

US EPA ARCHIVE DOCUMENT

**APPENDIX B**

*Risk Results*

Table B.1.1 Risk Results - Incinerators from all Indirect Pathways Combined - Baseline

Chemical	Central Tendency			High End			Bounding
	Low	Median	High	Low	Median	High	
<b>Carcinogens (risk)</b>							
2,3,7,8-TCDD-TEQ	7E-10	3E-08	2E-06	8E-08	1E-06	9E-05	1E-04
Arsenic	2E-11	9E-10	2E-07	8E-10	2E-08	4E-06	1E-05
Beryllium	3E-12	3E-10	5E-09	8E-11	4E-09	5E-08	1E-07
<b>Non Carcinogens (hazard quotient)</b>							
Antimony	4E-08	6E-06	5E-03	2E-06	2E-04	2E-01	4E-01
Barium	1E-08	4E-07	4E-05	1E-07	3E-06	4E-04	1E-03
Cadmium	2E-07	2E-05	1E-03	3E-06	3E-04	2E-02	5E-02
Chromium III	3E-10	2E-08	3E-06	2E-09	1E-07	1E-05	1E-04
Chromium VI	6E-09	3E-07	8E-05	9E-08	5E-06	1E-03	3E-03
Nickel	1E-08	1E-06	2E-04	1E-07	9E-06	2E-03	4E-03
Selenium	9E-09	3E-07	4E-04	7E-08	2E-06	3E-03	5E-03
Silver	3E-08	6E-07	5E-04	3E-07	6E-06	5E-03	1E-02
Thallium	1E-06	6E-05	2E-02	7E-06	4E-04	1E-01	3E-01

Table B.1.2 Risk Results - Cement Kilns from all Indirect Pathways Combined - Baseline

Chemical	Central Tendency			High End			Bounding
	Low	Median	High	Low	Median	High	
<b>Carcinogens (risk)</b>							
2,3,7,8-TCDD-TEQ	8E-10	1E-07	2E-06	4E-08	4E-06	9E-05	2E-04
Arsenic	5E-12	1E-09	3E-08	1E-10	1E-08	5E-07	3E-06
Beryllium	9E-12	6E-10	2E-08	1E-10	7E-09	1E-07	4E-07
<b>Non Carcinogens (hazard quotient)</b>							
Antimony	1E-08	5E-06	3E-04	2E-07	1E-04	4E-03	3E-02
Barium	5E-08	3E-06	3E-04	5E-07	2E-05	3E-03	2E-02
Cadmium	2E-07	5E-05	1E-03	2E-06	5E-04	1E-02	9E-02
Chromium III	1E-11	5E-10	4E-08	2E-09	8E-08	7E-06	7E-05
Chromium VI	1E-09	2E-07	1E-05	1E-08	2E-06	1E-04	2E-03
Nickel	3E-09	5E-07	2E-05	1E-08	3E-06	9E-05	2E-03
Selenium	2E-08	3E-06	5E-04	2E-07	2E-05	4E-03	1E-02
Silver	1E-08	1E-06	3E-04	1E-07	1E-05	2E-03	5E-02
Thallium	2E-06	2E-04	1E-02	2E-05	2E-03	1E-01	1E+00

**Table B.1.3 Risk Results - Lightweight Aggregate Kilns from all Indirect Pathways Combined - Baseline**

Chemical	Central Tendency			High End			Bounding
	Low	Median	High	Low	Median	High	
<b>Carcinogens (risk)</b>							
2,3,7,8-TCDD-TEQ	3E-10	9E-09	3E-07	1E-09	2E-08	4E-07	2E-06
Arsenic	1E-11	7E-10	4E-08	3E-10	1E-08	3E-07	3E-06
Beryllium	2E-11	4E-10	8E-09	2E-10	2E-09	4E-08	2E-07
<b>Non Carcinogens (hazard quotient)</b>							
Antimony	5E-08	8E-06	7E-05	2E-07	5E-05	4E-04	6E-03
Barium	7E-09	2E-07	1E-05	6E-08	2E-06	9E-05	1E-03
Cadmium	4E-07	1E-05	2E-04	4E-06	1E-04	3E-03	4E-02
Chromium III	2E-09	5E-08	1E-06	3E-09	1E-07	4E-06	4E-05
Chromium VI	4E-09	1E-07	7E-06	2E-08	7E-07	4E-05	1E-03
Nickel	4E-08	1E-06	4E-05	2E-07	7E-06	2E-04	6E-03
Selenium	2E-09	9E-08	8E-06	2E-08	8E-07	7E-05	1E-03
Silver	9E-09	4E-07	1E-04	5E-08	2E-06	5E-04	5E-03
Thallium	1E-06	1E-05	6E-04	3E-06	4E-05	2E-03	3E-02

**Table B.1.4 Risk Results - Subsistence Beef Farmer from all Pathways Combined - Baseline**

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	4E-08	1E-06	3E-06	8E-05	1E-07	7E-07	6E-06	3E-05	5E-08	1E-07	1E-07	4E-07
Arsenic	2E-10	1E-07	4E-09	3E-06	2E-10	1E-08	3E-09	1E-07	9E-10	2E-09	1E-08	2E-08
Beryllium	4E-11	2E-09	1E-09	5E-08	1E-10	2E-09	2E-09	2E-08	4E-10	1E-09	3E-09	1E-08
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	2E-06	3E-03	7E-05	1E-01	2E-06	2E-04	3E-05	3E-03	7E-06	2E-05	4E-05	1E-04
Barium	7E-08	3E-06	7E-07	3E-05	5E-07	9E-06	5E-06	8E-05	2E-07	7E-07	2E-06	5E-06
Cadmium	2E-06	4E-04	5E-05	7E-03	1E-05	1E-04	9E-05	1E-03	1E-05	4E-05	1E-04	3E-04
Chromium III	2E-09	3E-07	3E-08	2E-06	1E-10	3E-09	3E-08	4E-07	6E-08	1E-07	1E-07	4E-07
Chromium VI	3E-07	4E-05	3E-06	8E-04	1E-07	3E-06	9E-07	2E-05	3E-07	7E-07	1E-06	3E-06
Nickel	3E-07	1E-04	3E-06	1E-03	2E-07	6E-06	1E-06	3E-05	2E-06	6E-06	1E-05	4E-05
Selenium	5E-08	4E-05	4E-07	3E-04	4E-07	2E-05	3E-06	2E-04	7E-08	1E-07	7E-07	1E-06
Silver	7E-08	5E-05	7E-07	4E-04	2E-07	6E-06	1E-06	5E-05	4E-07	5E-07	3E-06	3E-06
Thallium	5E-05	3E-03	4E-04	2E-02	2E-04	2E-03	2E-03	2E-02	8E-05	2E-04	2E-04	7E-04

**Table B.1.5 Risk Results - Subsistence Dairy Farmer from all Pathways Combined - Baseline**

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	3E-08	8E-07	2E-06	6E-05	7E-08	4E-07	3E-06	2E-05	2E-08	1E-07	5E-08	3E-07
Arsenic	1E-09	1E-07	3E-08	3E-06	1E-09	1E-08	1E-08	1E-07	2E-09	1E-08	3E-08	2E-07
Beryllium	3E-11	2E-09	6E-10	3E-08	5E-11	1E-09	6E-10	2E-08	1E-10	7E-10	1E-09	6E-09
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	1E-06	3E-03	5E-05	1E-01	7E-07	2E-04	1E-05	3E-03	3E-06	2E-05	1E-05	9E-05
Barium	1E-07	6E-06	1E-06	5E-05	6E-07	1E-05	5E-06	1E-04	2E-07	1E-06	1E-06	9E-06
Cadmium	2E-06	4E-04	4E-05	7E-03	5E-06	1E-04	5E-05	1E-03	6E-06	4E-05	5E-05	3E-04
Chromium III	5E-09	3E-07	4E-08	2E-06	1E-10	3E-09	2E-08	3E-07	3E-08	1E-07	5E-08	4E-07
Chromium VI	4E-07	4E-05	3E-06	8E-04	8E-08	3E-06	7E-07	2E-05	1E-07	9E-07	7E-07	4E-06
Nickel	2E-07	1E-04	2E-06	1E-03	1E-07	6E-06	6E-07	3E-05	9E-07	5E-06	5E-06	4E-05
Selenium	2E-07	4E-05	1E-06	3E-04	1E-06	2E-05	1E-05	2E-04	1E-07	8E-07	1E-06	7E-06
Silver	1E-06	6E-05	1E-05	5E-04	2E-06	3E-05	2E-05	3E-04	2E-06	1E-05	9E-06	6E-05
Thallium	1E-05	3E-03	1E-04	2E-02	3E-05	7E-04	4E-04	8E-03	1E-05	7E-05	2E-05	2E-04

**Table B.1.6 Risk Results - Subsistence Pork Farmer from all Pathways Combined - Baseline**

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	5E-09	7E-08	4E-07	5E-06	1E-08	2E-07	4E-07	6E-06	5E-09	7E-09	1E-08	2E-08
Arsenic	1E-10	1E-07	2E-09	3E-06	1E-10	1E-08	1E-09	1E-07	6E-10	1E-09	9E-09	1E-08
Beryllium	3E-11	2E-09	6E-10	3E-08	8E-11	1E-09	1E-09	2E-08	2E-10	7E-10	2E-09	7E-09
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	1E-06	3E-03	4E-05	1E-01	1E-06	2E-04	2E-05	3E-03	4E-06	1E-05	2E-05	7E-05
Barium	6E-08	3E-06	6E-07	3E-05	5E-07	9E-06	5E-06	7E-05	2E-07	6E-07	2E-06	5E-06
Cadmium	2E-06	4E-04	4E-05	7E-03	1E-05	1E-04	9E-05	1E-03	1E-05	4E-05	1E-04	3E-04
Chromium III	2E-09	1E-07	1E-08	8E-07	6E-11	9E-10	1E-08	2E-07	2E-08	6E-08	6E-08	1E-07
Chromium VI	6E-08	4E-05	6E-07	8E-04	2E-08	3E-06	1E-07	2E-05	6E-08	1E-07	2E-07	7E-07
Nickel	6E-08	1E-04	6E-07	1E-03	5E-08	6E-06	3E-07	3E-05	5E-07	1E-06	3E-06	7E-06
Selenium	6E-08	4E-05	5E-07	3E-04	5E-07	2E-05	4E-06	2E-04	8E-08	1E-07	7E-07	1E-06
Silver	4E-08	5E-05	4E-07	4E-04	5E-08	6E-06	4E-07	5E-05	1E-07	4E-07	6E-07	3E-06
Thallium	4E-06	3E-03	4E-05	2E-02	2E-05	7E-04	2E-04	8E-03	7E-06	1E-05	2E-05	4E-05



**Table B.1.7 Risk Results - Subsistence Poultry Farmer from all Pathways Combined - Baseline**

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	5E-08	8E-07	3E-06	5E-05	1E-07	2E-06	4E-06	5E-05	2E-08	7E-08	6E-08	2E-07
Arsenic	3E-10	1E-07	5E-09	3E-06	1E-10	1E-08	1E-09	1E-07	6E-10	9E-10	8E-09	1E-08
Beryllium	1E-10	2E-09	2E-09	3E-08	8E-11	1E-09	1E-09	2E-08	2E-10	7E-10	2E-09	6E-09
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	3E-06	3E-03	1E-04	1E-01	1E-06	2E-04	2E-05	3E-03	4E-06	1E-05	2E-05	7E-05
Barium	2E-07	3E-06	2E-06	3E-05	5E-07	9E-06	5E-06	7E-05	2E-07	6E-07	2E-06	5E-06
Cadmium	9E-06	4E-04	1E-04	7E-03	1E-05	1E-04	9E-05	1E-03	1E-05	4E-05	1E-04	3E-04
Chromium III	5E-09	9E-08	4E-08	6E-07	5E-11	7E-10	8E-09	1E-07	2E-08	5E-08	5E-08	1E-07
Chromium VI	5E-08	4E-05	9E-07	8E-04	1E-08	3E-06	1E-07	2E-05	6E-08	1E-07	2E-07	7E-07
Nickel	1E-07	1E-04	1E-06	1E-03	5E-08	6E-06	2E-07	3E-05	4E-07	1E-06	3E-06	7E-06
Selenium	4E-08	4E-05	3E-07	3E-04	1E-07	2E-05	1E-06	2E-04	3E-08	7E-08	2E-07	6E-07
Silver	7E-08	5E-05	7E-07	4E-04	5E-08	6E-06	4E-07	5E-05	1E-07	4E-07	6E-07	3E-06
Thallium	6E-06	3E-03	5E-05	2E-02	8E-06	7E-04	8E-05	8E-03	4E-06	8E-06	1E-05	2E-05

**Table B.1.8 Risk Results - Subsistence Fisher from all Pathways Combined - Baseline**

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	2E-09	1E-07	2E-07	1E-05	4E-08	2E-06	2E-06	9E-05	2E-09	4E-08	9E-09	1E-07
Arsenic	1E-10	1E-07	4E-09	4E-06	3E-10	3E-08	7E-09	5E-07	4E-11	6E-09	1E-09	2E-07
Beryllium	4E-11	2E-09	7E-10	5E-08	2E-10	2E-08	2E-09	1E-07	6E-11	3E-09	7E-10	4E-08
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	4E-08	3E-03	2E-06	1E-01	3E-08	2E-04	6E-07	3E-03	5E-08	8E-06	2E-07	5E-05
Barium	1E-08	7E-07	1E-07	6E-06	1E-07	5E-06	9E-07	4E-05	7E-09	8E-07	6E-08	6E-06
Cadmium	1E-06	1E-03	1E-05	2E-02	1E-05	1E-03	1E-04	1E-02	1E-06	2E-04	1E-05	1E-03
Chromium III	3E-10	4E-08	2E-09	2E-07	3E-11	1E-09	5E-09	2E-07	2E-09	1E-07	3E-09	3E-07
Chromium VI	2E-08	5E-05	4E-07	9E-04	4E-08	3E-06	3E-07	2E-05	5E-09	6E-07	3E-08	3E-06
Nickel	5E-08	1E-04	5E-07	1E-03	9E-08	7E-06	5E-07	4E-05	5E-08	6E-06	3E-07	3E-05
Selenium	7E-08	4E-04	6E-07	3E-03	6E-06	5E-04	5E-05	4E-03	4E-08	7E-06	3E-07	6E-05
Silver	3E-08	5E-05	3E-07	4E-04	1E-08	6E-06	1E-07	5E-05	9E-09	4E-07	5E-08	3E-06
Thallium	1E-05	2E-02	9E-05	1E-01	2E-04	1E-02	2E-03	1E-01	5E-06	6E-04	1E-05	2E-03

**Table B.1.9 Risk Results - Home Gardener from all Pathways Combined - Baseline**

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	3E-09	1E-08	2E-07	1E-06	2E-09	1E-07	1E-07	6E-06	3E-09	3E-09	1E-08	1E-08
Arsenic	2E-10	7E-08	4E-09	2E-06	3E-11	5E-09	7E-10	1E-07	4E-10	7E-10	1E-08	2E-08
Beryllium	3E-10	8E-10	3E-09	2E-08	7E-11	4E-09	1E-09	6E-08	1E-09	1E-09	1E-08	1E-08
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	4E-06	3E-03	1E-04	1E-01	4E-07	2E-04	1E-05	3E-03	9E-06	2E-05	6E-05	1E-04
Barium	7E-07	2E-06	3E-06	2E-05	6E-07	4E-05	5E-06	4E-04	1E-06	1E-06	1E-05	1E-05
Cadmium	1E-05	5E-04	1E-04	8E-03	5E-06	4E-04	7E-05	4E-03	5E-05	5E-05	6E-04	7E-04
Chromium III	3E-08	9E-08	8E-08	5E-07	8E-11	5E-09	1E-08	8E-07	1E-07	2E-07	3E-07	4E-07
Chromium VI	6E-08	4E-05	8E-07	8E-04	1E-08	3E-06	1E-07	2E-05	1E-07	2E-07	7E-07	1E-06
Nickel	3E-07	1E-04	1E-06	1E-03	3E-08	6E-06	1E-07	3E-05	1E-06	2E-06	1E-05	1E-05
Selenium	4E-08	4E-05	3E-07	3E-04	6E-08	2E-05	6E-07	2E-04	3E-08	8E-08	4E-07	7E-07
Silver	9E-08	5E-05	6E-07	4E-04	2E-08	6E-06	3E-07	5E-05	1E-07	5E-07	8E-07	3E-06
Thallium	1E-05	3E-03	6E-05	2E-02	5E-06	8E-04	7E-05	9E-03	1E-05	2E-05	4E-05	5E-05

**Table B.1.10 Risk Results - Typical Resident from all Pathways Combined - Baseline**

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	7E-10	6E-09	8E-08	8E-07	8E-10	5E-08	4E-08	3E-06	3E-10	2E-09	1E-09	7E-09
Arsenic	2E-11	7E-08	8E-10	2E-06	5E-12	5E-09	1E-10	1E-07	1E-11	3E-10	3E-10	8E-09
Beryllium	3E-12	2E-10	8E-11	5E-09	9E-12	4E-10	1E-10	5E-09	2E-11	6E-11	2E-10	6E-10
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	4E-08	3E-03	2E-06	1E-01	1E-08	2E-04	2E-07	3E-03	7E-08	8E-06	3E-07	5E-05
Barium	1E-08	2E-07	1E-07	2E-06	5E-08	1E-06	5E-07	1E-05	2E-08	5E-08	2E-07	4E-07
Cadmium	2E-07	4E-04	3E-06	7E-03	2E-07	1E-04	2E-06	1E-03	4E-07	2E-06	4E-06	2E-05
Chromium III	5E-10	6E-09	3E-09	3E-08	1E-11	2E-10	2E-09	3E-08	5E-09	9E-09	1E-08	2E-08
Chromium VI	6E-09	4E-05	9E-08	8E-04	1E-09	3E-06	1E-08	2E-05	4E-09	1E-07	2E-08	6E-07
Nickel	1E-08	1E-04	1E-07	1E-03	3E-09	6E-06	1E-08	3E-05	4E-08	8E-07	2E-07	5E-06
Selenium	9E-09	4E-05	7E-08	3E-04	2E-08	2E-05	2E-07	2E-04	2E-09	6E-08	2E-08	5E-07
Silver	3E-08	5E-05	3E-07	4E-04	1E-08	6E-06	1E-07	5E-05	9E-09	4E-07	5E-08	3E-06
Thallium	1E-06	3E-03	7E-06	2E-02	2E-06	7E-04	2E-05	8E-03	1E-06	7E-06	3E-06	2E-05

**Table B.1.11 Risk Results - Typical Farmer from all Pathways Combined - Baseline**

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	2E-09	1E-08	1E-07	1E-06	1E-08	1E-07	4E-07	5E-06	1E-09	3E-09	3E-09	9E-09
Arsenic	6E-11	1E-07	1E-09	3E-06	4E-11	1E-08	7E-10	1E-07	5E-11	8E-10	9E-10	1E-08
Beryllium	7E-12	5E-10	1E-10	6E-09	3E-11	8E-10	3E-10	7E-09	4E-11	1E-10	3E-10	9E-10
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	2E-07	3E-03	1E-05	1E-01	1E-07	2E-04	4E-06	3E-03	3E-07	8E-06	3E-06	5E-05
Barium	1E-08	2E-07	1E-07	2E-06	1E-07	1E-06	1E-06	1E-05	3E-08	7E-08	3E-07	7E-07
Cadmium	6E-07	4E-04	8E-06	7E-03	1E-06	1E-04	2E-05	1E-03	9E-07	3E-06	1E-05	3E-05
Chromium III	5E-10	6E-09	3E-09	4E-08	2E-11	2E-10	5E-09	4E-08	6E-09	1E-08	1E-08	3E-08
Chromium VI	8E-09	4E-05	2E-07	8E-04	9E-09	3E-06	8E-08	2E-05	8E-09	1E-07	6E-08	6E-07
Nickel	2E-08	1E-04	2E-07	1E-03	2E-08	6E-06	1E-07	3E-05	9E-08	8E-07	7E-07	5E-06
Selenium	1E-08	4E-05	1E-07	3E-04	7E-08	2E-05	9E-07	2E-04	1E-08	6E-08	1E-07	5E-07
Silver	3E-08	5E-05	3E-07	4E-04	3E-08	7E-06	4E-07	6E-05	1E-08	4E-07	8E-08	3E-06
Thallium	1E-06	3E-03	7E-06	2E-02	8E-06	7E-04	8E-05	8E-03	2E-06	7E-06	6E-06	2E-05

