

**Table 2-10.** Comparison of the potential environmental impacts of the alternatives for Mark-16 and -22 fuels.

Factors	Alternatives				
	Continuing Storage	Processing to Metal	Processing to Oxide	Blending Down to Low Enriched Uranium	Processing and for Vitrification (DWPF)
<b>Health effects of Normal Operations</b>					
Radiological health effects (10-year totals):					
Population latent cancer fatalities	0.000015	NA <sup>b</sup>	0.034	0.041	0.0008
Worker latent cancer fatalities	0.0028	NA	0.08	0.026	0.088
<b>Health effects from facility accidents<sup>c</sup> (projected latent cancer fatalities)</b>	0.0089	NA	4.1	4.1	4.1
<b>Health effects from transportation (projected latent cancer fatalities)</b>					
Incident-free (involved worker)	0.00377 <sup>d</sup>	NA	0.00575	0.00740	0.01
Accidents (offsite population) <sup>e</sup>	2.0	NA	2.0	2.0	2.0
<b>Air resources</b>					
Nonradiological - Nitrogen oxide incremental concentration at SRS boundary (highest annual, micrograms per cubic meter)	0	NA	0.083	0.083	0.23
<b>Water resources</b>					
Lead (micrograms per liter) in Upper Three Runs Creek	0	NA	3	3	6.1
<b>Utilities (10-year totals)</b>					
Electricity usage (megawatt-hour)	10	NA	78,838	83,454	88,718
<b>Waste management (10-year totals)</b>					
High-level liquid waste generation (million liters)	0.57	NA	5.6	7.3	6.8
Equivalent DWPF canisters	10	NA	49	68	140
Saltstone generation (cubic meters)	1,600	NA	15,000	20,000	19,000
Transuranic waste generation (cubic meters)	0	NA	0	0	0
Hazardous/mixed waste generation (cubic meters)	20	NA	22	28	44
Low-level radioactive waste generation (cubic meters)	15,000	NA	16,000	20,000	32,000

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