

PROPOSED FSAR REVISIONS

12.3.2.16.2 Access to Vital Areas

The radiation level in areas requiring continuous occupancy are less than 15 mR/hr. These areas have been defined above. Exposures in these areas will contribute to an integrated dose of less than 5 rem for the duration of the accident and can satisfy GDC19 of 10 CFR 50 Appendix A. Postulated post-accident assumptions and source terms are described in FSAR Section 15.6.5.4.4. Atmospheric dispersion factors used in the Technical Support Center dose calculations were developed using the methodology described in NUREG/CR-6331, "Atmospheric Relative Concentrations in Building Wakes," May 1995. These dispersion factors were adjusted for variability in wind direction. The time dependent wind direction adjustment factors were determined using the equations from the Murphy and Campe methodology ("Nuclear Power Plant Control Room Ventilation System Design for Meeting General Design Criterion 19," 13th AEC Air Cleaning Conference, August 1974). The atmospheric dispersion factors were not adjusted for wind speed.

Areas requiring possible frequent access have radiation levels between 15 mR/hr. and less than 100 mR/hr. Examples of such areas are control panels which are located outside the cubicles housing radioactive sources.

Areas requiring infrequent access are those with radiation levels greater than 100 mR/hr. The direct dose due to airborne activity in the containment atmosphere outside the cylindrical structural wall is estimated to be 8 R/hr. High radiation doses indicate contributions from highly radioactive sources in the areas. Since it is extremely difficult to separate the radiation zones in the absence of the shield walls, a range of radiation levels exist.

The overall result of the analysis is that vital areas required to be accessible to place the plant in a stable shutdown condition following the accident are accessible at the time required for entry. All operations required to mitigate the accident and place the plant in RHR recirculation mode can be performed from the Control Room.

Dose rate zone maps, which identify dose rates in vital areas, are shown on Figures 12.3A-1 through 12.3A-21. Occupancy requirements for various areas following an accident are summarized in Table 12.3.2-3. The dose rates for various time references (one hour, one day and one month) were calculated using source terms discussed in FSAR Section 12.2.1.12 and subsection 12.3.2.16. Sources of radiation were airborne and coolant activity in the containment building and the coolant activity in the RHR, containment spray and safety injection systems outside containment.



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