

Table 4-13. Estimated cesium-137 remobilization from Steel Creek compared with current transport values (direct discharge)^a

Location	River Mile	Inventory transported (Ci/yr)				Concentration in water (pCi/l)			
		Current values	After restart			Current values	After restart		
			1st year	2nd year	10th year		1st year	2nd year	10th year
Steel Creek mouth Savannah River at 1.5 river miles below Steel Creek	141.6	0.25	4.4	2.3	0.4	5.3	11.15	5.80	1.01
Hwy. 301 bridge	140.1	0.41 ^b	4.4	2.3	0.4	0.04 ^b	0.47	0.25	0.04
Hwy. 17 bridge	118.7	0.39 ^b	4.3	2.2	0.4	0.04 ^b	0.44	0.23	0.04
	21.4	0.20 ^b	2.7	1.4	0.2	0.02 ^b	0.23	0.12	0.02
WATER-TREATMENT PLANTS									
Finished water									
Beaufort-Jasper	39.2	--	--	--	--	0.028	0.01	<0.01	<<0.01
Cherokee Hill	29.0	--	--	--	--	0.033	0.09	0.05	<0.01
EPA interim primary drinking-water standard	--	--	--	--	--	200	200	200	200

^aBased on mean transportation estimates made by Hayes (1983) and Hayes and Watts (1983) and data presented in Table D-16, and average flow rates in the Savannah River at locations indicated. Estimates of concentration and transport for the first, second, and tenth years represent only the contribution resulting from the remobilization of cesium-137 in Steel Creek by the resumed operation of L-Reactor. No alteration of existing water-treatment-plant systems was assumed.

^b1979-1982 average concentration measured at the Hwy. 301 bridge was 0.04 picocurie per liter; other values derived using appropriate flow rates and reduction factors.

Table 4-14. Estimated cobalt-60 remobilization from Steel Creek compared with current transport values (direct discharge)^a

Location	River Mile	Inventory transported (Ci/yr)				Concentration in water (pCi/l)			
		Current values	After restart			Current values	After restart		
			1st year	2nd year	10th year		1st year	2nd year	10th year
Steel Creek mouth	141.6	0.02 ^b	0.25	0.14	<0.01	0.3 ^b	0.63	0.35	0.02
Savannah River at 1.5 river miles below Steel Creek	140.1	0.02 ^b	0.25	0.14	<0.01	<<0.01 ^b	0.03	0.02	<<0.01
Hwy. 301 bridge	118.7	0.02 ^b	0.24	0.14	<0.01	<<0.01 ^b	0.03	0.02	<<0.01
Hwy. 17 bridge	21.4	0.01 ^b	0.15	0.09	<<0.01	<<0.01 ^b	0.02	<0.02	<<0.01
WATER-TREATMENT PLANTS									
Finished water									
Beaufort-Jasper	39.2	--	--	--	--	<0.003 ^c	0.02	<0.02	<<0.01
Cherokee Hill	29.0	--	--	--	--	<0.003 ^c	0.02	<0.02	<0.01
EPA interim primary drinking water standard	--	--	--	--	--	100	100	100	100

^aBased on mean transportation estimates made by Hayes (1983) and Hayes and Watts (1983) and average flow rates in the Savannah River at locations indicated. Estimates of concentration and transport for the first, second, and tenth years represent only the contribution resulting from the remobilization of cobalt-60 in Steel Creek by the resumed operation of L-Reactor. No credit is taken for removal of cobalt-60 by the waste-treatment process.

^bEstimated on the basis of 0.06 times the value for cesium-137.

^cBased on Kantelo and Milham (1983).