

Table 4-23. Worker radiological doses associated with the Shut Down and Deactivate Alternative and resulting health effects.^a

Receptor(s)	No-Action Alternative		Shutdown and Deactivate Alternative	
	Dose (rem)	Probability ^b or number of fatal cancers	Dose (rem)	Probability ^b or number of fatal cancers
Involved worker (current use)				
Annual ^c	5.0×10^{-8}	2.0×10^{-11}	2.4×10^{-4}	9.7×10^{-8}
Lifetime ^d	2.2×10^{-7}	8.7×10^{-11}	1.1×10^{-3}	4.5×10^{-7}
All involved workers ^e (current use)				
Annual ^c (person-rem)	3.5×10^{-6}	1.4×10^{-9}	1.7×10^{-2}	6.8×10^{-6}
Lifetime ^d (person-rem)	1.5×10^{-5}	6.1×10^{-9}	7.9×10^{-2}	3.2×10^{-5}
Involved worker (future use)				
Annual ^c	1.1×10^{-6}	4.4×10^{-10}	4.1×10^{-2}	1.6×10^{-5}
Lifetime ^d	1.5×10^{-5}	5.9×10^{-9}	7.5×10^{-1}	3.0×10^{-4}
All involved workers ^e (future use)				
Annual ^c (person-rem)	7.7×10^{-5}	3.1×10^{-8}	$2.9 \times 10^{+0}$	1.1×10^{-3}
Lifetime ^d (person-rem)	1.0×10^{-3}	4.1×10^{-7}	5.2×10^1	2.1×10^{-2}
Uninvolved worker ^f				
Annual ^c	2.0×10^{-8}	7.8×10^{-12}	1.5×10^{-6}	5.8×10^{-10}
Lifetime ^d	2.6×10^{-7}	1.1×10^{-10}	3.4×10^{-5}	1.4×10^{-8}
All uninvolved workers ^g				
Annual ^c (person-rem)	4.9×10^{-6}	2.0×10^{-9}	3.7×10^{-4}	1.5×10^{-7}
Lifetime ^d (person-rem)	6.6×10^{-5}	2.6×10^{-8}	8.6×10^{-3}	3.4×10^{-6}

a. Supplemental information provided in Tables C-15, C-16, and C-17 in Appendix C.

b. For the offsite maximally exposed individual, probability of a latent fatal cancer; for the population, number of fatal cancers.

c. Annual individual worker doses can be compared with the regulatory dose limit of 5 rem (10 CFR 835) and with the SRS administrative exposure guideline of 0.7 rem. Operational procedures ensure that the dose to the maximally exposed worker will remain as far below the regulatory dose limit as is reasonably achievable. The 1995 average dose for all Site workers who received a measurable dose was 256 rem (See Table 4-16).

d. Based on 5 years of exposure for current workers and 25 years of exposure for future and uninvolved workers. Doses are corrected for radioactive decay.

e. The estimated number of involved workers is 70.

f. L-Area.

g. L-Area the estimated number of all uninvolved workers is 251 (Source: Simpkins 1996c).