

Data Table 6-10, Adjustment of Cs-137 Release

Activity in Fish	Cs-137					
	Conc,pCi/g					
River Mile 118.8 wtd avg conc	1.95E-02 <---Normally used for maximum individual & pop. dose					
	Measured Ci Released	LADTAP BAF	RM 118.8 Flow, cfs	Calc Fish Conc,pCi/g	Meas Fish Conc,pCi/g	Ratio meas/calc
Cs-137						
RM118.8-Max Ind	1.42E-02	3000	5,752	8.29E-03	1.95E-02	2.36

Ratios (right column) are multipliers for measured releases in order for LADTAP to calculate the appropriate dose using the built in BAF factors. Calculated release values used in LADTAP calculations are shown below:

	Multiplier (ratio)	Measured Ci Release	Calc Ci Release	
Cs-137				
RM118.8-Max Ind	2.36	1.42E-02	3.34E-02	(see note below)

Cs-137 direct releases: 1.42E-02 Ci
 2013 total effective flow RM 118.8 5.14E+15 ml
 Calc Cs-137 conc = 2.76E-06 pCi/ml

Ratios of Measured/Calculated Conc. of Cs-137 in fish

Year	Ratio	Year	Ratio
1985	5.2	2010	1.3
1986	8.4	2011	0.34
1987	3.0	2012	0.5
1988	1.4	2013	2.36
1989	1.2		
1990	6.8		
1991	25.3 to 28.6		
1992	1.2		
1993	1.1		
1994	1.4		
1995	3.1		
1996	1.3		
1997	2.6		
1998	1.2		
1999	2.3		
2000	1.1		
2001	0.8		
2002	2.1		
2003	0.54		
2004	0.27		
2005	0.42		
2006	0.39		
2007	0.6		
2008	0.56		
2009	0.45		

NOTE: FOR 2013, THE CALCULATED CS-137 EFFLUENT RELEASE VALUE OF 0.0334 CURIE WAS USED IN THE DOSE CALCULATIONS INSTEAD OF THE MEASURED EFFLUENT VALUE OF 0.0142 CURIE.

Support for L5

Adjustment of Cs-137 Liquid Release Based on Fish Concentrations

Cesium-137 Measured Mean Concentrations in River Mile 118.8 Fish

Location	Species	Number of Composites	Cs-137, pCi/g	# comp X avg. conc.
			Average	pCi/g
River Mile 118.8	panfish	3	1.35E-02	4.04E-02
	catfish	3	1.53E-02	4.58E-02
	bass	3	2.99E-02	8.97E-02
	Total Composites	9	Sum =	1.76E-01

Overall weighted average----->	1.95E-02
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