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NMED Hazardous Waste Bureau

DCN 06280.220.ID.011

April 24, 2009

Ms. Rebecca Kay
State of New Mexico Environment Department
Hazardous Waste Bureau
2905 Rodeo Park Drive East
Building One
Santa Fe, New Mexico 87505-6303

Reference: Work Assignment No. 06280.220.0002; LANL Permit Support; Air Dispersion Modeling and Risk Based Spreadsheet Files, Draft TA-16 Screening Analysis Report including Addendums 1 and 2, Task 2 Deliverable.

Dear Ms. Kay:

Enclosed are compact disc(s) containing the air dispersion modeling files and risk-based spreadsheets described in the Draft TA-16 Screening Analysis Report (Screening Report) including Addendum 1 and Addendum 2. These files support the analyses described in the aforementioned reports, and are submitted at your request for inclusion in the Administrative Record for the RCRA permitting of the TA-16 Burn Ground. A separate folder containing the air and risk files for each report has been provided with each report folder holding two subfolders, one for air dispersion modeling files and another for risk-based spreadsheets. The air dispersion modeling files include one copy of the meteorological data file (with the Screening Report), all input and output files, and all associated hourly source strength files so any OBODM modeling run can be recreated. The risk-based screening spreadsheets present the results of the risk-based screening analyses described in the three reports.

The files were emailed to you on April 24, 2009 at Rebecca.Kay@nmev.state.nm.us. A formalized hard (paper) copy of this deliverable will be sent via U.S. Mail. If you have any questions, please call me at (770) 820-8286 or Michael S. Smith at (678) 765-0815.

Sincerely,

Jasmine Schliesmann-Merkle

Jasmine Schliesmann-Merkle
Program Manager

cc: Mr. David Cobrain, NMED

33027

SCREENING OF OBODM MODEL RESULTS FOR BURNING
HIGH EXPLOSIVE (HE) CONTAMINATED WASTES at TA-16-388
10-Year Soil Concentrations Screened Against LANL ESLs and NMED or EPA Region 6 Industrial SSLs
20,000 lbs/yr and 250 lbs/event

OBODM Modeling Results		
Soil Active Layer	0.02	meters
Soil Bulk Density	1200	kg/m^3
Ann Avg Part Bnd Dose	100.07	(µg·hr)/m^3
Ann Avg Part Phase Dose	95.425	(µg·hr)/m^3
Ann Avg Vapor Phase Dose	123.37	(µg·hr)/m^3
Ann Part Bnd Grav Dep	2.61E+08	µg/m^2
Ann Part Phase Grav Dep	1.02E+09	µg/m^2

Contaminant	EF g/g	Fv	Deposition Velocity, V_D m/sec	Gravitational Deposition µg/m^2	Dry Deposition µg/m^2	Total Deposition µg/m^2	10-Yr Total Deposition µg/m^2	10-Yr Soil Concentration mg/kg	Screening Values: LANL ESL mg/kg	Screening Values: NMED I/O Soil mg/kg	Screening Values: R6 Med Spec Ind SSL mg/kg	Results Ecological Screen	Results Human Health Screen: NMED	Results Human Health Screen: R6
Acenaphthene	1.00E-05	1	0.005	0.00E+00	2.22E-02	2.22E-02	2.22E-01	9.25E-06	0.25	3.35E+04		NO	NO	
Acetaldehyde	6.30E-05	1	0.005	0.00E+00	1.40E-01	1.40E-01	1.40E+00	5.83E-05		3.84E+02			NO	
Acetone	1.07E-03	1	0.005	0.00E+00	2.38E+00	2.38E+00	2.38E+01	9.90E-04	1.2	2.81E+04		NO	NO	
Acetonitrile	1.07E-03	1	0.005	0.00E+00	2.38E+00	2.38E+00	2.38E+01	9.90E-04			2.30E+03			NO
Acetophenone	1.74E-07	1	0.005	0.00E+00	3.86E-04	3.86E-04	3.86E-03	1.61E-07		1.48E+03			NO	
Aluminum	7.13E-07	0	0.01	7.27E+02	2.45E-03	7.27E+02	7.27E+03	3.03E-01		1.00E+05			NO	
Ammonium Hydroxide	1.07E-03	1	0.005	0.00E+00	2.38E+00	2.38E+00	2.38E+01	9.90E-04						
Anthracene	1.50E-05	0.998	0.005	7.84E+00	3.33E-02	7.88E+00	7.88E+01	3.28E-03	210	1.00E+05		NO	NO	
Barium	4.20E-07	0	0.01	4.28E+02	1.44E-03	4.28E+02	4.28E+03	1.79E-01	110	1.00E+05		NO	NO	
BDNPF Ether	6.41E-04	1	0.005	0.00E+00	1.42E+00	1.42E+00	1.42E+01	5.93E-04						
Benzaldehyde	1.04E-04	1	0.005	0.00E+00	2.31E-01	2.31E-01	2.31E+00	9.62E-05			6.80E+04			NO
Benzo[a]anthracene	5.00E-06	0.881	0.005	1.56E+02	1.09E-02	1.56E+02	1.56E+03	6.48E-02	3	2.34E+01		NO	NO	
Benzo[b&k]fluoanthene	7.00E-06	0.966	0.005	6.22E+01	1.54E-02	6.22E+01	6.22E+02	2.59E-02	18	2.34E+01		NO	NO	
Benzo[b&k]fluoanthene	7.00E-06	0.273	0.005	1.33E+03	1.34E-02	1.33E+03	1.33E+04	5.54E-01	62	2.34E+02		NO	NO	
Benzyl alcohol	3.96E-05	1	0.005	0.00E+00	8.79E-02	8.79E-02	8.79E-01	3.66E-05			1.00E+05			NO
1-3-Butadiene	1.34E-06	1	0.005	0.00E+00	2.98E-03	2.98E-03	2.98E-02	1.24E-06		2.38			NO	
Butyl Acetate	2.14E-04	1	0.005	0.00E+00	4.75E-01	4.75E-01	4.75E+00	1.98E-04						
Butyl benzyl phthalate	1.22E-07	0.948	0.005	1.66E+00	2.68E-04	1.66E+00	1.66E+01	6.91E-04	90		2.40E+02	NO		NO
Butyl Nitrite	1.07E-06	1	0.005	0.00E+00	2.38E-03	2.38E-03	2.38E-02	9.90E-07						
Carbon monoxide	9.00E-02	1	0.005	0.00E+00	2.00E+02	2.00E+02	2.00E+03	8.33E-02						
Carbon tetrachloride	6.89E-08	1	0.005	0.00E+00	1.53E-04	1.53E-04	1.53E-03	6.38E-08		8.64			NO	
Chloromethane (methyl chloride)	2.84E-07	1	0.005	0.00E+00	6.31E-04	6.31E-04	6.31E-03	2.63E-07		5.34E+01			NO	
Chrysene	9.00E-06	0.744	0.005	6.02E+02	1.90E-02	6.02E+02	6.02E+03	2.51E-01	2.4	2.31E+03		NO	NO	
Cyclohexane	2.67E-05	1	0.005	0.00E+00	5.93E-02	5.93E-02	5.93E-01	2.47E-05			1.40E+02			NO
Dibenzo[ah]anthracene	2.00E-07	0.055	0.005	4.94E+01	3.65E-04	4.94E+01	4.94E+02	2.06E-02	12	2.34		NO	NO	
Dibutyl phthalate	3.30E-07	0.994	0.005	5.18E-01	7.32E-04	5.18E-01	5.18E+00	2.16E-04	1.10E-02	6.84E+04		NO	NO	
1,1-Dichloroethylene (vinylidene Cl)	2.15E-07	1	0.005	0.00E+00	4.77E-04	4.77E-04	4.77E-03	1.99E-07	11		4.70E+02	NO		NO
Diethylphthalate	7.00E-08	1	0.005	0.00E+00	1.55E-04	1.55E-04	1.55E-03	6.48E-08		1.00E+05			NO	
Dimethyl phthalate	1.88E-07	1	0.005	0.00E+00	4.17E-04	4.17E-04	4.17E-03	1.74E-07	10	1.00E+05		NO	NO	
2,4-Dinitrotoluene	3.21E-04	0.999	0.005	8.39E+01	7.13E-01	8.46E+01	8.46E+02	3.53E-02		1.37E+03			NO	
DMSO	5.34E-05	1	0.005	0.00E+00	1.19E-01	1.19E-01	1.19E+00	4.94E-05						
Dioctyl phthalate	9.19E-07	0.852	0.005	3.56E+01	1.98E-03	3.56E+01	3.56E+02	1.48E-02	1.1			NO		
Dioxin TEQ Equivalent	---	---	---	---	---	---	---	1.62E-09	2.90E-07		1.80E-05	NO		NO
Ethyl Acetate	2.14E-03	1.000	0.005	0.00E+00	4.75E+00	4.75E+00	4.75E+01	1.98E-03						
Ethylbenzene	5.49E-05	1	0.005	0.00E+00	1.22E-01	1.22E-01	1.22E+00	5.08E-05		1.28E+02			NO	
Ethyl chloride	6.89E-08	1	0.005	0.00E+00	1.53E-04	1.53E-04	1.53E-03	6.38E-08		1.54E+02			NO	
Ethanol	2.14E-03	1	0.005	0.00E+00	4.75E+00	4.75E+00	4.75E+01	1.98E-03						
Fluoanthene	2.00E-05	0.992	0.005	4.18E+01	4.43E-02	4.19E+01	4.19E+02	1.74E-02	22	2.44E+04		NO	NO	
Fluorene	1.00E-06	1	0.005	0.00E+00	2.22E-03	2.22E-03	2.22E-02	9.25E-07	4.1	2.65E+04		NO	NO	
Hexane	1.60E-05	1	0.005	0.00E+00	3.55E-02	3.55E-02	3.55E-01	1.48E-05		3.80E+01			NO	
Hydrogen chloride	1.07E-03	1	0.005	0.00E+00	2.38E+00	2.38E+00	2.38E+01	9.90E-04			1.00E+05			NO
Indeno[1,2,3-cd]pyrene	5.00E-06	0.005	0.005	1.30E+03	9.02E-03	1.30E+03	1.30E+04	5.42E-01	62	2.34E+01		NO	NO	
Isopropyl Alcohol	5.34E-04	1	0.005	0.00E+00	1.19E+00	1.19E+00	1.19E+01	4.94E-04						
Mercury	2.14E-05	1	2.90E-02	0.00E+00	2.76E-01	2.76E-01	2.76E+00	1.15E-04	1.30E-02	1.00E+05		NO	NO	
Methanol	9.62E-03	1	0.005	0.00E+00	2.14E+01	2.14E+01	2.14E+02	8.90E-03		1.00E+05			NO	
Methylene chloride	3.21E-04	1	0.005	0.00E+00	7.13E-01	7.13E-01	7.13E+00	2.97E-04	2.6	4.90E+02		NO	NO	
Methylcyclohexane	1.56E-04	1	0.005	0.00E+00	3.46E-01	3.46E-01	3.46E+00	1.44E-04		7.89E+01			NO	
Methyl ethyl ketone	4.27E-05	1	0.005	0.00E+00	9.48E-02	9.48E-02	9.48E-01	3.95E-05			3.40E+04			NO
Methyl isobutyl ketone	1.10E-05	1	0.005	0.00E+00	2.44E-02	2.44E-02	2.44E-01	1.02E-05		7.01E+03			NO	
Napthalene	1.62E-04	1	0.005	0.00E+00	3.60E-01	3.60E-01	3.60E+00	1.50E-04	0.96	3.00E+02		NO	NO	
Nitric Acid	1.07E-03	1	0.005	0.00E+00	2.38E+00	2.38E+00	2.38E+01	9.90E-04						
Nitrogen dioxide	7.50E-02	1	0.005	0.00E+00	1.67E+02	1.67E+02	1.67E+03	6.94E-02						
Particulate matter	2.00E-01	0	0.01	2.04E+08	6.87E+02	2.04E+08	2.04E+09	8.50E+04						
Phenanthrene	7.17E-06	0.999	0.005	1.87E+00	1.59E-02	1.89E+00	1.89E+01	7.88E-04	10	2.05E+04		NO	NO	
Phenol	1.56E-05	1	0.005	0.00E+00	3.46E-02	3.46E-02	3.46E-01	1.44E-05	0.79	1.00E+05		NO	NO	
Potassium Hydroxide	1.07E-03	1	0.005	0.00E+00	2.38E+00	2.38E+00	2.38E+01	9.90E-04						
Pyrene	2.00E-06	0.994	0.005	3.14E+00	4.44E-03	3.14E+00	3.14E+01	1.31E-03	18	3.09E+04		NO	NO	
sodium Hydroxide	4.27E-03	1	0.005	0.00E+00	9.48E+00	9.48E+00	9.48E+01	3.95E-03						
Styrene	4.99E-05	1	0.005	0.00E+00	1.11E-01	1.11E-01	1.11E+00	4.62E-05		100			NO	
Sulfuric Acid	5.34E-03	1	0.005	0.00E+00	1.19E+01	1.19E+01	1.19E+02	4.94E-03						
Sulfur dioxide	2.50E-03	1	0.005	0.00E+00	5.55E+00	5.55E+00	5.55E+01	2.31E-03						
Tetrahydrafuran	3.21E-04	1	0.005	0.00E+00	7.13E-01	7.13E-01	7.13E+00	2.97E-04			2.50E+02			NO
Toluene	1.07E-03	1	0.005	0.00E+00	2.38E+00	2.38E+00	2.38E+01	9.90E-04	23	252		NO	NO	
1,1,1-Trichloroethane (methyl chloroform)	3.44E-08	1	0.005	0.00E+00	7.64E-05	7.64E-05	7.64E-04	3.18E-08		563			NO	
1,2,4-Trimethylbenzene	2.43E-04	1	0.005	0.00E+00	5.40E-01	5.40E-01	5.40E+00	2.25E-04		213			NO	
1,3,5-Trimethylbenzene	5.57E-04	1	0.005	0.00E+00	1.24E+00	1.24E+00	1.24E+01	5.15E-04		69.2			NO	
Xylenes	5.77E-04	1	0.005	0.00E+00	1.28E+00	1.28E+00	1.28E+01	5.34E-04	1.4	82		NO	NO	
Vinyl chloride	2.23E-07	1	0.005	0.00E+00	4.95E-04	4.95E-04	4.95E-03	2.06E-07		14			NO	

