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**APPENDIX E**  
**Detailed Exposure Calculations**

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**TABLE 1(A)**  
**RECEPTOR-SPECIFIC INTAKE FACTORS**

<b>RECEPTOR:</b>	<b>SOLDIER</b>
<b>SUBJECT AREA:</b>	<b>SA-1</b>

<b>Inadvertent Ingestion of Soil</b>			
	IR <sub>S</sub> Ingestion rate for soil	1.0E-01	g/day
	CF1 Conversion Factor 1	1.0E-03	kg/g
	ET1 Days per year exposed / 365 days/yr	0.0055	unitless
	BW Body weight	70.7	kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> x IR<sub>S</sub> x CF1 x AF<sub>GIT</sub> x ET1) / BW</i>			
<b>Dermal Contact with Soil</b>			
	SA Skin surface area exposed	3390	cm <sup>2</sup>
	SL Soil loading to exposed skin	0.000336	g/cm <sup>2</sup> /day
	CF1 Conversion Factor 1	1.0E-03	kg/g
	ET1 Days per year exposed / 365 days/yr	0.0055	unitless
	BW Body weight	70.7	kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> x SA x SL x CF1 x AF<sub>Skin</sub> x ET1) / BW</i>			
<b>Inhalation of Particulates</b>			
	IR <sub>A</sub> Inhalation rate	0.66	m <sup>3</sup> /hour
	ET2 Daily exposure time	8	hrs/day
	ET1 Days per year exposed / 365 days/yr	0.0055	unitless
	BW Body weight	70.7	kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> x P<sub>Air</sub> x IR<sub>A</sub> x ET2 x AF<sub>Inh</sub> x ET1) / BW</i>			

**TABLE 1(B)**  
**EXPOSURE POINT CONCENTRATIONS FOR PCDD TEQ IN SA-1**

<b>Subject Area</b>	<b>Soil Concentration (C<sub>s</sub>) (mg/kg)</b>	<b>Particulate Emission Factor* (P<sub>air</sub>) (kg/m<sup>3</sup>)</b>	<b>Potable Water Concentration (C<sub>PW</sub>) (mg/L)</b>	<b>Sediment Concentration (C<sub>SD</sub>) (mg/kg)</b>	<b>Surface Water Concentration (C<sub>SW</sub>) (mg/L)</b>	<b>Berry Concentration (C<sub>Berr</sub>) (mg/kg)</b>	<b>Game Concentration (C<sub>Game</sub>) (mg/kg)</b>	<b>Fish Concentration (C<sub>Fish</sub>) (mg/kg)</b>
SA-1	1.28E-06	7.6E-10	NA	NA	NA	2.26E-06	NA	NA

\* The particulate emission factor (P<sub>air</sub>) is applied to the soil concentration (C<sub>s</sub>) to calculate an ambient air concentration in units of mg/m<sup>3</sup>.

**TABLE 1(C)**  
**CONTAMINANT-SPECIFIC ABSORPTION FACTORS AND REFERENCE VALUES FOR PCDD TEQ**

<b>Contaminant</b>	<b>Oral Absorption Factor (AF<sub>GIT</sub>) (unitless)</b>	<b>Dermal Absorption Factor (AF<sub>skin</sub>) (unitless)</b>	<b>Inhalation Absorption Factor (AF<sub>inh</sub>) (unitless)</b>	<b>Dermal Permeability Coefficient (K<sub>P</sub>) (cm/hr)</b>	<b>Relative Absorption Factor (RAF<sub>dermal</sub>)</b>	<b>Oral Toxicological Reference Value (TRVo) (mg/kg/day)</b>	<b>Dermal Toxicological Reference Value (TRVd) (mg/kg/day)</b>	<b>Inhalation Toxicological Reference Value (TRVi) (mg/kg/day)</b>
PCDD TEQ	1	0.03	1	0.81	1	2.3E-09	2.3E-09	2.3E-09

**TABLE 1(D)**  
**CALCULATED EXPOSURE DOSES AND HAZARD INDICES**  
**FOR THE SOLDIER IN SA-1**

<b>Subject Area</b>	<b>Pathway-Specific Exposure Doses (mg/kg-day)</b>			
	<b>Soil Ingestion</b>	<b>Soil Dermal</b>	<b>Soil Inhalation</b>	<b>Total Dose</b>
SA-1	9.88E-15	3.38E-15	3.96E-19	1.33E-14
	<b>Pathway-Specific Hazard Quotients</b>			
	<b>Soil Ingestion</b>	<b>Soil Dermal</b>	<b>Soil Inhalation</b>	<b>Total Hazard Index</b>
	4.30E-06	1.47E-06	1.72E-10	5.77E-06

**TABLE 2(A)**  
**RECEPTOR-SPECIFIC INTAKE FACTORS**

<b>RECEPTOR:</b>	<b>RECREATIONAL</b>
	<b>ADULT</b>
<b>SUBJECT AREA:</b>	<b>SA-1</b>

<b>Inadvertent Ingestion of Soil</b>		
IR <sub>S</sub>	Ingestion rate for soil	2.0E-02 g/day
CF1	Conversion Factor 1	1.0E-03 kg/g
ET1	Days per year exposed / 365 days/yr	0.192 unitless
BW	Body weight	70.7 kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> × IR<sub>S</sub> × CF1 × AF<sub>GIT</sub> × ET1) / BW</i>		
<b>Dermal Contact with Soil</b>		
SA	Skin surface area exposed	9110 cm <sup>2</sup>
SL	Soil loading to exposed skin	0.000019 g/cm <sup>2</sup> /day
CF1	Conversion Factor 1	1.0E-03 kg/g
ET1	Days per year exposed / 365 days/yr	0.192 unitless
BW	Body weight	70.7 kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> × SA × SL × CF1 × AF<sub>Skin</sub> × ET1) / BW</i>		
<b>Inhalation of Particulates</b>		
IR <sub>A</sub>	Inhalation rate	0.66 m <sup>3</sup> /hour
ET2	Daily exposure time	8 hrs/day
ET1	Days per year exposed / 365 days/yr	0.192 unitless
BW	Body weight	70.7 kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> × P<sub>Air</sub> × IR<sub>A</sub> × ET2 × AF<sub>Inh</sub> × ET1) / BW</i>		
<b>Ingestion of Berries</b>		
IR <sub>Berr</sub>	Ingestion rate for berries	2.0E+00 g/day
CF1	Conversion Factor 1	1.0E-03 kg/g
ET1	Days per year exposed / 365 days/yr	1.0 unitless
BW	Body weight	70.7 kg
<i>Dose (mg/kg-d) = (C<sub>Berr</sub> × IR<sub>Berr</sub> × CF1 × AF<sub>GIT</sub> × ET1) / BW</i>		

**TABLE 2(B)**  
**EXPOSURE POINT CONCENTRATIONS FOR PCDD TEQ IN SA-1**

<b>Subject Area</b>	<b>Soil Concentration (C<sub>s</sub>) (mg/kg)</b>	<b>Particulate Emission Factor* (P<sub>air</sub>) (kg/m<sup>3</sup>)</b>	<b>Potable Water Concentration (C<sub>PW</sub>) (mg/L)</b>	<b>Sediment Concentration (C<sub>SD</sub>) (mg/kg)</b>	<b>Surface Water Concentration (C<sub>SW</sub>) (mg/L)</b>	<b>Berry Concentration (C<sub>Berr</sub>) (mg/kg)</b>	<b>Game Concentration (C<sub>Game</sub>) (mg/kg)</b>	<b>Fish Concentration (C<sub>Fish</sub>) (mg/kg)</b>
SA-1	1.28E-06	7.6E-10	NA	NA	NA	8.51E-08	NA	NA

\* The particulate emission factor (P<sub>air</sub>) is applied to the soil concentration (C<sub>s</sub>) to calculate an ambient air concentration in units of mg/m<sup>3</sup>.

**TABLE 2(C)**  
**CONTAMINANT-SPECIFIC ABSORPTION FACTORS AND REFERENCE VALUES FOR PCDD TEQ**

<b>Contaminant</b>	<b>Oral Absorption Factor (AF<sub>GIT</sub>) (unitless)</b>	<b>Dermal Absorption Factor (AF<sub>skin</sub>) (unitless)</b>	<b>Inhalation Absorption Factor (AF<sub>ihn</sub>) (unitless)</b>	<b>Dermal Permeability Coefficient (K<sub>P</sub>) (cm/hr)</b>	<b>Relative Absorption Factor (RAF<sub>dermal</sub>)</b>	<b>Oral Toxicological Reference Value (TRVo) (mg/kg/day)</b>	<b>Dermal Toxicological Reference Value (TRVd) (mg/kg/day)</b>	<b>Inhalation Toxicological Reference Value (TRVi) (mg/kg/day)</b>
PCDD TEQ	1	0.03	1	0.81	1	2.3E-09	2.3E-09	2.3E-09



**TABLE 2(D)**  
**CALCULATED EXPOSURE DOSES AND HAZARD INDICES**  
**FOR THE RECREATIONAL ADULT IN SA-1**

<b>Subject Area</b>	<b>Pathway-Specific Exposure Doses (mg/kg-day)</b>				
	<b>Soil Ingestion</b>	<b>Soil Dermal</b>	<b>Soil Inhalation</b>	<b>Berry Ingestion</b>	<b>Total Dose</b>
SA-1	6.92E-14	1.84E-14	1.38E-17	2.40E-12	2.48E-12
	<b>Pathway-Specific Hazard Quotients</b>				
	<b>Soil Ingestion</b>	<b>Soil Dermal</b>	<b>Soil Inhalation</b>	<b>Berry Ingestion</b>	<b>Total Hazard Index</b>
	3.01E-05	7.99E-06	6.02E-09	1.04E-03	1.08E-03

**TABLE 3(A)  
RECEPTOR-SPECIFIC INTAKE FACTORS**

<b>RECEPTOR:</b>	<b>RECREATIONAL</b>
	<b>TEEN</b>
<b>SUBJECT AREA:</b>	<b>SA-1</b>

<b>Inadvertent Ingestion of Soil</b>		
IR <sub>S</sub>	Ingestion rate for soil	2.0E-02 g/day
CF1	Conversion Factor 1	1.0E-03 kg/g
ET1	Days per year exposed / 365 days/yr	0.192 unitless
BW	Body weight	59.7 kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> × IR<sub>S</sub> × CF1 × AF<sub>GIT</sub> × ET1) / BW</i>		
<b>Dermal Contact with Soil</b>		
SA	Skin surface area exposed	8000 cm <sup>2</sup>
SL	Soil loading to exposed skin	0.000019 g/cm <sup>2</sup> /day
CF1	Conversion Factor 1	1.0E-03 kg/g
ET1	Days per year exposed / 365 days/yr	0.192 unitless
BW	Body weight	59.7 kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> × SA × SL × CF1 × AF<sub>Skin</sub> × ET1) / BW</i>		
<b>Inhalation of Particulates</b>		
IR <sub>A</sub>	Inhalation rate	0.66 m <sup>3</sup> /hour
ET2	Daily exposure time	8 hrs/day
ET1	Days per year exposed / 365 days/yr	0.192 unitless
BW	Body weight	59.7 kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> × P<sub>Air</sub> × IR<sub>A</sub> × ET2 × AF<sub>Inh</sub> × ET1) / BW</i>		
<b>Ingestion of Berries</b>		
IR <sub>Berr</sub>	Ingestion rate for berries	1.5E+00 g/day
CF1	Conversion Factor 1	1.0E-03 kg/g
ET1	Days per year exposed / 365 days/yr	1.0 unitless
BW	Body weight	59.7 kg
<i>Dose (mg/kg-d) = (C<sub>Berr</sub> × IR<sub>Berr</sub> × CF1 × AF<sub>GIT</sub> × ET1) / BW</i>		

**TABLE 3(B)**  
**EXPOSURE POINT CONCENTRATIONS FOR PCDD TEQ IN SA-1**

<b>Subject Area</b>	<b>Soil Concentration (C<sub>s</sub>) (mg/kg)</b>	<b>Particulate Emission Factor* (P<sub>air</sub>) (kg/m<sup>3</sup>)</b>	<b>Potable Water Concentration (C<sub>PW</sub>) (mg/L)</b>	<b>Sediment Concentration (C<sub>SD</sub>) (mg/kg)</b>	<b>Surface Water Concentration (C<sub>SW</sub>) (mg/L)</b>	<b>Berry Concentration (C<sub>Berr</sub>) (mg/kg)</b>	<b>Game Concentration (C<sub>Game</sub>) (mg/kg)</b>	<b>Fish Concentration (C<sub>Fish</sub>) (mg/kg)</b>
SA-1	1.28E-06	7.6E-10	NA	NA	NA	8.51E-08	NA	NA

\* The particulate emission factor (P<sub>air</sub>) is applied to the soil concentration (C<sub>s</sub>) to calculate an ambient air concentration in units of mg/m<sup>3</sup>.

**TABLE 3(C)  
CONTAMINANT-SPECIFIC ABSORPTION FACTORS AND REFERENCE VALUES FOR PCDD TEQ**

<b>Contaminant</b>	<b>Oral Absorption Factor (AF<sub>GIT</sub>) (unitless)</b>	<b>Dermal Absorption Factor (AF<sub>skin</sub>) (unitless)</b>	<b>Inhalation Absorption Factor (AF<sub>inh</sub>) (unitless)</b>	<b>Dermal Permeability Coefficient (K<sub>P</sub>) (cm/hr)</b>	<b>Relative Absorption Factor (RAF<sub>dermal</sub>)</b>	<b>Oral Toxicological Reference Value (TRVo) (mg/kg/day)</b>	<b>Dermal Toxicological Reference Value (TRVd) (mg/kg/day)</b>	<b>Inhalation Toxicological Reference Value (TRVi) (mg/kg/day)</b>
PCDD TEQ	1	0.03	1	0.81	1	2.3E-09	2.3E-09	2.3E-09

**TABLE 3(D)**  
**CALCULATED EXPOSURE DOSES AND HAZARD INDICES**  
**FOR THE RECREATIONAL TEEN IN SA-1**

Subject Area	Pathway-Specific Exposure Doses (mg/kg-day)				
	Soil Ingestion	Soil Dermal	Soil Inhalation	Berry Ingestion	Total Dose
SA-1	8.19E-14	1.87E-14	1.64E-17	2.15E-12	2.25E-12
	Pathway-Specific Hazard Quotients				
	Soil Ingestion	Soil Dermal	Soil Inhalation	Berry Ingestion	Total Hazard Index
	3.56E-05	8.12E-06	7.13E-09	9.36E-04	9.80E-04

**TABLE 4(A)  
RECEPTOR-SPECIFIC INTAKE FACTORS**

<b>RECEPTOR:</b>	<b>RECREATIONAL CHILD</b>
<b>SUBJECT AREA:</b>	<b>SA-1</b>

<b>Inadvertent Ingestion of Soil</b>		
IR <sub>S</sub>	Ingestion rate for soil	2.0E-02 g/day
CF1	Conversion Factor 1	1.0E-03 kg/g
ET1	Days per year exposed / 365 days/yr	0.192 unitless
BW	Body weight	32.9 kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> × IR<sub>S</sub> × CF1 × AF<sub>GIT</sub> × ET1) / BW</i>		
<b>Dermal Contact with Soil</b>		
SA	Skin surface area exposed	5140 cm <sup>2</sup>
SL	Soil loading to exposed skin	0.000020 g/cm <sup>2</sup> /day
CF1	Conversion Factor 1	1.0E-03 kg/g
ET1	Days per year exposed / 365 days/yr	0.192 unitless
BW	Body weight	32.9 kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> × SA × SL × CF1 × AF<sub>Skin</sub> × ET1) / BW</i>		
<b>Inhalation of Particulates</b>		
IR <sub>A</sub>	Inhalation rate	0.60 m <sup>3</sup> /hour
ET2	Daily exposure time	8 hrs/day
ET1	Days per year exposed / 365 days/yr	0.192 unitless
BW	Body weight	32.9 kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> × P<sub>Air</sub> × IR<sub>A</sub> × ET2 × AF<sub>Inh</sub> × ET1) / BW</i>		
<b>Ingestion of Berries</b>		
IR <sub>Berr</sub>	Ingestion rate for berries	1.0E+00 g/day
CF1	Conversion Factor 1	1.0E-03 kg/g
ET1	Days per year exposed / 365 days/yr	1.0 unitless
BW	Body weight	32.9 kg
<i>Dose (mg/kg-d) = (C<sub>Berr</sub> × IR<sub>Berr</sub> × CF1 × AF<sub>GIT</sub> × ET1) / BW</i>		

**TABLE 4(B)**  
**EXPOSURE POINT CONCENTRATIONS FOR PCDD TEQ IN SA-1**

<b>Subject Area</b>	<b>Soil Concentration (C<sub>s</sub>) (mg/kg)</b>	<b>Particulate Emission Factor* (P<sub>air</sub>) (kg/m<sup>3</sup>)</b>	<b>Potable Water Concentration (C<sub>PW</sub>) (mg/L)</b>	<b>Sediment Concentration (C<sub>SD</sub>) (mg/kg)</b>	<b>Surface Water Concentration (C<sub>SW</sub>) (mg/L)</b>	<b>Berry Concentration (C<sub>Berr</sub>) (mg/kg)</b>	<b>Game Concentration (C<sub>Game</sub>) (mg/kg)</b>	<b>Fish Concentration (C<sub>Fish</sub>) (mg/kg)</b>
SA-1	1.28E-06	7.6E-10	NA	NA	NA	8.51E-08	NA	NA

\* The particulate emission factor (P<sub>air</sub>) is applied to the soil concentration (C<sub>s</sub>) to calculate an ambient air concentration in units of mg/m<sup>3</sup>.

