

5.0 UNAVOIDABLE ADVERSE ENVIRONMENTAL IMPACTS, RELATIONSHIP OF SHORT-TERM USES OF THE ENVIRONMENT AND LONG-TERM PRODUCTIVITY, AND IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

5.1 UNAVOIDABLE ADVERSE ENVIRONMENTAL IMPACTS

Under Alternative 1 or 2, there would be a very slight temporary increase in radiation doses to the public and workers as a result of decontamination, demolition, and soil remediation activities, which could result in a very slight increase in excess cancer risk (*see* Section 4.5). The highest increased total dose for the maximally exposed member of the public would be 2.2×10^{-2} millirem, which would result in 1.1×10^{-8} latent cancer fatalities under Alternative 2. Offsite transportation of waste under Alternatives 1 and 2 and transportation of clean soil to the site under Alternative 2 could also result in slight public and worker radiation exposure and the potential for traffic accident fatalities (*see* Section 4.11).

5.2 RELATIONSHIP OF SHORT-TERM USES OF THE ENVIRONMENT AND LONG-TERM PRODUCTIVITY

Implementation of Alternative 1 or 2 would not create a conflict between the local, short-term uses of the environment and long-term productivity. All activities would occur on an already disturbed site or would use existing infrastructure resources such as roads. Environmental resources such as land, plants and animals, wetlands, air quality, and water quality would not be affected by implementation of either of the two action alternatives.

5.3 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

The only irreversible or irretrievable commitment of resources that would occur if Alternative 1 or 2 were implemented is the use of fossil fuels in the shipment of waste off the site and the use of land for the disposal of radioactive wastes. Truck shipments would require the consumption of diesel fuel and other fossil fuels such as gasoline and lubricants. Approximately 50 times more shipments of LLW (including contaminated soil) would be required under Alternative 2 as compared to Alternative 1.

Implementation of Alternative 1 or 2 would also involve the commitment of land for waste disposal facilities. The land-use requirements for the offsite disposal of LLW, MLLW, TRU waste and hazardous waste were addressed in the *Final Waste Management Programmatic Environmental Impact Statement for Managing Treatment, Storage, and Disposal of Radioactive and Hazardous Waste* and the *Waste Isolation Pilot Plant Disposal Phase Final Supplemental Environmental Impact Statement*. Disposal of nonhazardous debris waste would be in accordance with local regulations. Approximately 50 times more LLW would be generated and would need to be disposed of under Alternative 2 than Alternative 1 (406,850 cubic meters of LLW under Alternative 2 as compared to 7,500 cubic meters of LLW under Alternative 1).