TABLE 4-1

NON-CANCER TOXICITY DATA -- ORAL/DERMAL

UPPER HUDSON RIVER

Chemical of Potential Concern	Chronic/ Subchronic	Oral RfD Value	Oral RfD Units	Oral to Dermal Adjustment Factor	Adjusted Dermal RfD	Units	Primary Target Organ	Combined Uncertainty/Modifying Factors	Sources of RfD: Target Organ	Dates of RfD: Target Organ (1) (MM/DD/YY)
Aroclor 1254	Chronic	2.00E-05 (2)	mg/kg-d	--	--	--	LOAEL	300	IRIS	6/1/97
Aroclor 1016		7.00E-05 (3)	mg/kg-d	--	--	--	NOAEL	100	IRIS	6/1/97

N/A = Not Applicable

(1) IRIS value from most recent updated PCB file.

(2) Oral RfD for Aroclor 1254; there is no RfD available for total PCBs. PCBs in fish are considered to be most like Aroclor 1254.

(3) Oral RfD for Aroclor 1016; there is no RfD available for total PCBs. PCBs in sediment and water samples are considered to be most like Aroclor 1016.

TABLE 4-2

NON-CANCER TOXICITY DATA -- INHALATION

UPPER HUDSON RIVER

Chemical of Potential Concern	Chronic/ Subchronic	Value Inhalation RfC	Units	Adjusted Inhalation RfD	Units	Primary Target Organ	Combined Uncertainty/Modifying Factors	Sources of RfC:RfD: Target Organ	Dates (1) (MM/DD/YY)
PCBs	N/A	N/A	N/A	N/A	N/A	N/A	N/A	IRIS	6/1/97

N/A = Not Applicable

(1) Most recent updated PCB file in IRIS and HEAST (1997) were reviewed.

TABLE 4-3

CANCER TOXICITY DATA -- ORAL/DERMAL

UPPER HUDSON RIVER

Chemical of Potential Concern	Oral Cancer Slope Factor	Oral to Dermal Adjustment Factor	Adjusted Dermal Cancer Slope Factor	Units	Weight of Evidence/ Cancer Guideline Description	Source Target Organ	Date (1) (MM/DD/YY)
PCBs	1 (2)	--	--	$(mg/kg-d)^{-1}$	B2	IRIS	6/1/97
	2 (3)	--	--	$(mg/kg-d)^{-1}$	B2	IRIS	6/1/97
	0.3 (4)	--	--	$(mg/kg-d)^{-1}$	B2	IRIS	6/1/97
	0.4 (5)	--	--	$(mg/kg-d)^{-1}$	B2	IRIS	6/1/97

IRIS = Integrated Risk Information System

HEAST= Health Effects Assessment Summary Tables

EPA Group:

A - Human carcinogen

B1 - Probable human carcinogen - indicates that limited human data are available

B2 - Probable human carcinogen - indicates sufficient evidence in animals and inadequate or no evidence in humans

C - Possible human carcinogen

D - Not classifiable as a human carcinogen

E - Evidence of noncarcinogenicity

Weight of Evidence:

Known/Likely

Cannot be Determined

Not Likely

(1) IRIS value from most recent updated PCB file.

(2) Central estimate slope factor for exposures to PCBs via ingestion of fish, ingestion of sediments, and dermal contact (if dermal absorption fraction is applied) with sediments.

(3) Upper-bound slope factor for exposures to PCBs via ingestion of fish, ingestion of sediments, and dermal contact (if dermal absorption fraction is applied) with sediments.

(4) Central estimate slope factor for exposures to PCBs via dermal contact (if no absorption factor is applied) with water soluble congeners in river water and inhalation of evaporated congeners in air.

(5) Upper-bound slope factor for exposures to PCBs via dermal contact (if no absorption factor is applied) with water soluble congeners in river water and inhalation of evaporated congeners in air.

TABLE 4-4

CANCER TOXICITY DATA -- INHALATION

UPPER HUDSON RIVER

Chemical of Potential Concern	Unit Risk	Units	Adjustment	Inhalation Cancer Slope Factor	Units	Weight of Evidence/ Cancer Guideline Description	Source	Date (1) (MM/DD/YY)
PCBs	N/A	N/A	--	0.3 (2)	$(mg/kg\text{-}d)^{-1}$	B2	IRIS	6/1/97
	N/A	N/A	--	0.4 (3)	$(mg/kg\text{-}d)^{-1}$	B2	IRIS	6/1/97

IRIS = Integrated Risk Information System

HEAST= Health Effects Assessment Summary Tables

Weight of Evidence:

Known/Likely

Cannot be Determined

Not Likely

EPA Group:

A - Human carcinogen

B1 - Probable human carcinogen - indicates that limited human data are available

B2 - Probable human carcinogen - indicates sufficient evidence in animals and inadequate or no evidence in humans

C - Possible human carcinogen

D - Not classifiable as a human carcinogen

E - Evidence of noncarcinogenicity

(1) IRIS value from most recent updated PCB file.

(2) Central estimate slope factor for exposures to PCBs via dermal contact (if no absorption factor is applied) with river water and inhalation of air.

(3) Upper-bound slope factor for exposures to PCBs via dermal contact (if no absorption factor is applied) with river water and inhalation of air.

Table 4-5
Toxic Equivalency Factors (TEFs) for Dioxin-Like PCBs

IUPAC Number	Structure	1994 WHO/IPCS TEFs (Ahlborg *et al.*, 1994)	1998 WHO/IPCS TEFs (Van den Berg *et al.*, 1998)
Non-ortho PCBs			
77	3,3',4,4'-TCB	0.0005	0.0001
81	3,4,4',5-TCB	Not evaluated	0.0001
126	3,3',4,4',5-PeCB	0.1	0.1
169	3,3',4,4',5,5'-HxCB	0.01	0.01
Mono-ortho PCBs			
105	2,3,3',4,4'-PeCB	0.0001	0.0001
114	2,3,4,4',5-PeCB	0.0005	0.0005
118	2,3',4,4',5-PeCB	0.0001	0.0001
123	2',3,4,4',5-PeCB	0.0001	0.0001
156	2,3,3',4,4',5-HxCB	0.0005	0.0005
157	2,3,3',4,4',5'-HxCB	0.0005	0.0005
167	2,3',4,4',5,5'-HxCB	0.00001	0.00001
189	2,3,3',4,4',5,5'-HpCB	0.0001	0.0001
Diortho PCBs			
170	2,2',3,3',4,4',5-HpCB	0.0001	Withdrawn
180	2,2',3,4,4',5,5'-HpCB	0.00001	Withdrawn