**TABLE 4(C)**  
**CONTAMINANT-SPECIFIC ABSORPTION FACTORS AND REFERENCE VALUES FOR PCDD TEQ**

<b>Contaminant</b>	<b>Oral Absorption Factor (AF<sub>GIT</sub>) (unitless)</b>	<b>Dermal Absorption Factor (AF<sub>skin</sub>) (unitless)</b>	<b>Inhalation Absorption Factor (AF<sub>inh</sub>) (unitless)</b>	<b>Dermal Permeability Coefficient (K<sub>P</sub>) (cm/hr)</b>	<b>Relative Absorption Factor (RAF<sub>dermal</sub>)</b>	<b>Oral Toxicological Reference Value (TRVo) (mg/kg/day)</b>	<b>Dermal Toxicological Reference Value (TRVd) (mg/kg/day)</b>	<b>Inhalation Toxicological Reference Value (TRVi) (mg/kg/day)</b>
PCDD TEQ	1	0.03	1	0.81	1	2.3E-09	2.3E-09	2.3E-09



**TABLE 4(D)**  
**CALCULATED EXPOSURE DOSES AND HAZARD INDICES**  
**FOR THE RECREATIONAL CHILD IN SA-1**

<b>Subject Area</b>	<b>Pathway-Specific Exposure Doses (mg/kg-day)</b>				
	<b>Soil Ingestion</b>	<b>Soil Dermal</b>	<b>Soil Inhalation</b>	<b>Berry Ingestion</b>	<b>Total Dose</b>
SA-1	1.49E-13	2.33E-14	2.73E-17	2.59E-12	2.76E-12
	<b>Pathway-Specific Hazard Quotients</b>				
	<b>Soil Ingestion</b>	<b>Soil Dermal</b>	<b>Soil Inhalation</b>	<b>Berry Ingestion</b>	<b>Total Hazard Index</b>
	6.46E-05	1.01E-05	1.19E-08	1.12E-03	1.20E-03

**TABLE 5(A)  
RECEPTOR-SPECIFIC INTAKE FACTORS**

<b>RECEPTOR:</b>	<b>RECREATIONAL TODDLER</b>
<b>SUBJECT AREA:</b>	<b>SA-1</b>

<b>Inadvertent Ingestion of Soil</b>		
IR <sub>S</sub>	Ingestion rate for soil	8.0E-02 g/day
CF1	Conversion Factor 1	1.0E-03 kg/g
ET1	Days per year exposed / 365 days/yr	0.192 unitless
BW	Body weight	16.5 kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> × IR<sub>S</sub> × CF1 × AF<sub>GIT</sub> × ET1) / BW</i>		
<b>Dermal Contact with Soil</b>		
SA	Skin surface area exposed	3010 cm <sup>2</sup>
SL	Soil loading to exposed skin	0.000023 g/cm <sup>2</sup> /day
CF1	Conversion Factor 1	1.0E-03 kg/g
ET1	Days per year exposed / 365 days/yr	0.192 unitless
BW	Body weight	16.5 kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> × SA × SL × CF1 × AF<sub>Skin</sub> × ET1) / BW</i>		
<b>Inhalation of Particulates</b>		
IR <sub>A</sub>	Inhalation rate	0.39 m <sup>3</sup> /hour
ET2	Daily exposure time	8 hrs/day
ET1	Days per year exposed / 365 days/yr	0.192 unitless
BW	Body weight	16.5 kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> × P<sub>Air</sub> × IR<sub>A</sub> × ET2 × AF<sub>Inh</sub> × ET1) / BW</i>		
<b>Ingestion of Berries</b>		
IR <sub>Berr</sub>	Ingestion rate for berries	6.7E-01 g/day
CF1	Conversion Factor 1	1.0E-03 kg/g
ET1	Days per year exposed / 365 days/yr	1.0 unitless
BW	Body weight	16.5 kg
<i>Dose (mg/kg-d) = (C<sub>Berr</sub> × IR<sub>Berr</sub> × CF1 × AF<sub>GIT</sub> × ET1) / BW</i>		

**TABLE 5(B)**  
**EXPOSURE POINT CONCENTRATIONS FOR PCDD TEQ IN SA-1**

<b>Subject Area</b>	<b>Soil Concentration (C<sub>s</sub>) (mg/kg)</b>	<b>Particulate Emission Factor* (P<sub>air</sub>) (kg/m<sup>3</sup>)</b>	<b>Potable Water Concentration (C<sub>PW</sub>) (mg/L)</b>	<b>Sediment Concentration (C<sub>SD</sub>) (mg/kg)</b>	<b>Surface Water Concentration (C<sub>SW</sub>) (mg/L)</b>	<b>Berry Concentration (C<sub>Berr</sub>) (mg/kg)</b>	<b>Game Concentration (C<sub>Game</sub>) (mg/kg)</b>	<b>Fish Concentration (C<sub>Fish</sub>) (mg/kg)</b>
SA-1	1.28E-06	7.6E-10	NA	NA	NA	8.51E-08	NA	NA

\* The particulate emission factor (P<sub>air</sub>) is applied to the soil concentration (C<sub>s</sub>) to calculate an ambient air concentration in units of mg/m<sup>3</sup>.

**TABLE 5(C)**  
**CONTAMINANT-SPECIFIC ABSORPTION FACTORS AND REFERENCE VALUES FOR PCDD TEQ**

<b>Contaminant</b>	<b>Oral Absorption Factor (AF<sub>GIT</sub>) (unitless)</b>	<b>Dermal Absorption Factor (AF<sub>skin</sub>) (unitless)</b>	<b>Inhalation Absorption Factor (AF<sub>inh</sub>) (unitless)</b>	<b>Dermal Permeability Coefficient (K<sub>P</sub>) (cm/hr)</b>	<b>Relative Absorption Factor (RAF<sub>dermal</sub>)</b>	<b>Oral Toxicological Reference Value (TRVo) (mg/kg/day)</b>	<b>Dermal Toxicological Reference Value (TRVd) (mg/kg/day)</b>	<b>Inhalation Toxicological Reference Value (TRVi) (mg/kg/day)</b>
PCDD TEQ	1	0.03	1	0.81	1	2.3E-09	2.3E-09	2.3E-09

**TABLE 5(D)**  
**CALCULATED EXPOSURE DOSES AND HAZARD INDICES**  
**FOR THE RECREATIONAL TODDLER IN SA-1**

Subject Area	Pathway-Specific Exposure Doses (mg/kg-day)				
	Soil Ingestion	Soil Dermal	Soil Inhalation	Berry Ingestion	Total Dose
SA-1	1.19E-12	3.06E-14	3.49E-17	3.46E-12	4.67E-12
	Pathway-Specific Hazard Quotients				
	Soil Ingestion	Soil Dermal	Soil Inhalation	Berry Ingestion	Total Hazard Index
	5.16E-04	1.33E-05	1.52E-08	1.50E-03	2.03E-03

**TABLE 6(A)**  
**RECEPTOR-SPECIFIC INTAKE FACTORS**

<b>RECEPTOR:</b>	<b>SOLDIER</b>
<b>SUBJECT AREA:</b>	<b>SA-2</b>

<b>Inadvertent Ingestion of Soil</b>		
IR <sub>S</sub>	Ingestion rate for soil	1.0E-01 g/day
CF1	Conversion Factor 1	1.0E-03 kg/g
ET1	Days per year exposed / 365 days/yr	0.033 unitless
BW	Body weight	70.7 kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> x IR<sub>S</sub> x CF1 x AF<sub>GIT</sub> x ET1) / BW</i>		
<b>Dermal Contact with Soil</b>		
SA	Skin surface area exposed	3390 cm <sup>2</sup>
SL	Soil loading to exposed skin	0.000336 g/cm <sup>2</sup> /day
CF1	Conversion Factor 1	1.0E-03 kg/g
ET1	Days per year exposed / 365 days/yr	0.033 unitless
BW	Body weight	70.7 kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> x SA x SL x CF1 x AF<sub>Skin</sub> x ET1) / BW</i>		
<b>Inhalation of Particulates</b>		
IR <sub>A</sub>	Inhalation rate	0.66 m <sup>3</sup> /hour
ET2	Daily exposure time	8 hrs/day
ET1	Days per year exposed / 365 days/yr	0.033 unitless
BW	Body weight	70.7 kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> x P<sub>Air</sub> x IR<sub>A</sub> x ET2 x AF<sub>Inh</sub> x ET1) / BW</i>		

**TABLE 6(B)**  
**EXPOSURE POINT CONCENTRATIONS FOR PCDD TEQ IN SA-2**

<b>Subject Area</b>	<b>Soil Concentration (C<sub>s</sub>) (mg/kg)</b>	<b>Particulate Emission Factor* (P<sub>air</sub>) (kg/m<sup>3</sup>)</b>	<b>Potable Water Concentration (C<sub>PW</sub>) (mg/L)</b>	<b>Sediment Concentration (C<sub>SD</sub>) (mg/kg)</b>	<b>Surface Water Concentration (C<sub>SW</sub>) (mg/L)</b>	<b>Berry Concentration (C<sub>Berr</sub>) (mg/kg)</b>	<b>Game Concentration (C<sub>Game</sub>) (mg/kg)</b>	<b>Fish Concentration (C<sub>Fish</sub>) (mg/kg)</b>
SA-2	8.49E-05	7.6E-10	NA	NA	NA	NA	NA	NA

\* The particulate emission factor (P<sub>air</sub>) is applied to the soil concentration (C<sub>s</sub>) to calculate an ambient air concentration in units of mg/m<sup>3</sup>.

**TABLE 6(C)**  
**CONTAMINANT-SPECIFIC ABSORPTION FACTORS AND REFERENCE VALUES FOR PCDD TEQ**

<b>Contaminant</b>	<b>Oral Absorption Factor (AF<sub>GIT</sub>) (unitless)</b>	<b>Dermal Absorption Factor (AF<sub>skin</sub>) (unitless)</b>	<b>Inhalation Absorption Factor (AF<sub>inh</sub>) (unitless)</b>	<b>Dermal Permeability Coefficient (K<sub>P</sub>) (cm/hr)</b>	<b>Relative Absorption Factor (RAF<sub>dermal</sub>)</b>	<b>Oral Toxicological Reference Value (TRVo) (mg/kg/day)</b>	<b>Dermal Toxicological Reference Value (TRVd) (mg/kg/day)</b>	<b>Inhalation Toxicological Reference Value (TRVi) (mg/kg/day)</b>
PCDD TEQ	1	0.03	1	0.81	1	2.3E-09	2.3E-09	2.3E-09



**TABLE 6(D)**  
**CALCULATED EXPOSURE DOSES AND HAZARD INDICES**  
**FOR THE SOLDIER IN SA-2**

<b>Subject Area</b>	<b>Pathway-Specific Exposure Doses (mg/kg-day)</b>			
	<b>Soil Ingestion</b>	<b>Soil Dermal</b>	<b>Soil Inhalation</b>	<b>Total Dose</b>
SA-2	3.95E-12	1.35E-12	1.58E-16	5.30E-12
	<b>Pathway-Specific Hazard Quotients</b>			
	<b>Soil Ingestion</b>	<b>Soil Dermal</b>	<b>Soil Inhalation</b>	<b>Total Hazard Index</b>
	1.72E-03	5.87E-04	6.87E-08	2.30E-03

**TABLE 7(A)  
RECEPTOR-SPECIFIC INTAKE FACTORS**

<b>RECEPTOR:</b>	<b>TIMBER HARVESTER</b>
<b>SUBJECT AREA:</b>	<b>SA-2</b>

<b>Inadvertent Ingestion of Soil</b>			
IR <sub>S</sub>	Ingestion rate for soil	2.0E-02	g/day
CF1	Conversion Factor 1	1.0E-03	kg/g
ET1	Days per year exposed / 365 days/yr	0.082	unitless
BW	Body weight	70.7	kg
$Dose (mg/kg-d) = (C_S \times IR_S \times CF1 \times AF_{GIT} \times ET1) / BW$			
<b>Dermal Contact with Soil</b>			
SA	Skin surface area exposed	3390	cm <sup>2</sup>
SL	Soil loading to exposed skin	0.000336	g/cm <sup>2</sup> /day
CF1	Conversion Factor 1	1.0E-03	kg/g
ET1	Days per year exposed / 365 days/yr	0.082	unitless
BW	Body weight	70.7	kg
$Dose (mg/kg-d) = (C_S \times SA \times SL \times CF1 \times AF_{Skin} \times ET1) / BW$			
<b>Inhalation of Particulates</b>			
IR <sub>A</sub>	Inhalation rate	0.66	m <sup>3</sup> /hour
ET2	Daily exposure time	8	hrs/day
ET1	Days per year exposed / 365 days/yr	0.082	unitless
BW	Body weight	70.7	kg
$Dose (mg/kg-d) = (C_S \times P_{Air} \times IR_A \times ET2 \times AF_{Inh} \times ET1) / BW$			

**TABLE 7(B)  
EXPOSURE POINT CONCENTRATIONS FOR PCDD TEQ IN SA-2**

<b>Subject Area</b>	<b>Soil Concentration (C<sub>s</sub>) (mg/kg)</b>	<b>Particulate Emission Factor* (P<sub>air</sub>) (kg/m<sup>3</sup>)</b>	<b>Potable Water Concentration (C<sub>PW</sub>) (mg/L)</b>	<b>Sediment Concentration (C<sub>SD</sub>) (mg/kg)</b>	<b>Surface Water Concentration (C<sub>SW</sub>) (mg/L)</b>	<b>Berry Concentration (C<sub>Berr</sub>) (mg/kg)</b>	<b>Game Concentration (C<sub>Game</sub>) (mg/kg)</b>	<b>Fish Concentration (C<sub>Fish</sub>) (mg/kg)</b>
SA-2	8.49E-05	7.6E-10	NA	NA	NA	NA	NA	NA

\* The particulate emission factor (P<sub>air</sub>) is applied to the soil concentration (C<sub>s</sub>) to calculate an ambient air concentration in units of mg/m<sup>3</sup>.

**TABLE 7(C)**  
**CONTAMINANT-SPECIFIC ABSORPTION FACTORS AND REFERENCE VALUES FOR PCDD TEQ**

<b>Contaminant</b>	<b>Oral Absorption Factor (AF<sub>GIT</sub>) (unitless)</b>	<b>Dermal Absorption Factor (AF<sub>skin</sub>) (unitless)</b>	<b>Inhalation Absorption Factor (AF<sub>ihn</sub>) (unitless)</b>	<b>Dermal Permeability Coefficient (K<sub>P</sub>) (cm/hr)</b>	<b>Relative Absorption Factor (RAF<sub>dermal</sub>)</b>	<b>Oral Toxicological Reference Value (TRVo) (mg/kg/day)</b>	<b>Dermal Toxicological Reference Value (TRVd) (mg/kg/day)</b>	<b>Inhalation Toxicological Reference Value (TRVi) (mg/kg/day)</b>
PCDD TEQ	1	0.03	1	0.81	1	2.3E-09	2.3E-09	2.3E-09

**TABLE 7(D)**  
**CALCULATED EXPOSURE DOSES AND HAZARD INDICES**  
**FOR THE TIMBER HARVESTER IN SA-2**

Subject Area	Pathway-Specific Exposure Doses (mg/kg-day)			
	Soil Ingestion	Soil Dermal	Soil Inhalation	Total Dose
SA-2	1.97E-12	3.37E-12	3.95E-16	5.35E-12
	Pathway-Specific Hazard Quotients			
	Soil Ingestion	Soil Dermal	Soil Inhalation	Total Hazard Index
	8.58E-04	1.47E-03	1.72E-07	2.32E-03

**TABLE 8(A)**  
**RECEPTOR-SPECIFIC INTAKE FACTORS**

<b>RECEPTOR:</b>	<b>SOLDIER</b>
<b>SUBJECT AREA:</b>	<b>SA-3</b>

<b>Inadvertent Ingestion of Soil</b>		
IR <sub>S</sub>	Ingestion rate for soil	1.0E-01 g/day
CF1	Conversion Factor 1	1.0E-03 kg/g
ET1	Days per year exposed / 365 days/yr	0.175 unitless
BW	Body weight	70.7 kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> x IR<sub>S</sub> x CF1 x AF<sub>GIT</sub> x ET1) / BW</i>		
<b>Dermal Contact with Soil</b>		
SA	Skin surface area exposed	3390 cm <sup>2</sup>
SL	Soil loading to exposed skin	0.000336 g/cm <sup>2</sup> /day
CF1	Conversion Factor 1	1.0E-03 kg/g
ET1	Days per year exposed / 365 days/yr	0.175 unitless
BW	Body weight	70.7 kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> x SA x SL x CF1 x AF<sub>Skin</sub> x ET1) / BW</i>		
<b>Inhalation of Particulates</b>		
IR <sub>A</sub>	Inhalation rate	0.66 m <sup>3</sup> /hour
ET2	Daily exposure time	8 hrs/day
ET1	Days per year exposed / 365 days/yr	0.175 unitless
BW	Body weight	70.7 kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> x P<sub>Air</sub> x IR<sub>A</sub> x ET2 x AF<sub>Inh</sub> x ET1) / BW</i>		

**TABLE 8(B)**  
**EXPOSURE POINT CONCENTRATIONS FOR PCDD TEQ IN SA-3**

<b>Subject Area</b>	<b>Soil Concentration (C<sub>s</sub>) (mg/kg)</b>	<b>Particulate Emission Factor* (P<sub>air</sub>) (kg/m<sup>3</sup>)</b>	<b>Potable Water Concentration (C<sub>PW</sub>) (mg/L)</b>	<b>Sediment Concentration (C<sub>SD</sub>) (mg/kg)</b>	<b>Surface Water Concentration (C<sub>SW</sub>) (mg/L)</b>	<b>Berry Concentration (C<sub>Berr</sub>) (mg/kg)</b>	<b>Game Concentration (C<sub>Game</sub>) (mg/kg)</b>	<b>Fish Concentration (C<sub>Fish</sub>) (mg/kg)</b>
SA-3	6.29E-06	7.6E-10	NA	NA	NA	NA	NA	NA

\* The particulate emission factor (P<sub>air</sub>) is applied to the soil concentration (C<sub>s</sub>) to calculate an ambient air concentration in units of mg/m<sup>3</sup>.

**TABLE 8(C)**  
**CONTAMINANT-SPECIFIC ABSORPTION FACTORS AND REFERENCE VALUES FOR PCDD TEQ**

<b>Contaminant</b>	<b>Oral Absorption Factor (AF<sub>GIT</sub>) (unitless)</b>	<b>Dermal Absorption Factor (AF<sub>skin</sub>) (unitless)</b>	<b>Inhalation Absorption Factor (AF<sub>ihn</sub>) (unitless)</b>	<b>Dermal Permeability Coefficient (K<sub>P</sub>) (cm/hr)</b>	<b>Relative Absorption Factor (RAF<sub>dermal</sub>)</b>	<b>Oral Toxicological Reference Value (TRVo) (mg/kg/day)</b>	<b>Dermal Toxicological Reference Value (TRVd) (mg/kg/day)</b>	<b>Inhalation Toxicological Reference Value (TRVi) (mg/kg/day)</b>
PCDD TEQ	1	0.03	1	0.81	1	2.3E-09	2.3E-09	2.3E-09



**TABLE 8(D)**  
**CALCULATED EXPOSURE DOSES AND HAZARD INDICES**  
**FOR THE SOLDIER IN SA-3**

Subject Area	Pathway-Specific Exposure Doses (mg/kg-day)			
	Soil Ingestion	Soil Dermal	Soil Inhalation	Total Dose
SA-3	1.56E-12	5.34E-13	6.25E-17	2.09E-12
	Pathway-Specific Hazard Quotients			
	Soil Ingestion	Soil Dermal	Soil Inhalation	Total Hazard Index
	6.78E-04	2.32E-04	2.72E-08	9.11E-04

**TABLE 9(A)**  
**RECEPTOR-SPECIFIC INTAKE FACTORS**

<b>RECEPTOR:</b>	<b>YOUTH CAMPER</b>
<b>SUBJECT AREA:</b>	<b>SA-3</b>

<b>Inadvertent Ingestion of Soil</b>		
IR <sub>S</sub>	Ingestion rate for soil	2.0E-02 g/day
CF1	Conversion Factor 1	1.0E-03 kg/g
ET1	Days per year exposed / 365 days/yr	0.014 unitless
BW	Body weight	32.9 kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> x IR<sub>S</sub> x CF1 x AF<sub>GIT</sub> x ET1) / BW</i>		
<b>Dermal Contact with Soil</b>		
SA	Skin surface area exposed	5140 cm <sup>2</sup>
SL	Soil loading to exposed skin	2.03E-05 g/cm <sup>2</sup> /day
CF1	Conversion Factor 1	1.0E-03 kg/g
ET1	Days per year exposed / 365 days/yr	0.014 unitless
BW	Body weight	32.9 kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> x SA x SL x CF1 x AF<sub>Skin</sub> x ET1) / BW</i>		
<b>Inhalation of Particulates</b>		
IR <sub>A</sub>	Inhalation rate	0.60 m <sup>3</sup> /hour
ET2	Daily exposure time	24 hrs/day
ET1	Days per year exposed / 365 days/yr	0.014 unitless
BW	Body weight	32.9 kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> x P<sub>Air</sub> x IR<sub>A</sub> x ET2 x AF<sub>Inh</sub> x ET1) / BW</i>		

**TABLE 9(B)**  
**EXPOSURE POINT CONCENTRATIONS FOR PCDD TEQ IN SA-3**

<b>Subject Area</b>	<b>Soil Concentration (C<sub>s</sub>) (mg/kg)</b>	<b>Particulate Emission Factor* (P<sub>air</sub>) (kg/m<sup>3</sup>)</b>	<b>Potable Water Concentration (C<sub>PW</sub>) (mg/L)</b>	<b>Sediment Concentration (C<sub>SD</sub>) (mg/kg)</b>	<b>Surface Water Concentration (C<sub>SW</sub>) (mg/L)</b>	<b>Berry Concentration (C<sub>Berr</sub>) (mg/kg)</b>	<b>Game Concentration (C<sub>Game</sub>) (mg/kg)</b>	<b>Fish Concentration (C<sub>Fish</sub>) (mg/kg)</b>
SA-3	6.29E-06	7.6E-10	NA	NA	NA	NA	NA	NA

\* The particulate emission factor (P<sub>air</sub>) is applied to the soil concentration (C<sub>s</sub>) to calculate an ambient air concentration in units of mg/m<sup>3</sup>.

