

#### **7.1.4.2 Dose Rate Estimates**

REMOVE first full paragraph on Page 7-6 of the SER and INSERT:

The applicant calculated off-site dose rates for the HI-STORM 100 based on PWR design basis fuel source terms with a burnup and cooling time of 40,000 MWD/MTU for 10 years as discussed in Section 7.1.1 of this SER. The applicant calculated average contact surface dose rates for the HI-STORM 100 storage cask to be approximately 10 mrem/hr at the sides, 3 mrem/hr on top, and 6 mrem/hour at the vents. Based on these values, the applicant calculated a site boundary dose rate of 0.0029 mrem/hr for 4,000 casks from direct and scattered radiation exposure. As discussed in Chapter 9 of this SER, no release of radioactive material in effluent is expected during normal operations; therefore, the dose due to effluents is not considered. The applicant extrapolated the site boundary dose rate out to a distance of two miles and calculated an annual dose of 0.0356 mrem to the nearest resident, assuming the resident is continually present for 8,760 hr/yr. The applicant also calculated an annual dose of 5.85 mrem for a hypothetical person at the site boundary (e.g., non-Facility worker), assuming the person is at the site boundary for 2,000 hr/yr which is approximately equal to 40 hr/week. These dose rates are less than the 10 CFR 72.104(a) dose limit of 25 mrem/yr to the whole body to a member of the public.

REMOVE Section 7.3 on Page 7-7 to 7-8 of the SER and INSERT:

### 7.3 References

- American Nuclear Society Standards Committee Working Group. *Neutron and Gamma Ray Flux-to-Dose-Rate Factors*. ANSI/ANS 6.1.1-1977. Washington, DC: American National Standards Institute. 1977.
- Holtec International. 2000. *Final Safety Analysis Report for the Holtec International Storage and Transfer Operation Reinforced Module Cask System (HI-STORM 100 Cask System)*. Volumes I and II. HI-2002444. Docket 72-1014. Marlton, NJ: Holtec International.
- Los Alamos National Laboratory. *ENDF/B-V1, Data for MCNP*. LA-12891. Los Alamos, NM: Los Alamos National Laboratory. 1994.
- Los Alamos National Laboratory. *MCNP 4A, Monte Carlo N-Particle Transport System. RSIC Computer Code Collection*. CCC-200. Los Alamos, NM: Los Alamos National Laboratory. 1995.
- Nuclear Regulatory Commission. 2000a. 10 CFR Part 72 *Certificate of Compliance No. 1014, Amendment 0, for the HI-STORM 100 Cask System*. Docket No. 72-1014. May 31.
- Nuclear Regulatory Commission. 2000b. *Holtec International HI-STORM 100 Cask System Safety Evaluation Report*. Docket No. 72-1014. May.
- Oak Ridge National Laboratory. *SAS2H: A Coupled One-Dimensional Depletion and Shielding Analysis Module*. NUREG/CR-0200. ORNL/NUREG/CS-22/V2/R5. Revision 5. Oak Ridge, TN: Oak Ridge National Laboratory. 1995a.
- Oak Ridge National Laboratory. *ORIGEN-S: SCALE System Module to Calculate Fuel Depletion, Actinide Transmutation, Fission Product Buildup and Decay, and Associated Radiation Source Terms*. NUREG/CR-0200. ORNL/NUREG/CSD-2/V2/R5. Revision 5. Oak Ridge, TN: Oak Ridge National Laboratory. 1995b.
- Office of Civilian Radioactive Waste Management. *Characteristics of Spent Fuel, High-Level Waste, and Other Radioactive Wastes Which May Require Long-Term Isolation*. DOE/RW-0184. Washington, DC: U.S. Department of Energy. 1987.
- Private Fuel Storage Limited Liability Company. *Safety Analysis Report for Private Fuel Storage Facility*. Revision 22. Docket No. 72-22. La Crosse, WI: Private Fuel Storage Limited Liability Company. 2001.

TRW Environmental Safety Systems, Inc. *Initial Summary Report for Repository/Waste Package Advanced Conceptual Design*. B00000000-01717-5705-00015. Las Vegas, NV: TRW Environmental Safety Systems, Inc. 1994.

U.S. Department of Energy. *Spent Nuclear Fuel Discharges from U.S. Reactors-1994*. Washington, DC: U.S. Department of Energy, Energy Information Administration. 1996.