**Table B.1.12 Risk Results - Recreational Fisher from all Pathways Combined - Baseline**

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	2E-09	5E-08	1E-07	5E-06	2E-08	1E-06	1E-06	5E-05	2E-09	2E-08	5E-09	6E-08
Arsenic	6E-11	9E-08	2E-09	3E-06	2E-10	1E-08	4E-09	3E-07	3E-11	3E-09	8E-10	8E-08
Beryllium	3E-11	1E-09	7E-10	3E-08	1E-10	8E-09	2E-09	7E-08	4E-11	1E-09	5E-10	1E-08
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	4E-08	3E-03	2E-06	1E-01	1E-08	2E-04	2E-07	3E-03	7E-08	8E-06	3E-07	5E-05
Barium	1E-08	2E-07	1E-07	2E-06	5E-08	1E-06	5E-07	1E-05	2E-08	5E-08	2E-07	4E-07
Cadmium	6E-07	7E-04	1E-05	1E-02	7E-06	5E-04	6E-05	5E-03	9E-07	8E-05	9E-06	7E-04
Chromium III	5E-10	6E-09	3E-09	3E-08	1E-11	2E-10	2E-09	3E-08	5E-09	9E-09	1E-08	2E-08
Chromium VI	1E-08	4E-05	4E-07	9E-04	2E-08	3E-06	2E-07	2E-05	6E-09	3E-07	3E-08	2E-06
Nickel	4E-08	1E-04	4E-07	1E-03	5E-08	7E-06	3E-07	3E-05	6E-08	3E-06	3E-07	2E-05
Selenium	5E-08	2E-04	4E-07	2E-03	3E-06	3E-04	2E-05	2E-03	2E-08	3E-06	2E-07	3E-05
Silver	3E-08	5E-05	3E-07	4E-04	1E-08	6E-06	1E-07	5E-05	9E-09	4E-07	5E-08	3E-06
Thallium	5E-06	8E-03	4E-05	7E-02	9E-05	7E-03	1E-03	7E-02	3E-06	3E-04	9E-06	9E-04

**Table B.1.13 Risk Results - Subsistence Dairy Farmer Child from all Pathways Combined - Baseline**

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	7E-08	2E-06	3E-06	9E-05	2E-07	1E-06	4E-06	2E-05	5E-08	3E-07	7E-08	4E-07
Arsenic	4E-09	2E-07	4E-08	2E-06	3E-09	2E-08	2E-08	1E-07	6E-09	4E-08	4E-08	3E-07
Beryllium	7E-11	4E-09	7E-10	4E-08	1E-10	3E-09	7E-10	2E-08	3E-10	2E-09	1E-09	8E-09
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	7E-06	5E-03	2E-04	2E-01	4E-06	3E-04	7E-05	4E-03	1E-05	7E-05	7E-05	4E-04
Barium	7E-07	4E-05	7E-06	4E-04	4E-06	1E-04	4E-05	7E-04	1E-06	7E-06	1E-05	6E-05
Cadmium	1E-05	7E-04	1E-04	1E-02	2E-05	5E-04	2E-04	5E-03	2E-05	1E-04	2E-04	1E-03
Chromium III	5E-08	3E-06	3E-07	1E-05	9E-10	2E-08	1E-07	3E-06	3E-07	1E-06	5E-07	4E-06
Chromium VI	4E-06	8E-05	3E-05	1E-03	7E-07	1E-05	5E-06	1E-04	1E-06	7E-06	6E-06	4E-05
Nickel	2E-06	2E-04	1E-05	2E-03	1E-06	2E-05	6E-06	9E-05	7E-06	4E-05	4E-05	2E-04
Selenium	2E-06	9E-05	1E-05	7E-04	1E-05	9E-05	8E-05	6E-04	1E-06	8E-06	1E-05	7E-05
Silver	1E-05	5E-04	9E-05	5E-03	2E-05	3E-04	1E-04	2E-03	1E-05	1E-04	8E-05	5E-04
Thallium	1E-04	4E-03	9E-04	4E-02	2E-04	4E-03	2E-03	4E-02	9E-05	5E-04	2E-04	1E-03

**Table B.1.14 Risk Results - Home Gardener Child from all Pathways Combined - Baseline**

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	2E-08	6E-08	3E-07	2E-06	1E-08	8E-07	2E-07	1E-05	2E-08	2E-08	2E-08	2E-08
Arsenic	7E-10	7E-08	4E-09	7E-07	1E-10	7E-09	8E-10	4E-08	1E-09	2E-09	1E-08	2E-08
Beryllium	2E-09	5E-09	5E-09	3E-08	4E-10	2E-08	2E-09	1E-07	6E-09	8E-09	2E-08	2E-08
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	1E-05	5E-03	3E-04	2E-01	1E-06	3E-04	3E-05	4E-03	4E-05	5E-05	2E-04	3E-04
Barium	6E-06	1E-05	3E-05	1E-04	5E-06	3E-04	4E-05	3E-03	7E-06	1E-05	6E-05	9E-05
Cadmium	6E-05	1E-03	6E-04	1E-02	2E-05	1E-03	3E-04	1E-02	2E-04	2E-04	3E-03	3E-03
Chromium III	3E-07	7E-07	7E-07	5E-06	8E-10	4E-08	1E-07	7E-06	1E-06	1E-06	3E-06	4E-06
Chromium VI	3E-07	8E-05	4E-06	1E-03	6E-08	6E-06	5E-07	5E-05	7E-07	9E-07	4E-06	5E-06
Nickel	1E-06	2E-04	7E-06	2E-03	1E-07	1E-05	9E-07	6E-05	7E-06	8E-06	5E-05	5E-05
Selenium	2E-07	7E-05	1E-06	5E-04	2E-07	3E-05	2E-06	3E-04	1E-07	3E-07	1E-06	3E-06
Silver	5E-07	8E-05	4E-06	7E-04	2E-07	2E-05	1E-06	2E-04	4E-07	4E-06	3E-06	1E-05
Thallium	7E-05	4E-03	3E-04	4E-02	4E-05	1E-03	5E-04	2E-02	9E-05	1E-04	3E-04	3E-04



**Table B.1.15 Risk Results - Typical Resident Child from all Pathways Combined - Baseline**

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	4E-09	3E-08	1E-07	1E-06	4E-09	3E-07	6E-08	5E-06	1E-09	9E-09	1E-09	1E-08
Arsenic	1E-10	7E-08	1E-09	7E-07	2E-11	6E-09	1E-10	3E-08	7E-11	1E-09	5E-10	9E-09
Beryllium	2E-11	3E-10	1E-10	2E-09	6E-11	6E-10	2E-10	2E-09	1E-10	4E-10	3E-10	1E-09
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	3E-07	5E-03	1E-05	2E-01	7E-08	3E-04	1E-06	4E-03	3E-07	1E-05	2E-06	9E-05
Barium	8E-08	6E-07	7E-07	5E-06	5E-07	7E-06	4E-06	5E-05	2E-07	4E-07	2E-06	4E-06
Cadmium	1E-06	7E-04	2E-05	1E-02	1E-06	2E-04	1E-05	2E-03	2E-06	6E-06	2E-05	5E-05
Chromium III	3E-09	3E-08	2E-08	2E-07	1E-10	2E-09	2E-08	3E-07	5E-08	7E-08	1E-07	2E-07
Chromium VI	5E-08	7E-05	7E-07	1E-03	1E-08	5E-06	8E-08	4E-05	3E-08	3E-07	2E-07	2E-06
Nickel	8E-08	2E-04	8E-07	2E-03	2E-08	9E-06	8E-08	5E-05	3E-07	2E-06	1E-06	1E-05
Selenium	7E-08	7E-05	5E-07	5E-04	9E-08	3E-05	8E-07	3E-04	1E-08	3E-07	9E-08	3E-06
Silver	3E-07	8E-05	3E-06	7E-04	1E-07	2E-05	8E-07	2E-04	8E-08	3E-06	4E-07	1E-05
Thallium	5E-06	4E-03	4E-05	4E-02	7E-06	1E-03	8E-05	1E-02	6E-06	2E-05	2E-05	7E-05

Table B.1.16 Risk Results - Direct Inhalation Based on the Maximum Exposed Individual - Baseline

Constituents	Incinerators				Cement Kilns				Light Weight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens</b>												
2,3,7,8-TCDD-TEQ	2E-09	6E-09	2E-07	8E-07	1E-09	1E-08	7E-08	7E-07	1E-09	2E-09	7E-09	1E-08
Nickel	2E-09	5E-09	5E-08	2E-07	2E-10	2E-09	3E-09	3E-08	8E-09	1E-08	2E-07	3E-07
Arsenic	4E-09	2E-08	2E-07	6E-07	6E-10	7E-09	1E-08	1E-07	9E-09	2E-08	2E-07	4E-07
Beryllium	2E-10	7E-10	7E-09	3E-08	5E-11	5E-10	1E-09	1E-08	9E-10	1E-09	1E-08	2E-08
Cadmium	4E-09	1E-08	2E-07	7E-07	1E-09	1E-08	4E-08	4E-07	1E-08	2E-08	3E-07	5E-07
Chromium VI	7E-09	3E-08	4E-07	2E-06	1E-09	1E-08	3E-08	3E-07	1E-08	2E-08	2E-07	4E-07
<b>Noncarcinogens</b>												
Barium	HQ=0		HQ=0.001	HQ=0.003	HQ=0	HQ=0.001	HQ=0.001	HQ=0.006	HQ=0		HQ=0	HQ=0.002
Hydrogen Chloride	HQ=0.001	HQ=0.003	HQ=0.01	HQ=0.05	HQ=0	HQ=0.004	HQ=0.004	HQ=0.04	HQ=0.1	HQ=0.2	HQ=2	HQ=4

**Table B.1.17 Risk Results - Range of 2,3,7,8-TCDD-TEQ Infant Breastmilk Exposure Ratios - Baseline\***

Scenario	Incinerators				Cement Kilns				Light Weight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
Subsistence beef farmer	5E-04	2E-02	2E-02	6E-01	2E-03	1E-02	4E-02	2E-01	8E-04	2E-03	1E-03	3E-03
Subsistence dairy farmer	4E-04	1E-02	2E-02	5E-01	1E-03	6E-03	2E-02	1E-02	3E-04	2E-03	4E-04	2E-03
Subsistence pork farmer	8E-05	1E-03	3E-03	4E-02	2E-04	2E-03	3E-03	4E-02	8E-05	1E-04	1E-04	1E-04
Subsistence poultry farmer	7E-04	1E-02	2E-02	4E-01	2E-03	3E-02	3E-02	4E-01	4E-04	1E-03	4E-04	1E-03
Subsistence fisher	8E-05	3E-03	2E-03	1E-01	1E-03	8E-02	2E-02	9E-01	7E-05	1E-03	9E-05	1E-03
Recreational fisher	5E-05	2E-03	1E-03	5E-02	8E-04	4E-02	1E-02	5E-01	5E-05	6E-04	5E-05	6E-04
Home gardener	1E-04	3E-04	2E-03	1E-02	7E-05	4E-03	1E-03	6E-02	9E-05	1E-04	1E-04	1E-04
Typical Farmer	2E-05	2E-04	8E-04	8E-03	4E-04	2E-03	3E-03	4E-02	2E-05	5E-05	3E-05	7E-05
Typical Resident	2E-05	2E-04	8E-04	8E-03	6E-05	2E-03	4E-04	3E-02	1E-05	5E-05	1E-05	7E-05

\* Ratio of the estimated total 2,3,7,8-TCDD-TEQ dose to the infant from the source to the background total 2,3,7,8-TCDD-TEQ dose to the infant (50 pg/kg/day).

Table B.1.18 Risk Results - Range of Soil Lead Ratios - Baseline

Scenario	Incinerators				Cement Kilns				Light Weight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
Subsistence beef farmer	1E-05	6E-04	2E-04	1E-02	4E-05	6E-04	5E-04	8E-03	1E-05	4E-05	5E-04	1E-03
Subsistence dairy farmer	1E-05	6E-04	1E-04	1E-02	3E-05	6E-04	3E-04	8E-03	7E-06	4E-05	2E-04	1E-03
Subsistence pork farmer	1E-05	6E-04	2E-04	1E-02	4E-05	6E-04	5E-04	8E-03	1E-05	4E-05	5E-04	1E-03
Subsistence poultry farmer	4E-05	6E-04	7E-04	1E-02	4E-05	6E-04	5E-04	8E-03	1E-05	4E-05	5E-04	1E-03
Subsistence fisher	2E-06	3E-04	4E-05	6E-03	1E-05	1E-03	2E-04	1E-02	1E-06	2E-04	4E-05	5E-03
Typical resident/ typical farmer/ recreational fisher	2E-06	2E-05	4E-05	3E-04	1E-05	1E-04	1E-04	1E-03	3E-06	9E-06	8E-05	3E-04
Home gardener	2E-04	7E-04	2E-03	1E-02	8E-05	4E-03	1E-03	6E-02	1E-04	2E-04	4E-03	6E-03

**Table B.2.1 Risk Results - Incinerators from all Indirect Pathways Combined - Proposed Floor - Existing Sources**

Chemical	Central Tendency			High End			Bounding
	Low	Median	High	Low	Median	High	
<b>Carcinogens (risk)</b>							
2,3,7,8-TCDD-TEQ	7E-10	3E-08	2E-06	4E-08	7E-07	4E-05	6E-05
Arsenic	5E-10	2E-08	4E-06	2E-09	4E-08	8E-06	2E-05
Beryllium	9E-10	7E-08	1E-06	2E-09	2E-07	1E-06	2E-06
<b>Non Carcinogens (hazard quotient)</b>							
Antimony	3E-07	5E-05	4E-02	2E-06	1E-04	4E-02	8E-02
Barium	NA	NA	NA	NA	NA	NA	NA
Cadmium	2E-06	2E-04	1E-02	7E-06	8E-04	1E-02	4E-02
Chromium III	2E-09	1E-07	1E-05	2E-09	2E-07	4E-06	9E-05
Chromium VI	2E-07	1E-05	3E-03	2E-07	7E-06	3E-03	6E-03
Nickel	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA

**Table B.2.2 Risk Results - Cement Kilns from all Indirect Pathways Combined - Proposed Floor - Existing Sources**

Chemical	Central Tendency			High End			Bounding
	Low	Median	High	Low	Median	High	
<b>Carcinogens (risk)</b>							
2,3,7,8-TCDD-TEQ	3E-10	5E-08	1E-06	7E-09	7E-07	2E-05	3E-05
Arsenic	1E-10	3E-08	6E-07	4E-10	5E-08	2E-06	1E-05
Beryllium	2E-09	1E-07	4E-06	3E-09	2E-07	4E-06	1E-05
<b>Non Carcinogens (hazard quotient)</b>							
Antimony	1E-07	6E-05	3E-03	2E-06	1E-04	3E-03	2E-02
Barium	NA	NA	NA	NA	NA	NA	NA
Cadmium	7E-07	1E-04	4E-03	7E-06	1E-04	5E-03	3E-02
Chromium III	4E-09	1E-07	1E-05	1E-08	3E-07	1E-05	1E-04
Chromium VI	6E-08	9E-06	4E-04	4E-07	9E-06	2E-04	4E-03
Nickel	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA

**Table B.2.3 Risk Results - Lightweight Aggregate Kilns from all Indirect Pathways Combined - Proposed Floor - Existing Sources**

Chemical	Central Tendency			High End			Bounding
	Low	Median	High	Low	Median	High	
<b>Carcinogens (risk)</b>							
2,3,7,8-TCDD-TEQ	2E-09	5E-08	2E-06	5E-09	7E-08	1E-06	7E-06
Arsenic	1E-09	6E-08	3E-06	3E-09	1E-07	2E-06	4E-05
Beryllium	1E-08	2E-07	4E-06	2E-08	4E-07	4E-06	2E-05
<b>Non Carcinogens (hazard quotient)</b>							
Antimony	1E-06	2E-04	2E-03	1E-05	4E-04	1E-03	3E-02
Barium	NA	NA	NA	NA	NA	NA	NA
Cadmium	4E-07	1E-05	2E-04	1E-06	7E-05	3E-04	5E-03
Chromium III	2E-08	5E-07	1E-05	6E-08	1E-06	1E-05	2E-03
Chromium VI	7E-07	2E-05	1E-03	2E-06	3E-05	2E-04	5E-03
Nickel	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA

**Table B.2.4 Risk Results - Subsistence Beef Farmer from all Pathways Combined - Proposed Floor - Existing Sources**

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	4E-08	1E-06	2E-06	4E-05	6E-08	3E-07	1E-06	5E-06	3E-07	7E-07	5E-07	1E-06
Arsenic	4E-09	3E-06	8E-09	6E-06	5E-09	3E-07	9E-09	5E-07	8E-08	1E-07	2E-07	3E-07
Beryllium	1E-08	7E-07	2E-08	1E-06	2E-08	3E-07	4E-08	6E-07	2E-07	6E-07	4E-07	1E-06
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	1E-05	2E-02	NA	NA	2E-05	2E-03	NA	NA	2E-04	5E-04	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	3E-05	5E-03	NA	NA	2E-05	3E-04	NA	NA	1E-05	4E-05	NA	NA
Chromium III	3E-08	2E-06	NA	NA	5E-08	7E-07	NA	NA	6E-07	1E-06	NA	NA
Chromium VI	3E-06	2E-03	NA	NA	5E-06	1E-04	NA	NA	5E-05	1E-04	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA



**Table B.2.5 Risk Results - Subsistence Dairy Farmer from all Pathways Combined - Proposed Floor - Existing Sources**

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	3E-08	9E-07	1E-06	4E-05	3E-08	2E-07	4E-07	3E-06	1E-07	6E-07	2E-07	1E-06
Arsenic	3E-08	3E-06	6E-08	6E-06	2E-08	3E-07	4E-08	5E-07	2E-07	1E-06	4E-07	2E-06
Beryllium	8E-09	4E-07	1E-08	8E-07	9E-09	2E-07	2E-08	4E-07	6E-08	4E-07	1E-07	7E-07
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	1E-05	2E-02	NA	NA	7E-06	2E-03	NA	NA	6E-05	4E-04	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	3E-05	5E-03	NA	NA	1E-05	3E-04	NA	NA	6E-06	4E-05	NA	NA
Chromium III	3E-08	2E-06	NA	NA	4E-08	7E-07	NA	NA	3E-07	1E-06	NA	NA
Chromium VI	3E-06	2E-03	NA	NA	3E-06	1E-04	NA	NA	2E-05	1E-04	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**Table B.2.6 Risk Results - Subsistence Pork Farmer from all Pathways Combined - Proposed Floor - Existing Sources**

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	5E-09	7E-08	2E-07	3E-06	4E-09	7E-08	6E-08	1E-06	3E-08	4E-08	5E-08	7E-08
Arsenic	2E-09	3E-06	4E-09	6E-06	2E-09	3E-07	4E-09	5E-07	5E-08	9E-08	1E-07	2E-07
Beryllium	8E-09	4E-07	2E-08	8E-07	1E-08	2E-07	3E-08	4E-07	1E-07	4E-07	2E-07	7E-07
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	8E-06	2E-02	NA	NA	1E-05	2E-03	NA	NA	1E-04	3E-04	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	3E-05	5E-03	NA	NA	2E-05	3E-04	NA	NA	1E-05	4E-05	NA	NA
Chromium III	1E-08	7E-07	NA	NA	2E-08	3E-07	NA	NA	2E-07	6E-07	NA	NA
Chromium VI	6E-07	2E-03	NA	NA	7E-07	1E-04	NA	NA	1E-05	3E-05	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**Table B.2.7 Risk Results - Subsistence Poultry Farmer from all Pathways Combined - Proposed Floor - Existing Sources**