**TABLE 9(C)**  
**CONTAMINANT-SPECIFIC ABSORPTION FACTORS AND REFERENCE VALUES FOR PCDD TEQ**

<b>Contaminant</b>	<b>Oral Absorption Factor (AF<sub>GIT</sub>) (unitless)</b>	<b>Dermal Absorption Factor (AF<sub>skin</sub>) (unitless)</b>	<b>Inhalation Absorption Factor (AF<sub>inh</sub>) (unitless)</b>	<b>Dermal Permeability Coefficient (K<sub>P</sub>) (cm/hr)</b>	<b>Relative Absorption Factor (RAF<sub>dermal</sub>)</b>	<b>Oral Toxicological Reference Value (TRVo) (mg/kg/day)</b>	<b>Dermal Toxicological Reference Value (TRVd) (mg/kg/day)</b>	<b>Inhalation Toxicological Reference Value (TRVi) (mg/kg/day)</b>
PCDD TEQ	1	0.03	1	0.81	1	2.3E-09	2.3E-09	2.3E-09

**TABLE 9(D)**  
**CALCULATED EXPOSURE DOSES AND HAZARD INDICES**  
**FOR THE YOUTH CAMPER IN SA-3**

Subject Area	Pathway-Specific Exposure Doses (mg/kg-day)			
	Soil Ingestion	Soil Dermal	Soil Inhalation	Total Dose
SA-3	5.24E-14	8.21E-15	2.89E-17	6.06E-14
	Pathway-Specific Hazard Quotients			
	Soil Ingestion	Soil Dermal	Soil Inhalation	Total Hazard Index
	2.28E-05	3.57E-06	1.26E-08	2.64E-05

**TABLE 10(A)  
RECEPTOR-SPECIFIC INTAKE FACTORS**

<b>RECEPTOR:</b>	<b>RECREATIONAL</b>
<b>SUBJECT AREA:</b>	<b>ADULT SA-3</b>

<b>Inadvertent Ingestion of Soil</b>		
IR <sub>S</sub>	Ingestion rate for soil	2.0E-02 g/day
CF1	Conversion Factor 1	1.0E-03 kg/g
ET1	Days per year exposed / 365 days/yr	0.082 unitless
BW	Body weight	70.7 kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> × IR<sub>S</sub> × CF1 × AF<sub>GIT</sub> × ET1) / BW</i>		
<b>Dermal Contact with Soil</b>		
SA	Skin surface area exposed	9110 cm <sup>2</sup>
SL	Soil loading to exposed skin	0.000019 g/cm <sup>2</sup> /day
CF1	Conversion Factor 1	1.0E-03 kg/g
ET1	Days per year exposed / 365 days/yr	0.082 unitless
BW	Body weight	70.7 kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> × SA × SL × CF1 × AF<sub>Skin</sub> × ET1) / BW</i>		
<b>Inhalation of Particulates</b>		
IR <sub>A</sub>	Inhalation rate	0.66 m <sup>3</sup> /hour
ET2	Daily exposure time	1 hrs/day
ET1	Days per year exposed / 365 days/yr	0.082 unitless
BW	Body weight	70.7 kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> × P<sub>Air</sub> × IR<sub>A</sub> × ET2 × AF<sub>Inh</sub> × ET1) / BW</i>		
<b>Inadvertent Ingestion of Potable Water</b>		
IR <sub>PW</sub>	Ingestion rate for potable water	L/day
ET1	Days per year exposed / 365 days/yr	unitless
BW	Body weight	kg
<i>Dose (mg/kg-d) = (C<sub>PW</sub> × IR<sub>PW</sub> × AF<sub>GIT</sub> × ET1) / BW</i>		

**TABLE 10(A; Continued)  
RECEPTOR-SPECIFIC INTAKE FACTORS**

<b>RECEPTOR:</b>	<b>RECREATIONAL</b>
<b>SUBJECT AREA:</b>	<b>ADULT SA-3</b>

<b>Dermal Contact with Potable Water</b>		
SA	Skin surface area exposed	cm <sup>2</sup>
CF2	Conversion Factor 2	L/cm <sup>3</sup>
ET2	Daily exposure time (showering)	hr/day
ET1	Days per year exposed / 365 days/yr	unitless
BW	Body weight	kg
$Dose (mg/kg-d) = (C_{PW} \times SA \times CF2 \times K_p \times ET2 \times ET1) / BW$		
<b>Inadvertent Ingestion of Sediment</b>		
IR <sub>SD</sub>	Ingestion rate for sediment	g/day
CF1	Conversion Factor 1	kg/g
ET1	Days per year exposed / 365 days/yr	unitless
BW	Body weight	kg
$Dose (mg/kg-d) = (C_{SD} \times IR_{SD} \times CF1 \times AF_{GIT} \times ET1) / BW$		
<b>Dermal Contact with Sediment</b>		
SA	Skin surface area exposed	cm <sup>2</sup>
SL	Sediment loading to exposed skin	g/cm <sup>2</sup> /day
CF1	Conversion Factor 1	kg/g
ET1	Days per year exposed / 365 days/yr	unitless
BW	Body weight	kg
$Dose (mg/kg-d) = (C_{SD} \times SA \times SL \times CF1 \times AF_{Skin} \times ET1) / BW$		
<b>Inadvertent Ingestion of Surface Water</b>		
IR <sub>SW</sub>	Ingestion rate for surface water	L/day
ET1	Days per year exposed / 365 days/yr	unitless
BW	Body weight	kg
$Dose (mg/kg-d) = (C_{SW} \times IR_{SW} \times AF_{GIT} \times ET1) / BW$		

**TABLE 10(A; Continued)  
RECEPTOR-SPECIFIC INTAKE FACTORS**

<b>RECEPTOR:</b>	<b>RECREATIONAL</b>
	<b>ADULT</b>
<b>SUBJECT AREA:</b>	<b>SA-3</b>

<b>Dermal Contact with Surface Water</b>		
SA	Skin surface area exposed	cm <sup>2</sup>
CF2	Conversion Factor 2	L/cm <sup>3</sup>
ET2	Daily exposure time	hrs/day
ET1	Days per year exposed / 365 days/yr	unitless
BW	Body weight	kg
<i>Dose (mg/kg-d) = (C<sub>SW</sub> x SA x CF2 x K<sub>P</sub> x ET2 x ET1) / BW</i>		
<b>Ingestion of Berries</b>		
IR <sub>Berr</sub>	Ingestion rate for berries	g/day
CF1	Conversion Factor 1	kg/g
ET1	Days per year exposed / 365 days/yr	unitless
BW	Body weight	kg
<i>Dose (mg/kg-d) = (C<sub>Berr</sub> x IR<sub>Berr</sub> x CF1 x AF<sub>GIT</sub> x ET1) / BW</i>		
<b>Ingestion of Game</b>		
IR <sub>Game</sub>	Ingestion rate for game	g/day
CF1	Conversion Factor 1	kg/g
ET1	Days per year exposed / 365 days/yr	unitless
BW	Body weight	kg
<i>Dose (mg/kg-d) = (C<sub>Game</sub> x IR<sub>Game</sub> x CF1 x AF<sub>GIT</sub> x ET1) / BW</i>		
<b>Ingestion of Fish</b>		
IR <sub>Fish</sub>	Ingestion rate for fish	g/day
CF1	Conversion Factor 1	kg/g
ET1	Days per year exposed / 365 days/yr	unitless
BW	Body weight	kg
<i>Dose (mg/kg-d) = (C<sub>Fish</sub> x IR<sub>Fish</sub> x CF1 x AF<sub>GIT</sub> x ET1) / BW</i>		



**TABLE 10(B)  
EXPOSURE POINT CONCENTRATIONS FOR PCDD TEQ IN SA-3**

<b>Subject Area</b>	<b>Soil Concentration (C<sub>s</sub>) (mg/kg)</b>	<b>Particulate Emission Factor* (P<sub>air</sub>) (kg/m<sup>3</sup>)</b>	<b>Potable Water Concentration (C<sub>PW</sub>) (mg/L)</b>	<b>Sediment Concentration (C<sub>SD</sub>) (mg/kg)</b>	<b>Surface Water Concentration (C<sub>SW</sub>) (mg/L)</b>	<b>Berry Concentration (C<sub>Berr</sub>) (mg/kg)</b>	<b>Game Concentration (C<sub>Game</sub>) (mg/kg)</b>	<b>Fish Concentration (C<sub>Fish</sub>) (mg/kg)</b>
SA-3	6.29E-06	7.6E-10	NA	NA	NA	NA	NA	NA

\* The particulate emission factor (P<sub>air</sub>) is applied to the soil concentration (C<sub>s</sub>) to calculate an ambient air concentration in units of mg/m<sup>3</sup>.

**TABLE 10(C)  
CONTAMINANT-SPECIFIC ABSORPTION FACTORS AND REFERENCE VALUES FOR PCDD TEQ**

<b>Contaminant</b>	<b>Oral Absorption Factor (AF<sub>GIT</sub>) (unitless)</b>	<b>Dermal Absorption Factor (AF<sub>skin</sub>) (unitless)</b>	<b>Inhalation Absorption Factor (AF<sub>ihn</sub>) (unitless)</b>	<b>Dermal Permeability Coefficient (K<sub>P</sub>) (cm/hr)</b>	<b>Relative Absorption Factor (RAF<sub>dermal</sub>)</b>	<b>Oral Toxicological Reference Value (TRVo) (mg/kg/day)</b>	<b>Dermal Toxicological Reference Value (TRVd) (mg/kg/day)</b>	<b>Inhalation Toxicological Reference Value (TRVi) (mg/kg/day)</b>
PCDD TEQ	1	0.03	1	0.81	1	2.3E-09	2.3E-09	2.3E-09

**TABLE 10(D)**  
**CALCULATED EXPOSURE DOSES AND HAZARD INDICES**  
**FOR THE RECREATIONAL ADULT IN SA-3**

Subject Area	Pathway-Specific Exposure Doses (mg/kg-day)			
	Soil Ingestion	Soil Dermal	Soil Inhalation	Total Dose
SA-3	1.46E-13	3.89E-14	3.66E-18	1.85E-13
	Pathway-Specific Hazard Quotients			
	Soil Ingestion	Soil Dermal	Soil Inhalation	Total Hazard Index
	6.36E-05	1.69E-05	1.59E-09	8.05E-05

**TABLE 11(A)  
RECEPTOR-SPECIFIC INTAKE FACTORS**

<b>RECEPTOR:</b>	<b>RECREATIONAL</b>
<b>SUBJECT AREA:</b>	<b>TEEN SA-3</b>

<b>Inadvertent Ingestion of Soil</b>		
IR <sub>S</sub>	Ingestion rate for soil	2.0E-02 g/day
CF1	Conversion Factor 1	1.0E-03 kg/g
ET1	Days per year exposed / 365 days/yr	0.082 unitless
BW	Body weight	59.7 kg
$Dose (mg/kg-d) = (C_S \times IR_S \times CF1 \times AF_{GIT} \times ET1) / BW$		
<b>Dermal Contact with Soil</b>		
SA	Skin surface area exposed	8000 cm <sup>2</sup>
SL	Soil loading to exposed skin	0.000019 g/cm <sup>2</sup> /day
CF1	Conversion Factor 1	1.0E-03 kg/g
ET1	Days per year exposed / 365 days/yr	0.082 unitless
BW	Body weight	59.7 kg
$Dose (mg/kg-d) = (C_S \times SA \times SL \times CF1 \times AF_{Skin} \times ET1) / BW$		
<b>Inhalation of Particulates</b>		
IR <sub>A</sub>	Inhalation rate	0.66 m <sup>3</sup> /hour
ET2	Daily exposure time	1 hrs/day
ET1	Days per year exposed / 365 days/yr	0.082 unitless
BW	Body weight	59.7 kg
$Dose (mg/kg-d) = (C_S \times P_{Air} \times IR_A \times ET2 \times AF_{Inh} \times ET1) / BW$		

**TABLE 11(B)**  
**EXPOSURE POINT CONCENTRATIONS FOR PCDD TEQ IN SA-3**

<b>Subject Area</b>	<b>Soil Concentration (C<sub>s</sub>) (mg/kg)</b>	<b>Particulate Emission Factor* (P<sub>air</sub>) (kg/m<sup>3</sup>)</b>	<b>Potable Water Concentration (C<sub>PW</sub>) (mg/L)</b>	<b>Sediment Concentration (C<sub>SD</sub>) (mg/kg)</b>	<b>Surface Water Concentration (C<sub>SW</sub>) (mg/L)</b>	<b>Berry Concentration (C<sub>Berr</sub>) (mg/kg)</b>	<b>Game Concentration (C<sub>Game</sub>) (mg/kg)</b>	<b>Fish Concentration (C<sub>Fish</sub>) (mg/kg)</b>
SA-3	6.29E-06	7.6E-10	NA	NA	NA	NA	NA	NA

\* The particulate emission factor (P<sub>air</sub>) is applied to the soil concentration (C<sub>s</sub>) to calculate an ambient air concentration in units of mg/m<sup>3</sup>.

**TABLE 11(C)  
CONTAMINANT-SPECIFIC ABSORPTION FACTORS AND REFERENCE VALUES FOR PCDD TEQ**

<b>Contaminant</b>	<b>Oral Absorption Factor (AF<sub>GIT</sub>) (unitless)</b>	<b>Dermal Absorption Factor (AF<sub>skin</sub>) (unitless)</b>	<b>Inhalation Absorption Factor (AF<sub>ihn</sub>) (unitless)</b>	<b>Dermal Permeability Coefficient (K<sub>P</sub>) (cm/hr)</b>	<b>Relative Absorption Factor (RAF<sub>dermal</sub>)</b>	<b>Oral Toxicological Reference Value (TRVo) (mg/kg/day)</b>	<b>Dermal Toxicological Reference Value (TRVd) (mg/kg/day)</b>	<b>Inhalation Toxicological Reference Value (TRVi) (mg/kg/day)</b>
PCDD TEQ	1	0.03	1	0.81	1	2.3E-09	2.3E-09	2.3E-09

**TABLE 11(D)**  
**CALCULATED EXPOSURE DOSES AND HAZARD INDICES**  
**FOR THE RECREATIONAL TEEN IN SA-3**

Subject Area	Pathway-Specific Exposure Doses (mg/kg-day)			
	Soil Ingestion	Soil Dermal	Soil Inhalation	Total Dose
SA-3	1.73E-13	3.95E-14	4.33E-18	2.13E-13
	Pathway-Specific Hazard Quotients			
	Soil Ingestion	Soil Dermal	Soil Inhalation	Total Hazard Index
	7.53E-05	1.72E-05	1.88E-09	9.25E-05

**TABLE 12(A)  
RECEPTOR-SPECIFIC INTAKE FACTORS**

<b>RECEPTOR:</b>	<b>RECREATIONAL CHILD</b>
<b>SUBJECT AREA:</b>	<b>SA-3</b>

<b>Inadvertent Ingestion of Soil</b>		
IR <sub>S</sub>	Ingestion rate for soil	2.0E-02 g/day
CF1	Conversion Factor 1	1.0E-03 kg/g
ET1	Days per year exposed / 365 days/yr	0.082 unitless
BW	Body weight	32.9 kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> x IR<sub>S</sub> x CF1 x AF<sub>GIT</sub> x ET1) / BW</i>		
<b>Dermal Contact with Soil</b>		
SA	Skin surface area exposed	5140 cm <sup>2</sup>
SL	Soil loading to exposed skin	0.000020 g/cm <sup>2</sup> /day
CF1	Conversion Factor 1	1.0E-03 kg/g
ET1	Days per year exposed / 365 days/yr	0.082 unitless
BW	Body weight	32.9 kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> x SA x SL x CF1 x AF<sub>Skin</sub> x ET1) / BW</i>		
<b>Inhalation of Particulates</b>		
IR <sub>A</sub>	Inhalation rate	0.60 m <sup>3</sup> /hour
ET2	Daily exposure time	1 hrs/day
ET1	Days per year exposed / 365 days/yr	0.082 unitless
BW	Body weight	32.9 kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> x P<sub>Air</sub> x IR<sub>A</sub> x ET2 x AF<sub>Inh</sub> x ET1) / BW</i>		
<b>Inadvertent Ingestion of Potable Water</b>		
IR <sub>PW</sub>	Ingestion rate for potable water	L/day
ET1	Days per year exposed / 365 days/yr	unitless
BW	Body weight	kg
<i>Dose (mg/kg-d) = (C<sub>PW</sub> x IR<sub>PW</sub> x AF<sub>GIT</sub> x ET1) / BW</i>		



**TABLE 12(A; Continued)**  
**RECEPTOR-SPECIFIC INTAKE FACTORS**

<b>RECEPTOR:</b>	<b>RECREATIONAL CHILD</b>
<b>SUBJECT AREA:</b>	<b>SA-3</b>

<b>Dermal Contact with Potable Water</b>		
SA	Skin surface area exposed	cm <sup>2</sup>
CF2	Conversion Factor 2	L/cm <sup>3</sup>
ET2	Daily exposure time (showering)	hr/day
ET1	Days per year exposed / 365 days/yr	unitless
BW	Body weight	kg
$Dose (mg/kg-d) = (C_{PW} \times SA \times CF2 \times K_P \times ET2 \times ET1) / BW$		
<b>Inadvertent Ingestion of Sediment</b>		
IR <sub>SD</sub>	Ingestion rate for sediment	g/day
CF1	Conversion Factor 1	kg/g
ET1	Days per year exposed / 365 days/yr	unitless
BW	Body weight	kg
$Dose (mg/kg-d) = (C_{SD} \times IR_{SD} \times CF1 \times AF_{GIT} \times ET1) / BW$		
<b>Dermal Contact with Sediment</b>		
SA	Skin surface area exposed	cm <sup>2</sup>
SL	Sediment loading to exposed skin	g/cm <sup>2</sup> /day
CF1	Conversion Factor 1	kg/g
ET1	Days per year exposed / 365 days/yr	unitless
BW	Body weight	kg
$Dose (mg/kg-d) = (C_{SD} \times SA \times SL \times CF1 \times AF_{Skin} \times ET1) / BW$		
<b>Inadvertent Ingestion of Surface Water</b>		
IR <sub>SW</sub>	Ingestion rate for surface water	L/day
ET1	Days per year exposed / 365 days/yr	unitless
BW	Body weight	kg
$Dose (mg/kg-d) = (C_{SW} \times IR_{SW} \times AF_{GIT} \times ET1) / BW$		

**TABLE 12(A; Continued)**  
**RECEPTOR-SPECIFIC INTAKE FACTORS**

<b>RECEPTOR:</b>	<b>RECREATIONAL CHILD</b>
<b>SUBJECT AREA:</b>	<b>SA-3</b>

<b>Dermal Contact with Surface Water</b>		
SA	Skin surface area exposed	cm <sup>2</sup>
CF2	Conversion Factor 2	L/cm <sup>3</sup>
ET2	Daily exposure time	hrs/day
ET1	Days per year exposed / 365 days/yr	unitless
BW	Body weight	kg
$Dose (mg/kg-d) = (C_{SW} \times SA \times CF2 \times K_P \times ET2 \times ET1) / BW$		
<b>Ingestion of Berries</b>		
IR <sub>Berr</sub>	Ingestion rate for berries	g/day
CF1	Conversion Factor 1	kg/g
ET1	Days per year exposed / 365 days/yr	unitless
BW	Body weight	kg
$Dose (mg/kg-d) = (C_{Berr} \times IR_{Berr} \times CF1 \times AF_{GIT} \times ET1) / BW$		
<b>Ingestion of Game</b>		
IR <sub>Game</sub>	Ingestion rate for game	g/day
CF1	Conversion Factor 1	kg/g
ET1	Days per year exposed / 365 days/yr	unitless
BW	Body weight	kg
$Dose (mg/kg-d) = (C_{Game} \times IR_{Game} \times CF1 \times AF_{GIT} \times ET1) / BW$		
<b>Ingestion of Fish</b>		
IR <sub>Fish</sub>	Ingestion rate for fish	g/day
CF1	Conversion Factor 1	kg/g
ET1	Days per year exposed / 365 days/yr	unitless
BW	Body weight	kg
$Dose (mg/kg-d) = (C_{Fish} \times IR_{Fish} \times CF1 \times AF_{GIT} \times ET1) / BW$		

**TABLE 12(B)**  
**EXPOSURE POINT CONCENTRATIONS FOR PCDD TEQ IN SA-3**

<b>Subject Area</b>	<b>Soil Concentration (C<sub>s</sub>) (mg/kg)</b>	<b>Particulate Emission Factor* (P<sub>air</sub>) (kg/m<sup>3</sup>)</b>	<b>Potable Water Concentration (C<sub>PW</sub>) (mg/L)</b>	<b>Sediment Concentration (C<sub>SD</sub>) (mg/kg)</b>	<b>Surface Water Concentration (C<sub>SW</sub>) (mg/L)</b>	<b>Berry Concentration (C<sub>Berr</sub>) (mg/kg)</b>	<b>Game Concentration (C<sub>Game</sub>) (mg/kg)</b>	<b>Fish Concentration (C<sub>Fish</sub>) (mg/kg)</b>
SA-3	6.29E-06	7.6E-10	NA	NA	NA	NA	NA	NA

\* The particulate emission factor (P<sub>air</sub>) is applied to the soil concentration (C<sub>s</sub>) to calculate an ambient air concentration in units of mg/m<sup>3</sup>.

