.A of Appendix I, 10 CFR Part 50, for liquid effluents.

Specification 3.8.A.6 requires submittal of a special report if the limiting values of Specification 3.8.A.5 are exceeded and unexpected failures of non-redundant radwaste processing equipment halt waste treatment.

Specification 3.8.A.7 requires that suitable equipment to control and monitor the releases of radioactive materials in the liquid effluents are operating during any period when these releases are taking place.

3.8.B AIRBORNE EFFLUENTS

Specification 3.8.B.1 is provided to ensure that the dose rate at anytime at the exclusion boundary from gaseous effluents from all units on the site will be within the annual dose limits of 10 CFR Part 20 for unrestricted areas. The annual dose limits are the doses associated with the concentrations of 10 CFR Part 20, Appendix B, Table II. These limits provide reasonable assurance that radioactive material discharged in gaseous effluents will not result in the exposure of an individual in an unrestricted area, either within or outside the exclusion area boundary, to annual average concentrations exceeding the limits specified in Appendix B, Table II of 10 CFR Part 20 (10 CFR Part 20.106(b)) For individuals who may at times be within the exclusion area boundary, the occupancy of the individual will be sufficiently low to compensate for any increase in the atmospheric diffusion factor above that for the exclusion area boundary.

424 321

(9) Performance of structures, systems, or components that requires remedial action or corrective measures to prevent operation in a manner less conservative than assumed in the accident analyses in the safety analysis report or technical specifications bases; or discovery during plant life of conditions not specifically considered in the safety analysis report or technical specifications that require remedial action or corrective measures to prevent the existence or development of an unsafe condition.

Note: This item is intended to provide for reporting of potentially generic problems.

(10) The concentration of radioactive material in liquid effluents released to unrestricted areas exceeds the concentrations specified in 10 CFR Part 20, Appendix B, Table II, Column 2 for radionuclides other than dissolved or entrained noble gases. Concentration of dissolved or entrained noble gases exceeds 2×10^{-4} μCi/ml total activity.

(11) (a). The dose rate for noble gases equals or exceeds 500 mrem/yr to the total body or 3000 mrem/yr to the skin.

(b). The dose rate for all radioiodines, for all radioactive materials in particular form, and for radionuclides other than noble gases with half lives greater than 8 days exceeds 1500 mrem/yr to any organ.

424 322

3. Responsible for overall planning, establishment, and maintenance of critical path schedule for restoration of units 1 and 2.

4. Coordination and approval of TVA's overall efforts in fire protection and prevention improvements, including design and installation of new systems and changes necessary in fire fighting methods and techniques.

6.10 OFFSITE DOSE CALCULATION MANUAL (ODCM)

FUNCTION

6.10.1 The ODCM describes the methodology and parameters used in the calculation of offsite doses due to radioactive gaseous and liquid effluents and in the calculation of gaseous and liquid effluent monitoring instrumentation alarm/trip setpoints consistent with the applicable LCO's contained in these Technical Specifications. (Methodologies and calculational procedures acceptable to the Commission are contained in NUREG-0133.)

6.10.2 Changes to the ODCM shall be made by either of the following methods:

A. Licensee initiated changes:
   1. Shall be submitted to the Commission by includion in the Monthly Operating Report pursuant to Specification 6.9.1.10 within 90 days of the date the change(s) was made effective and shall contain:

      a. Sufficiently detailed information to totally support the rationale for the change without benefit of additional or supplemental information. Information submitted should consist of a package of those pages of the ODCM to be changed with each page numbered and provided with an approval and date box, together with appropriate analyses or evaluations justifying the change(s);

      b. a determination that the change will not reduce the accuracy or reliability of dose calculations or setpoint determinations; and

      c. documentation of the fact that the change has been reviewed and found acceptable by PORC.

   2. Shall become effective upon a date specified and agreed to by PORC following their review and acceptance of the change(s).

6.10 OFFSITE DOSE CALCULATION MANUAL (ODCM) (Cont'd)

B. Commission initiated changes:

1. Shall be determined by the PORC to be applicable to the facility after consideration of facility design.

2. The licensee shall provide the Commission with written notification of their determination of applicability including any necessary revisions to reflect facility design.

424 324