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	5E-08	8E-07	2E-06	3E-05	5E-08	7E-07	6E-07	9E-06	1E-07	4E-07	2E-07	6E-07
Arsenic	6E-09	3E-06	1E-08	6E-06	2E-09	3E-07	4E-09	5E-07	5E-08	8E-08	1E-07	2E-07
Beryllium	3E-08	4E-07	5E-08	8E-07	1E-08	2E-07	3E-08	4E-07	1E-07	4E-07	2E-07	7E-07
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	3E-05	2E-02	NA	NA	1E-05	2E-03	NA	NA	9E-05	3E-04	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1E-04	5E-03	NA	NA	2E-05	3E-04	NA	NA	1E-05	4E-05	NA	NA
Chromium III	4E-08	5E-07	NA	NA	1E-08	2E-07	NA	NA	2E-07	5E-07	NA	NA
Chromium VI	1E-06	2E-03	NA	NA	7E-07	1E-04	NA	NA	1E-05	3E-05	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**Table B.2.8 Risk Results - Subsistence Fisher from all Pathways Combined - Proposed Floor - Existing Sources**

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	3E-09	1E-07	1E-07	6E-06	2E-08	1E-06	3E-07	2E-05	1E-08	2E-07	3E-08	5E-07
Arsenic	2E-09	3E-06	8E-09	8E-06	7E-09	6E-07	2E-08	2E-06	4E-09	6E-07	1E-08	2E-06
Beryllium	1E-08	7E-07	2E-08	1E-06	3E-08	3E-06	6E-08	4E-06	3E-08	2E-06	7E-08	4E-06
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	3E-07	2E-02	NA	NA	3E-07	2E-03	NA	NA	1E-06	2E-04	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1E-05	1E-02	NA	NA	4E-05	3E-03	NA	NA	1E-06	2E-04	NA	NA
Chromium III	2E-09	2E-07	NA	NA	1E-08	3E-07	NA	NA	2E-08	1E-06	NA	NA
Chromium VI	8E-07	2E-03	NA	NA	1E-06	1E-04	NA	NA	1E-06	1E-04	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**Table B.2.9 Risk Results - Home Gardener from all Pathways Combined - Proposed Floor - Existing Sources**

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	3E-09	1E-08	2E-07	6E-07	1E-09	6E-08	2E-08	1E-06	1E-08	2E-08	4E-08	5E-08
Arsenic	4E-09	1E-06	2E-08	4E-06	7E-10	1E-07	2E-09	4E-07	4E-08	6E-08	1E-07	2E-07
Beryllium	7E-08	2E-07	2E-07	4E-07	1E-08	7E-07	3E-08	1E-06	5E-07	7E-07	1E-06	2E-06
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	3E-05	2E-02	4E-05	2E-02	4E-06	2E-03	6E-06	2E-03	2E-04	4E-04	3E-04	5E-04
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1E-04	6E-03	2E-04	6E-03	1E-05	1E-03	2E-05	1E-03	5E-05	5E-05	7E-05	8E-05
Chromium III	2E-07	5E-07	2E-07	5E-07	3E-08	2E-06	3E-08	2E-06	1E-06	2E-06	1E-06	2E-06
Chromium VI	3E-06	2E-03	3E-06	2E-03	4E-07	1E-04	6E-07	1E-04	2E-05	4E-05	2E-05	4E-05
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**Table B.2.10 Risk Results - Typical Resident from all Pathways Combined - Proposed Floor - Existing Sources**

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	7E-10	6E-09	4E-08	4E-07	3E-10	2E-08	7E-09	5E-07	2E-09	8E-09	5E-09	3E-08
Arsenic	5E-10	1E-06	2E-09	4E-06	1E-10	1E-07	4E-10	4E-07	1E-09	3E-08	3E-09	1E-07
Beryllium	9E-10	6E-08	2E-09	1E-07	2E-09	7E-08	3E-09	1E-07	1E-08	3E-08	2E-08	6E-08
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	3E-07	2E-02	NA	NA	1E-07	2E-03	NA	NA	1E-06	2E-04	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	2E-06	5E-03	NA	NA	7E-07	3E-04	NA	NA	4E-07	2E-06	NA	NA
Chromium III	2E-09	2E-08	NA	NA	4E-09	7E-08	NA	NA	5E-08	8E-08	NA	NA
Chromium VI	2E-07	2E-03	NA	NA	6E-08	1E-04	NA	NA	7E-07	2E-05	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**Table B.2.11 Risk Results - Typical Farmer from all Pathways Combined - Proposed Floor - Existing Sources**

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	2E-09	1E-08	7E-08	6E-07	4E-09	5E-08	6E-08	9E-07	6E-09	2E-08	1E-08	3E-08
Arsenic	1E-09	3E-06	2E-09	6E-06	9E-10	3E-07	2E-09	5E-07	5E-09	7E-08	1E-08	1E-07
Beryllium	2E-09	1E-07	2E-09	2E-07	5E-09	1E-07	8E-09	2E-07	2E-08	8E-08	3E-08	1E-07
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	2E-06	2E-02	2E-06	2E-02	1E-06	2E-03	2E-06	2E-03	1E-05	2E-04	1E-05	2E-04
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	7E-06	5E-03	7E-06	5E-03	5E-06	3E-04	7E-06	3E-04	9E-07	3E-06	1E-06	3E-06
Chromium III	2E-09	2E-08	2E-09	2E-08	9E-09	7E-08	1E-08	9E-08	6E-08	9E-08	6E-08	1E-07
Chromium VI	2E-07	2E-03	2E-07	2E-03	4E-07	1E-04	4E-07	1E-04	2E-06	2E-05	2E-06	2E-05
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**Table B.2.12 Risk Results - Recreational Fisher from all Pathways Combined - Proposed Floor - Existing Sources**

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	2E-09	5E-08	9E-08	3E-06	1E-08	5E-07	2E-07	8E-06	8E-09	1E-07	2E-08	2E-07
Arsenic	1E-09	2E-06	4E-09	6E-06	4E-09	3E-07	1E-08	1E-06	3E-09	3E-07	9E-09	9E-07
Beryllium	8E-09	3E-07	2E-08	6E-07	2E-08	1E-06	4E-08	2E-06	2E-08	7E-07	5E-08	2E-06
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	3E-07	2E-02	NA	NA	1E-07	2E-03	NA	NA	1E-06	2E-04	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	7E-06	8E-03	NA	NA	2E-05	1E-03	NA	NA	1E-06	9E-05	NA	NA
Chromium III	2E-09	2E-08	NA	NA	4E-09	7E-08	NA	NA	5E-08	8E-08	NA	NA
Chromium VI	6E-07	2E-03	NA	NA	9E-07	1E-04	NA	NA	1E-06	5E-05	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA



**Table B.2.13 Risk Results - Subsistence Dairy Farmer Child from all Pathways Combined - Proposed Floor - Existing Sources**

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	8E-08	2E-06	2E-06	5E-05	7E-08	5E-07	6E-07	3E-06	3E-07	2E-06	3E-07	2E-06
Arsenic	8E-08	4E-06	NA	NA	6E-08	5E-07	NA	NA	5E-07	3E-06	NA	NA
Beryllium	2E-08	1E-06	NA	NA	2E-08	5E-07	NA	NA	1E-07	9E-07	NA	NA
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	5E-05	4E-02	NA	NA	4E-05	3E-03	NA	NA	3E-04	2E-03	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1E-04	8E-03	NA	NA	6E-05	1E-03	NA	NA	2E-05	1E-04	NA	NA
Chromium III	3E-07	1E-05	NA	NA	3E-07	7E-06	NA	NA	3E-06	1E-05	NA	NA
Chromium VI	3E-05	3E-03	NA	NA	3E-05	4E-04	NA	NA	2E-04	1E-03	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**Table B.2.14 Risk Results - Home Gardener Child from all Pathways Combined - Proposed Floor - Existing Sources**

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	2E-08	6E-08	3E-07	1E-06	5E-09	3E-07	3E-08	2E-06	8E-08	1E-07	6E-08	8E-08
Arsenic	2E-08	2E-06	2E-08	1E-06	3E-09	2E-07	3E-09	1E-07	1E-07	2E-07	1E-07	2E-07
Beryllium	4E-07	1E-06	3E-07	8E-07	7E-08	4E-06	5E-08	3E-06	3E-06	4E-06	2E-06	3E-06
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	1E-04	4E-02	1E-04	4E-02	1E-05	3E-03	2E-05	3E-03	7E-04	1E-03	1E-03	1E-03
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	8E-04	1E-02	1E-03	1E-02	6E-05	4E-03	8E-05	5E-03	2E-04	2E-04	3E-04	3E-04
Chromium III	1E-06	4E-06	1E-06	4E-06	3E-07	1E-05	3E-07	1E-05	1E-05	1E-05	1E-05	1E-05
Chromium VI	1E-05	3E-03	2E-05	3E-03	3E-06	2E-04	3E-06	2E-04	1E-04	2E-04	2E-04	2E-04
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**Table B.2.15 Risk Results - Typical Resident Child from all Pathways Combined - Proposed Floor - Existing Sources**

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	4E-09	3E-08	7E-08	7E-07	2E-09	1E-07	1E-08	9E-07	7E-09	5E-08	5E-09	4E-08
Arsenic	3E-09	2E-06	NA	NA	5E-10	1E-07	NA	NA	6E-09	1E-07	NA	NA
Beryllium	4E-09	7E-08	NA	NA	1E-08	1E-07	NA	NA	6E-08	2E-07	NA	NA
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	2E-06	4E-02	NA	NA	7E-07	3E-03	NA	NA	9E-06	3E-04	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1E-05	8E-03	NA	NA	4E-06	5E-04	NA	NA	2E-06	6E-06	NA	NA
Chromium III	2E-08	2E-07	NA	NA	3E-08	6E-07	NA	NA	5E-07	7E-07	NA	NA
Chromium VI	1E-06	3E-03	NA	NA	3E-07	2E-04	NA	NA	6E-06	7E-05	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**Table B.2.16 Risk Results - Direct Inhalation Based on the Maximum Exposed Individual - Proposed Floor for Existing Sources**

Constituents	Incinerators				Cement Kilns				Light Weight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens</b>												
2,3,7,8-TCDD-TEQ	2E-09	6E-09	1E-07	5E-07	4E-10	4E-09	1E-08	1E-07	5E-09	1E-08	3E-08	4E-08
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	9E-08	4E-07	4E-07	1E-06	1E-08	2E-07	4E-08	4E-07	8E-07	2E-06	2E-06	5E-06
Beryllium	5E-08	2E-07	2E-07	7E-07	9E-09	9E-08	3E-08	3E-07	5E-07	5E-07	1E-06	2E-06
Cadmium	5E-08	1E-07	2E-07	5E-07	3E-09	3E-08	1E-08	1E-07	1E-08	2E-08	4E-08	6E-08
Chromium VI	3E-07	1E-06	8E-07	4E-06	4E-08	4E-07	2E-07	2E-06	2E-06	4E-06	7E-06	1E-05
<b>Noncarcinogens</b>												
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hydrogen Chloride	HQ = 0.02	HQ = 0.05			HQ = 0.01	HQ = 0.1			HQ = 0.8	HQ = 1		

**Table B.2.17 Risk Results - Range of 2,3,7,8-TCDD-TEQ Infant Breastmilk Exposure Ratios - Proposed Floor for Existing Sources\***

Scenario	Incinerators				Cement Kilns				Light Weight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
Subsistence beef farmer	5E-04	2E-02	1E-02	3E-01	8E-04	5E-03	7E-03	4E-02	4E-03	1E-02	NA	NA
Subsistence dairy farmer	4E-04	1E-02	9E-03	3E-01	4E-04	3E-03	3E-03	2E-03	1E-03	8E-03	NA	NA
Subsistence pork farmer	8E-05	1E-03	2E-03	2E-02	6E-05	1E-03	4E-04	7E-03	4E-04	6E-04	NA	NA
Subsistence poultry farmer	7E-04	1E-02	1E-02	2E-01	7E-04	1E-02	4E-03	7E-02	2E-03	6E-03	NA	NA
Subsistence fisher	8E-05	3E-03	1E-03	6E-02	6E-04	3E-02	3E-03	2E-01	4E-04	7E-03	NA	NA
Recreational fisher	5E-05	2E-03	8E-04	3E-02	3E-04	2E-02	2E-03	8E-02	3E-04	3E-03	NA	NA
Home gardener	1E-04	4E-04	1E-03	6E-03	3E-05	2E-03	2E-04	9E-03	5E-04	6E-04	NA	NA
Typical Farmer	2E-05	2E-04	5E-04	5E-03	1E-04	7E-04	5E-04	6E-03	9E-05	3E-04	NA	NA
Typical Resident	2E-05	2E-04	4E-04	4E-03	2E-05	6E-04	7E-05	5E-03	6E-05	3E-04	NA	NA

\* Ratio of the estimated total 2,3,7,8-TCDD-TEQ dose to the infant from the source to the background total 2,3,7,8-TCDD-TEQ dose to the infant (50 pg/kg/day).

**Table B.2.18 Risk Results - Range of Soil Lead Ratios - Proposed Floor for Existing Sources**

Scenario	Incinerators				Cement Kilns				Light Weight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
Subsistence beef farmer	1E-05	8E-04	1E-05	8E-04	1E-05	2E-04	1E-05	2E-04	7E-06	2E-05	7E-06	2E-05
Subsistence dairy farmer	1E-05	8E-04	1E-05	8E-04	9E-06	2E-04	9E-06	2E-04	3E-06	2E-05	3E-06	2E-05
Subsistence pork farmer	1E-05	8E-04	1E-05	8E-04	1E-05	2E-04	1E-05	2E-04	7E-06	2E-05	7E-06	2E-05
Subsistence poultry farmer	5E-05	8E-04	5E-05	8E-04	1E-05	2E-04	1E-05	2E-04	7E-06	2E-05	7E-06	2E-05
Subsistence fisher	2E-06	4E-04	2E-06	4E-04	3E-06	3E-04	3E-06	3E-04	5E-07	7E-05	5E-07	7E-05
Typical resident/ typical farmer/ recreational fisher	3E-06	3E-05	3E-06	3E-05	3E-06	3E-05	3E-06	3E-05	1E-06	4E-06	1E-06	4E-06
Home gardener	3E-04	9E-04	3E-04	9E-04	2E-05	1E-03	2E-05	1E-03	6E-05	9E-05	6E-05	9E-05

Table B.3.1 Risk Results - Incinerators from all Indirect Pathways Combined - Proposed BTF - Existing Sources

Chemical	Central Tendency			High End			Bounding
	Low	Median	High	Low	Median	High	
<b>Carcinogens (risk)</b>							
2,3,7,8-TCDD-TEQ	7E-10	3E-08	2E-06	2E-09	3E-08	2E-06	3E-06
Arsenic	5E-10	2E-08	4E-06	2E-09	4E-08	8E-06	2E-05
Beryllium	9E-10	7E-08	1E-06	2E-09	2E-07	1E-06	2E-06
<b>Non Carcinogens (hazard quotient)</b>							
Antimony	3E-07	5E-05	4E-02	2E-06	1E-04	4E-02	8E-02
Barium	NA	NA	NA	NA	NA	NA	NA
Cadmium	2E-06	2E-04	1E-02	7E-06	8E-04	1E-02	4E-02
Chromium III	2E-09	1E-07	1E-05	2E-09	2E-07	4E-06	1E-04
Chromium VI	2E-07	1E-05	3E-03	2E-07	7E-06	3E-03	3E-03
Nickel	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA

Table B.3.2 Risk Results - Cement Kilns from all Indirect Pathways Combined - Proposed BTF - Existing Sources

Chemical	Central Tendency			High End			Bounding
	Low	Median	High	Low	Median	High	
<b>Carcinogens (risk)</b>							
2,3,7,8-TCDD-TEQ	3E-10	5E-08	1E-06	9E-10	9E-08	2E-06	5E-06
Arsenic	1E-10	3E-08	6E-07	4E-10	5E-08	2E-06	1E-05
Beryllium	2E-09	1E-07	4E-06	3E-09	2E-07	4E-06	1E-05
<b>Non Carcinogens (hazard quotient)</b>							
Antimony	1E-07	6E-05	3E-03	2E-06	1E-04	3E-03	2E-02
Barium	NA	NA	NA	NA	NA	NA	NA
Cadmium	7E-07	1E-04	4E-03	7E-06	1E-04	5E-03	3E-02
Chromium III	4E-09	1E-07	1E-05	1E-08	3E-07	1E-05	1E-04
Chromium VI	6E-08	9E-06	4E-04	4E-07	9E-06	2E-04	2E-03
Nickel	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA



**Table B.3.3 Risk Results - Lightweight Aggregate Kilns from all Indirect Pathways Combined - Proposed BTF - Existing Sources**

Chemical	Central Tendency			High End			Bounding
	Low	Median	High	Low	Median	High	
<b>Carcinogens (risk)</b>							
2,3,7,8-TCDD-TEQ	2E-09	5E-08	2E-06	5E-09	7E-08	1E-06	7E-06
Arsenic	1E-09	6E-08	3E-06	3E-09	1E-07	2E-06	4E-05
Beryllium	1E-08	2E-07	4E-06	2E-08	4E-07	4E-06	2E-05
<b>Non Carcinogens (hazard quotient)</b>							
Antimony	1E-06	2E-04	2E-03	1E-05	4E-04	1E-03	3E-02
Barium	NA	NA	NA	NA	NA	NA	NA
Cadmium	4E-07	1E-05	2E-04	1E-06	7E-05	3E-04	5E-03
Chromium III	2E-08	5E-07	1E-05	6E-08	1E-06	1E-05	1E-04
Chromium VI	7E-07	2E-05	1E-03	2E-06	3E-05	2E-04	6E-03
Nickel	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA

Table B.3.4 Risk Results - Subsistence Beef Farmer from all Pathways Combined - Proposed BTF - Existing Sources

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	4E-08	1E-06	7E-08	2E-06	6E-08	3E-07	1E-07	6E-07	3E-07	7E-07	5E-07	1E-06
Arsenic	4E-09	3E-06	8E-09	6E-06	5E-09	3E-07	9E-09	5E-07	8E-08	1E-07	2E-07	3E-07
Beryllium	1E-08	7E-07	2E-08	1E-06	2E-08	3E-07	4E-08	6E-07	2E-07	6E-07	4E-07	1E-06
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	1E-05	2E-02	NA	NA	2E-05	2E-03	NA	NA	2E-04	5E-04	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	3E-05	5E-03	NA	NA	2E-05	3E-04	NA	NA	1E-05	4E-05	NA	NA
Chromium III	3E-08	2E-06	NA	NA	5E-08	7E-07	NA	NA	6E-07	1E-06	NA	NA
Chromium VI	3E-06	2E-03	NA	NA	5E-06	1E-04	NA	NA	5E-05	1E-04	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**Table B.3.5 Risk Results - Subsistence Dairy Farmer from all Pathways Combined - Proposed BTF - Existing Sources**

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	3E-08	9E-07	6E-08	2E-06	3E-08	2E-07	5E-08	3E-07	1E-07	6E-07	2E-07	1E-06
Arsenic	3E-08	3E-06	6E-08	6E-06	2E-08	3E-07	4E-08	5E-07	2E-07	1E-06	4E-07	2E-06
Beryllium	8E-09	4E-07	1E-08	8E-07	9E-09	2E-07	2E-08	4E-07	6E-08	4E-07	1E-07	7E-07
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	1E-05	2E-02	NA	NA	7E-06	2E-03	NA	NA	6E-05	4E-04	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	3E-05	5E-03	NA	NA	1E-05	3E-04	NA	NA	6E-06	4E-05	NA	NA
Chromium III	3E-08	2E-06	NA	NA	4E-08	7E-07	NA	NA	3E-07	1E-06	NA	NA
Chromium VI	3E-06	2E-03	NA	NA	3E-06	1E-04	NA	NA	2E-05	1E-04	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**Table B.3.6 Risk Results - Subsistence Pork Farmer from all Pathways Combined - Proposed BTF - Existing Sources**