**TABLE 12(C)**  
**CONTAMINANT-SPECIFIC ABSORPTION FACTORS AND REFERENCE VALUES FOR PCDD TEQ**

<b>Contaminant</b>	<b>Oral Absorption Factor (AF<sub>GIT</sub>) (unitless)</b>	<b>Dermal Absorption Factor (AF<sub>skin</sub>) (unitless)</b>	<b>Inhalation Absorption Factor (AF<sub>inh</sub>) (unitless)</b>	<b>Dermal Permeability Coefficient (K<sub>P</sub>) (cm/hr)</b>	<b>Relative Absorption Factor (RAF<sub>dermal</sub>)</b>	<b>Oral Toxicological Reference Value (TRVo) (mg/kg/day)</b>	<b>Dermal Toxicological Reference Value (TRVd) (mg/kg/day)</b>	<b>Inhalation Toxicological Reference Value (TRVi) (mg/kg/day)</b>
PCDD TEQ	1	0.03	1	0.81	1	2.3E-09	2.3E-09	2.3E-09

**TABLE 12(D)**  
**CALCULATED EXPOSURE DOSES AND HAZARD INDICES**  
**FOR THE RECREATIONAL CHILD IN SA-3**

<b>Subject Area</b>	<b>Pathway-Specific Exposure Doses (mg/kg-day)</b>			
	<b>Soil Ingestion</b>	<b>Soil Dermal</b>	<b>Soil Inhalation</b>	<b>Total Dose</b>
SA-3	3.14E-13	4.93E-14	7.22E-18	3.64E-13
	<b>Pathway-Specific Hazard Quotients</b>			
	<b>Soil Ingestion</b>	<b>Soil Dermal</b>	<b>Soil Inhalation</b>	<b>Total Hazard Index</b>
	1.37E-04	2.14E-05	3.14E-09	1.58E-04

**TABLE 13(A)  
RECEPTOR-SPECIFIC INTAKE FACTORS**

<b>RECEPTOR:</b>	<b>RECREATIONAL TODDLER</b>
<b>SUBJECT AREA:</b>	<b>SA-3</b>

<b>Inadvertent Ingestion of Soil</b>		
IR <sub>S</sub>	Ingestion rate for soil	8.0E-02 g/day
CF1	Conversion Factor 1	1.0E-03 kg/g
ET1	Days per year exposed / 365 days/yr	0.082 unitless
BW	Body weight	16.5 kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> x IR<sub>S</sub> x CF1 x AF<sub>GIT</sub> x ET1) / BW</i>		
<b>Dermal Contact with Soil</b>		
SA	Skin surface area exposed	3010 cm <sup>2</sup>
SL	Soil loading to exposed skin	0.000023 g/cm <sup>2</sup> /day
CF1	Conversion Factor 1	1.0E-03 kg/g
ET1	Days per year exposed / 365 days/yr	0.082 unitless
BW	Body weight	16.5 kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> x SA x SL x CF1 x AF<sub>Skin</sub> x ET1) / BW</i>		
<b>Inhalation of Particulates</b>		
IR <sub>A</sub>	Inhalation rate	0.39 m <sup>3</sup> /hour
ET2	Daily exposure time	1 hrs/day
ET1	Days per year exposed / 365 days/yr	0.082 unitless
BW	Body weight	16.5 kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> x P<sub>Air</sub> x IR<sub>A</sub> x ET2 x AF<sub>Inh</sub> x ET1) / BW</i>		
<b>Inadvertent Ingestion of Potable Water</b>		
IR <sub>PW</sub>	Ingestion rate for potable water	L/day
ET1	Days per year exposed / 365 days/yr	unitless
BW	Body weight	kg
<i>Dose (mg/kg-d) = (C<sub>PW</sub> x IR<sub>PW</sub> x AF<sub>GIT</sub> x ET1) / BW</i>		

**TABLE 13(A; Continued)**  
**RECEPTOR-SPECIFIC INTAKE FACTORS**

<b>RECEPTOR:</b>	<b>RECREATIONAL TODDLER</b>
<b>SUBJECT AREA:</b>	<b>SA-3</b>

<b>Dermal Contact with Potable Water</b>		
SA	Skin surface area exposed	cm <sup>2</sup>
CF2	Conversion Factor 2	L/cm <sup>3</sup>
ET2	Daily exposure time (showering)	hr/day
ET1	Days per year exposed / 365 days/yr	unitless
BW	Body weight	kg
<i>Dose (mg/kg-d) = (C<sub>PW</sub> x SA x CF2 x K<sub>P</sub> x ET2 x ET1) / BW</i>		
<b>Inadvertent Ingestion of Sediment</b>		
IR <sub>SD</sub>	Ingestion rate for sediment	g/day
CF1	Conversion Factor 1	kg/g
ET1	Days per year exposed / 365 days/yr	unitless
BW	Body weight	kg
<i>Dose (mg/kg-d) = (C<sub>SD</sub> x IR<sub>SD</sub> x CF1 x AF<sub>GIT</sub> x ET1) / BW</i>		
<b>Dermal Contact with Sediment</b>		
SA	Skin surface area exposed	cm <sup>2</sup>
SL	Sediment loading to exposed skin	g/cm <sup>2</sup> /day
CF1	Conversion Factor 1	kg/g
ET1	Days per year exposed / 365 days/yr	unitless
BW	Body weight	kg
<i>Dose (mg/kg-d) = (C<sub>SD</sub> x SA x SL x CF1 x AF<sub>Skin</sub> x ET1) / BW</i>		
<b>Inadvertent Ingestion of Surface Water</b>		
IR <sub>SW</sub>	Ingestion rate for surface water	L/day
ET1	Days per year exposed / 365 days/yr	unitless
BW	Body weight	kg
<i>Dose (mg/kg-d) = (C<sub>SW</sub> x IR<sub>SW</sub> x AF<sub>GIT</sub> x ET1) / BW</i>		

**TABLE 13(A; Continued)**  
**RECEPTOR-SPECIFIC INTAKE FACTORS**

<b>RECEPTOR:</b>	<b>RECREATIONAL</b>
	<b>TODDLER</b>
<b>SUBJECT AREA:</b>	<b>SA-3</b>

<b>Dermal Contact with Surface Water</b>		
SA	Skin surface area exposed	cm <sup>2</sup>
CF2	Conversion Factor 2	L/cm <sup>3</sup>
ET2	Daily exposure time	hrs/day
ET1	Days per year exposed / 365 days/yr	unitless
BW	Body weight	kg
<i>Dose (mg/kg-d) = (C<sub>SW</sub> x SA x CF2 x K<sub>P</sub> x ET2 x ET1) / BW</i>		
<b>Ingestion of Berries</b>		
IR <sub>Berr</sub>	Ingestion rate for berries	g/day
CF1	Conversion Factor 1	kg/g
ET1	Days per year exposed / 365 days/yr	unitless
BW	Body weight	kg
<i>Dose (mg/kg-d) = (C<sub>Berr</sub> x IR<sub>Berr</sub> x CF1 x AF<sub>GIT</sub> x ET1) / BW</i>		
<b>Ingestion of Game</b>		
IR <sub>Game</sub>	Ingestion rate for game	g/day
CF1	Conversion Factor 1	kg/g
ET1	Days per year exposed / 365 days/yr	unitless
BW	Body weight	kg
<i>Dose (mg/kg-d) = (C<sub>Game</sub> x IR<sub>Game</sub> x CF1 x AF<sub>GIT</sub> x ET1) / BW</i>		
<b>Ingestion of Fish</b>		
IR <sub>Fish</sub>	Ingestion rate for fish	g/day
CF1	Conversion Factor 1	kg/g
ET1	Days per year exposed / 365 days/yr	unitless
BW	Body weight	kg
<i>Dose (mg/kg-d) = (C<sub>Fish</sub> x IR<sub>Fish</sub> x CF1 x AF<sub>GIT</sub> x ET1) / BW</i>		



**TABLE 13(B)  
EXPOSURE POINT CONCENTRATIONS FOR PCDD TEQ IN SA-3**

<b>Subject Area</b>	<b>Soil Concentration (C<sub>s</sub>) (mg/kg)</b>	<b>Particulate Emission Factor* (P<sub>air</sub>) (kg/m<sup>3</sup>)</b>	<b>Potable Water Concentration (C<sub>PW</sub>) (mg/L)</b>	<b>Sediment Concentration (C<sub>SD</sub>) (mg/kg)</b>	<b>Surface Water Concentration (C<sub>SW</sub>) (mg/L)</b>	<b>Berry Concentration (C<sub>Berr</sub>) (mg/kg)</b>	<b>Game Concentration (C<sub>Game</sub>) (mg/kg)</b>	<b>Fish Concentration (C<sub>Fish</sub>) (mg/kg)</b>
SA-3	6.29E-06	7.6E-10	NA	NA	NA	NA	NA	NA

\* The particulate emission factor (P<sub>air</sub>) is applied to the soil concentration (C<sub>s</sub>) to calculate an ambient air concentration in units of mg/m<sup>3</sup>.

**TABLE 13(C)**  
**CONTAMINANT-SPECIFIC ABSORPTION FACTORS AND REFERENCE VALUES FOR PCDD TEQ**

<b>Contaminant</b>	<b>Oral Absorption Factor (AF<sub>GIT</sub>) (unitless)</b>	<b>Dermal Absorption Factor (AF<sub>skin</sub>) (unitless)</b>	<b>Inhalation Absorption Factor (AF<sub>inh</sub>) (unitless)</b>	<b>Dermal Permeability Coefficient (K<sub>P</sub>) (cm/hr)</b>	<b>Relative Absorption Factor (RAF<sub>dermal</sub>)</b>	<b>Oral Toxicological Reference Value (TRVo) (mg/kg/day)</b>	<b>Dermal Toxicological Reference Value (TRVd) (mg/kg/day)</b>	<b>Inhalation Toxicological Reference Value (TRVi) (mg/kg/day)</b>
PCDD TEQ	1	0.03	1	0.81	1	2.3E-09	2.3E-09	2.3E-09

**TABLE 13(D)**  
**CALCULATED EXPOSURE DOSES AND HAZARD INDICES**  
**FOR THE RECREATIONAL TODDLER IN SA-3**

Subject Area	Pathway-Specific Exposure Doses (mg/kg-day)			
	Soil Ingestion	Soil Dermal	Soil Inhalation	Total Dose
SA-3	2.51E-12	6.47E-14	9.23E-18	2.57E-12
	Pathway-Specific Hazard Quotients			
	Soil Ingestion	Soil Dermal	Soil Inhalation	Total Hazard Index
	1.09E-03	2.81E-05	4.01E-09	1.12E-03

**TABLE 14(A)**  
**RECEPTOR-SPECIFIC INTAKE FACTORS**

<b>RECEPTOR:</b>	<b>SOLDIER</b>
<b>SUBJECT AREA:</b>	<b>SA-4</b>

<b>Inadvertent Ingestion of Soil</b>			
IR <sub>S</sub>	Ingestion rate for soil	1.0E-01	g/day
CF1	Conversion Factor 1	1.0E-03	kg/g
ET1	Days per year exposed / 365 days/yr	0.156	unitless
BW	Body weight	70.7	kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> × IR<sub>S</sub> × CF1 × AF<sub>GIT</sub> × ET1) / BW</i>			
<b>Dermal Contact with Soil</b>			
SA	Skin surface area exposed	3390	cm <sup>2</sup>
SL	Soil loading to exposed skin	0.000336	g/cm <sup>2</sup> /day
CF1	Conversion Factor 1	1.0E-03	kg/g
ET1	Days per year exposed / 365 days/yr	0.156	unitless
BW	Body weight	70.7	kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> × SA × SL × CF1 × AF<sub>Skin</sub> × ET1) / BW</i>			
<b>Inhalation of Particulates</b>			
IR <sub>A</sub>	Inhalation rate	0.66	m <sup>3</sup> /hour
ET2	Daily exposure time	8	hrs/day
ET1	Days per year exposed / 365 days/yr	0.156	unitless
BW	Body weight	70.7	kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> × P<sub>Air</sub> × IR<sub>A</sub> × ET2 × AF<sub>inh</sub> × ET1) / BW</i>			
<b>Inadvertent Ingestion of Potable Water</b>			
IR <sub>PW</sub>	Ingestion rate for potable water	5.0E-02	L/day
ET1	Days per year exposed / 365 days/yr	0.156	unitless
BW	Body weight	70.7	kg
<i>Dose (mg/kg-d) = (C<sub>PW</sub> × IR<sub>PW</sub> × AF<sub>GIT</sub> × ET1) / BW</i>			
<b>Dermal Contact with Potable Water</b>			
SA	Skin surface area exposed	18940	cm <sup>2</sup>
CF2	Conversion Factor 2	1.0E-03	L/cm <sup>3</sup>
ET2	Daily exposure time (showering)	0.167	hr/day
ET1	Days per year exposed / 365 days/yr	0.156	unitless
BW	Body weight	70.7	kg
<i>Dose (mg/kg-d) = (C<sub>PW</sub> × SA × CF2 × K<sub>P</sub> × ET2 × ET1) / BW</i>			

**TABLE 14(B)**  
**EXPOSURE POINT CONCENTRATIONS FOR PCDD TEQ IN SA-4**

<b>Subject Area</b>	<b>Soil Concentration (C<sub>s</sub>) (mg/kg)</b>	<b>Particulate Emission Factor* (P<sub>air</sub>) (kg/m<sup>3</sup>)</b>	<b>Groundwater Concentration (C<sub>PW</sub>) (mg/L)</b>	<b>Sediment Concentration (C<sub>SD</sub>) (mg/kg)</b>	<b>Surface Water Concentration (C<sub>SW</sub>) (mg/L)</b>	<b>Berry Concentration (C<sub>Berr</sub>) (mg/kg)</b>	<b>Game Concentration (C<sub>Game</sub>) (mg/kg)</b>	<b>Fish Concentration (C<sub>Fish</sub>) (mg/kg)</b>
SA-4	2.93E-06	7.6E-10	9.06E-10	NA	NA	NA	NA	NA

\* The particulate emission factor (P<sub>air</sub>) is applied to the soil concentration (C<sub>s</sub>) to calculate an ambient air concentration in units of mg/m<sup>3</sup>.

**TABLE 14(C)**  
**CONTAMINANT-SPECIFIC ABSORPTION FACTORS AND REFERENCE VALUES FOR PCDD TEQ**

<b>Contaminant</b>	<b>Oral Absorption Factor (AF<sub>GIT</sub>) (unitless)</b>	<b>Dermal Absorption Factor (AF<sub>skin</sub>) (unitless)</b>	<b>Inhalation Absorption Factor (AF<sub>ihn</sub>) (unitless)</b>	<b>Dermal Permeability Coefficient (K<sub>P</sub>) (cm/hr)</b>	<b>Relative Absorption Factor (RAF<sub>dermal</sub>)</b>	<b>Oral Toxicological Reference Value (TRVo) (mg/kg/day)</b>	<b>Dermal Toxicological Reference Value (TRVd) (mg/kg/day)</b>	<b>Inhalation Toxicological Reference Value (TRVi) (mg/kg/day)</b>
PCDD TEQ	1	0.03	1	0.81	1	2.3E-09	2.3E-09	2.3E-09

**TABLE 14(D)**  
**CALCULATED EXPOSURE DOSES AND HAZARD INDICES**  
**FOR THE SOLDIER IN SA-4**

Subject Area	Pathway-Specific Exposure Doses (mg/kg-day)					
	Soil Ingestion	Soil Dermal	Soil Inhalation	Groundwater Ingestion	Groundwater Dermal	Total Dose
SA-4	6.46E-13	2.21E-13	2.59E-17	1.00E-13	5.12E-12	6.08E-12
	Pathway-Specific Hazard Quotients					
	Soil Ingestion	Soil Dermal	Soil Inhalation	Groundwater Ingestion	Groundwater Dermal	Total Hazard Index
	2.81E-04	9.61E-05	1.12E-08	4.35E-05	2.22E-03	2.64E-03

**TABLE 15(A)  
RECEPTOR-SPECIFIC INTAKE FACTORS**

<b>RECEPTOR:</b>	<b>SOLDIER</b>
<b>SUBJECT AREA:</b>	<b>SA-5</b>

<b>Inadvertent Ingestion of Soil</b>			
IR <sub>S</sub>	Ingestion rate for soil	1.0E-01	g/day
CF1	Conversion Factor 1	1.0E-03	kg/g
ET1	Days per year exposed / 365 days/yr	0.479	unitless
BW	Body weight	70.7	kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> x IR<sub>S</sub> x CF1 x AF<sub>GIT</sub> x ET1) / BW</i>			
<b>Dermal Contact with Soil</b>			
SA	Skin surface area exposed	3390	cm <sup>2</sup>
SL	Soil loading to exposed skin	0.000336	g/cm <sup>2</sup> /day
CF1	Conversion Factor 1	1.0E-03	kg/g
ET1	Days per year exposed / 365 days/yr	0.479	unitless
BW	Body weight	70.7	kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> x SA x SL x CF1 x AF<sub>Skin</sub> x ET1) / BW</i>			
<b>Inhalation of Particulates</b>			
IR <sub>A</sub>	Inhalation rate	0.66	m <sup>3</sup> /hour
ET2	Daily exposure time	8	hrs/day
ET1	Days per year exposed / 365 days/yr	0.479	unitless
BW	Body weight	70.7	kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> x P<sub>Air</sub> x IR<sub>A</sub> x ET2 x AF<sub>Inh</sub> x ET1) / BW</i>			



**TABLE 15(B)  
EXPOSURE POINT CONCENTRATIONS FOR PCDD TEQ IN SA-5**

<b>Subject Area</b>	<b>Soil Concentration (C<sub>s</sub>) (mg/kg)</b>	<b>Particulate Emission Factor* (P<sub>air</sub>) (kg/m<sup>3</sup>)</b>	<b>Potable Water Concentration (C<sub>PW</sub>) (mg/L)</b>	<b>Sediment Concentration (C<sub>SD</sub>) (mg/kg)</b>	<b>Surface Water Concentration (C<sub>SW</sub>) (mg/L)</b>	<b>Berry Concentration (C<sub>Berr</sub>) (mg/kg)</b>	<b>Game Concentration (C<sub>Game</sub>) (mg/kg)</b>	<b>Fish Concentration (C<sub>Fish</sub>) (mg/kg)</b>
SA-5	1.22E-06	7.6E-10	NA	NA	NA	NA	NA	NA

\* The particulate emission factor (P<sub>air</sub>) is applied to the soil concentration (C<sub>s</sub>) to calculate an ambient air concentration in units of mg/m<sup>3</sup>.