Dioxin/Furan TEQ Equivalent Analysis									TEQ	TEQ Equivalent Conc
1234678-HpCDD	1.49E-12	0.003	0.005	3.88E-04	2.55E-09	3.88E-04	3.88E-03	1.62E-07	0.01	1.62E-09

SCREENING OF OBODM MODEL RESULTS FOR BURNING HIGH EXPLOSIVE (HE) CONTAMINATED WASTES at TA-16-388

Annual Average Peak Air Concentrations Screened Against 0.1xPRGs

20,000 lbs/yr and 250 lbs/event

OBODM Modeling Results		
Ann. Avg. Vapor	123.84	$\mu g/m^3$
Ann. Avg. Part. Bnd.	100.43	$\mu g/m^3$
Ann. Avg. Part. Phase	95.767	$\mu g/m^3$

Contaminant	EF (g/g)	Fv	Ann. Avg. Air Conc. $\mu g/m^3$	SCREENING VALUES: PRG Carc $\mu g/m^3$	PRG Non-Carc $\mu g/m^3$	0.1xPRG Carc $\mu g/m^3$	0.1xPRG Non-Carc $\mu g/m^3$	SCREENING RESULTS: 0.1xPRG Carc	0.1xPRG Non-Carc
Acenaphthene	1.00E-05	1	1.24E-03		2.20E+02	0.00E+00	2.20E+01		NO
Acetaldehyde	6.30E-05	1	7.80E-03	8.70E-01	9.4	8.70E-02	9.40E-01	NO	NO
Acetone	1.07E-03	1	1.33E-01		3.30E+03	0.00E+00	3.30E+02		NO
Acetonitrile	1.07E-03	1	1.33E-01		6.20E+01	0.00E+00	6.20E+00		NO
Acetophenone	1.74E-07	1	2.15E-05			0.00E+00	0.00E+00		
Aluminum	7.13E-07	0	6.83E-05		5.1	0.00E+00	5.10E-01		NO
Ammonium Hydroxide	1.07E-03	1	1.33E-01		1.00E+02		1.00E+01		NO
Anthracene	1.50E-05	0.998	1.86E-03		1.10E+03	0.00E+00	1.10E+02		NO
Barium	4.20E-07	0	4.02E-05		0.52	0.00E+00	5.20E-02		NO
BDNPF Ether	6.41E-04	1	7.94E-02						
Benzaldehyde	1.04E-04	1	1.29E-02		3.70E+02	0.00E+00	3.70E+01		NO
Benzo[a]anthracene	5.00E-06	0.881	6.05E-04	9.20E-03		9.20E-04	0.00E+00	NO	
Benzo[b&k]fluoanthene	7.00E-06	0.966	8.61E-04	9.20E-03		9.20E-04	0.00E+00	NO	
Benzo[b&k]fluoanthene	7.00E-06	0.273	7.48E-04	9.20E-02		9.20E-03	0.00E+00	NO	
Benzyl alcohol	3.96E-05	1	4.90E-03		1.10E+03	0.00E+00	1.10E+02		NO
1-3-Butadiene	1.34E-06	1	1.66E-04	6.10E-02	2.1	6.10E-03	2.10E-01	NO	NO
Butyl Acetate	2.14E-04	1	2.65E-02						
Butyl benzyl phthalate	1.22E-07	0.948	1.50E-05		7.30E+02	0.00E+00	7.30E+01		NO
Butyl Nitrite	1.07E-06	1	1.33E-04						
Carbon monoxide	9.00E-02	1	1.11E+01			0.00E+00	0.00E+00		
Carbon tetrachloride	6.89E-08	1	8.53E-06	1.30E-01	2.6	1.30E-02	2.60E-01	NO	NO
Chloromethane (methyl chloride)	2.84E-07	1	3.52E-05		9.50E+01	0.00E+00	9.50E+00		NO
Chrysene	9.00E-06	0.744	1.06E-03	9.20E-01		9.20E-02	0.00E+00	NO	
Cyclohexane	2.67E-05	1	3.31E-03		6.20E+03	0.00E+00	6.20E+02		NO
Dibenzo[ah]anthracene	2.00E-07	0.055	2.03E-05	9.20E-04		9.20E-05	0.00E+00	NO	
Dibutyl phthalate	3.30E-07	0.994	4.08E-05		3.70E+02		3.70E+01		NO
1,1-Dichloroethylene (vinylidene Cl)	2.15E-07	1	2.66E-05		2.10E+02	0.00E+00	2.10E+01		NO
Diethylphthalate	7.00E-08	1	8.67E-06		2.90E+03	0.00E+00	2.90E+02		NO
Dimethyl phthalate	1.88E-07	1	2.33E-05		3.70E+04	0.00E+00	3.70E+03		NO
2,4-Dinitrotoluene	3.21E-04	1	3.98E-02		7.30E+00		7.30E-01		NO
DMSO	5.34E-05	1	6.61E-03						
Dioctyl phthalate	9.19E-07	0.852	1.11E-04		1.50E+02	0.00E+00	1.50E+01		NO
Dioxin TEQ	---	---	1.50E-12	4.50E-08		4.50E-09	0.00E+00	NO	
Ethyl Acetate	2.14E-03	1.000	2.65E-01		3.30E+03	0.00E+00	3.30E+02		NO
Ethylbenzene	5.49E-05	1	6.80E-03		1.10E+03	0.00E+00	1.10E+02		NO
Ethyl chloride	6.89E-08	1	8.53E-06	2.3	1.00E+04	2.30E-01	1.00E+03	NO	NO
Ethanol	2.14E-03	1	2.65E-01						
Fluoanthene	2.00E-05	0.992	2.47E-03		1.50E+02	0.00E+00	1.50E+01		NO
Fluorene	1.00E-06	1	1.24E-04		1.50E+02	0.00E+00	1.50E+01		NO
Hexane	1.60E-05	1	1.98E-03		2.10E+02	0.00E+00	2.10E+01		NO
Hydrogen chloride	1.07E-03	1	1.33E-01		2.10E+01	0.00E+00	2.10E+00		NO
Indeno[1,2,3-cd]pyrene	5.00E-06	0.005	5.03E-04	9.20E-03		9.20E-04	0.00E+00	NO	
Isopropyl Alcohol	5.34E-04	1	6.61E-02						
Mercury	2.14E-05	1	2.65E-03		3.10E-01	0.00E+00	3.10E-02		NO
Methanol	9.62E-03	1	1.19E+00		1.80E+03	0.00E+00	1.80E+02		NO

Methylene chloride	3.21E-04	1	3.98E-02	4.1	3.10E+03	4.10E-01	3.10E+02	NO	NO
Methylcyclohexane	1.56E-04	1	1.93E-02		3.10E+03	0.00E+00	3.10E+02		NO
Methyl ethyl ketone	4.27E-05	1	5.29E-03		5.10E+03	0.00E+00	5.10E+02		NO
Methyl isobutyl ketone	1.10E-05	1	1.36E-03		3.10E+03	0.00E+00	3.10E+02		NO
Napthalene	1.62E-04	1	2.01E-02		3.1	0.00E+00	3.10E-01		NO
Nitric Acid	1.07E-03	1	1.33E-01						
Nitrogen dioxide	7.50E-02	1	9.29E+00			0.00E+00	0.00E+00		
Particulate matter	2.00E-01	0	1.92E+01			0.00E+00	0.00E+00		
Phenanthrene	7.17E-06	0.999	8.88E-04			0.00E+00	0.00E+00		
Phenol	1.56E-05	1	1.93E-03		1.10E+03	0.00E+00	1.10E+02		NO
Potassium Hydroxide	1.07E-03	1	1.33E-01						
Pyrene	2.00E-06	0.994	2.47E-04		1.10E+02	0.00E+00	1.10E+01		NO
sodium Hydroxide	4.27E-03	1	5.29E-01						
Styrene	4.99E-05	1	6.18E-03		1.10E+03	0.00E+00	1.10E+02		NO
Sulfur dioxide	2.50E-03	1	3.10E-01			0.00E+00	0.00E+00		
Sulfuric Acid	5.34E-03	1	6.61E-01						
Tetrahydrafuran	3.21E-04	1	3.98E-02	9.90E-01	3.10E+02	9.90E-02	3.10E+01	NO	NO
Toluene	1.07E-03	1	1.33E-01		4.00E+02	0.00E+00	4.00E+01		NO
1,1,1-Trichloroethane (methyl chloroform)	3.44E-08	1	4.26E-06		2.30E+03	0.00E+00	2.30E+02		NO
1,2,4-Trimethylbenzene	2.43E-04	1	3.01E-02		6.2	0.00E+00	6.20E-01		NO
1,3,5-Trimethylbenzene	5.57E-04	1	6.90E-02		6.2	0.00E+00	6.20E-01		NO
Xylenes	5.77E-04	1	7.15E-02		1.10E+02	0.00E+00	1.10E+01		NO
Vinyl chloride	2.23E-07	1	2.76E-05	1.10E-01	1.00E+02	1.10E-02	1.00E+01	NO	NO

			Dioxin/Furan Concentration	TEQ	D/F TEQ Equivalent Concentration
1234678-HpCDD	**1.49E-12**	**0.003**	1.50E-10	**0.01**	**1.50E-12**

SCREENING OF OBODM MODEL RESULTS FOR BURNING HIGH EXPLOSIVE (HE) CONTAMINATED WASTES at TA-16-388

1-Hour Peak Air Concentrations Screened Against AIEC Values

20,000 lbs/yr and 250 lbs/event

OBODM Modeling Results		
1-Hour Vapor	70639.2	$\mu g/m^3$
1-Hour Part. Bnd.	61911.7	$\mu g/m^3$
1-Hour Part. Phase	54813.2	$\mu g/m^3$

