TABLE B.3.6–3.—*Estimated Emission Rates for Hazardous Air Pollutants[1] from Open Burning for 2,000, 1,000, and 500 Weapons Scenarios*

SERIAL NO.	FACILITY	STATUS[a]	SOURCE CATEGORY[b]	POLLUTANT	COORDINATES		AFFECTED ENVIRONMENT AND 2,000 WEAPONS SCENARIO[c]				1,000 WEAPONS SCENARIO[d]	500 WEAPONS SCENARIO[d]
					X, UTM (meters)	Y, UTM (meters)	(lb/hr)	(g/sec)	(lb/yr)	(g/sec)	(g/sec)	(g/sec)
210	Trays - Hemispheres	S	P	1,3–butadiene	265155	3914252	1.23E-07	1.55E-08	9.58E-06	1.38E-10	1.55E-08	1.55E-08
210	Trays - Hemispheres	S	P	Chromium	265155	3914252	2.13E-02	2.68E-03	3.33E+00	4.80E-05	2.68E-03	2.68E-03
210	Trays - HE	S	P	Dibenzofurans	265155	3914252	2.10E-04	2.65E-05	1.60E-01	2.30E-06	2.65E-05	2.65E-05
210	Trays - Hemispheres	S	P	Formaldehyde	265155	3914252	1.20E-06	1.51E-07	9.36E-05	1.35E-09	1.51E-07	1.51E-07
210	Trays - Hemispheres	S	P	Methyl Cyanide	265155	3914252	1.22E-08	1.54E-09	NA	NA	1.54E-09	1.54E-09
210	Trays - HE	S	P	Naphthalene	265155	3914252	1.20E-03	1.51E-04	9.00E-01	1.30E-05	1.51E-04	1.51E-04
210	Trays - HE	S	P	Phenol	265155	3914252	6.40E-03	8.06E-04	4.90E+00	7.06E-05	8.06E-04	8.06E-04

[a] Letter designates change in emissions. S for static emissions or no change with time and W for change associated with change in weapons program.

[b] Letter designates source modeling category. V = volume source, A = area source, P = point source.

[c] Emissions inventory listed for 2,000 Weapons Scenario (PC 1994). For ISCST2 and ISCLT2 modeling, the emissions rates (lb/hr and lb/yr, respectively) were converted to g/sec.

[d] Emissions inventory listed for 1,000 and 500 Weapons Scenarios have been assumed to be a linear regression (PC 1994).

NA - Emission rate was not quantified for modeling.

[1]As listed in the *Clean Air Act*, as amended, Nov 1990 (42 U.S.C. 7401).

Source: PC 1994; calculated values.

TABLE B.3.6–4.—*Estimated Emission Rates for Criteria Pollutants from the Burning Ground Upgrade for 2,000, 1,000, and 500 Weapons Scenarios*

SERIAL NO.	FACILITY	STATUS[a]	SOURCE CATEGORY[b]	POLLUTANT	COORDINATES		AFFECTED ENVIRONMENT AND 2,000 WEAPONS SCENARIO[c]				1,000 WEAPONS SCENARIO[d]	500 WEAPONS SCENARIO[d]
					X, UTM (meters)	Y, UTM (meters)	(lb/hr)	(g/sec)	(lb/yr)	(g/sec)	(g/sec)	(g/sec)
300	BG Upgrade - Components	S	P	CO	265162	3914189	3.15E+01	3.97E+00	2.36E+02	3.40E-03	3.97E+00	3.97E+00
300	BG Upgrade - Pipes	S	P	CO	265162	3914189	3.08E+02	3.88E+01	1.08E+04	1.56E-01	3.88E+01	3.88E+01
300	BG Upgrade	S	P	Lead	265152	3914189	3.25E-01	4.09E-02	3.91E+02	5.63E-03	5.63E-03	5.63E-03
300	BG Upgrade - Components	S	P	NO_2	265162	3914189	9.81E+00	1.24E+00	7.36E+01	1.06E-03	1.06E-03	1.06E-03
300	BG Upgrade - Pipes	S	P	NO_2	265162	3914189	1.05E+02	1.32E+01	2.31E+03	3.33E-02	3.33E-02	3.33E-02
300	BG Upgrade	S	P	SO_2	265162	391418	2.88E-04	3.63E-05	2.16E-01	2.72E-02	3.63E-05	3.63E-05

[a] Letter designates change in emissions. S for static emissions or no change with time and W for change associated with change in weapons program.
[b] Letter designates source modeling category. V = volume source, A = area source, P = point source.
[c] Emissions inventory listed for 2,000 Weapons Scenario (PC 1994). For ISCST2 and ISCLT2 modeling, the emissions rates (lb/hr and lb/yr, respectively) were converted to g/sec.
[d] Emissions inventory listed for 1,000 and 500 Weapons Scenarios have been assumed to be a linear regression (PC 1994).
BG - Burning Ground
Source: PC 1994; calculated values

TABLE B.3.6–5.—*Estimated Emission Rates for Hazardous Air Pollutants from the Burning Ground Upgrade for 2,000, 1,000, and 500 Weapons Scenarios*