**TABLE 15(C)**  
**CONTAMINANT-SPECIFIC ABSORPTION FACTORS AND REFERENCE VALUES FOR PCDD TEQ**

<b>Contaminant</b>	<b>Oral Absorption Factor (AF<sub>GIT</sub>) (unitless)</b>	<b>Dermal Absorption Factor (AF<sub>skin</sub>) (unitless)</b>	<b>Inhalation Absorption Factor (AF<sub>ihn</sub>) (unitless)</b>	<b>Dermal Permeability Coefficient (K<sub>P</sub>) (cm/hr)</b>	<b>Relative Absorption Factor (RAF<sub>dermal</sub>)</b>	<b>Oral Toxicological Reference Value (TRVo) (mg/kg/day)</b>	<b>Dermal Toxicological Reference Value (TRVd) (mg/kg/day)</b>	<b>Inhalation Toxicological Reference Value (TRVi) (mg/kg/day)</b>
PCDD TEQ	1	0.03	1	0.81	1	2.3E-09	2.3E-09	2.3E-09

**TABLE 15(D)**  
**CALCULATED EXPOSURE DOSES AND HAZARD INDICES**  
**FOR THE SOLDIER IN SA-5**

Subject Area	Pathway-Specific Exposure Doses (mg/kg-day)			
	Soil Ingestion	Soil Dermal	Soil Inhalation	Total Dose
SA-5	8.31E-13	2.84E-13	3.32E-17	1.11E-12
	Pathway-Specific Hazard Quotients			
	Soil Ingestion	Soil Dermal	Soil Inhalation	Total Hazard Index
	3.61E-04	1.24E-04	1.45E-08	4.85E-04

**TABLE 16(A)  
RECEPTOR-SPECIFIC INTAKE FACTORS**

<b>RECEPTOR:</b>	<b>RECREATIONAL</b>
<b>SUBJECT AREA:</b>	<b>ADULT SA-5</b>

<b>Inadvertent Ingestion of Soil</b>		
IR <sub>S</sub>	Ingestion rate for soil	2.0E-02 g/day
CF1	Conversion Factor 1	1.0E-03 kg/g
ET1	Days per year exposed / 365 days/yr	0.315 unitless
BW	Body weight	70.7 kg
$Dose (mg/kg-d) = (C_S \times IR_S \times CF1 \times AF_{GIT} \times ET1) / BW$		
<b>Dermal Contact with Soil</b>		
SA	Skin surface area exposed	9110 cm <sup>2</sup>
SL	Soil loading to exposed skin	0.000019 g/cm <sup>2</sup> /day
CF1	Conversion Factor 1	1.0E-03 kg/g
ET1	Days per year exposed / 365 days/yr	0.315 unitless
BW	Body weight	70.7 kg
$Dose (mg/kg-d) = (C_S \times SA \times SL \times CF1 \times AF_{Skin} \times ET1) / BW$		
<b>Inhalation of Particulates</b>		
IR <sub>A</sub>	Inhalation rate	0.66 m <sup>3</sup> /hour
ET2	Daily exposure time	4 hrs/day
ET1	Days per year exposed / 365 days/yr	0.315 unitless
BW	Body weight	70.7 kg
$Dose (mg/kg-d) = (C_S \times P_{Air} \times IR_A \times ET2 \times AF_{Inh} \times ET1) / BW$		

**TABLE 16(B)  
EXPOSURE POINT CONCENTRATIONS FOR PCDD TEQ IN SA-5**

<b>Subject Area</b>	<b>Soil Concentration (C<sub>s</sub>) (mg/kg)</b>	<b>Particulate Emission Factor* (P<sub>air</sub>) (kg/m<sup>3</sup>)</b>	<b>Potable Water Concentration (C<sub>PW</sub>) (mg/L)</b>	<b>Sediment Concentration (C<sub>SD</sub>) (mg/kg)</b>	<b>Surface Water Concentration (C<sub>SW</sub>) (mg/L)</b>	<b>Berry Concentration (C<sub>Berr</sub>) (mg/kg)</b>	<b>Game Concentration (C<sub>Game</sub>) (mg/kg)</b>	<b>Fish Concentration (C<sub>Fish</sub>) (mg/kg)</b>
SA-5	1.22E-06	7.6E-10	NA	NA	NA	NA	NA	NA

\* The particulate emission factor (P<sub>air</sub>) is applied to the soil concentration (C<sub>s</sub>) to calculate an ambient air concentration in units of mg/m<sup>3</sup>.

**TABLE 16(C)**  
**CONTAMINANT-SPECIFIC ABSORPTION FACTORS AND REFERENCE VALUES FOR PCDD TEQ**

<b>Contaminant</b>	<b>Oral Absorption Factor (AF<sub>GIT</sub>) (unitless)</b>	<b>Dermal Absorption Factor (AF<sub>skin</sub>) (unitless)</b>	<b>Inhalation Absorption Factor (AF<sub>ihn</sub>) (unitless)</b>	<b>Dermal Permeability Coefficient (K<sub>P</sub>) (cm/hr)</b>	<b>Relative Absorption Factor (RAF<sub>dermal</sub>)</b>	<b>Oral Toxicological Reference Value (TRVo) (mg/kg/day)</b>	<b>Dermal Toxicological Reference Value (TRVd) (mg/kg/day)</b>	<b>Inhalation Toxicological Reference Value (TRVi) (mg/kg/day)</b>
PCDD TEQ	1	0.03	1	0.81	1	2.3E-09	2.3E-09	2.3E-09

**TABLE 16(D)**  
**CALCULATED EXPOSURE DOSES AND HAZARD INDICES**  
**FOR THE RECREATIONAL ADULT IN SA-5**

Subject Area	Pathway-Specific Exposure Doses (mg/kg-day)			
	Soil Ingestion	Soil Dermal	Soil Inhalation	Total Dose
SA-5	1.09E-13	2.90E-14	1.09E-17	1.38E-13
	Pathway-Specific Hazard Quotients			
	Soil Ingestion	Soil Dermal	Soil Inhalation	Total Hazard Index
	4.75E-05	1.26E-05	4.75E-09	6.01E-05

**TABLE 17(A)**  
**RECEPTOR-SPECIFIC INTAKE FACTORS**

<b>RECEPTOR:</b>	<b>RECREATIONAL</b>
	<b>TEEN</b>
<b>SUBJECT AREA:</b>	<b>SA-5</b>

<b>Inadvertent Ingestion of Soil</b>		
IR <sub>S</sub>	Ingestion rate for soil	2.0E-02 g/day
CF1	Conversion Factor 1	1.0E-03 kg/g
ET1	Days per year exposed / 365 days/yr	0.315 unitless
BW	Body weight	59.7 kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> x IR<sub>S</sub> x CF1 x AF<sub>GIT</sub> x ET1) / BW</i>		
<b>Dermal Contact with Soil</b>		
SA	Skin surface area exposed	8000 cm <sup>2</sup>
SL	Soil loading to exposed skin	0.000019 g/cm <sup>2</sup> /day
CF1	Conversion Factor 1	1.0E-03 kg/g
ET1	Days per year exposed / 365 days/yr	0.315 unitless
BW	Body weight	59.7 kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> x SA x SL x CF1 x AF<sub>Skin</sub> x ET1) / BW</i>		
<b>Inhalation of Particulates</b>		
IR <sub>A</sub>	Inhalation rate	0.66 m <sup>3</sup> /hour
ET2	Daily exposure time	4 hrs/day
ET1	Days per year exposed / 365 days/yr	0.315 unitless
BW	Body weight	59.7 kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> x P<sub>Air</sub> x IR<sub>A</sub> x ET2 x AF<sub>Inh</sub> x ET1) / BW</i>		



**TABLE 17(B)  
EXPOSURE POINT CONCENTRATIONS FOR PCDD TEQ IN SA-5**

<b>Subject Area</b>	<b>Soil Concentration (C<sub>s</sub>) (mg/kg)</b>	<b>Particulate Emission Factor* (P<sub>air</sub>) (kg/m<sup>3</sup>)</b>	<b>Potable Water Concentration (C<sub>PW</sub>) (mg/L)</b>	<b>Sediment Concentration (C<sub>SD</sub>) (mg/kg)</b>	<b>Surface Water Concentration (C<sub>SW</sub>) (mg/L)</b>	<b>Berry Concentration (C<sub>Berr</sub>) (mg/kg)</b>	<b>Game Concentration (C<sub>Game</sub>) (mg/kg)</b>	<b>Fish Concentration (C<sub>Fish</sub>) (mg/kg)</b>
SA-5	1.22E-06	7.6E-10	NA	NA	NA	NA	NA	NA

\* The particulate emission factor (P<sub>air</sub>) is applied to the soil concentration (C<sub>s</sub>) to calculate an ambient air concentration in units of mg/m<sup>3</sup>.

**TABLE 17(C)**  
**CONTAMINANT-SPECIFIC ABSORPTION FACTORS AND REFERENCE VALUES FOR PCDD TEQ**

<b>Contaminant</b>	<b>Oral Absorption Factor (AF<sub>GIT</sub>) (unitless)</b>	<b>Dermal Absorption Factor (AF<sub>skin</sub>) (unitless)</b>	<b>Inhalation Absorption Factor (AF<sub>ihn</sub>) (unitless)</b>	<b>Dermal Permeability Coefficient (K<sub>P</sub>) (cm/hr)</b>	<b>Relative Absorption Factor (RAF<sub>dermal</sub>)</b>	<b>Oral Toxicological Reference Value (TRVo) (mg/kg/day)</b>	<b>Dermal Toxicological Reference Value (TRVd) (mg/kg/day)</b>	<b>Inhalation Toxicological Reference Value (TRVi) (mg/kg/day)</b>
PCDD TEQ	1	0.03	1	0.81	1	2.3E-09	2.3E-09	2.3E-09

**TABLE 17(D)**  
**CALCULATED EXPOSURE DOSES AND HAZARD INDICES**  
**FOR THE RECREATIONAL TEEN IN SA-5**

Subject Area	Pathway-Specific Exposure Doses (mg/kg-day)			
	Soil Ingestion	Soil Dermal	Soil Inhalation	Total Dose
SA-5	1.29E-13	2.95E-14	1.29E-17	1.59E-13
	Pathway-Specific Hazard Quotients			
	Soil Ingestion	Soil Dermal	Soil Inhalation	Total Hazard Index
	5.62E-05	1.28E-05	5.63E-09	6.90E-05

**TABLE 18(A)**  
**RECEPTOR-SPECIFIC INTAKE FACTORS**

<b>RECEPTOR:</b>	<b>RECREATIONAL</b>
	<b>CHILD</b>
<b>SUBJECT AREA:</b>	<b>SA-5</b>

<b>Inadvertent Ingestion of Soil</b>		
IR <sub>S</sub>	Ingestion rate for soil	2.0E-02 g/day
CF1	Conversion Factor 1	1.0E-03 kg/g
ET1	Days per year exposed / 365 days/yr	0.315 unitless
BW	Body weight	32.9 kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> x IR<sub>S</sub> x CF1 x AF<sub>GIT</sub> x ET1) / BW</i>		
<b>Dermal Contact with Soil</b>		
SA	Skin surface area exposed	5140 cm <sup>2</sup>
SL	Soil loading to exposed skin	0.000020 g/cm <sup>2</sup> /day
CF1	Conversion Factor 1	1.0E-03 kg/g
ET1	Days per year exposed / 365 days/yr	0.315 unitless
BW	Body weight	32.9 kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> x SA x SL x CF1 x AF<sub>Skin</sub> x ET1) / BW</i>		
<b>Inhalation of Particulates</b>		
IR <sub>A</sub>	Inhalation rate	0.60 m <sup>3</sup> /hour
ET2	Daily exposure time	4 hrs/day
ET1	Days per year exposed / 365 days/yr	0.315 unitless
BW	Body weight	32.9 kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> x P<sub>Air</sub> x IR<sub>A</sub> x ET2 x AF<sub>Inh</sub> x ET1) / BW</i>		

**TABLE 18(B)  
EXPOSURE POINT CONCENTRATIONS FOR PCDD TEQ IN SA-5**

<b>Subject Area</b>	<b>Soil Concentration (C<sub>s</sub>) (mg/kg)</b>	<b>Particulate Emission Factor* (P<sub>air</sub>) (kg/m<sup>3</sup>)</b>	<b>Potable Water Concentration (C<sub>PW</sub>) (mg/L)</b>	<b>Sediment Concentration (C<sub>SD</sub>) (mg/kg)</b>	<b>Surface Water Concentration (C<sub>SW</sub>) (mg/L)</b>	<b>Berry Concentration (C<sub>Berr</sub>) (mg/kg)</b>	<b>Game Concentration (C<sub>Game</sub>) (mg/kg)</b>	<b>Fish Concentration (C<sub>Fish</sub>) (mg/kg)</b>
SA-5	1.22E-06	7.6E-10	NA	NA	NA	NA	NA	NA

\* The particulate emission factor (P<sub>air</sub>) is applied to the soil concentration (C<sub>s</sub>) to calculate an ambient air concentration in units of mg/m<sup>3</sup>.

**TABLE 18(C)**  
**CONTAMINANT-SPECIFIC ABSORPTION FACTORS AND REFERENCE VALUES FOR PCDD TEQ**

<b>Contaminant</b>	<b>Oral Absorption Factor (AF<sub>GIT</sub>) (unitless)</b>	<b>Dermal Absorption Factor (AF<sub>skin</sub>) (unitless)</b>	<b>Inhalation Absorption Factor (AF<sub>ihn</sub>) (unitless)</b>	<b>Dermal Permeability Coefficient (K<sub>P</sub>) (cm/hr)</b>	<b>Relative Absorption Factor (RAF<sub>dermal</sub>)</b>	<b>Oral Toxicological Reference Value (TRVo) (mg/kg/day)</b>	<b>Dermal Toxicological Reference Value (TRVd) (mg/kg/day)</b>	<b>Inhalation Toxicological Reference Value (TRVi) (mg/kg/day)</b>
PCDD TEQ	1	0.03	1	0.81	1	2.3E-09	2.3E-09	2.3E-09

**TABLE 18(D)**  
**CALCULATED EXPOSURE DOSES AND HAZARD INDICES**  
**FOR THE RECREATIONAL CHILD IN SA-5**

Subject Area	Pathway-Specific Exposure Doses (mg/kg-day)			
	Soil Ingestion	Soil Dermal	Soil Inhalation	Total Dose
SA-5	2.35E-13	3.68E-14	2.15E-17	2.71E-13
	Pathway-Specific Hazard Quotients			
	Soil Ingestion	Soil Dermal	Soil Inhalation	Total Hazard Index
	1.02E-04	1.60E-05	9.37E-09	1.18E-04

**TABLE 19(A)  
RECEPTOR-SPECIFIC INTAKE FACTORS**

<b>RECEPTOR:</b>	<b>RECREATIONAL TODDLER</b>
<b>SUBJECT AREA:</b>	<b>SA-5</b>

<b>Inadvertent Ingestion of Soil</b>		
IR <sub>S</sub>	Ingestion rate for soil	8.0E-02 g/day
CF1	Conversion Factor 1	1.0E-03 kg/g
ET1	Days per year exposed / 365 days/yr	0.315 unitless
BW	Body weight	16.5 kg
$Dose (mg/kg-d) = (C_S \times IR_S \times CF1 \times AF_{GIT} \times ET1) / BW$		
<b>Dermal Contact with Soil</b>		
SA	Skin surface area exposed	3010 cm <sup>2</sup>
SL	Soil loading to exposed skin	0.000023 g/cm <sup>2</sup> /day
CF1	Conversion Factor 1	1.0E-03 kg/g
ET1	Days per year exposed / 365 days/yr	0.315 unitless
BW	Body weight	16.5 kg
$Dose (mg/kg-d) = (C_S \times SA \times SL \times CF1 \times AF_{Skin} \times ET1) / BW$		
<b>Inhalation of Particulates</b>		
IR <sub>A</sub>	Inhalation rate	0.39 m <sup>3</sup> /hour
ET2	Daily exposure time	4 hrs/day
ET1	Days per year exposed / 365 days/yr	0.315 unitless
BW	Body weight	16.5 kg
$Dose (mg/kg-d) = (C_S \times P_{Air} \times IR_A \times ET2 \times AF_{Inh} \times ET1) / BW$		



**TABLE 19(B)**  
**EXPOSURE POINT CONCENTRATIONS FOR PCDD TEQ IN SA-5**

<b>Subject Area</b>	<b>Soil Concentration (C<sub>s</sub>) (mg/kg)</b>	<b>Particulate Emission Factor* (P<sub>air</sub>) (kg/m<sup>3</sup>)</b>	<b>Potable Water Concentration (C<sub>PW</sub>) (mg/L)</b>	<b>Sediment Concentration (C<sub>SD</sub>) (mg/kg)</b>	<b>Surface Water Concentration (C<sub>SW</sub>) (mg/L)</b>	<b>Berry Concentration (C<sub>Berr</sub>) (mg/kg)</b>	<b>Game Concentration (C<sub>Game</sub>) (mg/kg)</b>	<b>Fish Concentration (C<sub>Fish</sub>) (mg/kg)</b>
SA-5	1.22E-06	7.6E-10	NA	NA	NA	NA	NA	NA

\* The particulate emission factor (P<sub>air</sub>) is applied to the soil concentration (C<sub>s</sub>) to calculate an ambient air concentration in units of mg/m<sup>3</sup>.