Contaminant	EF (g/g)	Fv	Ann. Avg. Air Conc. $\mu g/m^3$	Ann. Avg. Air Conc. mg/m^3	Screening Value AIEC mg/m^3	Screening Results
Acenaphthene	1.00E-05	1	7.06E-01	7.06E-04	1.3	NO
Acetaldehyde	6.30E-05	1	4.45E+00	4.45E-03	81.05	NO
Acetone	1.07E-03	1	7.56E+01	7.56E-02	475	NO
Acetonitrile	1.07E-03	1	7.56E+01	7.56E-02	21.82	NO
Acetophenone	1.74E-07	1	1.23E-02	1.23E-05	30	NO
Aluminum	7.13E-07	0	3.91E-02	3.91E-05		
Ammonium Hydroxide	1.07E-03	1	7.56E+01	7.56E-02		
Anthracene	1.50E-05	0.998	1.06E+00	1.06E-03	6	NO
Barium	4.20E-07	0	2.30E-02	2.30E-05	1.5	NO
BDNPF Ether	6.41E-04	1	4.53E+01	4.53E-02		
Benzaldehyde	1.04E-04	1	7.35E+00	7.35E-03	1.5	NO
Benzo[a]anthracene	5.00E-06	0.881	3.48E-01	3.48E-04	0.3	NO
Benzo[b&k]fluoanthene	7.00E-06	0.966	4.92E-01	4.92E-04	0.6	NO
Benzo[b&k]fluoanthene	7.00E-06	0.273	4.50E-01	4.50E-04	0.6	NO
Benzyl alcohol	3.96E-05	1	2.80E+00	2.80E-03	60	NO
1-3-Butadiene	1.34E-06	1	9.47E-02	9.47E-05		
Butyl Acetate	2.14E-04	N/A	#VALUE!	#VALUE!		
Butyl benzyl phthalate	1.22E-07	0.948	8.56E-03	8.56E-06	15	NO
Butyl Nitrite	1.07E-06	N/A	#VALUE!	#VALUE!		
Carbon monoxide	9.00E-02	1	6.36E+03	6.36E+00		
Carbon tetrachloride	6.89E-08	1	4.87E-03	4.87E-06	1.9	NO
Chloromethane (methyl chloride)	2.84E-07	1	2.01E-02	2.01E-05	200	NO
Chrysene	9.00E-06	0.744	6.16E-01	6.16E-04	0.6	NO
Cyclohexane	2.67E-05	1	1.89E+00	1.89E-03		
Dibenzo[ah]anthracene	2.00E-07	0.055	1.25E-02	1.25E-05	30	NO
Dibutyl phthalate	3.30E-07	0.994	2.33E-02	2.33E-05	15	NO
1,1-Dichloroethylene (vinylidene Cl)	2.15E-07	1	1.52E-02	1.52E-05	75	NO
Diethylphthalate	7.00E-08	1	4.94E-03	4.94E-06	15	NO
Dimethyl phthalate	1.88E-07	1	1.33E-02	1.33E-05	15	NO
2,4-Dinitrotoluene	3.21E-04	0.999	2.27E+01	2.27E-02	0.6	NO
DMSO	5.34E-05	N/A	#VALUE!	#VALUE!		
Dioctyl phthalate	9.19E-07	0.852	6.37E-02	6.37E-05	50	NO
1234678-HpCDD	1.49E-12	0.003	9.23E-08	9.23E-11	6.00E-01	NO

Ethyl Acetate	2.14E-03	N/A	#VALUE!	#VALUE!		
Ethylbenzene	5.49E-05	1	3.88E+00	3.88E-03	500	NO
Ethyl chloride	6.89E-08	1	4.87E-03	4.87E-06		
Ethanol	2.14E-03	N/A	#VALUE!	#VALUE!		
Fluoanthene	2.00E-05	0.992	1.41E+00	1.41E-03	0.015	NO
Fluorene	1.00E-06	1	7.06E-02	7.06E-05	11.56	NO
Hexane	1.60E-05	1	1.13E+00	1.13E-03		
Hydrogen chloride	1.07E-03	1	7.56E+01	7.56E-02		
Indeno[1,2,3-cd]pyrene	5.00E-06	0.005	3.10E-01	3.10E-04	0.5	NO
Isopropyl Alcohol	5.34E-04	1	3.77E+01	3.77E-02		
Mercury	2.14E-05	1	1.51E+00	1.51E-03	1.80E-03	NO
Methanol	9.62E-03	1	6.80E+02	6.80E-01	28	NO
Methylene chloride	3.21E-04	1	2.27E+01	2.27E-02	14	NO
Methylcyclohexane	1.56E-04	1	1.10E+01	1.10E-02		
Methyl ethyl ketone	4.27E-05	1	3.02E+00	3.02E-03	13	NO
Methyl isobutyl ketone	1.10E-05	1	7.77E-01	7.77E-04	300	NO
Napthalene	1.62E-04	1	1.14E+01	1.14E-02	75	NO
Nitric Acid	1.07E-03	N/A	#VALUE!	#VALUE!		
Nitrogen dioxide	7.50E-02	1	5.30E+03	5.30E+00		
Particulate matter	2.00E-01	0	1.10E+04	1.10E+01		
Phenanthrene	7.17E-06	0.999	5.06E-01	5.06E-04	1	NO
Phenol	1.56E-05	1	1.10E+00	1.10E-03	5.8	NO
Potassium Hydroxide	1.07E-03	N/A	#VALUE!	#VALUE!		
Pyrene	2.00E-06	0.994	1.41E-01	1.41E-04	15	NO
sodium Hydroxide	4.27E-03	N/A	#VALUE!	#VALUE!		
Styrene	4.99E-05	1	3.52E+00	3.52E-03	21	NO
Sulfuric Acid	5.34E-03	N/A	#VALUE!	#VALUE!		
Sulfur dioxide	2.50E-03	1	1.77E+02	1.77E-01		
Tetrahydrafuran	3.21E-04	1	2.27E+01	2.27E-02	750	NO
Toluene	1.07E-03	1	7.56E+01	7.56E-02	37	NO
1,1,1-Trichloroethane (methyl chloroform)	3.44E-08	1	2.43E-03	2.43E-06	68	NO
1,2,4-Trimethylbenzene	2.43E-04	1	1.72E+01	1.72E-02		
1,3,5-Trimethylbenzene	5.57E-04	1	3.93E+01	3.93E-02	125	NO
Xylenes	5.77E-04	1	4.08E+01	4.08E-02	22	NO
Vinyl chloride	2.23E-07	1	1.58E-02	1.58E-05	180	NO

SCREENING OF OBODM MODEL RESULTS FOR BURNING
HIGH EXPLOSIVE (HE) CONTAMINATED WASTES at TA-16-388
10-Year Soil Concentrations Screened Against LANL ESLs and NMED or EPA Region 6 Industrial SSLs
600 lbs/yr and 50 lbs/event

OBODM Modeling Results		
Soil Active Layer	0.02	meters
Soil Bulk Density	1200	kg/m^3
Ann Avg Part Bnd Dose	6.8698	$(\mu g \cdot hr)/m^3$
Ann Avg Part Phase Dose	6.1018	$(\mu g \cdot hr)/m^3$
Ann Avg Vapor Phase Dose	8.1486	$(\mu g \cdot hr)/m^3$
Ann Part Bnd Grav Dep	1.41E+07	$\mu g/m^2$
Ann Part Phase Grav Dep	4.61E+07	$\mu g/m^3$