SERIAL NO.	FACILITY	STATUS[a]	SOURCE CATEGORY[b]	POLLUTANT	COORDINATES		AFFECTED ENVIRONMENT AND 2,000 WEAPONS SCENARIO[c]				1,000 WEAPONS SCENARIO[d]	500 WEAPONS SCENARIO[d]
					X, UTM (meters)	Y, UTM (meters)	(lb/hr)	(g/sec)	(lb/yr)	(g/sec)	(g/sec)	(g/sec)
300	BG Upgrade	S	P	Chromium	265162	3914189	2.03E-02	2.56E-03	4.68E+00	6.74E-05	2.56E-03	2.56E-03
300	BG Upgrade	S	P	HCI	265162	3914189	1.00E+00	1.26E-01	3.09E+01	4.45E-04	1.26E-01	1.26E-01
300	BG Upgrade	S	P	HCN	265162	3914189	1.21E-04	1.52E-05	4.24E-03	6.11E-08	1.52E-05	1.52E-05
300	BG Upgrade	S	P	HF	265162	3914189	1.06E+00	1.34E-01	4.97E+01	7.16E-04	1.34E-01	1.34E-01
300	BG Upgrade	S	P	Nickel	265162	3914189	3.51E-03	4.42E-04	3.60E-01	5.18E-06	4.42E-04	4.42E-04
300	BG Upgrade	S	P	Titanium	265162	3914189	9.44E-03	1.19E-03	7.08E-02	1.02E-06	1.19E-03	1.19E-03

[a] Letter designates change in emissions. S for static emissions or no change with time and W for change associated with change in weapons program.

[b] Letter designates source modeling category. V = volume source, A = area source, P = point source.

[c] Emissions inventory listed for 2,000 Weapons Scenario (PC 1994). For ISCST2 and ISCLT2 modeling, the emissions rates (lb/hr and lb/yr, respectively) were converted to g/sec.

[d] Emissions inventory listed for 1,000 and 500 Weapons Scenarios have been assumed to be a linear regression (PC 1994).

BG - Burning Ground

Source: PC 1994; calculated values

TABLE B.3.6–6.—*High Explosive Emission Factors*

EXPLOSIVE	POLLUTANTS			
	CO (lb/ton)	NO_2 (lb/ton)	HCl (lb/ton)	HF (lb/ton)
PBX-9404[a]	5.50	37.90	21.88	0.00
LX-17[a]	51.80	139.00	39.38	80.03
LX-04[b]	0.95	25.12	220.80	528.00

[a]Radian 1993
[b]Carter 1978

TABLE B.3.6–7.—*Calculated Emission Rates for Pantex Affected Environment*

EXPLOSIVE	PERCENTAGE BY WEIGHT[a]	POLLUTANTS			
		CO (g/sec)	NO_2 (g/sec)	HCl (g/sec)	HF (g/sec)
PBX-9404	75%	0.0260	0.1780	0.1030	0.0000
LX-17	25%	0.0816	0.2190	0.0621	0.1260
Total	100%	0.1076	0.3970	0.1651	0.1260

[a]Weight is based on 100 lbs.
Note: Emission rates were calculated using emission factors from Table B.3.6–6.
Source: PC 1994

TABLE B.3.6–8.—*Calculated Emission Rates for 2,000, 1,000, and 500 Weapons*

EXPLOSIVE	PERCENTAGE BY WEIGHT[a]	POLLUTANTS			
		CO (g/sec)	NO_2 (g/sec)	HCl (g/sec)	HF (g/sec)
PBX-9404	75%	0.0260	0.1780	0.1030	0.0000
LX-04	25%	0.0015	0.8320	0.0396	0.3480
Total	100%	0.0275	1.0100	0.1426	0.3480

[a]Weight is based on 100 lbs.
Note: Emission rates were calculated using emission factors from Table B.3.6–6.
Source: PC 1994

TABLE B.3.6–9.—*Estimated Pollutant Emission Rates for Criteria and Hazardous Air Pollutants[1] from Open Burning for 2,000, 1,000, and 500 Weapons Scenarios*

SERIAL NO.	FACILITY	STATUS[a]	SOURCE CATEGORY[b]	POLLUTANT	COORDINATES		AFFECTED ENVIRONMENT[c]	2,000 WEAPONS SCENARIO[c]	1,000 WEAPONS SCENARIO[c]	500 WEAPONS SCENARIO[c]
					X, UTM (meters)	Y, UTM (meters)	(g/sec)	(g/sec)	(g/sec)	(g/sec)
210	Trays - Hemispheres	S	P	CO (Criteria)	265155	3914252	1.08E-01	2.75E-02	2.75E-02	2.75E-02
210	Trays - Hemispheres	S	P	NO_2 (Criteria)	265155	3914252	3.97E-01	1.01E+00	1.01E+00	1.01E+00
210	Trays - HE	S	P	PM10 (Criteria)	265155	3914252	1.21E+01	1.21E+01	1.21E+01	1.21E+01
210	Trays - Hemispheres	S	P	HCl (Non-Criteria)	265155	3914252	1.65E-01	1.43E-01	1.43E-01	1.43E-01
210	Trays - Hemispheres	S	P	HF (Non-Criteria)	265155	3914252	1.26E-01	3.48E-01	3.48E-01	3.48E-01

[a] Letter designates change in emissions. S for static emissions or no change with time in weapons program.
[b] Letter designates source modeling category. V = volume source, A = area source, P = point source.
[c] Emissions inventory listed for Affected Environment, 2,000, 1,000, and 500 Weapons Scenarios were calculated from Carter Emission Factors (Carter 1978).
[1] As listed in the Clean *Air Act*, as amended, Nov 1990 (42 U.S.C. 7401).
Note: Values summarized in this table were obtained from Tables B.3.6–7 and B.3.6–8.
Source: PC 1994; calculated values