**TABLE 19(C)  
CONTAMINANT-SPECIFIC ABSORPTION FACTORS AND REFERENCE VALUES FOR PCDD TEQ**

<b>Contaminant</b>	<b>Oral Absorption Factor (AF<sub>GIT</sub>) (unitless)</b>	<b>Dermal Absorption Factor (AF<sub>skin</sub>) (unitless)</b>	<b>Inhalation Absorption Factor (AF<sub>ihn</sub>) (unitless)</b>	<b>Dermal Permeability Coefficient (K<sub>P</sub>) (cm/hr)</b>	<b>Relative Absorption Factor (RAF<sub>dermal</sub>)</b>	<b>Oral Toxicological Reference Value (TRVo) (mg/kg/day)</b>	<b>Dermal Toxicological Reference Value (TRVd) (mg/kg/day)</b>	<b>Inhalation Toxicological Reference Value (TRVi) (mg/kg/day)</b>
PCDD TEQ	1	0.03	1	0.81	1	2.3E-09	2.3E-09	2.3E-09

**TABLE 19(D)**  
**CALCULATED EXPOSURE DOSES AND HAZARD INDICES**  
**FOR THE RECREATIONAL TODDLER IN SA-5**

Subject Area	Pathway-Specific Exposure Doses (mg/kg-day)			
	Soil Ingestion	Soil Dermal	Soil Inhalation	Total Dose
SA-5	1.87E-12	4.83E-14	2.76E-17	1.92E-12
	Pathway-Specific Hazard Quotients			
	Soil Ingestion	Soil Dermal	Soil Inhalation	Total Hazard Index
	8.14E-04	2.10E-05	1.20E-08	8.35E-04

**TABLE 20(A)**  
**RECEPTOR-SPECIFIC INTAKE FACTORS**

<b>RECEPTOR:</b>	<b>SOLDIER</b>
<b>SUBJECT AREA:</b>	<b>SA-6</b>

<b>Inadvertent Ingestion of Soil</b>			
	IR <sub>S</sub> Ingestion rate for soil	1.0E-01	g/day
	CF1 Conversion Factor 1	1.0E-03	kg/g
	ET1 Days per year exposed / 365 days/yr	0.082	unitless
	BW Body weight	70.7	kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> x IR<sub>S</sub> x CF1 x AF<sub>GIT</sub> x ET1) / BW</i>			
<b>Dermal Contact with Soil</b>			
	SA Skin surface area exposed	3390	cm <sup>2</sup>
	SL Soil loading to exposed skin	0.000336	g/cm <sup>2</sup> /day
	CF1 Conversion Factor 1	1.0E-03	kg/g
	ET1 Days per year exposed / 365 days/yr	0.082	unitless
	BW Body weight	70.7	kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> x SA x SL x CF1 x AF<sub>Skin</sub> x ET1) / BW</i>			
<b>Inhalation of Particulates</b>			
	IR <sub>A</sub> Inhalation rate	0.66	m <sup>3</sup> /hour
	ET2 Daily exposure time	8	hrs/day
	ET1 Days per year exposed / 365 days/yr	0.082	unitless
	BW Body weight	70.7	kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> x P<sub>Air</sub> x IR<sub>A</sub> x ET2 x AF<sub>Inh</sub> x ET1) / BW</i>			

**TABLE 20(B)  
EXPOSURE POINT CONCENTRATIONS FOR PCDD TEQ IN SA-6**

<b>Subject Area</b>	<b>Soil Concentration (C<sub>s</sub>) (mg/kg)</b>	<b>Particulate Emission Factor* (P<sub>air</sub>) (kg/m<sup>3</sup>)</b>	<b>Potable Water Concentration (C<sub>PW</sub>) (mg/L)</b>	<b>Sediment Concentration (C<sub>SD</sub>) (mg/kg)</b>	<b>Surface Water Concentration (C<sub>SW</sub>) (mg/L)</b>	<b>Berry Concentration (C<sub>Berr</sub>) (mg/kg)</b>	<b>Game Concentration (C<sub>Game</sub>) (mg/kg)</b>	<b>Fish Concentration (C<sub>Fish</sub>) (mg/kg)</b>
SA-6	6.83E-06	7.6E-10	NA	NA	NA	NA	NA	NA

\* The particulate emission factor (P<sub>air</sub>) is applied to the soil concentration (C<sub>s</sub>) to calculate an ambient air concentration in units of mg/m<sup>3</sup>.

**TABLE 20(C)**  
**CONTAMINANT-SPECIFIC ABSORPTION FACTORS AND REFERENCE VALUES FOR PCDD TEQ**

<b>Contaminant</b>	<b>Oral Absorption Factor (AF<sub>GIT</sub>) (unitless)</b>	<b>Dermal Absorption Factor (AF<sub>skin</sub>) (unitless)</b>	<b>Inhalation Absorption Factor (AF<sub>ihn</sub>) (unitless)</b>	<b>Dermal Permeability Coefficient (K<sub>P</sub>) (cm/hr)</b>	<b>Relative Absorption Factor (RAF<sub>dermal</sub>)</b>	<b>Oral Toxicological Reference Value (TRVo) (mg/kg/day)</b>	<b>Dermal Toxicological Reference Value (TRVd) (mg/kg/day)</b>	<b>Inhalation Toxicological Reference Value (TRVi) (mg/kg/day)</b>
PCDD TEQ	1	0.03	1	0.81	1	2.3E-09	2.3E-09	2.3E-09

**TABLE 20(D)**  
**CALCULATED EXPOSURE DOSES AND HAZARD INDICES**  
**FOR THE SOLDIER IN SA-6**

<b>Subject Area</b>	<b>Pathway-Specific Exposure Doses (mg/kg-day)</b>			
	<b>Soil Ingestion</b>	<b>Soil Dermal</b>	<b>Soil Inhalation</b>	<b>Total Dose</b>
SA-6	7.94E-13	2.72E-13	3.18E-17	1.07E-12
	<b>Pathway-Specific Hazard Quotients</b>			
	<b>Soil Ingestion</b>	<b>Soil Dermal</b>	<b>Soil Inhalation</b>	<b>Total Hazard Index</b>
	3.45E-04	1.18E-04	1.38E-08	4.63E-04

**TABLE 21(A)**  
**RECEPTOR-SPECIFIC INTAKE FACTORS**

<b>RECEPTOR:</b>	<b>SOLDIER</b>
<b>SUBJECT AREA:</b>	<b>SA-7</b>

<b>Inadvertent Ingestion of Soil</b>		
IR <sub>S</sub>	Ingestion rate for soil	1.0E-01 g/day
CF1	Conversion Factor 1	1.0E-03 kg/g
ET1	Days per year exposed / 365 days/yr	0.175 unitless
BW	Body weight	70.7 kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> x IR<sub>S</sub> x CF1 x AF<sub>GIT</sub> x ET1) / BW</i>		
<b>Dermal Contact with Soil</b>		
SA	Skin surface area exposed	3390 cm <sup>2</sup>
SL	Soil loading to exposed skin	0.000336 g/cm <sup>2</sup> /day
CF1	Conversion Factor 1	1.0E-03 kg/g
ET1	Days per year exposed / 365 days/yr	0.175 unitless
BW	Body weight	70.7 kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> x SA x SL x CF1 x AF<sub>Skin</sub> x ET1) / BW</i>		
<b>Inhalation of Particulates</b>		
IR <sub>A</sub>	Inhalation rate	0.66 m <sup>3</sup> /hour
ET2	Daily exposure time	16 hrs/day
ET1	Days per year exposed / 365 days/yr	0.175 unitless
BW	Body weight	70.7 kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> x P<sub>Air</sub> x IR<sub>A</sub> x ET2 x AF<sub>Inh</sub> x ET1) / BW</i>		



**TABLE 21(B)**  
**EXPOSURE POINT CONCENTRATIONS FOR PCDD TEQ IN SA-7**

<b>Subject Area</b>	<b>Soil Concentration (C<sub>s</sub>) (mg/kg)</b>	<b>Particulate Emission Factor* (P<sub>air</sub>) (kg/m<sup>3</sup>)</b>	<b>Potable Water Concentration (C<sub>PW</sub>) (mg/L)</b>	<b>Sediment Concentration (C<sub>SD</sub>) (mg/kg)</b>	<b>Surface Water Concentration (C<sub>SW</sub>) (mg/L)</b>	<b>Berry Concentration (C<sub>Berr</sub>) (mg/kg)</b>	<b>Game Concentration (C<sub>Game</sub>) (mg/kg)</b>	<b>Fish Concentration (C<sub>Fish</sub>) (mg/kg)</b>
SA-7	1.18E-05	7.6E-10	NA	NA	NA	NA	NA	NA

\* The particulate emission factor (P<sub>air</sub>) is applied to the soil concentration (C<sub>s</sub>) to calculate an ambient air concentration in units of mg/m<sup>3</sup>.

**TABLE 21(C)**  
**CONTAMINANT-SPECIFIC ABSORPTION FACTORS AND REFERENCE VALUES FOR PCDD TEQ**

<b>Contaminant</b>	<b>Oral Absorption Factor (AF<sub>GIT</sub>) (unitless)</b>	<b>Dermal Absorption Factor (AF<sub>skin</sub>) (unitless)</b>	<b>Inhalation Absorption Factor (AF<sub>ihn</sub>) (unitless)</b>	<b>Dermal Permeability Coefficient (K<sub>P</sub>) (cm/hr)</b>	<b>Relative Absorption Factor (RAF<sub>dermal</sub>)</b>	<b>Oral Toxicological Reference Value (TRVo) (mg/kg/day)</b>	<b>Dermal Toxicological Reference Value (TRVd) (mg/kg/day)</b>	<b>Inhalation Toxicological Reference Value (TRVi) (mg/kg/day)</b>
PCDD TEQ	1	0.03	1	0.81	1	2.3E-09	2.3E-09	2.3E-09

**TABLE 21(D)**  
**CALCULATED EXPOSURE DOSES AND HAZARD INDICES**  
**FOR THE SOLDIER IN SA-7**

<b>Subject Area</b>	<b>Pathway-Specific Exposure Doses (mg/kg-day)</b>			
	<b>Soil Ingestion</b>	<b>Soil Dermal</b>	<b>Soil Inhalation</b>	<b>Total Dose</b>
SA-7	2.93E-12	1.00E-12	2.34E-16	3.93E-12
	<b>Pathway-Specific Hazard Quotients</b>			
	<b>Soil Ingestion</b>	<b>Soil Dermal</b>	<b>Soil Inhalation</b>	<b>Total Hazard Index</b>
	1.27E-03	4.35E-04	1.02E-07	1.71E-03

**TABLE 22(A)  
RECEPTOR-SPECIFIC INTAKE FACTORS**

<b>RECEPTOR:</b>	<b>SOLDIER</b>
<b>SUBJECT AREA:</b>	<b>SA-8</b>

<b>Inadvertent Ingestion of Soil</b>			
IR <sub>S</sub>	Ingestion rate for soil	1.0E-01	g/day
CF1	Conversion Factor 1	1.0E-03	kg/g
ET1	Days per year exposed / 365 days/yr	0.0055	unitless
BW	Body weight	70.7	kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> x IR<sub>S</sub> x CF1 x AF<sub>GIT</sub> x ET1) / BW</i>			
<b>Dermal Contact with Soil</b>			
SA	Skin surface area exposed	3390	cm <sup>2</sup>
SL	Soil loading to exposed skin	0.000336	g/cm <sup>2</sup> /day
CF1	Conversion Factor 1	1.0E-03	kg/g
ET1	Days per year exposed / 365 days/yr	0.0055	unitless
BW	Body weight	70.7	kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> x SA x SL x CF1 x AF<sub>Skin</sub> x ET1) / BW</i>			
<b>Inhalation of Particulates</b>			
IR <sub>A</sub>	Inhalation rate	0.66	m <sup>3</sup> /hour
ET2	Daily exposure time	16	hrs/day
ET1	Days per year exposed / 365 days/yr	0.0055	unitless
BW	Body weight	70.7	kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> x P<sub>Air</sub> x IR<sub>A</sub> x ET2 x AF<sub>Inh</sub> x ET1) / BW</i>			

**TABLE 22(B)  
EXPOSURE POINT CONCENTRATIONS FOR PCDD TEQ IN SA-8**

<b>Subject Area</b>	<b>Soil Concentration (C<sub>s</sub>) (mg/kg)</b>	<b>Particulate Emission Factor* (P<sub>air</sub>) (kg/m<sup>3</sup>)</b>	<b>Potable Water Concentration (C<sub>PW</sub>) (mg/L)</b>	<b>Sediment Concentration (C<sub>SD</sub>) (mg/kg)</b>	<b>Surface Water Concentration (C<sub>SW</sub>) (mg/L)</b>	<b>Berry Concentration (C<sub>Berr</sub>) (mg/kg)</b>	<b>Game Concentration (C<sub>Game</sub>) (mg/kg)</b>	<b>Fish Concentration (C<sub>Fish</sub>) (mg/kg)</b>
SA-8	1.71E-06	7.6E-10	NA	NA	NA	2.26E-06	NA	NA

\* The particulate emission factor (P<sub>air</sub>) is applied to the soil concentration (C<sub>s</sub>) to calculate an ambient air concentration in units of mg/m<sup>3</sup>.

**TABLE 22(C)  
CONTAMINANT-SPECIFIC ABSORPTION FACTORS AND REFERENCE VALUES FOR PCDD TEQ**

<b>Contaminant</b>	<b>Oral Absorption Factor (AF<sub>GIT</sub>) (unitless)</b>	<b>Dermal Absorption Factor (AF<sub>skin</sub>) (unitless)</b>	<b>Inhalation Absorption Factor (AF<sub>ihn</sub>) (unitless)</b>	<b>Dermal Permeability Coefficient (K<sub>P</sub>) (cm/hr)</b>	<b>Relative Absorption Factor (RAF<sub>dermal</sub>)</b>	<b>Oral Toxicological Reference Value (TRVo) (mg/kg/day)</b>	<b>Dermal Toxicological Reference Value (TRVd) (mg/kg/day)</b>	<b>Inhalation Toxicological Reference Value (TRVi) (mg/kg/day)</b>
PCDD TEQ	1	0.03	1	0.81	1	2.3E-09	2.3E-09	2.3E-09

**TABLE 22(D)**  
**CALCULATED EXPOSURE DOSES AND HAZARD INDICES**  
**FOR THE SOLDIER IN SA-8**

<b>Subject Area</b>	<b>Pathway-Specific Exposure Doses (mg/kg-day)</b>			
	<b>Soil Ingestion</b>	<b>Soil Dermal</b>	<b>Soil Inhalation</b>	<b>Total Dose</b>
SA-8	1.33E-14	4.54E-15	1.06E-18	1.78E-14
	<b>Pathway-Specific Hazard Quotients</b>			
	<b>Soil Ingestion</b>	<b>Soil Dermal</b>	<b>Soil Inhalation</b>	<b>Total Hazard Index</b>
	5.78E-06	1.98E-06	4.62E-10	7.75E-06

**TABLE 23(A)**  
**RECEPTOR-SPECIFIC INTAKE FACTORS**

<b>RECEPTOR:</b>	<b>RECREATIONAL</b>
	<b>ADULT</b>
<b>SUBJECT AREA:</b>	<b>SA-8</b>

<b>Inadvertent Ingestion of Soil</b>		
IR <sub>S</sub>	Ingestion rate for soil	2.0E-02 g/day
CF1	Conversion Factor 1	1.0E-03 kg/g
ET1	Days per year exposed / 365 days/yr	0.192 unitless
BW	Body weight	70.7 kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> × IR<sub>S</sub> × CF1 × AF<sub>GIT</sub> × ET1) / BW</i>		
<b>Dermal Contact with Soil</b>		
SA	Skin surface area exposed	9110 cm <sup>2</sup>
SL	Soil loading to exposed skin	0.000019 g/cm <sup>2</sup> /day
CF1	Conversion Factor 1	1.0E-03 kg/g
ET1	Days per year exposed / 365 days/yr	0.192 unitless
BW	Body weight	70.7 kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> × SA × SL × CF1 × AF<sub>Skin</sub> × ET1) / BW</i>		
<b>Inhalation of Particulates</b>		
IR <sub>A</sub>	Inhalation rate	0.66 m <sup>3</sup> /hour
ET2	Daily exposure time	8 hrs/day
ET1	Days per year exposed / 365 days/yr	0.192 unitless
BW	Body weight	70.7 kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> × P<sub>Air</sub> × IR<sub>A</sub> × ET2 × AF<sub>Inh</sub> × ET1) / BW</i>		
<b>Ingestion of Berries</b>		
IR <sub>Berr</sub>	Ingestion rate for berries	2.0E+00 g/day
CF1	Conversion Factor 1	1.0E-03 kg/g
ET1	Days per year exposed / 365 days/yr	1.0 unitless
BW	Body weight	70.7 kg
<i>Dose (mg/kg-d) = (C<sub>Berr</sub> × IR<sub>Berr</sub> × CF1 × AF<sub>GIT</sub> × ET1) / BW</i>		



**TABLE 23(B)  
EXPOSURE POINT CONCENTRATIONS FOR PCDD TEQ IN SA-8**

<b>Subject Area</b>	<b>Soil Concentration (C<sub>s</sub>) (mg/kg)</b>	<b>Particulate Emission Factor* (P<sub>air</sub>) (kg/m<sup>3</sup>)</b>	<b>Potable Water Concentration (C<sub>PW</sub>) (mg/L)</b>	<b>Sediment Concentration (C<sub>SD</sub>) (mg/kg)</b>	<b>Surface Water Concentration (C<sub>SW</sub>) (mg/L)</b>	<b>Berry Concentration (C<sub>Berr</sub>) (mg/kg)</b>	<b>Game Concentration (C<sub>Game</sub>) (mg/kg)</b>	<b>Fish Concentration (C<sub>Fish</sub>) (mg/kg)</b>
SA-8	1.71E-06	7.6E-10	NA	NA	NA	8.51E-08	NA	NA

\* The particulate emission factor (P<sub>air</sub>) is applied to the soil concentration (C<sub>s</sub>) to calculate an ambient air concentration in units of mg/m<sup>3</sup>.