Contaminant	EF g/g	Fv	Deposition Velocity, V_D m/sec	Gravitational Deposition $\mu g/m^2$	Dry Deposition $\mu g/m^2$	Total Deposition $\mu g/m^2$	10-Yr Total Deposition $\mu g/m^2$	10-Yr Soil Concentration mg/kg	Screening Values: LANL ESL mg/kg	Screening Values: NMED I/O Soil mg/kg	Screening Values: R6 Med Spec Ind SSL mg/kg	Results Ecological Screen	Results Human Health Screen: NMED	Results Human Health Screen: R6
Acenaphthene	1.00E-05	1	0.005	0.00E+00	1.47E-03	1.47E-03	1.47E-02	6.11E-07	0.25	3.35E+04		NO	NO	
Acetaldehyde	6.30E-05	1	0.005	0.00E+00	9.24E-03	9.24E-03	9.24E-02	3.85E-06		3.84E+02			NO	
Acetone	1.07E-03	1	0.005	0.00E+00	1.57E-01	1.57E-01	1.57E+00	6.54E-05	1.2	2.81E+04		NO	NO	
Acetonitrile	1.07E-03	1	0.005	0.00E+00	1.57E-01	1.57E-01	1.57E+00	6.54E-05			2.30E+03			NO
Acetophenone	1.74E-07	1	0.005	0.00E+00	2.55E-05	2.55E-05	2.55E-04	1.06E-08		1.48E+03			NO	
Aluminum	7.13E-07	0	0.01	3.29E+01	1.57E-04	3.29E+01	3.29E+02	1.37E-02		1.00E+05			NO	
Ammonium Hydroxide	1.07E-03	1	0.005	0.00E+00	1.57E-01	1.57E-01	1.57E+00	6.54E-05						
Anthracene	1.50E-05	0.998	0.005	4.24E-01	2.20E-03	4.26E-01	4.26E+00	1.78E-04	210	1.00E+05		NO	NO	
Barium	4.20E-07	0	0.01	1.94E+01	9.23E-05	1.94E+01	1.94E+02	8.07E-03	110	1.00E+05		NO	NO	
BDNPF Ether	6.41E-04	1	0.005	0.00E+00	9.40E-02	9.40E-02	9.40E-01	3.92E-05						
Benzaldehyde	1.04E-04	1	0.005	0.00E+00	1.53E-02	1.53E-02	1.53E-01	6.36E-06			6.80E+04			NO
Benzo[a]anthracene	5.00E-06	0.881	0.005	8.41E+00	7.20E-04	8.41E+00	8.41E+01	3.50E-03	3	2.34E+01		NO	NO	
Benzo[b&k]fluoanthene	7.00E-06	0.966	0.005	3.36E+00	1.02E-03	3.36E+00	3.36E+01	1.40E-03	18	2.34E+01		NO	NO	
Benzo[b&k]fluoanthene	7.00E-06	0.273	0.005	7.19E+01	9.10E-04	7.19E+01	7.19E+02	3.00E-02	62	2.34E+02		NO	NO	
Benzyl alcohol	3.96E-05	1	0.005	0.00E+00	5.81E-03	5.81E-03	5.81E-02	2.42E-06			1.00E+05			NO
1-3-Butadiene	1.34E-06	1	0.005	0.00E+00	1.97E-04	1.97E-04	1.97E-03	8.19E-08		2.38			NO	
Butyl Acetate	2.14E-04	1	0.005	0.00E+00	3.14E-02	3.14E-02	3.14E-01	1.31E-05						
Butyl benzyl phthalate	1.22E-07	0.948	0.005	8.96E-02	1.77E-05	8.97E-02	8.97E-01	3.74E-05	90		2.40E+02	NO		NO
Butyl Nitrite	1.07E-06	1	0.005	0.00E+00	1.57E-04	1.57E-04	1.57E-03	6.54E-08						
Carbon monoxide	9.00E-02	1	0.005	0.00E+00	1.32E+01	1.32E+01	1.32E+02	5.50E-03						
Carbon tetrachloride	6.89E-08	1	0.005	0.00E+00	1.01E-05	1.01E-05	1.01E-04	4.21E-09		8.64			NO	
Chloromethane (methyl chloride)	2.84E-07	1	0.005	0.00E+00	4.17E-05	4.17E-05	4.17E-04	1.74E-08		5.34E+01			NO	
Chrysene	9.00E-06	0.744	0.005	3.26E+01	1.27E-03	3.26E+01	3.26E+02	1.36E-02	2.4	2.31E+03		NO	NO	
Cyclohexane	2.67E-05	1	0.005	0.00E+00	3.92E-03	3.92E-03	3.92E-02	1.63E-06			1.40E+02			NO
Dibenzo[ah]anthracene	2.00E-07	0.055	0.005	2.67E+00	2.50E-05	2.67E+00	2.67E+01	1.11E-03	12	2.34		NO	NO	
Dibutyl phthalate	3.30E-07	0.994	0.005	2.80E-02	4.84E-05	2.80E-02	2.80E-01	1.17E-05	1.10E-02	6.84E+04		NO	NO	
1,1-Dichloroethylene (vinylidene Cl)	2.15E-07	1	0.005	0.00E+00	3.15E-05	3.15E-05	3.15E-04	1.31E-08	11		4.70E+02	NO		NO
Diethylphthalate	7.00E-08	1	0.005	0.00E+00	1.03E-05	1.03E-05	1.03E-04	4.28E-09		1.00E+05			NO	
Dimethyl phthalate	1.88E-07	1	0.005	0.00E+00	2.76E-05	2.76E-05	2.76E-04	1.15E-08	10	1.00E+05		NO	NO	
2,4-Dinitrotoluene	3.21E-04	0.999	0.005	4.54E+00	4.71E-02	4.58E+00	4.58E+01	1.91E-03		1.37E+03			NO	
DMSO	5.34E-05	1	0.005	0.00E+00	7.83E-03	7.83E-03	7.83E-02	3.26E-06						
Dioctyl phthalate	9.19E-07	0.852	0.005	1.92E+00	1.32E-04	1.92E+00	1.92E+01	8.01E-04	11			NO		
Dioxin TEQ Equivalent	---	---	---	---	---	---	---	8.75E-11	2.90E-07		1.80E-05	NO		NO
Ethyl Acetate	2.14E-03	1.000	0.005	0.00E+00	3.14E-01	3.14E-01	3.14E+00	1.31E-04						
Ethylbenzene	5.49E-05	1	0.005	0.00E+00	8.05E-03	8.05E-03	8.05E-02	3.36E-06		1.28E+02			NO	
Ethyl chloride	6.89E-08	1	0.005	0.00E+00	1.01E-05	1.01E-05	1.01E-04	4.21E-09		1.54E+02			NO	
Ethanol	2.14E-03	1	0.005	0.00E+00	3.14E-01	3.14E-01	3.14E+00	1.31E-04						
Fluoanthene	2.00E-05	0.992	0.005	2.26E+00	2.93E-03	2.26E+00	2.26E+01	9.43E-04	22	2.44E+04		NO	NO	
Fluorene	1.00E-06	1	0.005	0.00E+00	1.47E-04	1.47E-04	1.47E-03	6.11E-08	4.1	2.65E+04		NO	NO	
Hexane	1.60E-05	1	0.005	0.00E+00	2.35E-03	2.35E-03	2.35E-02	9.78E-07		3.80E+01			NO	
Hydrogen chloride	1.07E-03	1	0.005	0.00E+00	1.57E-01	1.57E-01	1.57E+00	6.54E-05			1.00E+05			NO
Indeno[1,2,3-cd]pyrene	5.00E-06	0.005	0.005	7.03E+01	6.19E-04	7.03E+01	7.03E+02	2.93E-02	62	2.34E+01		NO	NO	
Isopropyl Alcohol	5.34E-04	1	0.005	0.00E+00	7.83E-02	7.83E-02	7.83E-01	3.26E-05						
Mercury	2.14E-03	1	2.90E-02	0.00E+00	1.82E-02	1.82E-02	1.82E-01	7.59E-06	1.30E-02	1.00E+05		NO	NO	
Methanol	9.62E-03	1	0.005	0.00E+00	1.41E+00	1.41E+00	1.41E+01	5.88E-04		1.00E+05			NO	
Methylene chloride	3.21E-04	1	0.005	0.00E+00	4.71E-02	4.71E-02	4.71E-01	1.96E-05	2.6	4.90E+02		NO	NO	
Methylcyclohexane	1.36E-04	1	0.005	0.00E+00	2.29E-02	2.29E-02	2.29E-01	9.53E-06		7.89E+01			NO	
Methyl ethyl ketone	4.27E-05	1	0.005	0.00E+00	6.26E-03	6.26E-03	6.26E-02	2.61E-06			3.40E+04			NO
Methyl isobutyl ketone	1.10E-05	1	0.005	0.00E+00	1.61E-03	1.61E-03	1.61E-02	6.72E-07		7.01E+03			NO	
Napthalene	1.62E-04	1	0.005	0.00E+00	2.38E-02	2.38E-02	2.38E-01	9.90E-06	0.96	3.00E+02		NO	NO	
Nitric Acid	1.07E-03	1	0.005	0.00E+00	1.57E-01	1.57E-01	1.57E+00	6.54E-05						
Nitrogen dioxide	7.50E-02	1	0.005	0.00E+00	1.10E+01	1.10E+01	1.10E+02	4.58E-03						
Particulate matter	2.00E-01	0	0.01	9.22E+06	4.39E+01	9.22E+06	9.22E+07	3.84E+03						
Phenanthrene	7.17E-06	0.999	0.005	1.01E-01	1.05E-03	1.02E-01	1.02E+00	4.27E-05	10	2.05E+04		NO	NO	
Phenol	1.56E-05	1	0.005	0.00E+00	2.29E-03	2.29E-03	2.29E-02	9.53E-07	0.79	1.00E+05		NO	NO	
Potassium Hydroxide	1.07E-03	1	0.005	0.00E+00	1.57E-01	1.57E-01	1.57E+00	6.54E-05						
Pyrene	2.00E-06	0.994	0.005	1.70E-01	2.93E-04	1.70E-01	1.70E+00	7.08E-05	18	3.09E+04		NO	NO	
sodium Hydroxide	4.27E-03	1	0.005	0.00E+00	6.26E-01	6.26E-01	6.26E+00	2.61E-04						
Styrene	4.99E-05	1	0.005	0.00E+00	7.32E-03	7.32E-03	7.32E-02	3.05E-06		100			NO	
Sulfuric Acid	5.34E-03	1	0.005	0.00E+00	7.83E-01	7.83E-01	7.83E+00	3.26E-04						
Sulfur dioxide	2.50E-03	1	0.005	0.00E+00	3.67E-01	3.67E-01	3.67E+00	1.53E-04						
Tetrahydrafuran	3.21E-04	1	0.005	0.00E+00	4.71E-02	4.71E-02	4.71E-01	1.96E-05			2.50E+02			NO
Toluene	1.07E-03	1	0.005	0.00E+00	1.57E-01	1.57E-01	1.57E+00	6.54E-05	23	252		NO	NO	
1,1,1-Trichloroethane (methyl chloroform)	3.44E-08	1	0.005	0.00E+00	5.05E-06	5.05E-06	5.05E-05	2.10E-09		563			NO	
1,2,4-Trimethylbenzene	2.43E-04	1	0.005	0.00E+00	3.56E-02	3.56E-02	3.56E-01	1.49E-05		213			NO	
1,3,5-Trimethylbenzene	5.57E-04	1	0.005	0.00E+00	8.17E-02	8.17E-02	8.17E-01	3.40E-05		69.2			NO	
Xylenes	5.77E-04	1	0.005	0.00E+00	8.46E-02	8.46E-02	8.46E-01	3.53E-05	1.4	82		NO	NO	
Vinyl chloride	2.23E-07	1	0.005	0.00E+00	3.27E-05	3.27E-05	3.27E-04	1.36E-08		14			NO	

Dioxin/Furan TEQ Equivalent Analysis									TEQ	TEQ Equivalent Conc
1234678-HpCDD	1.49E-12	0.003	0.005	2.10E-05	1.63E-10	2.10E-05	2.10E-04	8.75E-09	0.01	8.75E-11

SCREENING OF OBODM MODEL RESULTS FOR BURNING HIGH EXPLOSIVE (HE) CONTAMINATED WASTES at TA-16-388

Annual Average Peak Air Concentrations Screened Against 0.1xPRGs

600 lbs/yr and 50 lbs/event

OBODM Modeling Results		
Ann. Avg. Vapor	40.669	µg/m³
Ann. Avg. Part. Bnd.	34.28	µg/m³
Ann. Avg. Part. Phase	30.447	µg/m³

Contaminant	EF (g/g)	Fv	Ann. Avg. Air Conc. µg/m³	SCREENING VALUES: PRG Carc µg/m³	PRG Non-Carc µg/m³	0.1xPRG Carc µg/m³	0.1xPRG Non-Carc µg/m³	SCREENING RESULTS: 0.1xPRG Carc	0.1xPRG Non-Carc
Acenaphthene	1.00E-05	1	4.07E-04		2.20E+02	0.00E+00	2.20E+01		NO
Acetaldehyde	6.30E-05	1	2.56E-03	8.70E-01	9.4	8.70E-02	9.40E-01	NO	NO
Acetone	1.07E-03	1	4.35E-02		3.30E+03	0.00E+00	3.30E+02		NO
Acetonitrile	1.07E-03	1	4.35E-02		6.20E+01	0.00E+00	6.20E+00		NO
Acetophenone	1.74E-07	1	7.08E-06			0.00E+00	0.00E+00		
Aluminum	7.13E-07	0	2.17E-05		5.1	0.00E+00	5.10E-01		NO
Ammonium Hydroxide	1.07E-03	1	4.35E-02		1.00E+02		1.00E+01		NO
Anthracene	1.50E-05	0.998	6.10E-04		1.10E+03	0.00E+00	1.10E+02		NO
Barium	4.20E-07	0	1.28E-05		0.52	0.00E+00	5.20E-02		NO
BDNPF Ether	6.41E-04	1	2.61E-02						
Benzaldehyde	1.04E-04	1	4.23E-03		3.70E+02	0.00E+00	3.70E+01		NO
Benzo[a]anthracene	5.00E-06	0.881	2.00E-04	9.20E-03		9.20E-04	0.00E+00	NO	
Benzo[b&k]fluoanthene	7.00E-06	0.966	2.83E-04	9.20E-03		9.20E-04	0.00E+00	NO	
Benzo[b&k]fluoanthene	7.00E-06	0.273	2.52E-04	9.20E-02		9.20E-03	0.00E+00	NO	
Benzyl alcohol	3.96E-05	1	1.61E-03		1.10E+03	0.00E+00	1.10E+02		NO
1-3-Butadiene	1.34E-06	1	5.45E-05	6.10E-02	2.1	6.10E-03	2.10E-01	NO	NO
Butyl Acetate	2.14E-04	1	8.70E-03						
Butyl benzyl phthalate	1.22E-07	0.948	4.92E-06		7.30E+02	0.00E+00	7.30E+01		NO
Butyl Nitrite	1.07E-06	1	4.35E-05						
Carbon monoxide	9.00E-02	1	3.66E+00			0.00E+00	0.00E+00		
Carbon tetrachloride	6.89E-08	1	2.80E-06	1.30E-01	2.6	1.30E-02	2.60E-01	NO	NO
Chloromethane (methyl chloride)	2.84E-07	1	1.15E-05		9.50E+01	0.00E+00	9.50E+00		NO
Chrysene	9.00E-06	0.744	3.51E-04	9.20E-01		9.20E-02	0.00E+00	NO	
Cyclohexane	2.67E-05	1	1.09E-03		6.20E+03	0.00E+00	6.20E+02		NO
Dibenzo[ah]anthracene	2.00E-07	0.055	6.93E-06	9.20E-04		9.20E-05	0.00E+00	NO	
Dibutyl phthalate	3.30E-07	0.994	1.34E-05		3.70E+02		3.70E+01		NO
1,1-Dichloroethylene (vinylidene Cl)	2.15E-07	1	8.74E-06		2.10E+02	0.00E+00	2.10E+01		NO
Diethylphthalate	7.00E-08	1	2.85E-06		2.90E+03	0.00E+00	2.90E+02		NO
Dimethyl phthalate	1.88E-07	1	7.65E-06		3.70E+04	0.00E+00	3.70E+03		NO
2,4-Dinitrotoluene	3.21E-04	1	1.31E-02		7.30E+00		7.30E-01		NO
DMSO	5.34E-05	1	2.17E-03						
Dioctyl phthalate	9.19E-07	0.852	3.65E-05		1.50E+02	0.00E+00	1.50E+01		NO
Dioxin TEQ	---	---	5.11E-13	4.50E-08		4.50E-09	0.00E+00	NO	
Ethyl Acetate	2.14E-03	1.000	8.70E-02		3.30E+03	0.00E+00	3.30E+02		NO
Ethylbenzene	5.49E-05	1	2.23E-03		1.10E+03	0.00E+00	1.10E+02		NO
Ethyl chloride	6.89E-08	1	2.80E-06	2.3	1.00E+04	2.30E-01	1.00E+03	NO	NO
Ethanol	2.14E-03	1	8.70E-02						
Fluoanthene	2.00E-05	0.992	8.12E-04		1.50E+02	0.00E+00	1.50E+01		NO
Fluorene	1.00E-06	1	4.07E-05		1.50E+02	0.00E+00	1.50E+01		NO
Hexane	1.60E-05	1	6.51E-04		2.10E+02	0.00E+00	2.10E+01		NO
Hydrogen chloride	1.07E-03	1	4.35E-02		2.10E+01	0.00E+00	2.10E+00		NO
Indeno[1,2,3-cd]pyrene	5.00E-06	0.005	1.72E-04	9.20E-03		9.20E-04	0.00E+00	NO	
Isopropyl Alcohol	5.34E-04	1	2.17E-02						
Mercury	2.14E-05	1	8.70E-04		3.10E-01	0.00E+00	3.10E-02		NO
Methanol	9.62E-03	1	3.91E-01		1.80E+03	0.00E+00	1.80E+02		NO
Methylene chloride	3.21E-04	1	1.31E-02	4.1	3.10E+03	4.10E-01	3.10E+02	NO	NO
Methylcyclohexane	1.56E-04	1	6.34E-03		3.10E+03	0.00E+00	3.10E+02		NO
Methyl ethyl ketone	4.27E-05	1	1.74E-03		5.10E+03	0.00E+00	5.10E+02		NO
Methyl isobutyl ketone	1.10E-05	1	4.47E-04		3.10E+03	0.00E+00	3.10E+02		NO

