Table 2-5. Comparison of the potential environmental impacts of the alternatives for neptunium.[a]

Factors	Alternatives				
	Continuing Storage	Processing to Metal	Processing to Oxide	Blending Down to Low Enriched Uranium	Processing and for Vitrifica (DWPF
Health effects of Normal Operations					
Radiological health effects (10-year totals):					
Population latent cancer fatalities	0.00027	NA[b]	0.028	NA	NA
Worker latent cancer fatalities	0.006	NA	0.052	NA	NA
Health effects from facility accidents[c] (projected latent cancer fatalities)	4.1	NA	4.1	NA	NA
Health effects from transportation (projected latent cancer fatalities)					
Incident-free (involved worker)	0.00178[d]	NA	0.00302	NA	NA
Accidents (offsite population)[f]	2.0	NA	2.0	NA	NA
Air resources					
Nonradiological - Nitrogen oxide incremental concentration at SRS boundary (highest annual, micrograms per cubic meter)	0.019	NA	0.1	NA	NA
Water resources					
Lead (micrograms per liter) in Upper Three Runs Creek	3	NA	3	NA	NA
Utilities (10-year totals)					
Electricity usage (megawatt-hour)	141,570	NA	148,946	NA	NA
Waste management (10-year totals)					
High-level liquid waste (million liters)	1.3	NA	4.2	NA	NA
Equivalent DWPF canisters	20	NA	37	NA	NA
Saltstone generation (cubic meters)	3,600	NA	11,000	NA	NA
Transuranic waste generation (cubic meters)	0	NA	160	NA	NA
Hazardous/mixed waste generation (cubic meters)	0	NA	200	NA	NA
Low-level radioactive waste generation (cubic meters)	5,700	NA	6,400	NA	NA

a. Includes transportation of associated radioactive waste.

b. NA = Not applicable.

c. Assumes highly unlikely occurrence of maximum consequence accident.

d. Waste transportation only.
e. No approved packaging for material transport; waste transport only.
f. Maximum reasonably foreseeable latent cancer fatalities from medium probability accident based on the shipment of transuranic w