**TABLE 23(C)**  
**CONTAMINANT-SPECIFIC ABSORPTION FACTORS AND REFERENCE VALUES FOR PCDD TEQ**

<b>Contaminant</b>	<b>Oral Absorption Factor (AF<sub>GIT</sub>) (unitless)</b>	<b>Dermal Absorption Factor (AF<sub>skin</sub>) (unitless)</b>	<b>Inhalation Absorption Factor (AF<sub>ihn</sub>) (unitless)</b>	<b>Dermal Permeability Coefficient (K<sub>P</sub>) (cm/hr)</b>	<b>Relative Absorption Factor (RAF<sub>dermal</sub>)</b>	<b>Oral Toxicological Reference Value (TRVo) (mg/kg/day)</b>	<b>Dermal Toxicological Reference Value (TRVd) (mg/kg/day)</b>	<b>Inhalation Toxicological Reference Value (TRVi) (mg/kg/day)</b>
PCDD TEQ	1	0.03	1	0.81	1	2.3E-09	2.3E-09	2.3E-09

**TABLE 23(D)**  
**CALCULATED EXPOSURE DOSES AND HAZARD INDICES**  
**FOR THE RECREATIONAL ADULT IN SA-8**

<b>Subject Area</b>	<b>Pathway-Specific Exposure Doses (mg/kg-day)</b>				
	<b>Soil Ingestion</b>	<b>Soil Dermal</b>	<b>Soil Inhalation</b>	<b>Berry Ingestion</b>	<b>Total Dose</b>
SA-8	9.30E-14	2.47E-14	1.86E-17	2.40E-12	2.51E-12
	<b>Pathway-Specific Hazard Quotients</b>				
	<b>Soil Ingestion</b>	<b>Soil Dermal</b>	<b>Soil Inhalation</b>	<b>Berry Ingestion</b>	<b>Total Hazard Index</b>
	4.04E-05	1.07E-05	8.09E-09	1.04E-03	1.09E-03

**TABLE 24(A)  
RECEPTOR-SPECIFIC INTAKE FACTORS**

<b>RECEPTOR:</b>	<b>RECREATIONAL</b>
<b>SUBJECT AREA:</b>	<b>TEEN SA-8</b>

<b>Inadvertent Ingestion of Soil</b>		
IR <sub>S</sub>	Ingestion rate for soil	2.0E-02 g/day
CF1	Conversion Factor 1	1.0E-03 kg/g
ET1	Days per year exposed / 365 days/yr	0.192 unitless
BW	Body weight	59.7 kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> × IR<sub>S</sub> × CF1 × AF<sub>GIT</sub> × ET1) / BW</i>		
<b>Dermal Contact with Soil</b>		
SA	Skin surface area exposed	8000 cm <sup>2</sup>
SL	Soil loading to exposed skin	0.000019 g/cm <sup>2</sup> /day
CF1	Conversion Factor 1	1.0E-03 kg/g
ET1	Days per year exposed / 365 days/yr	0.192 unitless
BW	Body weight	59.7 kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> × SA × SL × CF1 × AF<sub>Skin</sub> × ET1) / BW</i>		
<b>Inhalation of Particulates</b>		
IR <sub>A</sub>	Inhalation rate	0.66 m <sup>3</sup> /hour
ET2	Daily exposure time	8 hrs/day
ET1	Days per year exposed / 365 days/yr	0.192 unitless
BW	Body weight	59.7 kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> × P<sub>Air</sub> × IR<sub>A</sub> × ET2 × AF<sub>Inh</sub> × ET1) / BW</i>		
<b>Ingestion of Berries</b>		
IR <sub>Berr</sub>	Ingestion rate for berries	1.5E+00 g/day
CF1	Conversion Factor 1	1.0E-03 kg/g
ET1	Days per year exposed / 365 days/yr	1.0 unitless
BW	Body weight	59.7 kg
<i>Dose (mg/kg-d) = (C<sub>Berr</sub> × IR<sub>Berr</sub> × CF1 × AF<sub>GIT</sub> × ET1) / BW</i>		

**TABLE 24(B)  
EXPOSURE POINT CONCENTRATIONS FOR PCDD TEQ IN SA-8**

<b>Subject Area</b>	<b>Soil Concentration (C<sub>s</sub>) (mg/kg)</b>	<b>Particulate Emission Factor* (P<sub>air</sub>) (kg/m<sup>3</sup>)</b>	<b>Potable Water Concentration (C<sub>PW</sub>) (mg/L)</b>	<b>Sediment Concentration (C<sub>SD</sub>) (mg/kg)</b>	<b>Surface Water Concentration (C<sub>SW</sub>) (mg/L)</b>	<b>Berry Concentration (C<sub>Berr</sub>) (mg/kg)</b>	<b>Game Concentration (C<sub>Game</sub>) (mg/kg)</b>	<b>Fish Concentration (C<sub>Fish</sub>) (mg/kg)</b>
SA-8	1.71E-06	7.6E-10	NA	NA	NA	8.51E-08	NA	NA

\* The particulate emission factor (P<sub>air</sub>) is applied to the soil concentration (C<sub>s</sub>) to calculate an ambient air concentration in units of mg/m<sup>3</sup>.

**TABLE 24(C)  
CONTAMINANT-SPECIFIC ABSORPTION FACTORS AND REFERENCE VALUES FOR PCDD TEQ**

<b>Contaminant</b>	<b>Oral Absorption Factor (AF<sub>GIT</sub>) (unitless)</b>	<b>Dermal Absorption Factor (AF<sub>skin</sub>) (unitless)</b>	<b>Inhalation Absorption Factor (AF<sub>ihn</sub>) (unitless)</b>	<b>Dermal Permeability Coefficient (K<sub>P</sub>) (cm/hr)</b>	<b>Relative Absorption Factor (RAF<sub>dermal</sub>)</b>	<b>Oral Toxicological Reference Value (TRVo) (mg/kg/day)</b>	<b>Dermal Toxicological Reference Value (TRVd) (mg/kg/day)</b>	<b>Inhalation Toxicological Reference Value (TRVi) (mg/kg/day)</b>
PCDD TEQ	1	0.03	1	0.81	1	2.3E-09	2.3E-09	2.3E-09

**TABLE 24(D)**  
**CALCULATED EXPOSURE DOSES AND HAZARD INDICES**  
**FOR THE RECREATIONAL TEEN IN SA-8**

<b>Subject Area</b>	<b>Pathway-Specific Exposure Doses (mg/kg-day)</b>				
	<b>Soil Ingestion</b>	<b>Soil Dermal</b>	<b>Soil Inhalation</b>	<b>Berry Ingestion</b>	<b>Total Dose</b>
SA-8	1.10E-13	2.51E-14	2.20E-17	2.15E-12	2.29E-12
	<b>Pathway-Specific Hazard Quotients</b>				
	<b>Soil Ingestion</b>	<b>Soil Dermal</b>	<b>Soil Inhalation</b>	<b>Berry Ingestion</b>	<b>Total Hazard Index</b>
	4.79E-05	1.09E-05	9.58E-09	9.36E-04	9.95E-04

**TABLE 25(A)  
RECEPTOR-SPECIFIC INTAKE FACTORS**

<b>RECEPTOR:</b>	<b>RECREATIONAL CHILD</b>
<b>SUBJECT AREA:</b>	<b>SA-8</b>

<b>Inadvertent Ingestion of Soil</b>		
IR <sub>S</sub>	Ingestion rate for soil	2.0E-02 g/day
CF1	Conversion Factor 1	1.0E-03 kg/g
ET1	Days per year exposed / 365 days/yr	0.192 unitless
BW	Body weight	32.9 kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> × IR<sub>S</sub> × CF1 × AF<sub>GIT</sub> × ET1) / BW</i>		
<b>Dermal Contact with Soil</b>		
SA	Skin surface area exposed	5140 cm <sup>2</sup>
SL	Soil loading to exposed skin	0.000020 g/cm <sup>2</sup> /day
CF1	Conversion Factor 1	1.0E-03 kg/g
ET1	Days per year exposed / 365 days/yr	0.192 unitless
BW	Body weight	32.9 kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> × SA × SL × CF1 × AF<sub>Skin</sub> × ET1) / BW</i>		
<b>Inhalation of Particulates</b>		
IR <sub>A</sub>	Inhalation rate	0.60 m <sup>3</sup> /hour
ET2	Daily exposure time	8 hrs/day
ET1	Days per year exposed / 365 days/yr	0.192 unitless
BW	Body weight	32.9 kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> × P<sub>Air</sub> × IR<sub>A</sub> × ET2 × AF<sub>Inh</sub> × ET1) / BW</i>		
<b>Ingestion of Berries</b>		
IR <sub>Berr</sub>	Ingestion rate for berries	1.0E+00 g/day
CF1	Conversion Factor 1	1.0E-03 kg/g
ET1	Days per year exposed / 365 days/yr	1.0 unitless
BW	Body weight	32.9 kg
<i>Dose (mg/kg-d) = (C<sub>Berr</sub> × IR<sub>Berr</sub> × CF1 × AF<sub>GIT</sub> × ET1) / BW</i>		



**TABLE 25(B)  
EXPOSURE POINT CONCENTRATIONS FOR PCDD TEQ IN SA-8**

<b>Subject Area</b>	<b>Soil Concentration (C<sub>s</sub>) (mg/kg)</b>	<b>Particulate Emission Factor* (P<sub>air</sub>) (kg/m<sup>3</sup>)</b>	<b>Potable Water Concentration (C<sub>PW</sub>) (mg/L)</b>	<b>Sediment Concentration (C<sub>SD</sub>) (mg/kg)</b>	<b>Surface Water Concentration (C<sub>SW</sub>) (mg/L)</b>	<b>Berry Concentration (C<sub>Berr</sub>) (mg/kg)</b>	<b>Game Concentration (C<sub>Game</sub>) (mg/kg)</b>	<b>Fish Concentration (C<sub>Fish</sub>) (mg/kg)</b>
SA-8	1.71E-06	7.6E-10	NA	NA	NA	8.51E-08	NA	NA

\* The particulate emission factor (P<sub>air</sub>) is applied to the soil concentration (C<sub>s</sub>) to calculate an ambient air concentration in units of mg/m<sup>3</sup>.

**TABLE 25(C)**  
**CONTAMINANT-SPECIFIC ABSORPTION FACTORS AND REFERENCE VALUES FOR PCDD TEQ**

<b>Contaminant</b>	<b>Oral Absorption Factor (AF<sub>GIT</sub>) (unitless)</b>	<b>Dermal Absorption Factor (AF<sub>skin</sub>) (unitless)</b>	<b>Inhalation Absorption Factor (AF<sub>ihn</sub>) (unitless)</b>	<b>Dermal Permeability Coefficient (K<sub>P</sub>) (cm/hr)</b>	<b>Relative Absorption Factor (RAF<sub>dermal</sub>)</b>	<b>Oral Toxicological Reference Value (TRVo) (mg/kg/day)</b>	<b>Dermal Toxicological Reference Value (TRVd) (mg/kg/day)</b>	<b>Inhalation Toxicological Reference Value (TRVi) (mg/kg/day)</b>
PCDD TEQ	1	0.03	1	0.81	1	2.3E-09	2.3E-09	2.3E-09

**TABLE 25(D)**  
**CALCULATED EXPOSURE DOSES AND HAZARD INDICES**  
**FOR THE RECREATIONAL CHILD IN SA-8**

<b>Subject Area</b>	<b>Pathway-Specific Exposure Doses (mg/kg-day)</b>				
	<b>Soil Ingestion</b>	<b>Soil Dermal</b>	<b>Soil Inhalation</b>	<b>Berry Ingestion</b>	<b>Total Dose</b>
SA-8	2.00E-13	3.13E-14	3.67E-17	2.59E-12	2.82E-12
	<b>Pathway-Specific Hazard Quotients</b>				
	<b>Soil Ingestion</b>	<b>Soil Dermal</b>	<b>Soil Inhalation</b>	<b>Berry Ingestion</b>	<b>Total Hazard Index</b>
	8.69E-05	1.36E-05	1.60E-08	1.12E-03	1.23E-03

**TABLE 26(A)**  
**RECEPTOR-SPECIFIC INTAKE FACTORS**

<b>RECEPTOR:</b>	<b>RECREATIONAL</b>
	<b>TODDLER</b>
<b>SUBJECT AREA:</b>	<b>SA-8</b>

<b>Inadvertent Ingestion of Soil</b>		
IR <sub>S</sub>	Ingestion rate for soil	8.0E-02 g/day
CF1	Conversion Factor 1	1.0E-03 kg/g
ET1	Days per year exposed / 365 days/yr	0.192 unitless
BW	Body weight	16.5 kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> × IR<sub>S</sub> × CF1 × AF<sub>GIT</sub> × ET1) / BW</i>		
<b>Dermal Contact with Soil</b>		
SA	Skin surface area exposed	3010 cm <sup>2</sup>
SL	Soil loading to exposed skin	0.000023 g/cm <sup>2</sup> /day
CF1	Conversion Factor 1	1.0E-03 kg/g
ET1	Days per year exposed / 365 days/yr	0.192 unitless
BW	Body weight	16.5 kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> × SA × SL × CF1 × AF<sub>Skin</sub> × ET1) / BW</i>		
<b>Inhalation of Particulates</b>		
IR <sub>A</sub>	Inhalation rate	0.39 m <sup>3</sup> /hour
ET2	Daily exposure time	8 hrs/day
ET1	Days per year exposed / 365 days/yr	0.192 unitless
BW	Body weight	16.5 kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> × P<sub>Air</sub> × IR<sub>A</sub> × ET2 × AF<sub>Inh</sub> × ET1) / BW</i>		
<b>Ingestion of Berries</b>		
IR <sub>Berr</sub>	Ingestion rate for berries	6.7E-01 g/day
CF1	Conversion Factor 1	1.0E-03 kg/g
ET1	Days per year exposed / 365 days/yr	1.0 unitless
BW	Body weight	16.5 kg
<i>Dose (mg/kg-d) = (C<sub>Berr</sub> × IR<sub>Berr</sub> × CF1 × AF<sub>GIT</sub> × ET1) / BW</i>		

**TABLE 26(B)**  
**EXPOSURE POINT CONCENTRATIONS FOR PCDD TEQ IN SA-8**

<b>Subject Area</b>	<b>Soil Concentration (C<sub>s</sub>) (mg/kg)</b>	<b>Particulate Emission Factor* (P<sub>air</sub>) (kg/m<sup>3</sup>)</b>	<b>Potable Water Concentration (C<sub>PW</sub>) (mg/L)</b>	<b>Sediment Concentration (C<sub>SD</sub>) (mg/kg)</b>	<b>Surface Water Concentration (C<sub>SW</sub>) (mg/L)</b>	<b>Berry Concentration (C<sub>Berr</sub>) (mg/kg)</b>	<b>Game Concentration (C<sub>Game</sub>) (mg/kg)</b>	<b>Fish Concentration (C<sub>Fish</sub>) (mg/kg)</b>
SA-8	1.71E-06	7.6E-10	NA	NA	NA	8.51E-08	NA	NA

\* The particulate emission factor (P<sub>air</sub>) is applied to the soil concentration (C<sub>s</sub>) to calculate an ambient air concentration in units of mg/m<sup>3</sup>.

**TABLE 26(C)**  
**CONTAMINANT-SPECIFIC ABSORPTION FACTORS AND REFERENCE VALUES FOR PCDD TEQ**

<b>Contaminant</b>	<b>Oral Absorption Factor (AF<sub>GIT</sub>) (unitless)</b>	<b>Dermal Absorption Factor (AF<sub>skin</sub>) (unitless)</b>	<b>Inhalation Absorption Factor (AF<sub>inh</sub>) (unitless)</b>	<b>Dermal Permeability Coefficient (K<sub>P</sub>) (cm/hr)</b>	<b>Relative Absorption Factor (RAF<sub>dermal</sub>)</b>	<b>Oral Toxicological Reference Value (TRVo) (mg/kg/day)</b>	<b>Dermal Toxicological Reference Value (TRVd) (mg/kg/day)</b>	<b>Inhalation Toxicological Reference Value (TRVi) (mg/kg/day)</b>
PCDD TEQ	1	0.03	1	0.81	1	2.3E-09	2.3E-09	2.3E-09

**TABLE 26(D)**  
**CALCULATED EXPOSURE DOSES AND HAZARD INDICES**  
**FOR THE RECREATIONAL TODDLER IN SA-8**

<b>Subject Area</b>	<b>Pathway-Specific Exposure Doses (mg/kg-day)</b>				
	<b>Soil Ingestion</b>	<b>Soil Dermal</b>	<b>Soil Inhalation</b>	<b>Berry Ingestion</b>	<b>Total Dose</b>
SA-8	1.59E-12	4.11E-14	4.69E-17	3.46E-12	5.09E-12
	<b>Pathway-Specific Hazard Quotients</b>				
	<b>Soil Ingestion</b>	<b>Soil Dermal</b>	<b>Soil Inhalation</b>	<b>Berry Ingestion</b>	<b>Total Hazard Index</b>
	6.93E-04	1.79E-05	2.04E-08	1.50E-03	2.21E-03

**TABLE 27(A)  
RECEPTOR-SPECIFIC INTAKE FACTORS**

<b>RECEPTOR:</b>	<b>ANGLER</b>
<b>SUBJECT AREA:</b>	<b>SA-9</b>

<b>Inadvertent Ingestion of Soil</b>			
IR <sub>S</sub>	Ingestion rate for soil	2.0E-02	g/day
CF1	Conversion Factor 1	1.0E-03	kg/g
ET1	Days per year exposed / 365 days/yr	0.192	unitless
BW	Body weight	70.7	kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> × IR<sub>S</sub> × CF1 × AF<sub>GIT</sub> × ET1) / BW</i>			
<b>Dermal Contact with Soil</b>			
SA	Skin surface area exposed	9110	cm <sup>2</sup>
SL	Soil loading to exposed skin	1.9E-04	g/cm <sup>2</sup> /day
CF1	Conversion Factor 1	1.0E-03	kg/g
ET1	Days per year exposed / 365 days/yr	0.192	unitless
BW	Body weight	70.7	kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> × SA × SL × CF1 × AF<sub>Skin</sub> × ET1) / BW</i>			
<b>Inhalation of Particulates</b>			
IR <sub>A</sub>	Inhalation rate	0.66	m <sup>3</sup> /hour
ET2	Daily exposure time	8	hrs/day
ET1	Days per year exposed / 365 days/yr	0.192	unitless
BW	Body weight	70.7	kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> × P<sub>Air</sub> × IR<sub>A</sub> × ET2 × AF<sub>Inh</sub> × ET1) / BW</i>			
<b>Inadvertent Ingestion of Sediment</b>			
IR <sub>SD</sub>	Ingestion rate for sediment	2.0E-02	g/day
CF1	Conversion Factor 1	1.0E-03	kg/g
ET1	Days per year exposed / 365 days/yr	0.192	unitless
BW	Body weight	70.7	kg
<i>Dose (mg/kg-d) = (C<sub>SD</sub> × IR<sub>SD</sub> × CF1 × AF<sub>GIT</sub> × ET1) / BW</i>			



**TABLE 27(A; Continued)**  
**RECEPTOR-SPECIFIC INTAKE FACTORS**

<b>RECEPTOR:</b>	<b>ANGLER</b>
<b>SUBJECT AREA:</b>	<b>SA-9</b>

<b>Dermal Contact with Sediment</b>			
SA	Skin surface area exposed	9110	cm <sup>2</sup>
SL	Sediment loading to exposed skin	1.9E-04	g/cm <sup>2</sup> /day
CF1	Conversion Factor 1	1.0E-03	kg/g
ET1	Days per year exposed / 365 days/yr	0.192	unitless
BW	Body weight	70.7	kg
<i>Dose (mg/kg-d) = (C<sub>SD</sub> x SA x SL x CF1 x AF<sub>Skin</sub> x ET1) / BW</i>			
<b>Inadvertent Ingestion of Surface Water</b>			
IR <sub>SW</sub>	Ingestion rate for surface water	5.0E-02	L/day
ET1	Days per year exposed / 365 days/yr	0.192	unitless
BW	Body weight	70.7	kg
<i>Dose (mg/kg-d) = (C<sub>SW</sub> x IR<sub>SW</sub> x AF<sub>GIT</sub> x ET1) / BW</i>			
<b>Dermal Contact with Surface Water</b>			
SA	Skin surface area exposed	9110	cm <sup>2</sup>
CF2	Conversion Factor 2	1.0E-03	L/cm <sup>3</sup>
ET2	Daily exposure time	2	hrs/day
ET1	Days per year exposed / 365 days/yr	0.192	unitless
BW	Body weight	70.7	kg
<i>Dose (mg/kg-d) = (C<sub>SW</sub> x SA x CF2 x K<sub>P</sub> x ET2 x ET1) / BW</i>			
<b>Ingestion of Fish</b>			
IR <sub>Fish</sub>	Ingestion rate for fish	2.1E+01	g/day
CF1	Conversion Factor 1	1.0E-03	kg/g
ET1	Days per year exposed / 365 days/yr	1.0	unitless
BW	Body weight	70.7	kg
<i>Dose (mg/kg-d) = (C<sub>Fish</sub> x IR<sub>Fish</sub> x CF1 x AF<sub>GIT</sub> x ET1) / BW</i>			

**TABLE 27(B)**  
**EXPOSURE POINT CONCENTRATIONS FOR PCDD TEQ IN SA-9**

<b>Subject Area</b>	<b>Soil Concentration (C<sub>s</sub>) (mg/kg)</b>	<b>Particulate Emission Factor* (P<sub>air</sub>) (kg/m<sup>3</sup>)</b>	<b>Potable Water Concentration (C<sub>PW</sub>) (mg/L)</b>	<b>Sediment Concentration (C<sub>SD</sub>) (mg/kg)</b>	<b>Surface Water Concentration (C<sub>SW</sub>) (mg/L)</b>	<b>Berry Concentration (C<sub>Berr</sub>) (mg/kg)</b>	<b>Game Concentration (C<sub>Game</sub>) (mg/kg)</b>	<b>Fish Concentration (C<sub>Fish</sub>) (mg/kg)</b>
SA-9	5.84E-07	7.6E-10	NA	1.90E-07	1.22E-09	NA	NA	5.17E-06

\* The particulate emission factor (P<sub>air</sub>) is applied to the soil concentration (C<sub>s</sub>) to calculate an ambient air concentration in units of mg/m<sup>3</sup>.