Napthalene	1.62E-04	1	6.59E-03		3.1	0.00E+00	3.10E-01		NO
Nitric Acid	1.07E-03	1	4.35E-02						
Nitrogen dioxide	7.50E-02	1	3.05E+00			0.00E+00	0.00E+00		
Particulate matter	2.00E-01	0	6.09E+00			0.00E+00	0.00E+00		
Phenanthrene	7.17E-06	0.999	2.92E-04			0.00E+00	0.00E+00		
Phenol	1.56E-05	1	6.34E-04		1.10E+03	0.00E+00	1.10E+02		NO
Potassium Hydroxide	1.07E-03	1	4.35E-02						
Pyrene	2.00E-06	0.994	8.13E-05		1.10E+02	0.00E+00	1.10E+01		NO
sodium Hydroxide	4.27E-03	1	1.74E-01						
Styrene	4.99E-05	1	2.03E-03		1.10E+03	0.00E+00	1.10E+02		NO
Sulfur dioxide	2.50E-03	1	1.02E-01			0.00E+00	0.00E+00		
Sulfuric Acid	5.34E-03	1	2.17E-01						
Tetrahydrafuran	3.21E-04	1	1.31E-02	9.90E-01	3.10E+02	9.90E-02	3.10E+01	NO	NO
Toluene	1.07E-03	1	4.35E-02		4.00E+02	0.00E+00	4.00E+01		NO
1,1,1-Trichloroethane (methyl chloroform)	3.44E-08	1	1.40E-06		2.30E+03	0.00E+00	2.30E+02		NO
1,2,4-Trimethylbenzene	2.43E-04	1	9.88E-03		6.2	0.00E+00	6.20E-01		NO
1,3,5-Trimethylbenzene	5.57E-04	1	2.27E-02		6.2	0.00E+00	6.20E-01		NO
Xylenes	5.77E-04	1	2.35E-02		1.10E+02	0.00E+00	1.10E+01		NO
Vinyl chloride	2.23E-07	1	9.07E-06	1.10E-01	1.00E+02	1.10E-02	1.00E+01	NO	NO

			Dioxin/Furan Concentration	TEQ	D/F TEQ Equivalent Concentration
1234678-HpCDD	**1.49E-12**	**0.003**	5.11E-11	**0.01**	**5.11E-13**

SCREENING OF OBODM MODEL RESULTS FOR BURNING HIGH EXPLOSIVE (HE) CONTAMINATED WASTES at TA-16-388

1-Hour Peak Air Concentrations Screened Against AIEC Values

600 lbs/yr and 50 lbs/event

OBODM Modeling Results		
1-Hour Vapor	87173.3	$\mu g/m^3$
1-Hour Part. Bnd.	76351.6	$\mu g/m^3$
1-Hour Part. Phase	67203.2	$\mu g/m^3$

Contaminant	EF (g/g)	Fv	Ann. Avg. Air Conc. $\mu g/m^3$	Ann. Avg. Air Conc. mg/m^3	Screening Value AIEC mg/m^3	Screening Results
Acenaphthene	1.00E-05	1	8.72E-01	8.72E-04	1.3	NO
Acetaldehyde	6.30E-05	1	5.49E+00	5.49E-03	81.05	NO
Acetone	1.07E-03	1	9.33E+01	9.33E-02	475	NO
Acetonitrile	1.07E-03	1	9.33E+01	9.33E-02	21.82	NO
Acetophenone	1.74E-07	1	1.52E-02	1.52E-05	30	NO
Aluminum	7.13E-07	0	4.79E-02	4.79E-05		
Ammonium Hydroxide	1.07E-03	1	9.33E+01	9.33E-02		
Anthracene	1.50E-05	0.998	1.31E+00	1.31E-03	6	NO
Barium	4.20E-07	0	2.82E-02	2.82E-05	1.5	NO
BDNPF Ether	6.41E-04	1	5.59E+01	5.59E-02		
Benzaldehyde	1.04E-04	1	9.07E+00	9.07E-03	1.5	NO
Benzo[a]anthracene	5.00E-06	0.881	4.29E-01	4.29E-04	0.3	NO
Benzo[b&k]fluoanthene	7.00E-06	0.966	6.08E-01	6.08E-04	0.6	NO
Benzo[b&k]fluoanthene	7.00E-06	0.273	5.55E-01	5.55E-04	0.6	NO
Benzyl alcohol	3.96E-05	1	3.45E+00	3.45E-03	60	NO
1-3-Butadiene	1.34E-06	1	1.17E-01	1.17E-04		
Butyl Acetate	2.14E-04	1	1.87E+01	1.87E-02		
Butyl benzyl phthalate	1.22E-07	0.948	1.06E-02	1.06E-05	15	NO
Butyl Nitrite	1.07E-06	1	9.33E-02	9.33E-05		
Carbon monoxide	9.00E-02	1	7.85E+03	7.85E+00		
Carbon tetrachloride	6.89E-08	1	6.01E-03	6.01E-06	1.9	NO
Chloromethane (methyl chloride)	2.84E-07	1	2.48E-02	2.48E-05	200	NO
Chrysene	9.00E-06	0.744	7.60E-01	7.60E-04	0.6	NO
Cyclohexane	2.67E-05	1	2.33E+00	2.33E-03		
Dibenzo[ah]anthracene	2.00E-07	0.055	1.54E-02	1.54E-05	30	NO
Dibutyl phthalate	3.30E-07	0.994	2.87E-02	2.87E-05	15	NO
1,1-Dichloroethylene (vinylidene Cl)	2.15E-07	1	1.87E-02	1.87E-05	75	NO
Diethylphthalate	7.00E-08	1	6.10E-03	6.10E-06	15	NO
Dimethyl phthalate	1.88E-07	1	1.64E-02	1.64E-05	15	NO
2,4-Dinitrotoluene	3.21E-04	0.999	2.80E+01	2.80E-02	0.6	NO
DMSO	5.34E-05	1	4.66E+00	4.66E-03		
Dioctyl phthalate	9.19E-07	0.852	7.86E-02	7.86E-05	50	NO
1234678-HpCDD	1.49E-12	0.003	1.14E-07	1.14E-10	6.00E-01	NO

Ethyl Acetate	2.14E-03	1.000	1.87E+02	1.87E-01		
Ethylbenzene	5.49E-05	1	4.79E+00	4.79E-03	500	NO
Ethyl chloride	6.89E-08	1	6.01E-03	6.01E-06		
Ethanol	2.14E-03	1	1.87E+02	1.87E-01		
Fluoanthene	2.00E-05	0.992	1.74E+00	1.74E-03	0.015	NO
Fluorene	1.00E-06	1	8.72E-02	8.72E-05	11.56	NO
Hexane	1.60E-05	1	1.39E+00	1.39E-03		
Hydrogen chloride	1.07E-03	1	9.33E+01	9.33E-02		
Indeno[1,2,3-cd]pyrene	5.00E-06	0.005	3.82E-01	3.82E-04	0.5	NO
Isopropyl Alcohol	5.34E-04	1	4.66E+01	4.66E-02		
Mercury	2.14E-05	1	1.87E+00	1.87E-03	1.80E-03	NO
Methanol	9.62E-03	1	8.39E+02	8.39E-01	28	NO
Methylene chloride	3.21E-04	1	2.80E+01	2.80E-02	14	NO
Methylcyclohexane	1.56E-04	1	1.36E+01	1.36E-02		
Methyl ethyl ketone	4.27E-05	1	3.72E+00	3.72E-03	13	NO
Methyl isobutyl ketone	1.10E-05	1	9.59E-01	9.59E-04	300	NO
Napthalene	1.62E-04	1	1.41E+01	1.41E-02	75	NO
Nitric Acid	1.07E-03	1	9.33E+01	9.33E-02		
Nitrogen dioxide	7.50E-02	1	6.54E+03	6.54E+00		
Particulate matter	2.00E-01	0	1.34E+04	1.34E+01		
Phenanthrene	7.17E-06	0.999	6.25E-01	6.25E-04	1	NO
Phenol	1.56E-05	1	1.36E+00	1.36E-03	5.8	NO
Potassium Hydroxide	1.07E-03	1	9.33E+01	9.33E-02		
Pyrene	2.00E-06	0.994	1.74E-01	1.74E-04	15	NO
sodium Hydroxide	4.27E-03	1	3.72E+02	3.72E-01		
Styrene	4.99E-05	1	4.35E+00	4.35E-03	21	NO
Sulfuric Acid	5.34E-03	1	4.66E+02	4.66E-01		
Sulfur dioxide	2.50E-03	1	2.18E+02	2.18E-01		
Tetrahydrafuran	3.21E-04	1	2.80E+01	2.80E-02	750	NO
Toluene	1.07E-03	1	9.33E+01	9.33E-02	37	NO
1,1,1-Trichloroethane (methyl chloroform)	3.44E-08	1	3.00E-03	3.00E-06	68	NO
1,2,4-Trimethylbenzene	2.43E-04	1	2.12E+01	2.12E-02		
1,3,5-Trimethylbenzene	5.57E-04	1	4.86E+01	4.86E-02	125	NO
Xylenes	5.77E-04	1	5.03E+01	5.03E-02	22	NO
Vinyl chloride	2.23E-07	1	1.94E-02	1.94E-05	180	NO

SCREENING OF OBODM MODEL RESULTS FOR BURNING BULK HIGH EXPLOSIVES (HE) at TA-16-388

Annual Average Peak Air Concentrations Screened Against 0.1xPRGs

800 lbs/yr and 100 lbs/event

OBODM Modeling Results		
Ann. Avg. Vapor	28.454	$\mu g/m^3$
Ann. Avg. Part. Bnd.	21.439	$\mu g/m^3$
Ann. Avg. Part. Phase	20.909	$\mu g/m^3$