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	5E-09	7E-08	1E-08	1E-07	4E-09	7E-08	8E-09	1E-07	3E-08	4E-08	5E-08	7E-08
Arsenic	2E-09	3E-06	4E-09	6E-06	2E-09	3E-07	4E-09	5E-07	5E-08	9E-08	1E-07	2E-07
Beryllium	8E-09	4E-07	2E-08	8E-07	1E-08	2E-07	3E-08	4E-07	1E-07	4E-07	2E-07	7E-07
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	8E-06	2E-02	NA	NA	1E-05	2E-03	NA	NA	1E-04	3E-04	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	3E-05	5E-03	NA	NA	2E-05	3E-04	NA	NA	1E-05	4E-05	NA	NA
Chromium III	1E-08	7E-07	NA	NA	2E-08	3E-07	NA	NA	2E-07	6E-07	NA	NA
Chromium VI	6E-07	2E-03	NA	NA	7E-07	1E-04	NA	NA	1E-05	3E-05	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**Table B.3.7 Risk Results - Subsistence Poultry Farmer from all Pathways Combined - Proposed BTF - Existing Sources**

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	5E-08	8E-07	9E-08	1E-06	5E-08	7E-07	8E-08	1E-06	1E-07	4E-07	2E-07	6E-07
Arsenic	6E-09	3E-06	1E-08	6E-06	2E-09	3E-07	4E-09	5E-07	5E-08	8E-08	1E-07	2E-07
Beryllium	3E-08	4E-07	5E-08	8E-07	1E-08	2E-07	3E-08	4E-07	1E-07	4E-07	2E-07	7E-07
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	3E-05	2E-02	NA	NA	1E-05	2E-03	NA	NA	9E-05	3E-04	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1E-04	5E-03	NA	NA	2E-05	3E-04	NA	NA	1E-05	4E-05	NA	NA
Chromium III	4E-08	5E-07	NA	NA	1E-08	2E-07	NA	NA	2E-07	5E-07	NA	NA
Chromium VI	1E-06	2E-03	NA	NA	7E-07	1E-04	NA	NA	1E-05	3E-05	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table B.3.8 Risk Results - Subsistence Fisher from all Pathways Combined - Proposed BTF - Existing Sources

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	3E-09	1E-07	6E-09	3E-07	2E-08	1E-06	4E-08	2E-06	1E-08	2E-07	3E-08	5E-07
Arsenic	2E-09	3E-06	8E-09	8E-06	7E-09	6E-07	2E-08	2E-06	4E-09	6E-07	1E-08	2E-06
Beryllium	1E-08	7E-07	2E-08	1E-06	3E-08	3E-06	6E-08	4E-06	3E-08	2E-06	7E-08	4E-06
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	3E-07	2E-02	NA	NA	3E-07	2E-03	NA	NA	1E-06	2E-04	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1E-05	1E-02	NA	NA	4E-05	3E-03	NA	NA	1E-06	2E-04	NA	NA
Chromium III	2E-09	2E-07	NA	NA	1E-08	3E-07	NA	NA	2E-08	1E-06	NA	NA
Chromium VI	8E-07	2E-03	NA	NA	1E-06	1E-04	NA	NA	1E-06	1E-04	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table B.3.9 Risk Results - Home Gardener from all Pathways Combined - Proposed BTF - Existing Sources

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	3E-09	1E-08	9E-09	3E-08	1E-09	6E-08	3E-09	1E-07	1E-08	2E-08	4E-08	5E-08
Arsenic	4E-09	1E-06	2E-08	4E-06	7E-10	1E-07	2E-09	4E-07	4E-08	6E-08	1E-07	2E-07
Beryllium	7E-08	2E-07	2E-07	4E-07	1E-08	7E-07	3E-08	1E-06	5E-07	7E-07	1E-06	2E-06
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	3E-05	2E-02	4E-05	2E-02	4E-06	2E-03	6E-06	2E-03	2E-04	4E-04	3E-04	5E-04
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1E-04	6E-03	2E-04	6E-03	1E-05	1E-03	2E-05	1E-03	5E-05	5E-05	7E-05	8E-05
Chromium III	2E-07	5E-07	2E-07	5E-07	3E-08	2E-06	3E-08	2E-06	1E-06	2E-06	1E-06	2E-06
Chromium VI	3E-06	2E-03	3E-06	2E-03	4E-07	1E-04	6E-07	1E-04	2E-05	4E-05	2E-05	4E-05
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**Table B.3.10 Risk Results - Typical Resident from all Pathways Combined - Proposed BTF - Existing Sources**

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	7E-10	6E-09	2E-09	2E-08	3E-10	2E-08	9E-10	6E-08	2E-09	8E-09	5E-09	3E-08
Arsenic	5E-10	1E-06	2E-09	4E-06	1E-10	1E-07	4E-10	4E-07	1E-09	3E-08	3E-09	1E-07
Beryllium	9E-10	6E-08	2E-09	1E-07	2E-09	7E-08	3E-09	1E-07	1E-08	3E-08	2E-08	6E-08
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	3E-07	2E-02	NA	NA	1E-07	2E-03	NA	NA	1E-06	2E-04	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	2E-06	5E-03	NA	NA	7E-07	3E-04	NA	NA	4E-07	2E-06	NA	NA
Chromium III	2E-09	2E-08	NA	NA	4E-09	7E-08	NA	NA	5E-08	8E-08	NA	NA
Chromium VI	2E-07	2E-03	NA	NA	6E-08	1E-04	NA	NA	7E-07	2E-05	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA



**Table B.3.11 Risk Results - Typical Farmer from all Pathways Combined - Proposed BTF - Existing Sources**

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	2E-09	1E-08	3E-09	3E-08	4E-09	5E-08	8E-09	1E-07	6E-09	2E-08	1E-08	3E-08
Arsenic	1E-09	3E-06	2E-09	6E-06	9E-10	3E-07	2E-09	5E-07	5E-09	7E-08	1E-08	1E-07
Beryllium	2E-09	1E-07	2E-09	2E-07	5E-09	1E-07	8E-09	2E-07	2E-08	8E-08	3E-08	1E-07
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	2E-06	2E-02	2E-06	2E-02	1E-06	2E-03	2E-06	2E-03	1E-05	2E-04	1E-05	2E-04
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	7E-06	5E-03	7E-06	5E-03	5E-06	3E-04	7E-06	3E-04	9E-07	3E-06	1E-06	3E-06
Chromium III	2E-09	2E-08	2E-09	2E-08	9E-09	7E-08	1E-08	9E-08	6E-08	9E-08	6E-08	1E-07
Chromium VI	2E-07	2E-03	2E-07	2E-03	4E-07	1E-04	4E-07	1E-04	2E-06	2E-05	2E-06	2E-05
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table B.3.12 Risk Results - Recreational Fisher from all Pathways Combined - Proposed BTF - Existing Sources

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	2E-09	5E-08	4E-09	1E-07	1E-08	5E-07	2E-08	1E-06	8E-09	1E-07	2E-08	2E-07
Arsenic	1E-09	2E-06	4E-09	6E-06	4E-09	3E-07	1E-08	1E-06	3E-09	3E-07	9E-09	9E-07
Beryllium	8E-09	3E-07	2E-08	6E-07	2E-08	1E-06	4E-08	2E-06	2E-08	7E-07	5E-08	2E-06
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	3E-07	2E-02	NA	NA	1E-07	2E-03	NA	NA	1E-06	2E-04	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	7E-06	8E-03	NA	NA	2E-05	1E-03	NA	NA	1E-06	9E-05	NA	NA
Chromium III	2E-09	2E-08	NA	NA	4E-09	7E-08	NA	NA	5E-08	8E-08	NA	NA
Chromium VI	6E-07	2E-03	NA	NA	9E-07	1E-04	NA	NA	1E-06	5E-05	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**Table B.3.13 Risk Results - Subsistence Dairy Farmer Child from all Pathways Combined - Proposed BTF - Existing Sources**

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	8E-08	2E-06	NA	NA	7E-08	5E-07	NA	NA	3E-07	2E-06	NA	NA
Arsenic	8E-08	4E-06	NA	NA	6E-08	5E-07	NA	NA	5E-07	3E-06	NA	NA
Beryllium	2E-08	1E-06	NA	NA	2E-08	5E-07	NA	NA	1E-07	9E-07	NA	NA
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	5E-05	4E-02	NA	NA	4E-05	3E-03	NA	NA	3E-04	2E-03	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1E-04	8E-03	NA	NA	6E-05	1E-03	NA	NA	2E-05	1E-04	NA	NA
Chromium III	3E-07	1E-05	NA	NA	3E-07	7E-06	NA	NA	3E-06	1E-05	NA	NA
Chromium VI	3E-05	3E-03	NA	NA	3E-05	4E-04	NA	NA	2E-04	1E-03	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**Table B.3.14 Risk Results - Home Gardener Child from all Pathways Combined - Proposed BTF - Existing Sources**

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	2E-08	6E-08	1E-08	5E-08	5E-09	3E-07	4E-09	2E-07	8E-08	1E-07	6E-08	8E-08
Arsenic	2E-08	2E-06	2E-08	1E-06	3E-09	2E-07	3E-09	1E-07	1E-07	2E-07	1E-07	2E-07
Beryllium	4E-07	1E-06	3E-07	8E-07	7E-08	4E-06	5E-08	3E-06	3E-06	4E-06	2E-06	3E-06
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	1E-04	4E-02	1E-04	4E-02	1E-05	3E-03	2E-05	3E-03	7E-04	1E-03	1E-03	1E-03
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	8E-04	1E-02	1E-03	1E-02	6E-05	4E-03	8E-05	5E-03	2E-04	2E-04	3E-04	3E-04
Chromium III	1E-06	4E-06	1E-06	4E-06	3E-07	1E-05	3E-07	1E-05	1E-05	1E-05	1E-05	1E-05
Chromium VI	1E-05	3E-03	2E-05	3E-03	3E-06	2E-04	3E-06	2E-04	1E-04	2E-04	2E-04	2E-04
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**Table B.3.15 Risk Results - Typical Resident Child from all Pathways Combined - Proposed BTF - Existing Sources**

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	4E-09	3E-08	NA	NA	2E-09	1E-07	NA	NA	7E-09	5E-08	NA	NA
Arsenic	3E-09	2E-06	NA	NA	5E-10	1E-07	NA	NA	6E-09	1E-07	NA	NA
Beryllium	4E-09	7E-08	NA	NA	1E-08	1E-07	NA	NA	6E-08	2E-07	NA	NA
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	2E-06	4E-02	NA	NA	7E-07	3E-03	NA	NA	9E-06	3E-04	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1E-05	8E-03	NA	NA	4E-06	5E-04	NA	NA	2E-06	6E-06	NA	NA
Chromium III	2E-08	2E-07	NA	NA	3E-08	6E-07	NA	NA	5E-07	7E-07	NA	NA
Chromium VI	1E-06	3E-03	NA	NA	3E-07	2E-04	NA	NA	6E-06	7E-05	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**Table B.3.16 Risk Results - Direct Inhalation Based on the Maximum Exposed Individual - Proposed Beyond the Floor for Existing Sources**

Constituents	Incinerators				Cement Kilns				Light Weight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens</b>												
2,3,7,8-TCDD-TEQ	2E-09	6E-09	6E-09	2E-08	4E-10	4E-09	2E-09	2E-08	5E-09	1E-08	3E-08	4E-08
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	9E-08	4E-07	4E-07	1E-06	1E-08	2E-07	4E-08	4E-07	8E-07	2E-06	2E-06	5E-06
Beryllium	5E-08	2E-07	2E-07	7E-07	9E-09	9E-08	3E-08	3E-07	5E-07	5E-07	1E-06	2E-06
Cadmium	5E-08	1E-07	2E-07	5E-07	3E-09	3E-08	1E-08	1E-07	1E-08	2E-08	4E-08	6E-08
Chromium VI	3E-07	1E-06	8E-07	4E-06	4E-08	4E-07	2E-07	2E-06	2E-06	4E-06	7E-06	1E-05
<b>Noncarcinogens</b>												
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hydrogen Chloride	HQ = 0.02	HQ = 0.05			HQ = 0.01	HQ = 0.1			HQ = 0.1	HQ = 0.2		

**Table B.3.17 Risk Results - Range of 2,3,7,8-TCDD-TEQ Infant Breastmilk Exposure Ratios - Proposed BTF for Existing Sources\***

Scenario	Incinerators				Cement Kilns				Light Weight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
Subsistence beef farmer	5E-04	2E-02	NA	NA	8E-04	5E-03	NA	NA	4E-03	1E-02	NA	NA
Subsistence dairy farmer	4E-04	1E-02	NA	NA	4E-04	3E-03	NA	NA	1E-03	8E-03	NA	NA
Subsistence pork farmer	8E-05	1E-03	NA	NA	6E-05	1E-03	NA	NA	4E-04	6E-04	NA	NA
Subsistence poultry farmer	7E-04	1E-02	NA	NA	7E-04	1E-02	NA	NA	2E-03	6E-03	NA	NA
Subsistence fisher	8E-05	3E-03	NA	NA	6E-04	3E-02	NA	NA	4E-04	7E-03	NA	NA
Recreational fisher	5E-05	2E-03	NA	NA	3E-04	2E-02	NA	NA	3E-04	3E-03	NA	NA
Home gardener	1E-04	4E-04	NA	NA	3E-05	2E-03	NA	NA	5E-04	6E-04	NA	NA
Typical Farmer	2E-05	2E-04	NA	NA	1E-04	7E-04	NA	NA	9E-05	3E-04	NA	NA
Typical Resident	2E-05	2E-04	NA	NA	2E-05	6E-04	NA	NA	6E-05	3E-04	NA	NA

\* Ratio of the estimated total 2,3,7,8-TCDD-TEQ dose to the infant from the source to the background total 2,3,7,8-TCDD-TEQ dose to the infant (50 pg/kg/day).

Table B.3.18 Risk Results - Range of Soil Lead Ratios - Proposed Beyond the Floor for Existing Sources

Scenario	Incinerators				Cement Kilns				Light Weight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
Subsistence beef farmer	1E-05	8E-04	1E-05	8E-04	1E-05	2E-04	1E-05	2E-04	7E-06	2E-05	7E-06	2E-05
Subsistence dairy farmer	1E-05	8E-04	1E-05	8E-04	9E-06	2E-04	9E-06	2E-04	3E-06	2E-05	3E-06	2E-05
Subsistence pork farmer	1E-05	8E-04	1E-05	8E-04	1E-05	2E-04	1E-05	2E-04	7E-06	2E-05	7E-06	2E-05
Subsistence poultry farmer	5E-05	8E-04	5E-05	8E-04	1E-05	2E-04	1E-05	2E-04	7E-06	2E-05	7E-06	2E-05
Subsistence fisher	2E-06	4E-04	2E-06	4E-04	3E-06	3E-04	3E-06	3E-04	5E-07	7E-05	5E-07	7E-05
Typical resident/ typical farmer/ recreational fisher	3E-06	3E-05	3E-06	3E-05	3E-06	3E-05	3E-06	3E-05	1E-06	4E-06	1E-06	4E-06
Home gardener	3E-04	9E-04	3E-04	9E-04	2E-05	1E-03	2E-05	1E-03	6E-05	9E-05	6E-05	9E-05



**Table B.4. BTF Option 1 for Existing Sources**

BTF Option 1 emissions for 2,3,7,8-TCDD-TEQ and metals are the same as the BTF (Existing Source) emissions. Results for BTF Option 1 are found in Table B.3.

**Table B.5. BTF Option 2 for Existing Sources**

BTF Option 2 emissions for 2,3,7,8-TCDD-TEQ and metals are the same as the BTF (Existing Source) emissions. Results for BTF Option 2 are found in Table B.3.

**Table B.6. BTF Option 3 for Existing Sources**

BTF Option 3 emissions for 2,3,7,8-TCDD-TEQ and metals are the same as the BTF (Existing Source) emissions. Results for BTF Option 1 are found in Table B.3.

Table B.7.1 Risk Results - Incinerators from all Indirect Pathways Combined - Alternative Floor

Chemical	Central Tendency			High End			Bounding
	Low	Median	High	Low	Median	High	
<b>Carcinogens (risk)</b>							
2,3,7,8-TCDD-TEQ	4E-10	2E-08	1E-06	1E-09	2E-08	1E-06	2E-06
Arsenic	1E-10	5E-09	9E-07	4E-10	1E-08	2E-06	5E-06
Beryllium	2E-10	2E-08	3E-07	5E-10	4E-08	3E-07	6E-07
<b>Non Carcinogens (hazard quotient)</b>							
Antimony	8E-08	1E-05	9E-03	4E-07	3E-05	9E-03	2E-02
Barium	NA	NA	NA	NA	NA	NA	NA
Cadmium	4E-07	4E-05	3E-03	1E-06	1E-04	3E-03	7E-03
Chromium III	6E-10	3E-08	4E-06	7E-10	6E-08	1E-06	2E-05
Chromium VI	5E-08	3E-06	7E-04	5E-08	2E-06	7E-04	2E-03
Nickel	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA

Table B.7.2 Risk Results - Cement Kilns from all Indirect Pathways Combined - Alternative Floor

Chemical	Central Tendency			High End			Bounding
	Low	Median	High	Low	Median	High	
<b>Carcinogens (risk)</b>							
2,3,7,8-TCDD-TEQ	2E-10	3E-08	7E-07	6E-10	6E-08	1E-06	3E-06
Arsenic	3E-11	7E-09	2E-07	1E-10	1E-08	5E-07	3E-06
Beryllium	5E-10	3E-08	1E-06	9E-10	6E-08	1E-06	3E-06
<b>Non Carcinogens (hazard quotient)</b>							
Antimony	4E-08	2E-05	8E-04	7E-07	3E-05	8E-04	5E-03
Barium	NA	NA	NA	NA	NA	NA	NA
Cadmium	2E-06	4E-04	1E-02	1E-05	5E-04	1E-02	7E-02
Chromium III	1E-09	5E-08	4E-06	3E-09	7E-08	4E-06	4E-05
Chromium VI	2E-08	3E-06	1E-04	1E-07	2E-06	7E-05	3E-03
Nickel	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA

**Table B.7.3 Risk Results - Lightweight Aggregate Kilns from all Indirect Pathways Combined - Alternative Floor**

Chemical	Central Tendency			High End			Bounding
	Low	Median	High	Low	Median	High	
<b>Carcinogens (risk)</b>							
2,3,7,8-TCDD-TEQ	1E-09	3E-08	1E-06	3E-09	5E-08	9E-07	5E-06
Arsenic	2E-10	9E-09	5E-07	5E-10	2E-08	4E-07	5E-06
Beryllium	2E-09	3E-08	7E-07	3E-09	6E-08	7E-07	3E-06
<b>Non Carcinogens (hazard quotient)</b>							
Antimony	1E-07	3E-05	3E-04	2E-06	6E-05	2E-04	4E-03
Barium	NA	NA	NA	NA	NA	NA	NA
Cadmium	2E-06	6E-05	8E-04	5E-06	2E-04	1E-03	2E-02
Chromium III	3E-09	8E-08	3E-06	9E-09	2E-07	2E-06	3E-05
Chromium VI	1E-07	4E-06	2E-04	4E-07	4E-06	3E-05	5E-03
Nickel	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA

**Table B.7.4 Risk Results - Subsistence Beef Farmer from all Pathways Combined - Alternative Floor**

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	2E-08	7E-07	4E-08	1E-06	4E-08	2E-07	8E-08	4E-07	2E-07	5E-07	4E-07	9E-07
Arsenic	1E-09	8E-07	2E-09	1E-06	1E-09	8E-08	3E-09	1E-07	1E-08	2E-08	2E-08	4E-08
Beryllium	3E-09	2E-07	6E-09	3E-07	6E-09	9E-08	1E-08	2E-07	3E-08	9E-08	6E-08	2E-07
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	3E-06	6E-03	NA	NA	5E-06	4E-04	NA	NA	2E-05	8E-05	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	6E-06	9E-04	NA	NA	7E-05	1E-03	NA	NA	5E-05	2E-04	NA	NA
Chromium III	9E-09	4E-07	NA	NA	1E-08	3E-07	NA	NA	9E-08	3E-07	NA	NA
Chromium VI	7E-07	4E-04	NA	NA	1E-06	4E-05	NA	NA	7E-06	2E-05	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table B.7.5 Risk Results - Subsistence Dairy Farmer from all Pathways Combined - Alternative Floor

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	2E-08	5E-07	3E-08	1E-06	2E-08	1E-07	4E-08	2E-07	7E-08	4E-07	1E-07	8E-07
Arsenic	8E-09	8E-07	1E-08	1E-06	7E-09	8E-08	1E-08	1E-07	3E-08	2E-07	6E-08	4E-07
Beryllium	2E-09	1E-07	4E-09	2E-07	3E-09	7E-08	5E-09	1E-07	9E-09	6E-08	2E-08	1E-07
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	3E-06	6E-03	NA	NA	2E-06	4E-04	NA	NA	1E-05	6E-05	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	6E-06	9E-04	NA	NA	4E-05	1E-03	NA	NA	2E-05	2E-04	NA	NA
Chromium III	8E-09	5E-07	NA	NA	1E-08	2E-07	NA	NA	4E-08	3E-07	NA	NA
Chromium VI	9E-07	4E-04	NA	NA	1E-06	4E-05	NA	NA	3E-06	2E-05	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA



**Table B.7.6 Risk Results - Subsistence Pork Farmer from all Pathways Combined - Alternative Floor**

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	3E-09	4E-08	6E-09	8E-08	3E-09	5E-08	5E-09	9E-08	2E-08	3E-08	4E-08	5E-08
Arsenic	6E-10	8E-07	1E-09	1E-06	7E-10	7E-08	1E-09	1E-07	8E-09	1E-08	2E-08	3E-08
Beryllium	2E-09	1E-07	4E-09	2E-07	4E-09	7E-08	8E-09	1E-07	2E-08	6E-08	4E-08	1E-07
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	2E-06	6E-03	NA	NA	3E-06	4E-04	NA	NA	1E-05	4E-05	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	6E-06	9E-04	NA	NA	7E-05	1E-03	NA	NA	5E-05	2E-04	NA	NA
Chromium III	3E-09	2E-07	NA	NA	6E-09	9E-08	NA	NA	4E-08	9E-08	NA	NA
Chromium VI	1E-07	4E-04	NA	NA	2E-07	4E-05	NA	NA	2E-06	5E-06	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**Table B.7.7 Risk Results - Subsistence Poultry Farmer from all Pathways Combined - Alternative Floor**

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	3E-08	5E-07	5E-08	9E-07	3E-08	5E-07	6E-08	8E-07	9E-08	3E-07	2E-07	4E-07
Arsenic	1E-09	8E-07	3E-09	1E-06	7E-10	7E-08	1E-09	1E-07	8E-09	1E-08	2E-08	3E-08
Beryllium	7E-09	1E-07	1E-08	2E-07	4E-09	7E-08	7E-09	1E-07	2E-08	6E-08	4E-08	1E-07
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	6E-06	6E-03	NA	NA	3E-06	4E-04	NA	NA	1E-05	4E-05	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	2E-05	9E-04	NA	NA	7E-05	1E-03	NA	NA	5E-05	2E-04	NA	NA
Chromium III	8E-09	1E-07	NA	NA	5E-09	7E-08	NA	NA	3E-08	7E-08	NA	NA
Chromium VI	4E-07	4E-04	NA	NA	1E-07	4E-05	NA	NA	1E-06	4E-06	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**Table B.7.8 Risk Results - Subsistence Fisher from all Pathways Combined - Alternative Floor**

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	2E-09	6E-08	4E-09	2E-07	1E-08	7E-07	3E-08	1E-06	8E-09	1E-07	2E-08	3E-07
Arsenic	6E-10	7E-07	2E-09	2E-06	2E-09	2E-07	7E-09	5E-07	6E-10	9E-08	2E-09	3E-07
Beryllium	3E-09	2E-07	4E-09	3E-07	8E-09	8E-07	2E-08	1E-06	5E-09	3E-07	1E-08	7E-07
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	8E-08	6E-03	NA	NA	1E-07	4E-04	NA	NA	1E-07	3E-05	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	3E-06	2E-03	NA	NA	1E-04	8E-03	NA	NA	5E-06	7E-04	NA	NA
Chromium III	6E-10	6E-08	NA	NA	3E-09	1E-07	NA	NA	3E-09	2E-07	NA	NA
Chromium VI	2E-07	5E-04	NA	NA	4E-07	5E-05	NA	NA	2E-07	2E-05	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**Table B.7.9 Risk Results - Home Gardener from all Pathways Combined - Alternative Floor**

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	2E-09	7E-09	5E-09	2E-08	7E-10	4E-08	2E-09	9E-08	1E-08	1E-08	3E-08	3E-08
Arsenic	1E-09	4E-07	4E-09	1E-06	2E-10	3E-08	7E-10	1E-07	6E-09	9E-09	2E-08	3E-08
Beryllium	2E-08	5E-08	4E-08	1E-07	4E-09	2E-07	8E-09	4E-07	8E-08	1E-07	2E-07	2E-07
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	7E-06	6E-03	1E-05	6E-03	1E-06	4E-04	2E-06	4E-04	3E-05	6E-05	4E-05	7E-05
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	4E-05	1E-03	5E-05	1E-03	4E-05	3E-03	6E-05	4E-03	2E-04	2E-04	2E-04	3E-04
Chromium III	4E-08	1E-07	4E-08	1E-07	8E-09	4E-07	9E-09	4E-07	2E-07	2E-07	2E-07	2E-07
Chromium VI	6E-07	4E-04	8E-07	4E-04	1E-07	4E-05	2E-07	4E-05	3E-06	7E-06	4E-06	7E-06
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**Table B.7.10 Risk Results - Typical Resident from all Pathways Combined - Alternative Floor**

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	4E-10	4E-09	1E-09	1E-08	2E-10	1E-08	6E-10	4E-08	1E-09	5E-09	3E-09	2E-08
Arsenic	1E-10	4E-07	4E-10	1E-06	3E-11	3E-08	1E-10	1E-07	2E-10	5E-09	5E-10	2E-08
Beryllium	2E-10	1E-08	5E-10	3E-08	5E-10	2E-08	9E-10	4E-08	2E-09	5E-09	3E-09	1E-08
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	9E-08	6E-03	NA	NA	4E-08	4E-04	NA	NA	2E-07	3E-05	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	4E-07	9E-04	NA	NA	2E-06	8E-04	NA	NA	2E-06	1E-05	NA	NA
Chromium III	7E-10	7E-09	NA	NA	1E-09	2E-08	NA	NA	9E-09	1E-08	NA	NA
Chromium VI	5E-08	4E-04	NA	NA	2E-08	4E-05	NA	NA	1E-07	4E-06	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table B.7.11 Risk Results - Typical Farmer from all Pathways Combined - Alternative Floor

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	1E-09	9E-09	2E-09	2E-08	3E-09	3E-08	5E-09	7E-08	4E-09	1E-08	9E-09	2E-08
Arsenic	3E-10	8E-07	6E-10	1E-06	3E-10	8E-08	7E-10	1E-07	7E-10	1E-08	2E-09	2E-08
Beryllium	5E-10	3E-08	6E-10	4E-08	1E-09	4E-08	2E-09	5E-08	4E-09	1E-08	5E-09	2E-08
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	4E-07	6E-03	4E-07	6E-03	5E-07	4E-04	7E-07	4E-04	1E-06	3E-05	2E-06	3E-05
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1E-06	9E-04	1E-06	9E-04	1E-05	8E-04	1E-05	8E-04	4E-06	1E-05	5E-06	1E-05
Chromium III	7E-10	7E-09	7E-10	7E-09	2E-09	2E-08	3E-09	2E-08	9E-09	1E-08	9E-09	1E-08
Chromium VI	5E-08	4E-04	5E-08	4E-04	9E-08	4E-05	1E-07	4E-05	3E-07	4E-06	4E-07	4E-06
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**Table B.7.12 Risk Results - Recreational Fisher from all Pathways Combined - Alternative Floor**

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	1E-09	3E-08	2E-09	8E-08	7E-09	4E-07	2E-08	7E-07	6E-09	7E-08	1E-08	2E-07
Arsenic	3E-10	5E-07	1E-09	1E-06	1E-09	9E-08	4E-09	3E-07	4E-10	4E-08	1E-09	1E-07
Beryllium	2E-09	8E-08	5E-09	2E-07	5E-09	4E-07	1E-08	5E-07	3E-09	1E-07	8E-09	3E-07
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	9E-08	6E-03	NA	NA	4E-08	4E-04	NA	NA	2E-07	3E-05	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1E-06	2E-03	NA	NA	5E-05	4E-03	NA	NA	4E-06	3E-04	NA	NA
Chromium III	7E-10	7E-09	NA	NA	1E-09	2E-08	NA	NA	9E-09	1E-08	NA	NA
Chromium VI	1E-07	4E-04	NA	NA	3E-07	4E-05	NA	NA	2E-07	8E-06	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**Table B.7.13 Risk Results - Subsistence Dairy Farmer Child from all Pathways Combined - Alternative Floor**

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	5E-08	1E-06	NA	NA	5E-08	4E-07	NA	NA	2E-07	1E-06	NA	NA
Arsenic	2E-08	9E-07	NA	NA	2E-08	2E-07	NA	NA	8E-08	5E-07	NA	NA
Beryllium	5E-09	2E-07	NA	NA	6E-09	1E-07	NA	NA	2E-08	1E-07	NA	NA
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	1E-05	9E-03	NA	NA	1E-05	7E-04	NA	NA	4E-05	3E-04	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	3E-05	2E-03	NA	NA	1E-04	4E-03	NA	NA	9E-05	6E-04	NA	NA
Chromium III	8E-08	4E-06	NA	NA	9E-08	2E-06	NA	NA	4E-07	3E-06	NA	NA
Chromium VI	8E-06	7E-04	NA	NA	8E-06	1E-04	NA	NA	3E-05	2E-04	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA



Table B.7.14 Risk Results - Home Gardener Child from all Pathways Combined - Alternative Floor

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	1E-08	4E-08	8E-09	3E-08	4E-09	2E-07	3E-09	2E-07	6E-08	7E-08	4E-08	6E-08
Arsenic	4E-09	4E-07	4E-09	4E-07	7E-10	4E-08	8E-10	4E-08	2E-08	3E-08	2E-08	3E-08
Beryllium	1E-07	3E-07	7E-08	2E-07	2E-08	1E-06	1E-08	7E-07	5E-07	7E-07	3E-07	4E-07
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	2E-05	9E-03	3E-05	9E-03	5E-06	8E-04	7E-06	8E-04	1E-04	2E-04	1E-04	2E-04
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1E-04	3E-03	2E-04	3E-03	2E-04	1E-02	3E-04	1E-02	8E-04	8E-04	1E-03	1E-03
Chromium III	4E-07	1E-06	4E-07	1E-06	7E-08	4E-06	7E-08	4E-06	2E-06	2E-06	2E-06	2E-06
Chromium VI	3E-06	7E-04	4E-06	7E-04	7E-07	7E-05	8E-07	7E-05	2E-05	3E-05	2E-05	3E-05
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**Table B.7.15 Risk Results - Typical Resident Child from all Pathways Combined - Alternative Floor**

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	2E-09	2E-08	NA	NA	1E-09	7E-08	NA	NA	5E-09	3E-08	NA	NA
Arsenic	7E-10	4E-07	NA	NA	2E-10	4E-08	NA	NA	1E-09	2E-08	NA	NA
Beryllium	1E-09	2E-08	NA	NA	3E-09	3E-08	NA	NA	9E-09	3E-08	NA	NA
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	5E-07	9E-03	NA	NA	2E-07	7E-04	NA	NA	1E-06	6E-05	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	3E-06	2E-03	NA	NA	1E-05	1E-03	NA	NA	9E-06	3E-05	NA	NA
Chromium III	6E-09	5E-08	NA	NA	1E-08	2E-07	NA	NA	8E-08	1E-07	NA	NA
Chromium VI	3E-07	7E-04	NA	NA	1E-07	6E-05	NA	NA	9E-07	1E-05	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**Table B.7.16 Risk Results - Direct Inhalation Based on the Maximum Exposed Individual - Proposed Alternative Floor for Existing Sources**

Constituents	Incinerators				Cement Kilns				Light Weight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens</b>												
2,3,7,8-TCDD-TEQ	1E-09	4E-09	3E-09	1E-08	3E-10	3E-09	1E-09	1E-08	4E-09	7E-09	2E-08	3E-08
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	2E-08	1E-07	1E-07	3E-07	4E-09	5E-08	1E-08	1E-07	1E-07	3E-07	4E-07	7E-07
Beryllium	1E-08	5E-08	4E-08	2E-07	3E-09	3E-08	7E-09	7E-08	7E-08	8E-08	2E-07	3E-07
Cadmium	9E-09	2E-08	3E-08	1E-07	7E-09	7E-08	3E-08	3E-07	4E-08	8E-08	1E-07	2E-07
Chromium VI	6E-08	3E-07	2E-07	1E-06	1E-08	1E-07	4E-08	4E-07	3E-07	6E-07	1E-06	2E-06
<b>Noncarcinogens</b>												
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hydrogen Chloride	HQ = 0.001	HQ = 0.004			HQ = 0	HQ = 0.005			HQ=0.7	HQ=1		

**Table B.7.17 Risk Results - Range of 2,3,7,8-TCDD-TEQ Infant Breastmilk Exposure Ratios - Proposed Alternative Floor for Existing Sources**

Scenario	Incinerators				Cement Kilns				Light Weight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
Subsistence beef farmer	3E-04	9E-03	NA	NA	6E-04	3E-03	NA	NA	3E-03	7E-03	NA	NA
Subsistence dairy farmer	2E-04	8E-03	NA	NA	3E-04	2E-03	NA	NA	1E-03	6E-03	NA	NA
Subsistence pork farmer	5E-05	6E-04	NA	NA	4E-05	7E-04	NA	NA	3E-04	4E-04	NA	NA
Subsistence poultry farmer	4E-04	8E-03	NA	NA	5E-04	7E-03	NA	NA	1E-03	4E-03	NA	NA
Subsistence fisher	5E-05	2E-03	NA	NA	4E-04	2E-02	NA	NA	3E-04	5E-03	NA	NA
Recreational fisher	3E-05	1E-03	NA	NA	2E-04	1E-02	NA	NA	2E-04	2E-03	NA	NA
Home gardener	6E-05	2E-04	NA	NA	2E-05	1E-03	NA	NA	3E-04	4E-04	NA	NA
Typical Farmer	1E-05	1E-04	NA	NA	1E-04	5E-04	NA	NA	7E-05	2E-04	NA	NA
Typical Resident	1E-05	1E-04	NA	NA	2E-05	4E-04	NA	NA	4E-05	2E-04	NA	NA

\* Ratio of the estimated total 2,3,7,8-TCDD-TEQ dose to the infant from the source to the background total 2,3,7,8-TCDD-TEQ dose to the infant (50 pg/kg/day).

**Table B.7.18 Risk Results - Range of Soil Lead Ratios - Proposed Alternative Floor for Existing Sources**

Scenario	Incinerators				Cement Kilns				Light Weight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
Subsistence beef farmer	2E-06	1E-04	2E-06	1E-04	3E-05	5E-04	3E-05	5E-04	3E-05	8E-05	3E-05	8E-05
Subsistence dairy farmer	2E-06	1E-04	2E-06	1E-04	3E-05	5E-04	3E-05	5E-04	1E-05	8E-05	1E-05	8E-05
Subsistence pork farmer	2E-06	1E-04	2E-06	1E-04	3E-05	5E-04	3E-05	5E-04	3E-05	8E-05	3E-05	8E-05
Subsistence poultry farmer	1E-05	1E-04	1E-05	1E-04	3E-05	5E-04	3E-05	5E-04	3E-05	8E-05	3E-05	8E-05
Subsistence fisher	4E-07	7E-05	4E-07	7E-05	8E-06	8E-04	8E-06	8E-04	2E-06	3E-04	2E-06	3E-04
Typical resident/ typical farmer/ recreational fisher	5E-07	5E-06	5E-07	5E-06	8E-06	8E-05	8E-06	8E-05	5E-06	2E-05	5E-06	2E-05
Home gardener	5E-05	2E-04	5E-05	2E-04	7E-05	3E-03	7E-05	3E-03	2E-04	3E-04	2E-04	3E-04

**Table B.8 Alternative BTF for Existing Sources**

Alternative BTF emissions for 2,3,7,8-TCDD-TEQ and metals are the same as Alternative Floor (Existing Source) emissions. Results for Alternative BTF are found in Table B.7.

