

Table 8

Hazard Quotients (HQ) for Sediment COCs
Mercury Refining Company
Colonie, New York

Sediment COC	TRV	Units	Rensselaer Lake				Inga's Pond				Background Unnamed Tributary			
			mean conc	mean HQ	max conc	max HQ	mean conc	mean HQ	max conc	max HQ	mean conc	mean HQ	max conc	max HQ
Mercury (Total)	0.18	mg/kg	0.31	1.7	0.31	1.7	0.33	1.8	0.33	1.8	0.06	0.33333	0.09	0.50
Methyl mercury	0.00001	mg/kg	0.00146	146	0.00146	146	0.00124	124	0.00124	124	0.000295	29.5	0.00033	33
Vanadium	57	mg/kg	39.1	0.69	39.1	0.686	51.4	0.90	51.4	0.90	10.5	0.18	13	0.23
PCBs (Aroclor-1260)	63,000	µg/kg									410	0.00651	410	0.0065
PCBs (Aroclor-1260)	60	µg/kg									410	6.9	410	6.9
Benzo(a)pyrene	370	µg/kg					6600	18	6600	44	895	2.4	980	2.6
Benzo(k)flouranthene	423	µg/kg					4800	11	4800	11	775	1.8	1200	2.8
Total PAHs	4,000	µg/kg					83560	21	83560	52	15450	3.9	15450	3.9

Sediment COC	TRV	Units	Background Patroon Creek				Patroon Creek downstream of Confluence				I-90 Pond			
			mean conc	mean HQ	max conc	max HQ	mean conc	mean HQ	max conc	max HQ	mean conc	mean HQ	max conc	max HQ
Mercury (Total)	0.18	mg/kg	0.05	0.28	0.07	0.389	0.138	0.77	0.32	1.8	0.49	2.7	1.1	6
Methyl mercury	0.00001	mg/kg	0.00057	57	0.00101	101	0.0003	30	0.00044	44	0.00174	174	0.00478	478
Vanadium	57	mg/kg	6.35	0.11	6.7	0.118	10.08	0.18	12.4	0.2	18.1	0.3	24	0.42
PCBs (Aroclor-1260)	63,000	µg/kg									2,750	0.044	4,400	0.070
PCBs (Aroclor-1260)	60	µg/kg									2,750	46	4,400	74
Benzo(a)pyrene	370	µg/kg	31.5	0.09	44	0.119	805	2.2	2000	5	1,823	5	3,100	8
Benzo(k)flouranthene	423	µg/kg	203	0.480	380	0.898	642.5	1.5	1200	2.8	1,191	2.8	2,000	4.7
Total PAHs	4,000	µg/kg	359	0.09	587	0.147	11325	2.8	25300	6	13,325	3.3	18,980	5

Sediment COC	TRV	Units	Unnamed Tributary			
			mean conc	mean HQ	max conc	max HQ
Mercury (Total)	0.18	mg/kg	1.5	8.33	9	50
Methyl mercury	0.00001	mg/kg	0.00195	195	0.0091	910
Vanadium	57	mg/kg	11.78	0.21	18.4	0.323
PCBs (Aroclor-1260)	63,000	µg/kg				
PCBs (Aroclor-1260)	60	µg/kg				
Benzo(a)pyrene	370	µg/kg	211.4	0.57	500	1.4
Benzo(k)flouranthene	423	µg/kg	212.2	0.502	710	1.7
Total PAHs	4,000	µg/kg	3206.5	0.80	9733	2.4

Notes:

- Blank cells indicate no data or non-detect data
 - PCBs (Aroclor-1260) values are based on a total of only three samples of detections (2 in I90 Pond and 1 in Bkg. Unnamed Tributary)
- TRV: Toxicity Reference Value
PAH: Polycyclic aromatic hydrocarbons
HQ: Hazard Quotient
max: maximum
conc: concentration
COC: Contaminant of concern
PCB: Polychlorinated biphenyl
Red indicates the hazard quotient is greater than 1