Contaminant	EF (g/g)	Fv	Ann. Avg. Air Conc. $\mu g/m^3$	SCREENING VALUES PRG Carc $\mu g/m^3$	PRG Non-Carc $\mu g/m^3$	0.1xPRG Carc $\mu g/m^3$	0.1xPRG Non-Carc $\mu g/m^3$	SCREENING RESULTS 0.1xPRG Carc	0.1xPRG Non-Carc
Barium	4.20E-07	0	8.78E-06		0.52	0	0.052	0.1xPRG	NO
Benzene	4.88E-06	1	1.39E-04	2.50E-01	3.10E+01	0.025	3.1	NO	NO
Benzyl alcohol	1.91E-09	1	5.43E-08		1.10E+03	0	110		NO
1-3-Butadiene	4.98E-07	1	1.42E-05	6.10E-02	2.1	0.0061	0.21	NO	NO
Carbon monoxide	2.80E-02	1	7.97E-01			0	0		
Carbon tetrachloride	6.89E-08	1	1.96E-06	1.30E-01	2.6	0.013	0.26	NO	NO
Chloromethane (methyl chloride)	2.84E-07	1	8.08E-06		9.50E+01	0	9.5		NO
Chromium (tot)	3.97E-07	0	8.30E-06	1.60E-04		0.000016	0	NO	
Cyclohexane	9.07E-08	1	2.58E-06		6.20E+03	0	620		NO
Dibutyl phthalate	3.30E-07	1	9.39E-06		3.70E+02	0	37		NO
1,1-Dichloroethylene (vinylidene Cl)	2.15E-07	1	6.12E-06		2.10E+02	0	21		NO
Diethylphthalate	6.58E-08	1	1.87E-06		2.90E+03	0	290		NO
Ethylbenzene	7.96E-07	1	2.26E-05		1.10E+03	0	110		NO
Ethyl chloride	6.89E-08	1	1.96E-06	2.3	1.00E+04	0.23	1000	NO	NO
Hexane	9.07E-08	1	2.58E-06		2.10E+02	0	21		NO
Hydrogen chloride	9.97E-04	1	2.84E-02		2.10E+01	0	2.1		NO
Methylene chloride	7.46E-07	1	2.12E-05	4.1	3.10E+03	0.41	310	NO	NO
Nitrogen dioxide	7.50E-02	1	2.13E+00			0	0		
Particulate matter	9.00E-02	0	1.88E+00			0	0		
Styrene	2.57E-07	1	7.31E-06		1.10E+03	0	110		NO
Toluene	5.44E-07	1	1.55E-05		4.00E+02	0	40		NO
1,1,1-Trichloroethane (methyl chloroform)	3.44E-08	1	9.79E-07		2.30E+03	0	230		NO
1,2,4-Trimethylbenzene	4.25E-07	1	1.21E-05		6.2	0	0.62		NO
1,3,5-Trimethylbenzene	2.99E-07	1	8.51E-06		6.2	0	0.62		NO
Xylenes	1.67E-06	1	4.75E-05		1.10E+02	0	11		NO
Vinyl chloride	2.23E-07	1	6.35E-06	1.10E-01	1.00E+02	0.011	10	NO	NO
Zinc	4.14E-07	0	8.66E-06			0	0		

SCREENING OF OBODM MODEL RESULTS FOR BURNING BULK HIGH EXPLOSIVES (HE) at TA-16-388

1-Hour Peak Air Concentrations Screened Against AIEC Values

800 lbs/yr and 100 lbs/event

OBODM Modeling Results		
1-Hour Vapor	57272.9	$\mu g/m^3$
1-Hour Part. Bnd.	41941.7	$\mu g/m^3$
1-Hour Part. Phase	43472.3	$\mu g/m^3$

Contaminant	EF (g/g)	Fv	Ann. Avg. Air Conc. $\mu g/m^3$	Ann. Avg. Air Conc. mg/m^3	Screening Value AIEC mg/m^3	Screening Results
Barium	4.20E-07	0	1.83E-02	1.83E-05	1.5	NO
Benzene	4.88E-06	1	2.79E-01	2.79E-04	1.3	NO
Benzyl alcohol	1.91E-09	1	1.09E-04	1.09E-07	60	NO
1-3-Butadiene	4.98E-07	1	2.85E-02	2.85E-05		
Carbon monoxide	2.80E-02	1	1.60E+03	1.60E+00		
Carbon tetrachloride	6.89E-08	1	3.95E-03	3.95E-06	1.9	NO
Chloromethane (methyl chloride)	2.84E-07	1	1.63E-02	1.63E-05	200	NO
Chromium (tot)	3.97E-07	0	1.73E-02	1.73E-05	1.5	NO
Cyclohexane	9.07E-08	1	5.19E-03	5.19E-06		
Dibutyl phthalate	3.30E-07	1	1.89E-02	1.89E-05	15	NO
1,1-Dichloroethylene (vinylidene Cl)	2.15E-07	1	1.23E-02	1.23E-05	75	NO
Diethylphthalate	6.58E-08	1	3.77E-03	3.77E-06	15	NO
Ethylbenzene	7.96E-07	1	4.56E-02	4.56E-05	500	NO
Ethyl chloride	6.89E-08	1	3.95E-03	3.95E-06		
Hexane	9.07E-08	1	5.19E-03	5.19E-06		
Hydrogen chloride	9.97E-04	1	5.71E+01	5.71E-02		
Methylene chloride	7.46E-07	1	4.27E-02	4.27E-05	14	NO
Nitrogen dioxide	7.50E-02	1	4.30E+03	4.30E+00		
Particulate matter	9.00E-02	0	3.91E+03	3.91E+00		
Styrene	2.57E-07	1	1.47E-02	1.47E-05	21	NO
Toluene	5.44E-07	1	3.12E-02	3.12E-05	37	NO
1,1,1-Trichloroethane (methyl chloroform)	3.44E-08	1	1.97E-03	1.97E-06	68	NO
1,2,4-Trimethylbenzene	4.25E-07	1	2.43E-02	2.43E-05		
1,3,5-Trimethylbenzene	2.99E-07	1	1.71E-02	1.71E-05	125	NO
Xylenes	1.67E-06	1	9.56E-02	9.56E-05	22	NO
Vinyl chloride	2.23E-07	1	1.28E-02	1.28E-05	180	NO
Zinc	4.14E-07	0	1.80E-02	1.80E-05	30	NO

SCREENING OF OBODM MODEL RESULTS FOR BURNING
BULK HIGH EXPLOSIVES (HE) at TA-16-388
10-Year Soil Concentrations Screened Against LANL ESLs and NMED or EPA Region 6 Industrial SSLs
800 lbs/yr and 100 lbs/event

OBODM Modeling Results		
Soil Active Layer	0.02	meters
Soil Bulk Density	1200	kg/m^3
Ann Avg Part Bnd Dose	2.0734	$(\mu g \cdot hr)/m^3$
Ann Avg Vapor Phase Dose	2.8212	$(\mu g \cdot hr)/m^3$
Ann Avg Part Phase Dose	2.1259	$(\mu g \cdot hr)/m^3$
Ann Part Bnd Grav Dep	1.20E+07	$\mu g/m^2$
Ann Part Phase Grav Dep	5.01E+07	$\mu g/m^2$

Contaminant	EF	Fv	Deposition Velocity, V_D	Gravitational Deposition	Dry Deposition	Total Deposition	10-Yr Total Deposition	10-Yr Soil Concentration	Screening Values: LANL ESL	Screening Values: NMED I/O Soil	Screening Values: R6 Med Spec Ind SSL	SCREENING RESULTS: Results Ecological Screen	SCREENING RESULTS: Results Human Health Screen: NMED	SCREENING RESULTS: Results Human Health Screen: R6
	g/g		m/sec	$\mu g/m^2$	$\mu g/m^2$	$\mu g/m^2$	$\mu g/m^2$	mg/kg	mg/kg	mg/kg	mg/kg			
Barium	4.20E-07	0	0.01	2.11E+01	8.93E-09	2.11E+01	2.11E+02	8.77E-03	110	1.00E+05		NO	NO	
Benzene	4.88E-06	1	0.005	0.00E+00	6.88E-08	6.88E-08	6.88E-07	2.87E-11	24	2.58E+01		NO	NO	
Benzyl alcohol	1.91E-09	1	0.005	0.00E+00	2.69E-11	2.69E-11	2.69E-10	1.12E-14			1.00E+05			NO
1-3-Butadiene	4.98E-07	1	0.005	0.00E+00	7.02E-09	7.02E-09	7.02E-08	2.93E-12		2.38			NO	
Carbon monoxide	2.80E-02	1	0.005	0.00E+00	3.95E-04	3.95E-04	3.95E-03	1.65E-07						
Carbon tetrachloride	6.89E-08	1	0.005	0.00E+00	9.72E-10	9.72E-10	9.72E-09	4.05E-13		8.64			NO	
Chloromethane (methyl chloride)	2.84E-07	1	0.005	0.00E+00	4.01E-09	4.01E-09	4.01E-08	1.67E-12		5.34E+01			NO	
Chromium (tot)	3.97E-07	0	0.01	1.99E+01	8.44E-09	1.99E+01	1.99E+02	8.29E-03	2.3	1.00E+05	5.00E+02	NO	NO	NO
Cyclohexane	9.07E-08	1	0.005	0.00E+00	1.28E-09	1.28E-09	1.28E-08	5.33E-13			1.40E+02			NO
Dibutyl phthalate	3.30E-07	1	0.005	0.00E+00	4.65E-09	4.65E-09	4.65E-08	1.94E-12	1.10E-02	6.84E+04		NO	NO	
1,1-Dichloroethylene (vinylidene Cl)	2.15E-07	1	0.005	0.00E+00	3.03E-09	3.03E-09	3.03E-08	1.26E-12	11		4.70E+02	NO		NO
Diethylphthalate	6.58E-08	1	0.005	0.00E+00	9.28E-10	9.28E-10	9.28E-09	3.87E-13		1.00E+05			NO	
Ethylbenzene	7.96E-07	1	0.005	0.00E+00	1.12E-08	1.12E-08	1.12E-07	4.68E-12		1.28E+02			NO	
Ethyl chloride	6.89E-08	1	0.005	0.00E+00	9.72E-10	9.72E-10	9.72E-09	4.05E-13		1.54E+02			NO	
Hexane	9.07E-08	1	0.005	0.00E+00	1.28E-09	1.28E-09	1.28E-08	5.33E-13		3.80E+01			NO	
Hydrogen chloride	9.97E-04	1	0.005	0.00E+00	1.41E-05	1.41E-05	1.41E-04	5.86E-09			1.00E+05			NO
Methylene chloride	7.46E-07	1	0.005	0.00E+00	1.05E-08	1.05E-08	1.05E-07	4.38E-12	2.6	4.90E+02		NO	NO	
Nitrogen dioxide	7.50E-02	1	0.005	0.00E+00	1.06E-03	1.06E-03	1.06E-02	4.41E-07						
Particulate matter	9.00E-02	0	0.01	4.51E+06	1.91E-03	4.51E+06	4.51E+07	1.88E+03						
Styrene	2.57E-07	1	0.005	0.00E+00	3.63E-09	3.63E-09	3.63E-08	1.51E-12		100			NO	
Toluene	5.44E-07	1	0.005	0.00E+00	7.67E-09	7.67E-09	7.67E-08	3.20E-12	23	252		NO	NO	
1,1,1-Trichloroethane (methyl chloroform)	3.44E-08	1	0.005	0.00E+00	4.85E-10	4.85E-10	4.85E-09	2.02E-13		563			NO	
1,2,4-Trimethylbenzene	4.25E-07	1	0.005	0.00E+00	6.00E-09	6.00E-09	6.00E-08	2.50E-12		213			NO	
1,3,5-Trimethylbenzene	2.99E-07	1	0.005	0.00E+00	4.22E-09	4.22E-09	4.22E-08	1.76E-12		69.2			NO	
Xylenes	1.67E-06	1	0.005	0.00E+00	2.36E-08	2.36E-08	2.36E-07	9.82E-12	1.4	82		NO	NO	
Vinyl chloride	2.23E-07	1	0.005	0.00E+00	3.15E-09	3.15E-09	3.15E-08	1.31E-12		14			NO	
Zinc	4.14E-07	0	0.01	2.08E+01	8.80E-09	2.08E+01	2.08E+02	8.65E-03	10	1.00E+05		NO	NO	