Table B.9.1 Risk Results - Incinerators from all Indirect Pathways Combined - Proposed Floor - New Sources

Chemical	Central Tendency			High End			Bounding
	Low	Median	High	Low	Median	High	
<b>Carcinogens (risk)</b>							
2,3,7,8-TCDD-TEQ	7E-10	3E-08	2E-06	4E-08	7E-07	4E-05	6E-05
Arsenic	5E-10	2E-08	4E-06	2E-09	4E-08	8E-06	2E-05
Beryllium	9E-10	7E-08	1E-06	2E-09	2E-07	1E-06	2E-06
<b>Non Carcinogens (hazard quotient)</b>							
Antimony	3E-07	5E-05	4E-02	2E-06	1E-04	4E-02	8E-02
Barium	NA	NA	NA	NA	NA	NA	NA
Cadmium	2E-06	2E-04	1E-02	7E-06	8E-04	1E-02	4E-02
Chromium III	2E-09	1E-07	1E-05	2E-09	2E-07	4E-06	9E-05
Chromium VI	2E-07	1E-05	3E-03	2E-07	7E-06	3E-03	6E-03
Nickel	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA

Table B.9.2 Risk Results - Cement Kilns from all Indirect Pathways Combined - Proposed Floor - New Sources

Chemical	Central Tendency			High End			Bounding
	Low	Median	High	Low	Median	High	
<b>Carcinogens (risk)</b>							
2,3,7,8-TCDD-TEQ	3E-10	5E-08	1E-06	7E-09	7E-07	2E-05	3E-05
Arsenic	4E-11	1E-08	2E-07	1E-10	2E-08	7E-07	4E-06
Beryllium	6E-10	4E-08	2E-06	1E-09	8E-08	1E-06	4E-06
<b>Non Carcinogens (hazard quotient)</b>							
Antimony	4E-08	2E-05	1E-03	9E-07	4E-05	1E-03	7E-03
Barium	NA	NA	NA	NA	NA	NA	NA
Cadmium	7E-07	1E-04	4E-03	7E-06	1E-04	5E-03	3E-02
Chromium III	1E-09	6E-08	6E-06	4E-09	1E-07	6E-06	6E-05
Chromium VI	2E-08	3E-06	2E-04	2E-07	3E-06	9E-05	4E-03
Nickel	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA



Table B.9.3 Risk Results - Lightweight Aggregate Kilns from all Indirect Pathways Combined - Proposed Floor - New Sources

Chemical	Central Tendency			High End			Bounding
	Low	Median	High	Low	Median	High	
<b>Carcinogens (risk)</b>							
2,3,7,8-TCDD-TEQ	2E-09	5E-08	2E-06	5E-09	7E-08	1E-06	7E-06
Arsenic	2E-10	9E-09	5E-07	5E-10	2E-08	4E-07	5E-06
Beryllium	2E-09	3E-08	7E-07	3E-09	6E-08	7E-07	3E-06
<b>Non Carcinogens (hazard quotient)</b>							
Antimony	1E-07	3E-05	3E-04	2E-06	6E-05	2E-04	4E-03
Barium	NA	NA	NA	NA	NA	NA	NA
Cadmium	2E-07	8E-06	1E-04	7E-07	4E-05	2E-04	3E-03
Chromium III	3E-09	8E-08	3E-06	9E-09	2E-07	2E-06	3E-05
Chromium VI	1E-07	4E-06	2E-04	4E-07	4E-06	3E-05	5E-03
Nickel	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA

**Table B.9.4 Risk Results - Subsistence Beef Farmer from all Pathways Combined - Proposed Floor - New Sources**

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	4E-08	1E-06	2E-06	4E-05	6E-08	3E-07	1E-06	5E-06	3E-07	7E-07	5E-07	1E-06
Arsenic	4E-09	3E-06	8E-09	6E-06	2E-09	1E-07	4E-09	2E-07	1E-08	2E-08	2E-08	4E-08
Beryllium	1E-08	7E-07	2E-08	1E-06	8E-09	1E-07	2E-08	2E-07	3E-08	9E-08	6E-08	2E-07
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	1E-05	2E-02	NA	NA	7E-06	6E-04	NA	NA	2E-05	8E-05	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	3E-05	5E-03	NA	NA	2E-05	3E-04	NA	NA	8E-06	2E-05	NA	NA
Chromium III	3E-08	2E-06	NA	NA	3E-08	3E-07	NA	NA	9E-08	3E-07	NA	NA
Chromium VI	3E-06	2E-03	NA	NA	1E-06	5E-05	NA	NA	7E-06	2E-05	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**Table B.9.5 Risk Results - Subsistence Dairy Farmer from all Pathways Combined - Proposed Floor - New Sources**

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	3E-08	9E-07	1E-06	4E-05	3E-08	2E-07	4E-07	3E-06	1E-07	6E-07	2E-07	1E-06
Arsenic	3E-08	3E-06	6E-08	6E-06	9E-09	1E-07	2E-08	2E-07	3E-08	2E-07	6E-08	4E-07
Beryllium	8E-09	4E-07	1E-08	8E-07	4E-09	9E-08	7E-09	2E-07	9E-09	6E-08	2E-08	1E-07
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	1E-05	2E-02	NA	NA	3E-06	6E-04	NA	NA	1E-05	6E-05	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	3E-05	5E-03	NA	NA	1E-05	3E-04	NA	NA	3E-06	2E-05	NA	NA
Chromium III	3E-08	2E-06	NA	NA	1E-08	3E-07	NA	NA	4E-08	3E-07	NA	NA
Chromium VI	3E-06	2E-03	NA	NA	1E-06	5E-05	NA	NA	3E-06	2E-05	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**Table B.9.6 Risk Results - Subsistence Pork Farmer from all Pathways Combined - Proposed Floor - New Sources**

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	5E-09	7E-08	2E-07	3E-06	4E-09	7E-08	6E-08	1E-06	3E-08	4E-08	5E-08	7E-08
Arsenic	2E-09	3E-06	4E-09	6E-06	9E-10	1E-07	2E-09	2E-07	8E-09	1E-08	2E-08	3E-08
Beryllium	8E-09	4E-07	2E-08	8E-07	6E-09	9E-08	1E-08	2E-07	2E-08	6E-08	4E-08	1E-07
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	8E-06	2E-02	NA	NA	4E-06	6E-04	NA	NA	1E-05	4E-05	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	3E-05	5E-03	NA	NA	2E-05	3E-04	NA	NA	8E-06	2E-05	NA	NA
Chromium III	1E-08	7E-07	NA	NA	8E-09	1E-07	NA	NA	4E-08	9E-08	NA	NA
Chromium VI	6E-07	2E-03	NA	NA	3E-07	5E-05	NA	NA	2E-06	5E-06	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**Table B.9.7 Risk Results - Subsistence Poultry Farmer from all Pathways Combined - Proposed Floor - New Sources**

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	5E-08	8E-07	2E-06	3E-05	5E-08	7E-07	6E-07	9E-06	1E-07	4E-07	2E-07	6E-07
Arsenic	6E-09	3E-06	1E-08	6E-06	9E-10	1E-07	2E-09	2E-07	8E-09	1E-08	2E-08	3E-08
Beryllium	3E-08	4E-07	5E-08	8E-07	5E-09	9E-08	1E-08	2E-07	2E-08	6E-08	4E-08	1E-07
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	3E-05	2E-02	NA	NA	4E-06	6E-04	NA	NA	1E-05	4E-05	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1E-04	5E-03	NA	NA	2E-05	3E-04	NA	NA	8E-06	2E-05	NA	NA
Chromium III	4E-08	5E-07	NA	NA	6E-09	9E-08	NA	NA	3E-08	7E-08	NA	NA
Chromium VI	1E-06	2E-03	NA	NA	3E-07	5E-05	NA	NA	1E-06	4E-06	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**Table B.9.8 Risk Results - Subsistence Fisher from all Pathways Combined - Proposed Floor - New Sources**

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	3E-09	1E-07	1E-07	6E-06	2E-08	1E-06	3E-07	2E-05	1E-08	2E-07	3E-08	5E-07
Arsenic	2E-09	3E-06	8E-09	8E-06	3E-09	2E-07	9E-09	7E-07	6E-10	9E-08	2E-09	3E-07
Beryllium	1E-08	7E-07	2E-08	1E-06	1E-08	1E-06	2E-08	1E-06	5E-09	3E-07	1E-08	7E-07
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	3E-07	2E-02	NA	NA	1E-07	6E-04	NA	NA	1E-07	3E-05	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1E-05	1E-02	NA	NA	4E-05	3E-03	NA	NA	7E-07	9E-05	NA	NA
Chromium III	2E-09	2E-07	NA	NA	5E-09	1E-07	NA	NA	3E-09	2E-07	NA	NA
Chromium VI	8E-07	2E-03	NA	NA	6E-07	6E-05	NA	NA	2E-07	2E-05	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**Table B.9.9 Risk Results - Home Gardener from all Pathways Combined - Proposed Floor - New Sources**

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	3E-09	1E-08	2E-07	6E-07	1E-09	6E-08	2E-08	1E-06	1E-08	2E-08	4E-08	5E-08
Arsenic	4E-09	1E-06	2E-08	4E-06	3E-10	5E-08	1E-09	1E-07	6E-09	9E-09	2E-08	3E-08
Beryllium	7E-08	2E-07	2E-07	4E-07	5E-09	3E-07	1E-08	6E-07	8E-08	1E-07	2E-07	2E-07
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	3E-05	2E-02	4E-05	2E-02	2E-06	6E-04	2E-06	6E-04	3E-05	6E-05	4E-05	7E-05
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1E-04	6E-03	2E-04	6E-03	1E-05	1E-03	2E-05	1E-03	2E-05	3E-05	3E-05	5E-05
Chromium III	2E-07	5E-07	2E-07	5E-07	1E-08	6E-07	1E-08	7E-07	2E-07	2E-07	2E-07	2E-07
Chromium VI	3E-06	2E-03	3E-06	2E-03	2E-07	5E-05	2E-07	5E-05	3E-06	7E-06	4E-06	7E-06
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**Table B.9.10 Risk Results - Typical Resident from all Pathways Combined - Proposed Floor - New Sources**

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	7E-10	6E-09	4E-08	4E-07	3E-10	2E-08	7E-09	5E-07	2E-09	8E-09	5E-09	3E-08
Arsenic	5E-10	1E-06	2E-09	4E-06	4E-11	5E-08	1E-10	1E-07	2E-10	5E-09	5E-10	2E-08
Beryllium	9E-10	6E-08	2E-09	1E-07	6E-10	3E-08	1E-09	5E-08	2E-09	5E-09	3E-09	1E-08
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	3E-07	2E-02	NA	NA	4E-08	6E-04	NA	NA	2E-07	3E-05	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	2E-06	5E-03	NA	NA	7E-07	3E-04	NA	NA	2E-07	1E-06	NA	NA
Chromium III	2E-09	2E-08	NA	NA	1E-09	2E-08	NA	NA	9E-09	1E-08	NA	NA
Chromium VI	2E-07	2E-03	NA	NA	2E-08	5E-05	NA	NA	1E-07	4E-06	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA



**Table B.9.11 Risk Results - Typical Farmer from all Pathways Combined - Proposed Floor - New Sources**

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	2E-09	1E-08	7E-08	6E-07	4E-09	5E-08	6E-08	9E-07	6E-09	2E-08	1E-08	3E-08
Arsenic	1E-09	3E-06	2E-09	6E-06	3E-10	1E-07	9E-10	2E-07	7E-10	1E-08	2E-09	2E-08
Beryllium	2E-09	1E-07	2E-09	2E-07	2E-09	6E-08	3E-09	7E-08	4E-09	1E-08	5E-09	2E-08
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	2E-06	2E-02	2E-06	2E-02	6E-07	6E-04	9E-07	6E-04	1E-06	3E-05	2E-06	3E-05
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	7E-06	5E-03	7E-06	5E-03	5E-06	3E-04	7E-06	3E-04	5E-07	1E-06	7E-07	2E-06
Chromium III	2E-09	2E-08	2E-09	2E-08	3E-09	2E-08	4E-09	3E-08	9E-09	1E-08	9E-09	1E-08
Chromium VI	2E-07	2E-03	2E-07	2E-03	1E-07	5E-05	2E-07	5E-05	3E-07	4E-06	4E-07	4E-06
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table B.9.12 Risk Results - Recreational Fisher from all Pathways Combined - Proposed Floor - New Sources

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	2E-09	5E-08	9E-08	3E-06	1E-08	5E-07	2E-07	8E-06	8E-09	1E-07	2E-08	2E-07
Arsenic	1E-09	2E-06	4E-09	6E-06	2E-09	1E-07	5E-09	4E-07	4E-10	4E-08	1E-09	1E-07
Beryllium	8E-09	3E-07	2E-08	6E-07	7E-09	5E-07	2E-08	7E-07	3E-09	1E-07	8E-09	3E-07
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	3E-07	2E-02	NA	NA	4E-08	6E-04	NA	NA	2E-07	3E-05	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	7E-06	8E-03	NA	NA	2E-05	1E-03	NA	NA	5E-07	5E-05	NA	NA
Chromium III	2E-09	2E-08	NA	NA	1E-09	2E-08	NA	NA	9E-09	1E-08	NA	NA
Chromium VI	6E-07	2E-03	NA	NA	3E-07	5E-05	NA	NA	2E-07	8E-06	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**Table B.9.13 Risk Results - Subsistence Dairy Farmer Child from all Pathways Combined - Proposed Floor - New Sources**

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	8E-08	2E-06	2E-06	5E-05	7E-08	5E-07	6E-07	3E-06	3E-07	2E-06	3E-07	2E-06
Arsenic	8E-08	4E-06	NA	NA	2E-08	2E-07	NA	NA	8E-08	5E-07	NA	NA
Beryllium	2E-08	1E-06	NA	NA	8E-09	2E-07	NA	NA	2E-08	1E-07	NA	NA
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	5E-05	4E-02	NA	NA	2E-05	1E-03	NA	NA	4E-05	3E-04	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1E-04	8E-03	NA	NA	6E-05	1E-03	NA	NA	1E-05	8E-05	NA	NA
Chromium III	3E-07	1E-05	NA	NA	1E-07	3E-06	NA	NA	4E-07	3E-06	NA	NA
Chromium VI	3E-05	3E-03	NA	NA	1E-05	2E-04	NA	NA	3E-05	2E-04	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**Table B.9.14 Risk Results - Home Gardener Child from all Pathways Combined - Proposed Floor - New Sources**

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	2E-08	6E-08	3E-07	1E-06	5E-09	3E-07	3E-08	2E-06	8E-08	1E-07	6E-08	8E-08
Arsenic	2E-08	2E-06	2E-08	1E-06	1E-09	6E-08	1E-09	6E-08	2E-08	3E-08	2E-08	3E-08
Beryllium	4E-07	1E-06	3E-07	8E-07	3E-08	2E-06	2E-08	1E-06	5E-07	7E-07	3E-07	4E-07
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	1E-04	4E-02	1E-04	4E-02	6E-06	1E-03	9E-06	1E-03	1E-04	2E-04	1E-04	2E-04
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	8E-04	1E-02	1E-03	1E-02	6E-05	4E-03	8E-05	5E-03	1E-04	1E-04	1E-04	2E-04
Chromium III	1E-06	4E-06	1E-06	4E-06	1E-07	6E-06	1E-07	6E-06	2E-06	2E-06	2E-06	2E-06
Chromium VI	1E-05	3E-03	2E-05	3E-03	1E-06	9E-05	1E-06	9E-05	2E-05	3E-05	2E-05	3E-05
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**Table B.9.15 Risk Results - Typical Resident Child from all Pathways Combined - Proposed Floor - New Sources**

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	4E-09	3E-08	7E-08	7E-07	2E-09	1E-07	1E-08	9E-07	7E-09	5E-08	5E-09	4E-08
Arsenic	3E-09	2E-06	NA	NA	2E-10	5E-08	NA	NA	1E-09	2E-08	NA	NA
Beryllium	4E-09	7E-08	NA	NA	4E-09	4E-08	NA	NA	9E-09	3E-08	NA	NA
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	2E-06	4E-02	NA	NA	2E-07	1E-03	NA	NA	1E-06	6E-05	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1E-05	8E-03	NA	NA	4E-06	5E-04	NA	NA	1E-06	3E-06	NA	NA
Chromium III	2E-08	2E-07	NA	NA	1E-08	2E-07	NA	NA	8E-08	1E-07	NA	NA
Chromium VI	1E-06	3E-03	NA	NA	2E-07	8E-05	NA	NA	9E-07	1E-05	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**Table B.9.16 Risk Results - Direct Inhalation Based on the Maximum Exposed Individual - Proposed Floor for New Sources**

Constituents	Incinerators				Cement Kilns				Light Weight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens</b>												
2,3,7,8-TCDD-TEQ	2E-09	6E-09	1E-07	5E-07	4E-10	4E-09	1E-08	1E-07	5E-09	1E-08	3E-08	4E-08
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	9E-08	4E-07	4E-07	1E-06	5E-09	6E-08	1E-08	1E-07	1E-07	3E-07	4E-07	7E-07
Beryllium	5E-08	2E-07	2E-07	7E-07	3E-09	3E-08	1E-08	1E-07	7E-08	8E-08	2E-07	3E-07
Cadmium	5E-08	1E-07	2E-07	5E-07	3E-09	3E-08	1E-08	1E-07	6E-09	1E-08	2E-08	3E-08
Chromium VI	3E-07	1E-06	8E-07	4E-06	2E-08	2E-07	6E-08	6E-07	3E-07	6E-07	1E-06	2E-06
<b>Noncarcinogens</b>												
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hydrogen Chloride	HQ = 0.02	HQ = 0.05			HQ = 0.01	HQ = 0.1			HQ = 0.02	HQ = 0.04		

**Table B.9.17 Risk Results - Range of 2,3,7,8-TCDD-TEQ Infant Breastmilk Exposure Ratios - Proposed Floor for New Sources\***

Scenario	Incinerators				Cement Kilns				Light Weight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
Subsistence beef farmer	5E-04	2E-02	1E-02	3E-01	8E-04	5E-03	7E-03	4E-02	4E-03	1E-02	NA	NA
Subsistence dairy farmer	4E-04	1E-02	9E-03	3E-01	4E-04	3E-03	3E-03	2E-03	1E-03	8E-03	NA	NA
Subsistence pork farmer	8E-05	1E-03	2E-03	2E-02	6E-05	1E-03	4E-04	7E-03	4E-04	6E-04	NA	NA
Subsistence poultry farmer	7E-04	1E-02	1E-02	2E-01	7E-04	1E-02	4E-03	7E-02	2E-03	6E-03	NA	NA
Subsistence fisher	8E-05	3E-03	1E-03	6E-02	6E-04	3E-02	3E-03	2E-01	4E-04	7E-03	NA	NA
Recreational fisher	5E-05	2E-03	8E-04	3E-02	3E-04	2E-02	2E-03	8E-02	3E-04	3E-03	NA	NA
Home gardener	1E-04	4E-04	1E-03	6E-03	3E-05	2E-03	2E-04	9E-03	5E-04	6E-04	NA	NA
Typical Farmer	2E-05	2E-04	5E-04	5E-03	1E-04	7E-04	5E-04	6E-03	9E-05	3E-04	NA	NA
Typical Resident	2E-05	2E-04	4E-04	4E-03	2E-05	6E-04	7E-05	5E-03	6E-05	3E-04	NA	NA

\* Ratio of the estimated total 2,3,7,8-TCDD-TEQ dose to the infant from the source to the background total 2,3,7,8-TCDD-TEQ dose to the infant (50 pg/kg/day).

**Table B.9.18 Risk Results - Range of Soil Lead Ratios - Proposed Floor for New Sources**

Scenario	Incinerators				Cement Kilns				Light Weight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
Subsistence beef farmer	1E-05	8E-04	1E-05	8E-04	1E-05	2E-04	1E-05	2E-04	4E-06	1E-05	4E-06	1E-05
Subsistence dairy farmer	1E-05	8E-04	1E-05	8E-04	9E-06	2E-04	9E-06	2E-04	2E-06	1E-05	2E-06	1E-05
Subsistence pork farmer	1E-05	8E-04	1E-05	8E-04	1E-05	2E-04	1E-05	2E-04	4E-06	1E-05	4E-06	1E-05
Subsistence poultry farmer	5E-05	8E-04	5E-05	8E-04	1E-05	2E-04	1E-05	2E-04	4E-06	1E-05	4E-06	1E-05
Subsistence fisher	2E-06	4E-04	2E-06	4E-04	3E-06	3E-04	3E-06	3E-04	3E-07	4E-05	3E-07	4E-05
Typical resident/ typical farmer/ recreational fisher	3E-06	3E-05	3E-06	3E-05	3E-06	3E-05	3E-06	3E-05	6E-07	2E-06	6E-07	2E-06
Home gardener	3E-04	9E-04	3E-04	9E-04	2E-05	1E-03	2E-05	1E-03	3E-05	5E-05	3E-05	5E-05



Table B.10.1 Risk Results - Incinerators from all Indirect Pathways Combined - Proposed BTF - New Sources

Chemical	Central Tendency			High End			Bounding
	Low	Median	High	Low	Median	High	
<b>Carcinogens (risk)</b>							
2,3,7,8-TCDD-TEQ	7E-10	3E-08	2E-06	2E-09	3E-08	2E-06	3E-06
Arsenic	2E-10	6E-09	1E-06	5E-10	1E-08	3E-06	6E-06
Beryllium	3E-10	2E-08	4E-07	6E-10	5E-08	4E-07	7E-07
<b>Non Carcinogens (hazard quotient)</b>							
Antimony	1E-07	2E-05	1E-02	5E-07	3E-05	1E-02	2E-02
Barium	NA	NA	NA	NA	NA	NA	NA
Cadmium	7E-07	6E-05	4E-03	2E-06	2E-04	3E-03	1E-02
Chromium III	8E-10	4E-08	5E-06	8E-10	7E-08	1E-06	3E-05
Chromium VI	6E-08	3E-06	8E-04	6E-08	3E-06	8E-04	2E-03
Nickel	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA

Table B.10.2 Risk Results - Cement Kilns from all Indirect Pathways Combined - Proposed BTF - New Sources

Chemical	Central Tendency			High End			Bounding
	Low	Median	High	Low	Median	High	
<b>Carcinogens (risk)</b>							
2,3,7,8-TCDD-TEQ	3E-10	5E-08	1E-06	9E-10	9E-08	2E-06	5E-06
Arsenic	4E-11	1E-08	2E-07	1E-10	2E-08	7E-07	4E-06
Beryllium	6E-10	4E-08	2E-06	1E-09	8E-08	1E-06	4E-06
<b>Non Carcinogens (hazard quotient)</b>							
Antimony	4E-08	2E-05	1E-03	9E-07	4E-05	1E-03	7E-03
Barium	NA	NA	NA	NA	NA	NA	NA
Cadmium	7E-07	1E-04	5E-03	7E-06	1E-04	6E-03	3E-02
Chromium III	1E-09	6E-08	6E-06	4E-09	1E-07	6E-06	6E-05
Chromium VI	2E-08	3E-06	2E-04	2E-07	3E-06	9E-05	4E-03
Nickel	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA

Table B.10.3 Risk Results - Lightweight Aggregate Kilns from all Indirect Pathways Combined - Proposed BTF - New Sources

Chemical	Central Tendency			High End			Bounding
	Low	Median	High	Low	Median	High	
<b>Carcinogens (risk)</b>							
2,3,7,8-TCDD-TEQ	2E-09	5E-08	2E-06	5E-09	7E-08	1E-06	7E-06
Arsenic	2E-10	9E-09	5E-07	5E-10	2E-08	4E-07	5E-06
Beryllium	1E-09	3E-08	6E-07	3E-09	6E-08	6E-07	3E-06
<b>Non Carcinogens (hazard quotient)</b>							
Antimony	1E-07	3E-05	3E-04	2E-06	6E-05	2E-04	4E-03
Barium	NA	NA	NA	NA	NA	NA	NA
Cadmium	2E-06	7E-05	1E-03	6E-06	3E-04	1E-03	2E-02
Chromium III	2E-09	8E-08	3E-06	9E-09	2E-07	2E-06	2E-05
Chromium VI	1E-07	3E-06	2E-04	3E-07	4E-06	3E-05	5E-03
Nickel	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA

**Table B.10.4 Risk Results - Subsistence Beef Farmer from all Pathways Combined - Proposed BTF - New Sources**

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	4E-08	1E-06	7E-08	2E-06	6E-08	3E-07	1E-07	6E-07	3E-07	7E-07	5E-07	1E-06
Arsenic	1E-09	1E-06	3E-09	2E-06	2E-09	1E-07	4E-09	2E-07	1E-08	2E-08	2E-08	4E-08
Beryllium	4E-09	2E-07	7E-09	4E-07	8E-09	1E-07	2E-08	2E-07	3E-08	9E-08	6E-08	2E-07
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	5E-06	7E-03	NA	NA	7E-06	6E-04	NA	NA	2E-05	7E-05	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	9E-06	1E-03	NA	NA	2E-05	4E-04	NA	NA	7E-05	2E-04	NA	NA
Chromium III	1E-08	5E-07	NA	NA	3E-08	3E-07	NA	NA	9E-08	3E-07	NA	NA
Chromium VI	1E-06	5E-04	NA	NA	1E-06	5E-05	NA	NA	7E-06	2E-05	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**Table B.10.5 Risk Results - Subsistence Dairy Farmer from all Pathways Combined - Proposed BTF - New Sources**

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	3E-08	9E-07	6E-08	2E-06	3E-08	2E-07	5E-08	3E-07	1E-07	6E-07	2E-07	1E-06
Arsenic	9E-09	1E-06	2E-08	2E-06	9E-09	1E-07	2E-08	2E-07	3E-08	2E-07	6E-08	4E-07
Beryllium	2E-09	1E-07	5E-09	3E-07	4E-09	9E-08	7E-09	2E-07	9E-09	6E-08	2E-08	1E-07
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	4E-06	7E-03	NA	NA	3E-06	6E-04	NA	NA	9E-06	6E-05	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	9E-06	1E-03	NA	NA	1E-05	4E-04	NA	NA	3E-05	2E-04	NA	NA
Chromium III	1E-08	5E-07	NA	NA	1E-08	3E-07	NA	NA	4E-08	3E-07	NA	NA
Chromium VI	1E-06	5E-04	NA	NA	1E-06	5E-05	NA	NA	3E-06	2E-05	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**Table B.10.6 Risk Results - Subsistence Pork Farmer from all Pathways Combined - Proposed BTF - New Sources**

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	5E-09	7E-08	1E-08	1E-07	4E-09	7E-08	8E-09	1E-07	3E-08	4E-08	5E-08	7E-08
Arsenic	8E-10	1E-06	1E-09	2E-06	9E-10	1E-07	2E-09	2E-07	8E-09	1E-08	2E-08	2E-08
Beryllium	3E-09	1E-07	5E-09	3E-07	6E-09	9E-08	1E-08	2E-07	2E-08	6E-08	4E-08	1E-07
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	3E-06	7E-03	NA	NA	4E-06	6E-04	NA	NA	1E-05	4E-05	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	9E-06	1E-03	NA	NA	2E-05	4E-04	NA	NA	6E-05	2E-04	NA	NA
Chromium III	4E-09	2E-07	NA	NA	8E-09	1E-07	NA	NA	4E-08	9E-08	NA	NA
Chromium VI	2E-07	5E-04	NA	NA	3E-07	5E-05	NA	NA	2E-06	4E-06	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table B.10.7 Risk Results - Subsistence Poultry Farmer from all Pathways Combined - Proposed BTF - New Sources

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	5E-08	8E-07	9E-08	1E-06	5E-08	7E-07	8E-08	1E-06	1E-07	4E-07	2E-07	6E-07
Arsenic	2E-09	1E-06	3E-09	2E-06	9E-10	1E-07	2E-09	2E-07	8E-09	1E-08	1E-08	2E-08
Beryllium	8E-09	1E-07	2E-08	2E-07	5E-09	9E-08	1E-08	2E-07	2E-08	6E-08	4E-08	1E-07
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	8E-06	7E-03	NA	NA	4E-06	6E-04	NA	NA	1E-05	4E-05	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	3E-05	1E-03	NA	NA	2E-05	4E-04	NA	NA	6E-05	2E-04	NA	NA
Chromium III	1E-08	1E-07	NA	NA	6E-09	9E-08	NA	NA	3E-08	7E-08	NA	NA
Chromium VI	4E-07	5E-04	NA	NA	3E-07	5E-05	NA	NA	1E-06	3E-06	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**Table B.10.8 Risk Results - Subsistence Fisher from all Pathways Combined - Proposed BTF - New Sources**

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	3E-09	1E-07	6E-09	3E-07	2E-08	1E-06	4E-08	2E-06	1E-08	2E-07	3E-08	5E-07
Arsenic	7E-10	9E-07	2E-09	3E-06	3E-09	2E-07	9E-09	7E-07	6E-10	9E-08	2E-09	3E-07
Beryllium	3E-09	2E-07	5E-09	4E-07	1E-08	1E-06	2E-08	1E-06	5E-09	2E-07	1E-08	6E-07
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	1E-07	7E-03	NA	NA	1E-07	6E-04	NA	NA	1E-07	3E-05	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	4E-06	4E-03	NA	NA	4E-05	3E-03	NA	NA	6E-06	8E-04	NA	NA
Chromium III	8E-10	8E-08	NA	NA	5E-09	1E-07	NA	NA	2E-09	2E-07	NA	NA
Chromium VI	3E-07	6E-04	NA	NA	6E-07	6E-05	NA	NA	2E-07	2E-05	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA



**Table B.10.9 Risk Results - Home Gardener from all Pathways Combined - Proposed BTF - New Sources**

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	3E-09	1E-08	9E-09	3E-08	1E-09	6E-08	3E-09	1E-07	1E-08	2E-08	4E-08	5E-08
Arsenic	1E-09	5E-07	5E-09	1E-06	3E-10	5E-08	1E-09	1E-07	5E-09	9E-09	2E-08	3E-08
Beryllium	2E-08	7E-08	5E-08	1E-07	5E-09	3E-07	1E-08	6E-07	8E-08	1E-07	2E-07	2E-07
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	8E-06	7E-03	1E-05	7E-03	2E-06	6E-04	2E-06	6E-04	3E-05	6E-05	4E-05	7E-05
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	5E-05	1E-03	8E-05	1E-03	1E-05	1E-03	2E-05	1E-03	2E-04	3E-04	3E-04	4E-04
Chromium III	5E-08	1E-07	6E-08	1E-07	1E-08	6E-07	1E-08	7E-07	2E-07	2E-07	2E-07	2E-07
Chromium VI	8E-07	5E-04	1E-06	5E-04	2E-07	5E-05	2E-07	5E-05	3E-06	6E-06	4E-06	6E-06
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**Table B.10.10 Risk Results - Typical Resident from all Pathways Combined - Proposed BTF - New Sources**

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	7E-10	6E-09	2E-09	2E-08	3E-10	2E-08	9E-10	6E-08	2E-09	8E-09	5E-09	3E-08
Arsenic	2E-10	5E-07	5E-10	1E-06	4E-11	5E-08	1E-10	1E-07	2E-10	5E-09	5E-10	1E-08
Beryllium	3E-10	2E-08	6E-10	4E-08	6E-10	3E-08	1E-09	5E-08	1E-09	5E-09	3E-09	1E-08
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	1E-07	7E-03	NA	NA	4E-08	6E-04	NA	NA	2E-07	3E-05	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	7E-07	1E-03	NA	NA	7E-07	3E-04	NA	NA	2E-06	1E-05	NA	NA
Chromium III	8E-10	9E-09	NA	NA	1E-09	2E-08	NA	NA	9E-09	1E-08	NA	NA
Chromium VI	6E-08	5E-04	NA	NA	2E-08	5E-05	NA	NA	1E-07	3E-06	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**Table B.10.11 Risk Results - Typical Farmer from all Pathways Combined - Proposed BTF - New Sources**

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	2E-09	1E-08	3E-09	3E-08	4E-09	5E-08	8E-09	1E-07	6E-09	2E-08	1E-08	3E-08
Arsenic	4E-10	1E-06	7E-10	2E-06	3E-10	1E-07	9E-10	2E-07	7E-10	1E-08	2E-09	2E-08
Beryllium	6E-10	4E-08	8E-10	5E-08	2E-09	6E-08	3E-09	7E-08	4E-09	1E-08	5E-09	2E-08
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	5E-07	7E-03	5E-07	7E-03	6E-07	6E-04	9E-07	6E-04	1E-06	3E-05	2E-06	3E-05
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	2E-06	1E-03	2E-06	1E-03	5E-06	3E-04	7E-06	3E-04	5E-06	1E-05	6E-06	2E-05
Chromium III	8E-10	9E-09	8E-10	9E-09	3E-09	2E-08	4E-09	3E-08	9E-09	1E-08	9E-09	1E-08
Chromium VI	6E-08	5E-04	6E-08	5E-04	1E-07	5E-05	2E-07	5E-05	3E-07	3E-06	3E-07	3E-06
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**Table B.10.12 Risk Results - Recreational Fisher from all Pathways Combined - Proposed BTF - New Sources**

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	2E-09	5E-08	4E-09	1E-07	1E-08	5E-07	2E-08	1E-06	8E-09	1E-07	2E-08	2E-07
Arsenic	4E-10	6E-07	1E-09	2E-06	2E-09	1E-07	5E-09	4E-07	4E-10	4E-08	1E-09	1E-07
Beryllium	3E-09	1E-07	6E-09	2E-07	7E-09	5E-07	2E-08	7E-07	3E-09	1E-07	8E-09	2E-07
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	1E-07	7E-03	NA	NA	4E-08	6E-04	NA	NA	2E-07	3E-05	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	2E-06	2E-03	NA	NA	2E-05	1E-03	NA	NA	5E-06	4E-04	NA	NA
Chromium III	8E-10	9E-09	NA	NA	1E-09	2E-08	NA	NA	9E-09	1E-08	NA	NA
Chromium VI	2E-07	5E-04	NA	NA	3E-07	5E-05	NA	NA	2E-07	8E-06	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**Table B.10.13 Risk Results - Subsistence Dairy Farmer Child from all Pathways Combined - Proposed BTF - New Sources**

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	8E-08	2E-06	NA	NA	7E-08	5E-07	NA	NA	3E-07	2E-06	NA	NA
Arsenic	2E-08	1E-06	NA	NA	2E-08	2E-07	NA	NA	8E-08	5E-07	NA	NA
Beryllium	6E-09	3E-07	NA	NA	8E-09	2E-07	NA	NA	2E-08	1E-07	NA	NA
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	2E-05	1E-02	NA	NA	2E-05	1E-03	NA	NA	4E-05	3E-04	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	4E-05	2E-03	NA	NA	6E-05	1E-03	NA	NA	1E-04	7E-04	NA	NA
Chromium III	9E-08	5E-06	NA	NA	1E-07	3E-06	NA	NA	4E-07	3E-06	NA	NA
Chromium VI	1E-05	8E-04	NA	NA	1E-05	2E-04	NA	NA	3E-05	2E-04	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**Table B.10.14 Risk Results - Home Gardener Child from all Pathways Combined - Proposed BTF - New Sources**

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	2E-08	6E-08	1E-08	5E-08	5E-09	3E-07	4E-09	2E-07	8E-08	1E-07	6E-08	8E-08
Arsenic	5E-09	5E-07	5E-09	5E-07	1E-09	6E-08	1E-09	6E-08	2E-08	3E-08	2E-08	3E-08
Beryllium	1E-07	4E-07	8E-08	2E-07	3E-08	2E-06	2E-08	1E-06	5E-07	6E-07	3E-07	4E-07
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	4E-05	1E-02	4E-05	1E-02	6E-06	1E-03	9E-06	1E-03	1E-04	2E-04	1E-04	2E-04
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	2E-04	3E-03	3E-04	3E-03	7E-05	5E-03	9E-05	6E-03	1E-03	1E-03	1E-03	1E-03
Chromium III	5E-07	1E-06	5E-07	1E-06	1E-07	6E-06	1E-07	6E-06	2E-06	2E-06	2E-06	2E-06
Chromium VI	5E-06	8E-04	6E-06	8E-04	1E-06	9E-05	1E-06	9E-05	2E-05	2E-05	2E-05	3E-05
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table B.10.15 Risk Results - Typical Resident Child from all Pathways Combined - Proposed BTF - New Sources

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	4E-09	3E-08	NA	NA	2E-09	1E-07	NA	NA	7E-09	5E-08	NA	NA
Arsenic	8E-10	5E-07	NA	NA	2E-10	5E-08	NA	NA	9E-10	2E-08	NA	NA
Beryllium	1E-09	2E-08	NA	NA	4E-09	4E-08	NA	NA	9E-09	3E-08	NA	NA
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	6E-07	1E-02	NA	NA	2E-07	1E-03	NA	NA	1E-06	6E-05	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	5E-06	2E-03	NA	NA	4E-06	5E-04	NA	NA	1E-05	3E-05	NA	NA
Chromium III	6E-09	7E-08	NA	NA	1E-08	2E-07	NA	NA	8E-08	1E-07	NA	NA
Chromium VI	4E-07	8E-04	NA	NA	2E-07	8E-05	NA	NA	9E-07	9E-06	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**Table B.1.16 Risk Results - Direct Inhalation Based on the Maximum Exposed Individual - Proposed Beyond the Floor for New Sources**

Constituents	Incinerators				Cement Kilns				Light Weight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens</b>												
2,3,7,8-TCDD-TEQ	2E-09	6E-09	6E-09	2E-08	4E-10	4E-09	2E-09	2E-08	5E-09	1E-08	3E-08	4E-08
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	3E-08	1E-07	1E-07	4E-07	5E-09	6E-08	1E-08	1E-07	1E-07	3E-07	4E-07	7E-07
Beryllium	2E-08	6E-08	5E-08	2E-07	3E-09	3E-08	1E-08	1E-07	7E-08	8E-08	2E-07	3E-07
Cadmium	1E-08	3E-08	4E-08	2E-07	3E-09	3E-08	1E-08	1E-07	6E-08	1E-07	2E-07	3E-07
Chromium VI	8E-08	3E-07	3E-07	1E-06	2E-08	2E-07	6E-08	6E-07	3E-07	5E-07	1E-06	2E-06
<b>Noncarcinogens</b>												
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hydrogen Chloride	HQ = 0.004	HQ = 0.01			HQ = 0.01	HQ = 0.1			HQ = 0.01	HQ = 0.02		



**Table B.10.17 Risk Results - Range of 2,3,7,8-TCDD-TEQ Infant Breastmilk Exposure Ratios - Proposed BTF for New Sources\***

Scenario	Incinerators				Cement Kilns				Light Weight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
Subsistence beef farmer	5E-04	2E-02	NA	NA	8E-04	5E-03	NA	NA	4E-03	1E-02	NA	NA
Subsistence dairy farmer	4E-04	1E-02	NA	NA	4E-04	3E-03	NA	NA	1E-03	8E-03	NA	NA
Subsistence pork farmer	8E-05	1E-03	NA	NA	6E-05	1E-03	NA	NA	4E-04	6E-04	NA	NA
Subsistence poultry farmer	7E-04	1E-02	NA	NA	7E-04	1E-02	NA	NA	2E-03	6E-03	NA	NA
Subsistence fisher	8E-05	3E-03	NA	NA	6E-04	3E-02	NA	NA	4E-04	7E-03	NA	NA
Recreational fisher	5E-05	2E-03	NA	NA	3E-04	2E-02	NA	NA	3E-04	3E-03	NA	NA
Home gardener	1E-04	4E-04	NA	NA	3E-05	2E-03	NA	NA	5E-04	6E-04	NA	NA
Typical Farmer	2E-05	2E-04	NA	NA	1E-04	7E-04	NA	NA	9E-05	3E-04	NA	NA
Typical Resident	2E-05	2E-04	NA	NA	2E-05	6E-04	NA	NA	6E-05	3E-04	NA	NA

\* Ratio of the estimated total 2,3,7,8-TCDD-TEQ dose to the infant from the source to the background total 2,3,7,8-TCDD-TEQ dose to the infant (50 pg/kg/day).