**TABLE 27(C)**  
**CONTAMINANT-SPECIFIC ABSORPTION FACTORS AND REFERENCE VALUES FOR PCDD TEQ**

<b>Contaminant</b>	<b>Oral Absorption Factor (AF<sub>GIT</sub>) (unitless)</b>	<b>Dermal Absorption Factor (AF<sub>skin</sub>) (unitless)</b>	<b>Inhalation Absorption Factor (AF<sub>inh</sub>) (unitless)</b>	<b>Dermal Permeability Coefficient (K<sub>P</sub>) (cm/hr)</b>	<b>Relative Absorption Factor (RAF<sub>dermal</sub>)</b>	<b>Oral Toxicological Reference Value (TRVo) (mg/kg/day)</b>	<b>Dermal Toxicological Reference Value (TRVd) (mg/kg/day)</b>	<b>Inhalation Toxicological Reference Value (TRVi) (mg/kg/day)</b>
PCDD TEQ	1	0.03	1	0.81	1	2.3E-09	2.3E-09	2.3E-09

**TABLE 27(D)**  
**CALCULATED EXPOSURE DOSES AND HAZARD INDICES**  
**FOR THE ANGLER IN SA-9**

Subject Area	Pathway-Specific Exposure Doses (mg/kg-day)								
	Soil Ingestion	Soil Dermal	Soil Inhalation	Sediment Ingestion	Sediment Dermal	Surface Water Ingestion	Surface Water Dermal	Fish Ingestion	Total Dose
SA-9	3.17E-14	8.42E-14	6.34E-18	1.03E-14	2.74E-14	1.65E-13	4.87E-11	1.56E-09	1.61E-09
Subject Area	Pathway-Specific Hazard Quotients								
	Soil Ingestion	Soil Dermal	Soil Inhalation	Sediment Ingestion	Sediment Dermal	Surface Water Ingestion	Surface Water Dermal	Fish Ingestion	Total Hazard Index
	1.38E-05	3.66E-05	2.76E-09	4.48E-06	1.19E-05	7.17E-05	2.12E-02	6.77E-01	6.99E-01

**TABLE 28(A)  
RECEPTOR-SPECIFIC INTAKE FACTORS**

<b>RECEPTOR:</b>	<b>ANGLER</b>
<b>SUBJECT AREA:</b>	<b>SA-10</b>

<b>Inadvertent Ingestion of Soil</b>			
IR <sub>S</sub>	Ingestion rate for soil	2.0E-02	g/day
CF1	Conversion Factor 1	1.0E-03	kg/g
ET1	Days per year exposed / 365 days/yr	0.192	unitless
BW	Body weight	70.7	kg
$Dose (mg/kg-d) = (C_S \times IR_S \times CF1 \times AF_{GIT} \times ET1) / BW$			
<b>Dermal Contact with Soil</b>			
SA	Skin surface area exposed	9110	cm <sup>2</sup>
SL	Soil loading to exposed skin	1.9E-04	g/cm <sup>2</sup> /day
CF1	Conversion Factor 1	1.0E-03	kg/g
ET1	Days per year exposed / 365 days/yr	0.192	unitless
BW	Body weight	70.7	kg
$Dose (mg/kg-d) = (C_S \times SA \times SL \times CF1 \times AF_{Skin} \times ET1) / BW$			
<b>Inhalation of Particulates</b>			
IR <sub>A</sub>	Inhalation rate	0.66	m <sup>3</sup> /hour
ET2	Daily exposure time	8	hrs/day
ET1	Days per year exposed / 365 days/yr	0.192	unitless
BW	Body weight	70.7	kg
$Dose (mg/kg-d) = (C_S \times P_{Air} \times IR_A \times ET2 \times AF_{Inh} \times ET1) / BW$			
<b>Inadvertent Ingestion of Sediment</b>			
IR <sub>SD</sub>	Ingestion rate for sediment	2.0E-02	g/day
CF1	Conversion Factor 1	1.0E-03	kg/g
ET1	Days per year exposed / 365 days/yr	0.192	unitless
BW	Body weight	70.7	kg
$Dose (mg/kg-d) = (C_{SD} \times IR_{SD} \times CF1 \times AF_{GIT} \times ET1) / BW$			

**TABLE 28(A; Continued)**  
**RECEPTOR-SPECIFIC INTAKE FACTORS**

<b>RECEPTOR:</b>	<b>ANGLER</b>
<b>SUBJECT AREA:</b>	<b>SA-10</b>

<b>Dermal Contact with Sediment</b>			
SA	Skin surface area exposed	9110	cm <sup>2</sup>
SL	Sediment loading to exposed skin	1.9E-04	g/cm <sup>2</sup> /day
CF1	Conversion Factor 1	1.0E-03	kg/g
ET1	Days per year exposed / 365 days/yr	0.192	unitless
BW	Body weight	70.7	kg
$Dose (mg/kg-d) = (C_{SD} \times SA \times SL \times CF1 \times AF_{Skin} \times ET1) / BW$			
<b>Inadvertent Ingestion of Surface Water</b>			
IR <sub>SW</sub>	Ingestion rate for surface water	5.0E-02	L/day
ET1	Days per year exposed / 365 days/yr	0.192	unitless
BW	Body weight	70.7	kg
$Dose (mg/kg-d) = (C_{SW} \times IR_{SW} \times AF_{GIT} \times ET1) / BW$			
<b>Dermal Contact with Surface Water</b>			
SA	Skin surface area exposed	9110	cm <sup>2</sup>
CF2	Conversion Factor 2	1.0E-03	L/cm <sup>3</sup>
ET2	Daily exposure time	2	hrs/day
ET1	Days per year exposed / 365 days/yr	0.192	unitless
BW	Body weight	70.7	kg
$Dose (mg/kg-d) = (C_{SW} \times SA \times CF2 \times K_P \times ET2 \times ET1) / BW$			
<b>Ingestion of Fish</b>			
IR <sub>Fish</sub>	Ingestion rate for fish	2.1E+01	g/day
CF1	Conversion Factor 1	1.0E-03	kg/g
ET1	Days per year exposed / 365 days/yr	1.0	unitless
BW	Body weight	70.7	kg
$Dose (mg/kg-d) = (C_{Fish} \times IR_{Fish} \times CF1 \times AF_{GIT} \times ET1) / BW$			

**TABLE 28(B)**  
**EXPOSURE POINT CONCENTRATIONS FOR PCDD TEQ IN SA-10**

<b>Subject Area</b>	<b>Soil Concentration (C<sub>s</sub>) (mg/kg)</b>	<b>Particulate Emission Factor* (P<sub>air</sub>) (kg/m<sup>3</sup>)</b>	<b>Potable Water Concentration (C<sub>PW</sub>) (mg/L)</b>	<b>Sediment Concentration (C<sub>SD</sub>) (mg/kg)</b>	<b>Surface Water Concentration (C<sub>SW</sub>) (mg/L)</b>	<b>Berry Concentration (C<sub>Berr</sub>) (mg/kg)</b>	<b>Game Concentration (C<sub>Game</sub>) (mg/kg)</b>	<b>Fish Concentration (C<sub>Fish</sub>) (mg/kg)</b>
SA-10	1.07E-06	7.6E-10	NA	4.19E-05	1.20E-09	NA	NA	4.74E-06

\* The particulate emission factor (P<sub>air</sub>) is applied to the soil concentration (C<sub>s</sub>) to calculate an ambient air concentration in units of mg/m<sup>3</sup>.

**TABLE 28(C)**  
**CONTAMINANT-SPECIFIC ABSORPTION FACTORS AND REFERENCE VALUES FOR PCDD TEQ**

<b>Contaminant</b>	<b>Oral Absorption Factor (AF<sub>GIT</sub>) (unitless)</b>	<b>Dermal Absorption Factor (AF<sub>skin</sub>) (unitless)</b>	<b>Inhalation Absorption Factor (AF<sub>ihn</sub>) (unitless)</b>	<b>Dermal Permeability Coefficient (K<sub>P</sub>) (cm/hr)</b>	<b>Relative Absorption Factor (RAF<sub>dermal</sub>)</b>	<b>Oral Toxicological Reference Value (TRVo) (mg/kg/day)</b>	<b>Dermal Toxicological Reference Value (TRVd) (mg/kg/day)</b>	<b>Inhalation Toxicological Reference Value (TRVi) (mg/kg/day)</b>
PCDD TEQ	1	0.03	1	0.81	1	2.3E-09	2.3E-09	2.3E-09



**TABLE 28(D)**  
**CALCULATED EXPOSURE DOSES AND HAZARD INDICES**  
**FOR THE ANGLER IN SA-10**

Subject Area	Pathway-Specific Exposure Doses (mg/kg-day)							
	Soil Ingestion	Soil Dermal	Soil Inhalation	Sediment Ingestion	Sediment Dermal	Surface Water Ingestion	Surface Water Dermal	Fish Ingestion
SA-10	5.80E-14	1.54E-13	1.16E-17	2.28E-12	6.05E-12	1.63E-13	4.80E-11	1.43E-09
	Pathway-Specific Hazard Quotients							
	Soil Ingestion	Soil Dermal	Soil Inhalation	Sediment Ingestion	Sediment Dermal	Surface Water Ingestion	Surface Water Dermal	Fish Ingestion
	2.52E-05	6.70E-05	5.04E-09	9.89E-04	2.63E-03	7.07E-05	2.09E-02	6.21E-01

<b>Total Dose</b>
1.48E-09
<b>Total Hazard Index</b>
6.46E-01

**TABLE 29(A)  
RECEPTOR-SPECIFIC INTAKE FACTORS**

<b>RECEPTOR:</b>	<b>HUNTER (Deer)</b>
<b>SUBJECT AREA:</b>	<b>SA-11</b>

<b>Inadvertent Ingestion of Soil</b>		
IR <sub>S</sub>	Ingestion rate for soil	2.0E-02 g/day
CF1	Conversion Factor 1	1.0E-03 kg/g
ET1	Days per year exposed / 365 days/yr	0.074 unitless
BW	Body weight	70.7 kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> × IR<sub>S</sub> × CF1 × AF<sub>GIT</sub> × ET1) / BW</i>		
<b>Dermal Contact with Soil</b>		
SA	Skin surface area exposed	9110 cm <sup>2</sup>
SL	Soil loading to exposed skin	1.9E-04 g/cm <sup>2</sup> /day
CF1	Conversion Factor 1	1.0E-03 kg/g
ET1	Days per year exposed / 365 days/yr	0.074 unitless
BW	Body weight	70.7 kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> × SA × SL × CF1 × AF<sub>Skin</sub> × ET1) / BW</i>		
<b>Inhalation of Particulates</b>		
IR <sub>A</sub>	Inhalation rate	0.66 m <sup>3</sup> /hour
ET2	Daily exposure time	8 hrs/day
ET1	Days per year exposed / 365 days/yr	0.074 unitless
BW	Body weight	70.7 kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> × P<sub>Air</sub> × IR<sub>A</sub> × ET2 × AF<sub>Inh</sub> × ET1) / BW</i>		
<b>Ingestion of Game</b>		
IR <sub>Game</sub>	Ingestion rate for game	2.7E+02 g/day
CF1	Conversion Factor 1	1.0E-03 kg/g
ET1	Days per year exposed / 365 days/yr	1.0 unitless
BW	Body weight	70.7 kg
<i>Dose (mg/kg-d) = (C<sub>Game</sub> × IR<sub>Game</sub> × CF1 × AF<sub>GIT</sub> × ET1) / BW</i>		

**TABLE 29(B)**  
**EXPOSURE POINT CONCENTRATIONS FOR PCDD TEQ IN SA-11**

<b>Subject Area</b>	<b>Soil Concentration (C<sub>s</sub>) (mg/kg)</b>	<b>Particulate Emission Factor* (P<sub>air</sub>) (kg/m<sup>3</sup>)</b>	<b>Potable Water Concentration (C<sub>PW</sub>) (mg/L)</b>	<b>Sediment Concentration (C<sub>SD</sub>) (mg/kg)</b>	<b>Surface Water Concentration (C<sub>SW</sub>) (mg/L)</b>	<b>Berry Concentration (C<sub>Berr</sub>) (mg/kg)</b>	<b>Game Concentration (C<sub>Game</sub>) (mg/kg)</b>	<b>Fish Concentration (C<sub>Fish</sub>) (mg/kg)</b>
SA-11	1.52E-05	7.6E-10	NA	NA	NA	NA	3.34E-10	NA

\* The particulate emission factor (P<sub>air</sub>) is applied to the soil concentration (C<sub>s</sub>) to calculate an ambient air concentration in units of mg/m<sup>3</sup>.

**TABLE 29(C)**  
**CONTAMINANT-SPECIFIC ABSORPTION FACTORS AND REFERENCE VALUES FOR PCDD TEQ**

<b>Contaminant</b>	<b>Oral Absorption Factor (AF<sub>GIT</sub>) (unitless)</b>	<b>Dermal Absorption Factor (AF<sub>skin</sub>) (unitless)</b>	<b>Inhalation Absorption Factor (AF<sub>ihn</sub>) (unitless)</b>	<b>Dermal Permeability Coefficient (K<sub>P</sub>) (cm/hr)</b>	<b>Relative Absorption Factor (RAF<sub>dermal</sub>)</b>	<b>Oral Toxicological Reference Value (TRVo) (mg/kg/day)</b>	<b>Dermal Toxicological Reference Value (TRVd) (mg/kg/day)</b>	<b>Inhalation Toxicological Reference Value (TRVi) (mg/kg/day)</b>
PCDD TEQ	1	0.03	1	0.81	1	2.3E-09	2.3E-09	2.3E-09

**TABLE 29(D)**  
**CALCULATED EXPOSURE DOSES AND HAZARD INDICES**  
**FOR THE HUNTER (Deer) IN SA-11**

Subject Area	Pathway-Specific Exposure Doses (mg/kg-day)				
	Soil Ingestion	Soil Dermal	Soil Inhalation	Game Ingestion	Total Dose
SA-11	3.18E-13	8.45E-13	6.36E-17	1.28E-12	2.44E-12
	Pathway-Specific Hazard Quotients				
	Soil Ingestion	Soil Dermal	Soil Inhalation	Game Ingestion	Total Hazard Index
	1.38E-04	3.67E-04	2.77E-08	5.55E-04	1.06E-03

**TABLE 30(A)  
RECEPTOR-SPECIFIC INTAKE FACTORS**

<b>RECEPTOR:</b>	<b>HUNTER (Moose)</b>
<b>SUBJECT AREA:</b>	<b>SA-11</b>

<b>Inadvertent Ingestion of Soil</b>		
IR <sub>S</sub>	Ingestion rate for soil	2.0E-02 g/day
CF1	Conversion Factor 1	1.0E-03 kg/g
ET1	Days per year exposed / 365 days/yr	0.074 unitless
BW	Body weight	70.7 kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> × IR<sub>S</sub> × CF1 × AF<sub>GIT</sub> × ET1) / BW</i>		
<b>Dermal Contact with Soil</b>		
SA	Skin surface area exposed	9110 cm <sup>2</sup>
SL	Soil loading to exposed skin	1.9E-04 g/cm <sup>2</sup> /day
CF1	Conversion Factor 1	1.0E-03 kg/g
ET1	Days per year exposed / 365 days/yr	0.074 unitless
BW	Body weight	70.7 kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> × SA × SL × CF1 × AF<sub>Skin</sub> × ET1) / BW</i>		
<b>Inhalation of Particulates</b>		
IR <sub>A</sub>	Inhalation rate	0.66 m <sup>3</sup> /hour
ET2	Daily exposure time	8 hrs/day
ET1	Days per year exposed / 365 days/yr	0.074 unitless
BW	Body weight	70.7 kg
<i>Dose (mg/kg-d) = (C<sub>S</sub> × P<sub>Air</sub> × IR<sub>A</sub> × ET2 × AF<sub>Inh</sub> × ET1) / BW</i>		
<b>Ingestion of Game</b>		
IR <sub>Game</sub>	Ingestion rate for game	2.7E+02 g/day
CF1	Conversion Factor 1	1.0E-03 kg/g
ET1	Days per year exposed / 365 days/yr	1.0 unitless
BW	Body weight	70.7 kg
<i>Dose (mg/kg-d) = (C<sub>Game</sub> × IR<sub>Game</sub> × CF1 × AF<sub>GIT</sub> × ET1) / BW</i>		

**TABLE 30(B)**  
**EXPOSURE POINT CONCENTRATIONS FOR PCDD TEQ IN SA-11**

<b>Subject Area</b>	<b>Soil Concentration (C<sub>s</sub>) (mg/kg)</b>	<b>Particulate Emission Factor* (P<sub>air</sub>) (kg/m<sup>3</sup>)</b>	<b>Potable Water Concentration (C<sub>PW</sub>) (mg/L)</b>	<b>Sediment Concentration (C<sub>SD</sub>) (mg/kg)</b>	<b>Surface Water Concentration (C<sub>SW</sub>) (mg/L)</b>	<b>Berry Concentration (C<sub>Berr</sub>) (mg/kg)</b>	<b>Game Concentration (C<sub>Game</sub>) (mg/kg)</b>	<b>Fish Concentration (C<sub>Fish</sub>) (mg/kg)</b>
SA-11	1.52E-05	7.6E-10	NA	NA	NA	NA	1.58E-09	NA

\* The particulate emission factor (P<sub>air</sub>) is applied to the soil concentration (C<sub>s</sub>) to calculate an ambient air concentration in units of mg/m<sup>3</sup>.



**TABLE 30(C)**  
**CONTAMINANT-SPECIFIC ABSORPTION FACTORS AND REFERENCE VALUES FOR PCDD TEQ**

<b>Contaminant</b>	<b>Oral Absorption Factor (AF<sub>GIT</sub>) (unitless)</b>	<b>Dermal Absorption Factor (AF<sub>skin</sub>) (unitless)</b>	<b>Inhalation Absorption Factor (AF<sub>ihn</sub>) (unitless)</b>	<b>Dermal Permeability Coefficient (K<sub>P</sub>) (cm/hr)</b>	<b>Relative Absorption Factor (RAF<sub>dermal</sub>)</b>	<b>Oral Toxicological Reference Value (TRVo) (mg/kg/day)</b>	<b>Dermal Toxicological Reference Value (TRVd) (mg/kg/day)</b>	<b>Inhalation Toxicological Reference Value (TRVi) (mg/kg/day)</b>
PCDD TEQ	1	0.03	1	0.81	1	2.3E-09	2.3E-09	2.3E-09

**TABLE 30(D)**  
**CALCULATED EXPOSURE DOSES AND HAZARD INDICES**  
**FOR THE HUNTER (Moose) IN SA-11**

Subject Area	Pathway-Specific Exposure Doses (mg/kg-day)				
	Soil Ingestion	Soil Dermal	Soil Inhalation	Game Ingestion	Total Dose
SA-11	3.18E-13	8.45E-13	6.36E-17	6.03E-12	7.20E-12
	Pathway-Specific Hazard Quotients				
	Soil Ingestion	Soil Dermal	Soil Inhalation	Game Ingestion	Total Hazard Index
	1.38E-04	3.67E-04	2.77E-08	2.62E-03	3.13E-03