SCREENING OF OBODM MODEL RESULTS FOR
BURNING BULK HIGH EXPLOSIVES (HE) at TA-16-388
Annual Average Peak Air Concentrations Screening Against 0.1xPRG
15,000 lbs/yr and 250 lbs/event

OBODM Modeling Results		
Ann. Avg. Vapor	53.419	$\mu g/m^3$
Ann. Avg. Part. Bnd.	39.495	$\mu g/m^3$
Ann. Avg. Part. Phase	41.412	$\mu g/m^3$

Contaminant	EF (g/g)	Fv	Ann. Avg. Air Conc. $\mu g/m^3$	SCREENING VALUES PRG Carc $\mu g/m^3$	PRG Non-Carc $\mu g/m^3$	0.1*PRG Carc $\mu g/m^3$	0.1*PRG Non-Carc $\mu g/m^3$	SCREENING RESULTS PRG Carc	PRG Non-Carc
Barium	4.20E-07	0	1.74E-05		0.52	0	0.052		NO
Benzene	4.88E-06	1	2.61E-04	2.50E-01	3.10E+01	0.025	3.1	NO	NO
Benzyl alcohol	1.91E-09	1	1.02E-07		1.10E+03	0	110		NO
1-3-Butadiene	4.98E-07	1	2.66E-05	6.10E-02	2.1	0.0061	0.21	NO	NO
Carbon monoxide	2.80E-02	1	1.50E+00			0	0		
Carbon tetrachloride	6.89E-08	1	3.68E-06	1.30E-01	2.6	0.013	0.26	NO	NO
Chloromethane (methyl chloride)	2.84E-07	1	1.52E-05		9.50E+01	0	9.5		NO
Chromium (tot)	3.97E-07	0	1.64E-05	1.60E-04		0.000016	0	YES	
Cyclohexane	9.07E-08	1	4.85E-06		6.20E+03	0	620		NO
Dibutyl phthalate	3.30E-07	1	1.76E-05		3.70E+02	0	37		NO
1,1-Dichloroethylene (vinylidene Cl)	2.15E-07	1	1.15E-05		2.10E+02	0	21		NO
Diethylphthalate	6.58E-08	1	3.51E-06		2.90E+03	0	290		NO
Ethylbenzene	7.96E-07	1	4.25E-05		1.10E+03	0	110		NO
Ethyl chloride	6.89E-08	1	3.68E-06	2.3	1.00E+04	0.23	1000	NO	NO
Hexane	9.07E-08	1	4.85E-06		2.10E+02	0	21		NO
Hydrogen chloride	9.97E-04	1	5.33E-02		2.10E+01	0	2.1		NO
Methylene chloride	7.46E-07	1	3.99E-05	4.1	3.10E+03	0.41	310	NO	NO
Nitrogen dioxide	7.50E-02	1	4.01E+00			0	0		
Particulate matter	9.00E-02	0	3.73E+00			0	0		
Styrene	2.57E-07	1	1.37E-05		1.10E+03	0	110		NO
Toluene	5.44E-07	1	2.91E-05		4.00E+02	0	40		NO
1,1,1-Trichloroethane (methyl chloroform)	3.44E-08	1	1.84E-06		2.30E+03	0	230		NO
1,2,4-Trimethylbenzene	4.25E-07	1	2.27E-05		6.2	0	0.62		NO
1,3,5-Trimethylbenzene	2.99E-07	1	1.60E-05		6.2	0	0.62		NO
Xylenes	1.67E-06	1	8.92E-05		1.10E+02	0	11		NO
Vinyl chloride	2.23E-07	1	1.19E-05	1.10E-01	1.00E+02	0.011	10	NO	NO
Zinc	4.14E-07	0	1.71E-05			0	0		

SCREENING OF OBODM MODEL RESULTS FOR
BURNING BULK HIGH EXPLOSIVES (HE) at TA-16-388
Maximum 1-Hour Peak Air Concentrations Screening AIEC Values
15,000 lbs/yr and 250 lbs/event

OBODM Modeling Results		
1-Hour Vapor	53184	$\mu g/m^3$
1-Hour Part. Bnd.	38974.6	$\mu g/m^3$
1-Hour Part. Phase	40681.4	$\mu g/m^3$

Contaminant	EF (g/g)	Fv	Ann. Avg. Air Conc. $\mu g/m^3$	Ann. Avg. Air Conc. mg/m^3	Screening Value AIEC mg/m^3	Screening Results
Barium	4.20E-07	0	1.71E-02	1.71E-05	1.5	NO
Benzene	4.88E-06	1	2.60E-01	2.60E-04	1.3	NO
Benzyl alcohol	1.91E-09	1	1.02E-04	1.02E-07	60	NO
1-3-Butadiene	4.98E-07	1	2.65E-02	2.65E-05		
Carbon monoxide	2.80E-02	1	1.49E+03	1.49E+00		
Carbon tetrachloride	6.89E-08	1	3.66E-03	3.66E-06	1.9	NO
Chloromethane (methyl chloride)	2.84E-07	1	1.51E-02	1.51E-05	200	NO
Chromium (tot)	3.97E-07	0	1.62E-02	1.62E-05	1.5	NO
Cyclohexane	9.07E-08	1	4.82E-03	4.82E-06		
Dibutyl phthalate	3.30E-07	1	1.76E-02	1.76E-05	15	NO
1,1-Dichloroethylene (vinylidene Cl)	2.15E-07	1	1.14E-02	1.14E-05	75	NO
Diethylphthalate	6.58E-08	1	3.50E-03	3.50E-06	15	NO
Ethylbenzene	7.96E-07	1	4.23E-02	4.23E-05	500	NO
Ethyl chloride	6.89E-08	1	3.66E-03	3.66E-06		
Hexane	9.07E-08	1	4.82E-03	4.82E-06		
Hydrogen chloride	9.97E-04	1	5.30E+01	5.30E-02		
Methylene chloride	7.46E-07	1	3.97E-02	3.97E-05	14	NO
Nitrogen dioxide	7.50E-02	1	3.99E+03	3.99E+00		
Particulate matter	9.00E-02	0	3.66E+03	3.66E+00		
Styrene	2.57E-07	1	1.37E-02	1.37E-05	21	NO
Toluene	5.44E-07	1	2.89E-02	2.89E-05	37	NO
1,1,1-Trichloroethane (methyl chloroform)	3.44E-08	1	1.83E-03	1.83E-06	68	NO
1,2,4-Trimethylbenzene	4.25E-07	1	2.26E-02	2.26E-05		
1,3,5-Trimethylbenzene	2.99E-07	1	1.59E-02	1.59E-05	125	NO
Xylenes	1.67E-06	1	8.88E-02	8.88E-05	22	NO
Vinyl chloride	2.23E-07	1	1.19E-02	1.19E-05	180	NO
Zinc	4.14E-07	0	1.68E-02	1.68E-05	30	NO

SCREENING OF OBODM MODEL RESULTS FOR
BURNING BULK HIGH EXPLOSIVES (HE) at TA-16-388
10-Year Soil Concentrations Screened Against LANL ESLs and NMED or EPA Region 6 Industrial SSLs
15,000 lbs/yr and 250 lbs/event

OBODM Modeling Results		
Soil Active Layer	0.02	meters
Soil Bulk Density	1200	kg/m³
Ann Avg Part Bnd Dose	9.8795	(µg·hr)/m³
Ann Avg Vapor Phase Dose	13.361	(µg·hr)/m³
Ann Avg Part Phase Dose	10.36	(µg·hr)/m³
Ann Part Bnd Grav Dep	5.86E+07	µg/m²
Ann Part Phase Grav Dep	2.55E+08	µg/m²

Contaminant	EF µg/g	Fv	Deposition Velocity, V_D m/sec	Gravitational Deposition µg/m²	Dry Deposition µg/m²	Total Deposition µg/m²	10-Yr Total Deposition µg/m²	10-Yr Soil Concentration mg/kg	Screening Values: LANL ESL mg/kg	Screening Values: NMED I/O Soil mg/kg	Screening Values: R6 Med Spec Ind SSL mg/kg	SCREENING RESULTS: Results Ecological Screen	SCREENING RESULTS: Results Human Health Screen: NMED	SCREENING RESULTS: Results Human Health Screen: R6
Barium	4.20E-07	0	0.01	1.07E+02	4.35E-08	1.07E+02	1.07E+03	4.46E-02	110	1.00E+05		NO	NO	
Benzene	4.88E-06	1	0.005	0.00E+00	3.26E-07	3.26E-07	3.26E-06	1.36E-10	24	2.58E+01		NO	NO	
Benzyl alcohol	1.91E-09	1	0.005	0.00E+00	1.28E-10	1.28E-10	1.28E-09	5.32E-14			1.00E+05			NO
1-3-Butadiene	4.98E-07	1	0.005	0.00E+00	3.33E-08	3.33E-08	3.33E-07	1.39E-11		2.38			NO	
Carbon monoxide	2.80E-02	1	0.005	0.00E+00	1.87E-03	1.87E-03	1.87E-02	7.79E-07						
Carbon tetrachloride	6.89E-08	1	0.005	0.00E+00	4.60E-09	4.60E-09	4.60E-08	1.92E-12		8.64			NO	
Chloromethane (methyl chloride)	2.84E-07	1	0.005	0.00E+00	1.90E-08	1.90E-08	1.90E-07	7.91E-12		5.34E+01			NO	
Chromium (tot)	3.97E-07	0	0.01	1.01E+02	4.11E-08	1.01E+02	1.01E+03	4.21E-02	2.3	1.00E+05	5.00E+02	NO	NO	NO
Cyclohexane	9.07E-08	1	0.005	0.00E+00	6.06E-09	6.06E-09	6.06E-08	2.52E-12			1.40E+02			NO
Dibutyl phthalate	3.30E-07	1	0.005	0.00E+00	2.20E-08	2.20E-08	2.20E-07	9.19E-12	1.10E-02	6.84E+04		NO	NO	
1,1-Dichloroethylene (vinylidene Cl)	2.15E-07	1	0.005	0.00E+00	1.44E-08	1.44E-08	1.44E-07	5.98E-12	11		4.70E+02	NO		NO
Diethylphthalate	6.58E-08	1	0.005	0.00E+00	4.40E-09	4.40E-09	4.40E-08	1.83E-12		1.00E+05			NO	
Ethylbenzene	7.96E-07	1	0.005	0.00E+00	5.32E-08	5.32E-08	5.32E-07	2.22E-11		1.28E+02			NO	
Ethyl chloride	6.89E-08	1	0.005	0.00E+00	4.60E-09	4.60E-09	4.60E-08	1.92E-12		1.54E+02			NO	
Hexane	9.07E-08	1	0.005	0.00E+00	6.06E-09	6.06E-09	6.06E-08	2.52E-12		3.80E+01			NO	
Hydrogen chloride	9.97E-04	1	0.005	0.00E+00	6.66E-05	6.66E-05	6.66E-04	2.78E-08			1.00E+05			NO
Methylene chloride	7.46E-07	1	0.005	0.00E+00	4.98E-08	4.98E-08	4.98E-07	2.08E-11	2.6	4.90E+02		NO	NO	
Nitrogen dioxide	7.50E-02	1	0.005	0.00E+00	5.01E-03	5.01E-03	5.01E-02	2.09E-06						
Particulate matter	9.00E-02	0	0.01	2.29E+07	9.32E-03	2.29E+07	2.29E+08	9.55E+03						
Styrene	2.57E-07	1	0.005	0.00E+00	1.72E-08	1.72E-08	1.72E-07	7.15E-12		100			NO	
Toluene	5.44E-07	1	0.005	0.00E+00	3.63E-08	3.63E-08	3.63E-07	1.51E-11	23	252		NO	NO	
1,1,1-Trichloroethane (methyl chloroform)	3.44E-08	1	0.005	0.00E+00	2.30E-09	2.30E-09	2.30E-08	9.58E-13		563			NO	
1,2,4-Trimethylbenzene	4.25E-07	1	0.005	0.00E+00	2.84E-08	2.84E-08	2.84E-07	1.18E-11		213			NO	
1,3,5-Trimethylbenzene	2.99E-07	1	0.005	0.00E+00	2.00E-08	2.00E-08	2.00E-07	8.32E-12		69.2			NO	
Xylenes	1.67E-06	1	0.005	0.00E+00	1.12E-07	1.12E-07	1.12E-06	4.65E-11	1.4	82		NO	NO	
Vinyl chloride	2.23E-07	1	0.005	0.00E+00	1.49E-08	1.49E-08	1.49E-07	6.21E-12		14			NO	
Zinc	4.14E-07	0	0.01	1.05E+02	4.29E-08	1.05E+02	1.05E+03	4.39E-02	10	1.00E+05		NO	NO	