**Table B.10.18 Risk Results - Range of Soil Lead Ratios - Proposed Beyond the Floor for New Sources**

Scenario	Incinerators				Cement Kilns				Light Weight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
Subsistence beef farmer	4E-06	2E-04	4E-06	2E-04	1E-05	2E-04	1E-05	2E-04	3E-05	1E-04	3E-05	1E-04
Subsistence dairy farmer	4E-06	2E-04	4E-06	2E-04	1E-05	2E-04	1E-05	2E-04	1E-05	1E-04	1E-05	1E-04
Subsistence pork farmer	4E-06	2E-04	4E-06	2E-04	1E-05	2E-04	1E-05	2E-04	3E-05	1E-04	3E-05	1E-04
Subsistence poultry farmer	2E-05	2E-04	2E-05	2E-04	1E-05	2E-04	1E-05	2E-04	3E-05	1E-04	3E-05	1E-04
Subsistence fisher	7E-07	1E-04	7E-07	1E-04	3E-06	3E-04	3E-06	3E-04	3E-06	3E-04	3E-06	3E-04
Typical resident/ typical farmer/ recreational fisher	8E-07	8E-06	8E-07	8E-06	3E-06	3E-05	3E-06	3E-05	6E-06	2E-05	6E-06	2E-05
Home gardener	8E-05	3E-04	8E-05	3E-04	3E-05	1E-03	3E-05	1E-03	3E-04	4E-04	3E-04	4E-04

Table B.11.1 Risk Results - Incinerators from all Indirect Pathways Combined - CEM Compliance Option

Chemical	Central Tendency			High End			Bounding
	Low	Median	High	Low	Median	High	
<b>Carcinogens (risk)</b>							
2,3,7,8-TCDD-TEQ	7E-10	3E-08	2E-06	2E-09	3E-08	2E-06	3E-06
Arsenic	4E-10	1E-08	3E-06	1E-09	3E-08	6E-06	1E-05
Beryllium	6E-10	5E-08	9E-07	1E-09	1E-07	9E-07	2E-06
<b>Non Carcinogens (hazard quotient)</b>							
Antimony	2E-07	4E-05	3E-02	1E-06	8E-05	3E-02	5E-02
Barium	NA	NA	NA	NA	NA	NA	NA
Cadmium	7E-07	7E-05	4E-03	2E-06	2E-04	4E-03	1E-02
Chromium III	2E-09	9E-08	1E-05	2E-09	1E-07	3E-06	7E-05
Chromium VI	1E-07	7E-06	2E-03	1E-07	6E-06	2E-03	4E-03
Nickel	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA

Table B.11.2 Risk Results - Cement Kilns from all Indirect Pathways Combined - CEM Compliance Option

Chemical	Central Tendency			High End			Bounding
	Low	Median	High	Low	Median	High	
<b>Carcinogens (risk)</b>							
2,3,7,8-TCDD-TEQ	3E-10	5E-08	1E-06	9E-10	9E-08	2E-06	5E-06
Arsenic	1E-10	3E-08	8E-07	4E-10	6E-08	2E-06	1E-05
Beryllium	2E-09	1E-07	5E-06	4E-09	2E-07	4E-06	1E-05
<b>Non Carcinogens (hazard quotient)</b>							
Antimony	2E-07	7E-05	3E-03	3E-06	1E-04	3E-03	2E-02
Barium	NA	NA	NA	NA	NA	NA	NA
Cadmium	7E-07	1E-04	5E-03	8E-06	2E-04	6E-03	3E-02
Chromium III	4E-09	2E-07	2E-05	1E-08	3E-07	2E-05	2E-04
Chromium VI	7E-08	1E-05	6E-04	4E-07	1E-05	2E-04	1E-02
Nickel	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA

**Table B.11.3 Risk Results - Lightweight Aggregate Kilns from all Indirect Pathways Combined - CEM Compliance Option**

Chemical	Central Tendency			High End			Bounding
	Low	Median	High	Low	Median	High	
<b>Carcinogens (risk)</b>							
2,3,7,8-TCDD-TEQ	2E-09	5E-08	2E-06	5E-09	7E-08	1E-06	7E-06
Arsenic	4E-10	2E-08	1E-06	1E-09	5E-08	8E-07	1E-05
Beryllium	3E-09	7E-08	1E-06	7E-09	1E-07	1E-06	8E-06
<b>Non Carcinogens (hazard quotient)</b>							
Antimony	3E-07	7E-05	6E-04	4E-06	1E-04	5E-04	9E-03
Barium	NA	NA	NA	NA	NA	NA	NA
Cadmium	2E-06	8E-05	1E-03	7E-06	4E-04	2E-03	3E-03
Chromium III	5E-09	2E-07	5E-06	2E-08	4E-07	5E-06	6E-05
Chromium VI	3E-07	8E-06	5E-04	7E-07	1E-05	7E-05	1E-02
Nickel	3E-02	NA	NA	NA	NA	NA	NA
Selenium	1E-01	NA	NA	NA	NA	NA	NA
Silver	1E-01	NA	NA	NA	NA	NA	NA
Thallium	3E+01	NA	NA	NA	NA	NA	NA

**Table B.11.4 Risk Results - Subsistence Beef Farmer from all Pathways Combined - CEM Compliance Option**

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	4E-08	1E-06	7E-08	2E-06	6E-08	3E-07	1E-07	6E-07	3E-07	7E-07	5E-07	1E-06
Arsenic	3E-09	2E-06	6E-09	4E-06	6E-09	3E-07	1E-08	6E-07	3E-08	5E-08	5E-08	9E-08
Beryllium	9E-09	5E-07	2E-08	9E-07	3E-08	4E-07	5E-08	7E-07	7E-08	2E-07	1E-07	4E-07
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	1E-05	2E-02	NA	NA	2E-05	2E-03	NA	NA	6E-05	2E-04	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1E-05	2E-03	NA	NA	3E-05	5E-04	NA	NA	8E-05	2E-04	NA	NA
Chromium III	3E-08	1E-06	NA	NA	7E-08	8E-07	NA	NA	2E-07	5E-07	NA	NA
Chromium VI	2E-06	1E-03	NA	NA	6E-06	1E-04	NA	NA	1E-05	5E-05	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**Table B.11.5 Risk Results - Subsistence Dairy Farmer from all Pathways Combined - CEM Compliance Option**

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	3E-08	9E-07	6E-08	2E-06	3E-08	2E-07	5E-08	3E-07	1E-07	6E-07	2E-07	1E-06
Arsenic	2E-08	2E-06	4E-08	4E-06	3E-08	3E-07	5E-08	6E-07	7E-08	4E-07	1E-07	8E-07
Beryllium	6E-09	3E-07	1E-08	6E-07	1E-08	3E-07	2E-08	5E-07	2E-08	1E-07	4E-08	2E-07
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	8E-06	2E-02	NA	NA	9E-06	2E-03	NA	NA	2E-05	1E-04	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1E-05	2E-03	NA	NA	2E-05	5E-04	NA	NA	3E-05	2E-04	NA	NA
Chromium III	3E-08	1E-06	NA	NA	4E-08	8E-07	NA	NA	9E-08	5E-07	NA	NA
Chromium VI	2E-06	1E-03	NA	NA	5E-06	1E-04	NA	NA	9E-06	6E-05	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**Table B.11.6 Risk Results - Subsistence Pork Farmer from all Pathways Combined - CEM Compliance Option**

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	5E-09	7E-08	1E-08	1E-07	4E-09	7E-08	8E-09	1E-07	3E-08	4E-08	5E-08	7E-08
Arsenic	2E-09	2E-06	3E-09	4E-06	3E-09	3E-07	5E-09	6E-07	2E-08	3E-08	3E-08	6E-08
Beryllium	6E-09	3E-07	1E-08	6E-07	2E-08	3E-07	3E-08	5E-07	5E-08	1E-07	8E-08	3E-07
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	6E-06	2E-02	NA	NA	1E-05	2E-03	NA	NA	3E-05	1E-04	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1E-05	2E-03	NA	NA	3E-05	5E-04	NA	NA	8E-05	2E-04	NA	NA
Chromium III	9E-09	5E-07	NA	NA	3E-08	3E-07	NA	NA	8E-08	2E-07	NA	NA
Chromium VI	4E-07	1E-03	NA	NA	9E-07	1E-04	NA	NA	4E-06	1E-05	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA



**Table B.11.7 Risk Results - Subsistence Poultry Farmer from all Pathways Combined - CEM Compliance Option**

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	5E-08	8E-07	9E-08	1E-06	5E-08	7E-07	8E-08	1E-06	1E-07	4E-07	2E-07	6E-07
Arsenic	4E-09	2E-06	8E-09	4E-06	3E-09	3E-07	5E-09	6E-07	2E-08	3E-08	3E-08	6E-08
Beryllium	2E-08	3E-07	4E-08	6E-07	2E-08	3E-07	3E-08	5E-07	4E-08	1E-07	8E-08	2E-07
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	2E-05	2E-02	NA	NA	1E-05	2E-03	NA	NA	3E-05	1E-04	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	3E-05	2E-03	NA	NA	3E-05	5E-04	NA	NA	8E-05	2E-04	NA	NA
Chromium III	2E-08	4E-07	NA	NA	2E-08	3E-07	NA	NA	6E-08	1E-07	NA	NA
Chromium VI	1E-06	1E-03	NA	NA	8E-07	1E-04	NA	NA	3E-06	9E-06	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table B.11.8 Risk Results - Subsistence Fisher from all Pathways Combined - CEM Compliance Option

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	3E-09	1E-07	6E-09	3E-07	2E-08	1E-06	4E-08	2E-06	1E-08	2E-07	3E-08	5E-07
Arsenic	2E-09	2E-06	5E-09	6E-06	9E-09	8E-07	3E-08	2E-06	1E-09	2E-07	4E-09	6E-07
Beryllium	8E-09	5E-07	1E-08	9E-07	4E-08	3E-06	7E-08	4E-06	1E-08	6E-07	3E-08	1E-06
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	2E-07	2E-02	NA	NA	4E-07	2E-03	NA	NA	3E-07	7E-05	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	4E-06	4E-03	NA	NA	4E-05	3E-03	NA	NA	7E-06	9E-04	NA	NA
Chromium III	2E-09	2E-07	NA	NA	1E-08	4E-07	NA	NA	5E-09	4E-07	NA	NA
Chromium VI	6E-07	1E-03	NA	NA	1E-06	1E-04	NA	NA	4E-07	4E-05	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**Table B.11.9 Risk Results - Home Gardener from all Pathways Combined - CEM Compliance Option**

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	3E-09	1E-08	9E-09	3E-08	1E-09	6E-08	3E-09	1E-07	1E-08	2E-08	4E-08	5E-08
Arsenic	3E-09	1E-06	1E-08	3E-06	8E-10	1E-07	3E-09	5E-07	1E-08	2E-08	5E-08	6E-08
Beryllium	5E-08	2E-07	1E-07	3E-07	1E-08	8E-07	3E-08	2E-06	2E-07	2E-07	4E-07	5E-07
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	2E-05	2E-02	3E-05	2E-02	5E-06	2E-03	7E-06	2E-03	7E-05	1E-04	1E-04	2E-04
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	6E-05	2E-03	9E-05	2E-03	1E-05	1E-03	2E-05	2E-03	2E-04	3E-04	3E-04	5E-04
Chromium III	1E-07	3E-07	1E-07	3E-07	3E-08	2E-06	3E-08	2E-06	4E-07	5E-07	4E-07	6E-07
Chromium VI	2E-06	1E-03	3E-06	1E-03	5E-07	1E-04	6E-07	1E-04	8E-06	1E-05	9E-06	2E-05
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**Table B.11.10 Risk Results - Typical Resident from all Pathways Combined - CEM Compliance Option**

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	7E-10	6E-09	2E-09	2E-08	3E-10	2E-08	9E-10	6E-08	2E-09	8E-09	5E-09	3E-08
Arsenic	4E-10	1E-06	1E-09	3E-06	1E-10	1E-07	4E-10	4E-07	4E-10	1E-08	1E-09	3E-08
Beryllium	6E-10	4E-08	1E-09	8E-08	2E-09	8E-08	4E-09	2E-07	3E-09	1E-08	7E-09	2E-08
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	2E-07	2E-02	NA	NA	2E-07	2E-03	NA	NA	4E-07	7E-05	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	7E-07	2E-03	NA	NA	7E-07	4E-04	NA	NA	2E-06	1E-05	NA	NA
Chromium III	2E-09	2E-08	NA	NA	4E-09	7E-08	NA	NA	2E-08	3E-08	NA	NA
Chromium VI	1E-07	1E-03	NA	NA	7E-08	1E-04	NA	NA	3E-07	7E-06	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**Table B.11.11 Risk Results - Typical Farmer from all Pathways Combined - CEM Compliance Option**

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	2E-09	1E-08	3E-09	3E-08	4E-09	5E-08	8E-09	1E-07	6E-09	2E-08	1E-08	3E-08
Arsenic	9E-10	2E-06	2E-09	4E-06	1E-09	3E-07	3E-09	6E-07	2E-09	2E-08	4E-09	5E-08
Beryllium	1E-09	9E-08	2E-09	1E-07	6E-09	2E-07	1E-08	2E-07	8E-09	3E-08	1E-08	4E-08
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	1E-06	2E-02	1E-06	2E-02	2E-06	2E-03	3E-06	2E-03	3E-06	7E-05	4E-06	7E-05
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	2E-06	2E-03	2E-06	2E-03	5E-06	4E-04	8E-06	4E-04	5E-06	1E-05	7E-06	2E-05
Chromium III	2E-09	2E-08	2E-09	2E-08	1E-08	8E-08	1E-08	1E-07	2E-08	4E-08	2E-08	4E-08
Chromium VI	1E-07	1E-03	1E-07	1E-03	4E-07	1E-04	4E-07	1E-04	6E-07	7E-06	7E-07	7E-06
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table B.11.12 Risk Results - Recreational Fisher from all Pathways Combined - CEM Compliance Option

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	2E-09	5E-08	4E-09	1E-07	1E-08	5E-07	2E-08	1E-06	8E-09	1E-07	2E-08	2E-07
Arsenic	1E-09	1E-06	3E-09	4E-06	5E-09	4E-07	2E-08	1E-06	1E-09	1E-07	3E-09	3E-07
Beryllium	6E-09	2E-07	1E-08	5E-07	2E-08	2E-06	5E-08	2E-06	8E-09	2E-07	2E-08	6E-07
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	2E-07	2E-02	NA	NA	2E-07	2E-03	NA	NA	4E-07	7E-05	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	3E-06	3E-03	NA	NA	2E-05	2E-03	NA	NA	5E-06	5E-04	NA	NA
Chromium III	2E-09	2E-08	NA	NA	4E-09	7E-08	NA	NA	2E-08	3E-08	NA	NA
Chromium VI	5E-07	1E-03	NA	NA	1E-06	1E-04	NA	NA	4E-07	2E-05	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table B.11.13 Risk Results - Subsistence Dairy Farmer Child from all Pathways Combined - CEM Compliance Option

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	8E-08	2E-06	NA	NA	7E-08	5E-07	NA	NA	3E-07	2E-06	NA	NA
Arsenic	6E-08	3E-06	NA	NA	7E-08	6E-07	NA	NA	2E-07	1E-06	NA	NA
Beryllium	1E-08	7E-07	NA	NA	3E-08	6E-07	NA	NA	5E-08	3E-07	NA	NA
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	4E-05	3E-02	NA	NA	5E-05	3E-03	NA	NA	1E-04	6E-04	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	4E-05	3E-03	NA	NA	7E-05	1E-03	NA	NA	1E-04	8E-04	NA	NA
Chromium III	3E-07	1E-05	NA	NA	4E-07	7E-06	NA	NA	8E-07	5E-06	NA	NA
Chromium VI	2E-05	2E-03	NA	NA	3E-05	6E-04	NA	NA	7E-05	5E-04	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table B.11.14 Risk Results - Home Gardener Child from all Pathways Combined - CEM Compliance Option

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	2E-08	6E-08	1E-08	5E-08	5E-09	3E-07	4E-09	2E-07	8E-08	1E-07	6E-08	8E-08
Arsenic	1E-08	1E-06	1E-08	1E-06	3E-09	2E-07	3E-09	2E-07	5E-08	7E-08	5E-08	7E-08
Beryllium	3E-07	9E-07	2E-07	6E-07	9E-08	5E-06	5E-08	3E-06	1E-06	1E-06	6E-07	9E-07
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	7E-05	3E-02	1E-04	3E-02	2E-05	3E-03	2E-05	3E-03	3E-04	4E-04	4E-04	5E-04
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	3E-04	4E-03	4E-04	4E-03	8E-05	5E-03	1E-04	6E-03	1E-03	1E-03	1E-03	2E-03
Chromium III	1E-06	3E-06	1E-06	3E-06	3E-07	2E-05	3E-07	2E-05	4E-06	5E-06	4E-06	5E-06
Chromium VI	1E-05	2E-03	1E-05	2E-03	3E-06	2E-04	3E-06	2E-04	5E-05	6E-05	5E-05	7E-05
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA



Table B.11.15 Risk Results - Typical Resident Child from all Pathways Combined - CEM Compliance Option

Chemical	Incinerators				Cement Kilns				Lightweight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens (risk)</b>												
2,3,7,8-TCDD-TEQ	4E-09	3E-08	NA	NA	2E-09	1E-07	NA	NA	7E-09	5E-08	NA	NA
Arsenic	2E-09	1E-06	NA	NA	7E-10	2E-07	NA	NA	2E-09	4E-08	NA	NA
Beryllium	3E-09	5E-08	NA	NA	1E-08	1E-07	NA	NA	2E-08	7E-08	NA	NA
<b>Non Carcinogens (hazard quotient)</b>												
Antimony	1E-06	3E-02	NA	NA	7E-07	3E-03	NA	NA	3E-06	1E-04	NA	NA
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	5E-06	3E-03	NA	NA	5E-06	6E-04	NA	NA	1E-05	3E-05	NA	NA
Chromium III	2E-08	2E-07	NA	NA	4E-08	6E-07	NA	NA	2E-07	2E-07	NA	NA
Chromium VI	8E-07	2E-03	NA	NA	5E-07	2E-04	NA	NA	2E-06	2E-05	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**Table B.11.16 Risk Results - Direct Inhalation Based on the Maximum Exposed Individual - Continuous Emission Modeling for New Sources**

Constituents	Incinerators				Cement Kilns				Light Weight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
<b>Carcinogens</b>												
2,3,7,8-TCDD-TEQ	2E-09	6E-09	6E-09	2E-08	4E-10	4E-09	2E-09	2E-08	5E-09	1E-08	3E-08	4E-08
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	6E-08	3E-07	3E-07	8E-07	2E-08	2E-07	4E-08	4E-07	3E-07	6E-07	8E-07	2E-06
Beryllium	4E-08	1E-07	1E-07	5E-07	1E-08	1E-07	3E-08	3E-07	2E-07	2E-07	4E-07	8E-07
Cadmium	2E-08	4E-08	5E-08	2E-07	3E-09	3E-08	1E-08	1E-07	6E-08	1E-07	2E-07	3E-07
Chromium VI	2E-07	8E-07	6E-07	3E-06	5E-08	5E-07	2E-07	2E-06	6E-07	1E-06	2E-06	5E-06
<b>Noncarcinogens</b>												
Barium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hydrogen Chloride	HQ = 0.004	HQ = 0.01			HQ = 0.001	HQ = 0.01			HQ = 0.01	HQ = 0.02		

**Table B.11.17 Risk Results - Range of 2,3,7,8-TCDD-TEQ Infant Breastmilk Exposure Ratios - Proposed CEM for New Sources\***

Scenario	Incinerators				Cement Kilns				Light Weight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
Subsistence beef farmer	4E-06	3E-04	4E-06	3E-04	1E-05	2E-04	1E-05	2E-04	4E-05	1E-04	4E-05	1E-04
Subsistence dairy farmer	4E-06	3E-04	4E-06	3E-04	1E-05	2E-04	1E-05	2E-04	2E-05	1E-04	2E-05	1E-04
Subsistence pork farmer	4E-06	3E-04	4E-06	3E-04	1E-05	2E-04	1E-05	2E-04	4E-05	1E-04	4E-05	1E-04
Subsistence poultry farmer	2E-05	3E-04	2E-05	3E-04	1E-05	2E-04	1E-05	2E-04	4E-05	1E-04	4E-05	1E-04
Subsistence fisher	8E-07	1E-04	8E-07	1E-04	4E-06	4E-04	4E-06	4E-04	3E-06	4E-04	3E-06	4E-04
Typical resident/ typical farmer/ recreational fisher	9E-07	9E-06	9E-07	9E-06	4E-06	4E-04	4E-06	4E-04	6E-06	2E-05	6E-06	2E-05
Home gardener	9E-05	3E-04	9E-05	3E-04	3E-05	1E-03	3E-05	1E-03	3E-04	5E-04	3E-04	5E-04

**Table B.11.18 Risk Results - Range of Soil Lead Ratios - Proposed Continuous Emission Monitoring for New Sources**

Scenario	Incinerators				Cement Kilns				Light Weight Aggregate Kilns			
	Central Tendency		High End		Central Tendency		High End		Central Tendency		High End	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
Subsistence beef farmer	4E-06	3E-04	4E-06	3E-04	1E-05	2E-04	1E-05	2E-04	4E-05	1E-04	4E-05	1E-04
Subsistence dairy farmer	4E-06	3E-04	4E-06	3E-04	1E-05	2E-04	1E-05	2E-04	2E-05	1E-04	2E-05	1E-04
Subsistence pork farmer	4E-06	3E-04	4E-06	3E-04	1E-05	2E-04	1E-05	2E-04	4E-05	1E-04	4E-05	1E-04
Subsistence poultry farmer	2E-05	3E-04	2E-05	3E-04	1E-05	2E-04	1E-05	2E-04	4E-05	1E-04	4E-05	1E-04
Subsistence fisher	8E-07	1E-04	8E-07	1E-04	4E-06	4E-04	4E-06	4E-04	3E-06	4E-04	3E-06	4E-04
Typical resident/ typical farmer/ recreational fisher	9E-07	9E-06	9E-07	9E-06	4E-06	4E-04	4E-06	4E-04	6E-06	2E-05	6E-06	2E-05
Home gardener	9E-05	3E-04	9E-05	3E-04	3E-05	1E-03	3E-05	1E-03	3E-04	5E-04	3E-04	5E-04