

Table 2-2. Comparison of the potential environmental impacts of the alternatives for stable material.

Factors	Alternatives						
	Continuing Storage	Processing to Metal	Processing to Oxide	Blending Down to Low Enriched Uranium	Processing and Storage for Vitrification (DWPF)	Vitrification (F-Canyon)	Improving Storage
Health effects of Normal Operations							
Radiological health effects (10-year totals):							
Population latent cancer fatalities	0.0006	NA ^a	NA	NA	NA	NA	NA
Worker latent cancer fatalities	0.056	NA	NA	NA	NA	NA	NA
Health effects from facility accidents^b (projected latent cancer fatalities)	0.48	NA	NA	NA	NA	NA	NA
Health effects from transportation (projected latent cancer fatalities)							
Incident-free (involved worker)	0.011	NA	NA	NA	NA	NA	NA
Accidents (offsite population) ^c	0.0000055	NA	NA	NA	NA	NA	NA
Air resources							
Nonradiological - Nitrogen oxide incremental concentration at SRS boundary (highest annual, micrograms per cubic meter)	0.053	NA	NA	NA	NA	NA	NA
Water resources							
Lead (micrograms per liter) in Upper Three Runs Creek	0	NA	NA	NA	NA	NA	NA
Utilities (10-year totals)							
Electricity usage (megawatt-hour)	395,281	NA	NA	NA	NA	NA	NA
Waste management (10-year totals)							
High-level liquid waste generation (million liters)	0	NA	NA	NA	NA	NA	NA
Equivalent DWPF canisters	40	NA	NA	NA	NA	NA	NA
Saltstone generation (cubic meters)	11,000	NA	NA	NA	NA	NA	NA
Transuranic waste generation (cubic meters)	20	NA	NA	NA	NA	NA	NA
Hazardous/mixed waste generation (cubic meters)	60	NA	NA	NA	NA	NA	NA
Low-level radioactive waste generation (cubic meters)	41,000	NA	NA	NA	NA	NA	NA

a. NA = Not applicable.

b. Assumes highly unlikely occurrence of maximum risk accident.

c. Maximum reasonably foreseeable latent cancer fatalities from medium probability accident based on the shipment of transuranic waste.