SCREENING OF OBODM MODEL RESULTS FOR
BURNING BULK HIGH EXPLOSIVES (HE) at TA-16-399
Annual Average Peak Air Concentrations Screening Against 0.1xPRG
20,000 lbs/yr and 1,000 lbs/event

OBODM Modeling Results		
Ann. Avg. Vapor	49.574	µg/m³
Ann. Avg. Part. Bnd.	29.039	µg/m³
Ann. Avg. Part. Phase	31.854	µg/m³

				SCREENING VALUES				SCREENING RESULTS	
Contaminant	EF (g/g)	Fv	Ann. Avg. Air Conc. µg/m³	PRG Carc µg/m³	PRG Non-Carc µg/m³	0.1*PRG Carc µg/m³	0.1*PRG Non-Carc µg/m³	PRG Carc	PRG Non-Carc
Barium	4.20E-07	0	1.34E-05		0.52		5.20E-02		NO
Benzene	4.88E-06	1	2.42E-04	2.50E-01	3.10E+01	2.50E-02	3.10E+00	NO	NO
Benzyl alcohol	1.91E-09	1	9.47E-08		1.10E+03		1.10E+02		NO
1-3-Butadiene	4.97E-07	1	2.46E-05	6.10E-02	2.1	6.10E-03	2.10E-01	NO	NO
Carbon monoxide	2.80E-02	1	1.39E+00						
Carbon tetrachloride	6.89E-08	1	3.42E-06	1.30E-01	2.6	1.30E-02	2.60E-01	NO	NO
Chloromethane (methyl chloride)	2.84E-07	1	1.41E-05		9.50E+01		9.50E+00		NO
Chromium (tot)	3.97E-07	0	1.26E-05	1.60E-04		1.60E-05		NO	
Cyclohexane	9.07E-08	1	4.50E-06		6.20E+03		6.20E+02		NO
Dibutyl phthalate	3.30E-07	1	1.64E-05		3.70E+02		3.70E+01		NO
1,1-Dichloroethylene (vinylidene Cl)	2.15E-07	1	1.07E-05		2.10E+02		2.10E+01		NO
Diethylphthalate	6.58E-08	1	3.26E-06		2.90E+03		2.90E+02		NO
Ethylbenzene	7.96E-07	1	3.95E-05		1.10E+03		1.10E+02		NO
Ethyl chloride	6.89E-08	1	3.42E-06	2.30E+00	1.00E+04	2.30E-01	1.00E+03	NO	NO
Hexane	9.07E-08	1	4.50E-06		2.10E+02		2.10E+01		NO
Hydrogen chloride	9.97E-04	1	4.94E-02		2.10E+01		2.10E+00		NO
Methylene chloride	7.46E-07	1	3.70E-05	4.10E+00	3.10E+03	4.10E-01	3.10E+02	NO	NO
Nitrogen dioxide	7.50E-02	1	3.72E+00						
Particulate matter	9.00E-02	0	2.87E+00						
Styrene	2.57E-07	1	1.27E-05		1.10E+03		1.10E+02		NO
Toluene	5.44E-07	1	2.70E-05		4.00E+02		4.00E+01		NO
1,1,1-Trichloroethane (methyl chloroform)	3.44E-08	1	1.71E-06		2.30E+03		2.30E+02		NO
1,2,4-Trimethylbenzene	4.25E-07	1	2.11E-05		6.2		6.20E-01		NO
1,3,5-Trimethylbenzene	2.99E-07	1	1.48E-05		6.20E+00		6.20E-01		NO
Xylenes	1.67E-06	1	8.28E-05		1.10E+02		1.10E+01		NO
Vinyl chloride	2.23E-07	1	1.11E-05	1.10E-01	1.00E+02	1.10E-02	1.00E+01	NO	NO
Zinc	4.14E-07	0	1.32E-05						

SCREENING OF OBODM MODEL RESULTS FOR BURNING BULK HIGH EXPLOSIVES (HE) at TA-16-399

1-Hour Peak Air Concentrations Screening Against AIEC Values

20,000 lbs/yr and 1,000 lbs/event

OBODM Modeling Results		
1-Hour Vapor	33129.3	$\mu g/m^3$
1-Hour Part. Bnd.	22164.2	$\mu g/m^3$
1-Hour Part. Phase	21297.7	$\mu g/m^3$

Contaminant	EF (g/g)	Fv	Ann. Avg. Air Conc. $\mu g/m^3$	Ann. Avg. Air Conc. mg/m^3	Screening Value AIEC mg/m^3	Screening Results
Barium	4.20E-07	0	8.95E-03	8.95E-06	1.5	NO
Benzene	4.88E-06	1	1.62E-01	1.62E-04	1.3	NO
Benzyl alcohol	1.91E-09	1	6.33E-05	6.33E-08	60	NO
1-3-Butadiene	4.97E-07	1	1.65E-02	1.65E-05		
Carbon monoxide	2.80E-02	1	9.28E+02	9.28E-01		
Carbon tetrachloride	6.89E-08	1	2.28E-03	2.28E-06	1.9	NO
Chloromethane (methyl chloride)	2.84E-07	1	9.41E-03	9.41E-06	200	NO
Chromium (tot)	3.97E-07	0	8.46E-03	8.46E-06	1.5	NO
Cyclohexane	9.07E-08	1	3.00E-03	3.00E-06		
Dibutyl phthalate	3.30E-07	1	1.09E-02	1.09E-05	15	NO
1,1-Dichloroethylene (vinylidene Cl)	2.15E-07	1	7.12E-03	7.12E-06	75	NO
Diethylphthalate	6.58E-08	1	2.18E-03	2.18E-06	15	NO
Ethylbenzene	7.96E-07	1	2.64E-02	2.64E-05	500	NO
Ethyl chloride	6.89E-08	1	2.28E-03	2.28E-06		
Hexane	9.07E-08	1	3.00E-03	3.00E-06		
Hydrogen chloride	9.97E-04	1	3.30E+01	3.30E-02		
Methylene chloride	7.46E-07	1	2.47E-02	2.47E-05	14	NO
Nitrogen dioxide	7.50E-02	1	2.48E+03	2.48E+00		
Particulate matter	9.00E-02	0	1.92E+03	1.92E+00		
Styrene	2.57E-07	1	8.51E-03	8.51E-06	21	NO
Toluene	5.44E-07	1	1.80E-02	1.80E-05	37	NO
1,1,1-Trichloroethane (methyl chloroform)	3.44E-08	1	1.14E-03	1.14E-06	68	NO
1,2,4-Trimethylbenzene	4.25E-07	1	1.41E-02	1.41E-05		
1,3,5-Trimethylbenzene	2.99E-07	1	9.91E-03	9.91E-06	125	NO
Xylenes	1.67E-06	1	5.53E-02	5.53E-05	22	NO
Vinyl chloride	2.23E-07	1	7.39E-03	7.39E-06	180	NO
Zinc	4.14E-07	0	8.82E-03	8.82E-06	30	NO

SCREENING OF OBODM MODEL RESULTS FOR
BURNING BULK HIGH EXPLOSIVES (HE) at TA-16-399
10-Year Soil Concentrations Screened Against the LANL ESLs and NMED and EPA Region 6 Industrial SSLs
20,000 lbs/yr and 1,000 lbs/event

OBODM Modeling Results		
Soil Active Layer	0.02	meters
Soil Bulk Density	1200	kg/m^3
Ann Avg Part Bnd Dose	28.939	$(\mu g \cdot hr)/m^3$
Ann Avg Vapor Phase Dose	49.394	$(\mu g \cdot hr)/m^3$
Ann Avg Part Phase Dose	31.738	$(\mu g \cdot hr)/m^3$
Ann Part Bnd Grav Dep	1.42E+08	$\mu g/m^2$
Ann Part Phase Grav Dep	6.55E+08	$\mu g/m^2$

Contaminant	EF (g/g)	Fv	Deposition Velocity, V_D m/sec	Gravitational Deposition $\mu g/m^2$	Dry Deposition $\mu g/m^2$	Total Deposition $\mu g/m^2$	10-Yr Total Deposition $\mu g/m^2$	10-Yr Soil Concentration mg/kg	Screening Values: LANL ESL mg/kg	Screening Values: NMED I/O Soil mg/kg	Screening Values: R6 Med Spec Ind SSL mg/kg	Results Ecological Screen	Results Human Health Screen: NMED	Results Human Health Screen: R6
Barium	4.20E-07	0	0.01	2.75E+02	1.33E-07	2.75E+02	2.75E+03	1.15E-01	110	1.00E+05		NO	NO	
Benzene	4.88E-06	1	0.005	0.00E+00	1.21E-06	1.21E-06	1.21E-05	5.02E-10	24	2.58E+01		NO	NO	
Benzyl alcohol	1.91E-09	1	0.005	0.00E+00	4.72E-10	4.72E-10	4.72E-09	1.97E-13			1.00E+05			NO
1-3-Butadiene	4.97E-07	1	0.005	0.00E+00	1.23E-07	1.23E-07	1.23E-06	5.11E-11		2.38E+00			NO	
Carbon monoxide	2.80E-02	1	0.005	0.00E+00	6.92E-03	6.92E-03	6.92E-02	2.88E-06						
Carbon tetrachloride	6.89E-08	1	0.005	0.00E+00	1.70E-08	1.70E-08	1.70E-07	7.09E-12		8.64E+00			NO	
Chloromethane (methyl chloride)	2.84E-07	1	0.005	0.00E+00	7.01E-08	7.01E-08	7.01E-07	2.92E-11		5.34E+01			NO	
Chromium (tot)	3.97E-07	0	0.01	2.60E+02	1.26E-07	2.60E+02	2.60E+03	1.08E-01	2.3	1.00E+05	5.00E+02	NO	NO	NO
Cyclohexane	9.07E-08	1	0.005	0.00E+00	2.24E-08	2.24E-08	2.24E-07	9.33E-12			1.40E+02			NO
Dibutyl phthalate	3.30E-07	1	0.005	0.00E+00	8.15E-08	8.15E-08	8.15E-07	3.40E-11	1.10E-02	6.84E+04		NO	NO	
1,1-Dichloroethylene (vinylidene Cl)	2.15E-07	1	0.005	0.00E+00	5.31E-08	5.31E-08	5.31E-07	2.21E-11	11		4.70E+02	NO		NO
Diethylphthalate	6.58E-08	1	0.005	0.00E+00	1.63E-08	1.63E-08	1.63E-07	6.77E-12		1.00E+05			NO	
Ethylbenzene	7.96E-07	1	0.005	0.00E+00	1.97E-07	1.97E-07	1.97E-06	8.19E-11		1.28E+02			NO	
Ethyl chloride	6.89E-08	1	0.005	0.00E+00	1.70E-08	1.70E-08	1.70E-07	7.09E-12		1.54E+02			NO	
Hexane	9.07E-08	1	0.005	0.00E+00	2.24E-08	2.24E-08	2.24E-07	9.33E-12		3.80E+01			NO	
Hydrogen chloride	9.97E-04	1	0.005	0.00E+00	2.46E-04	2.46E-04	2.46E-03	1.03E-07			1.00E+05			NO
Methylene chloride	7.46E-07	1	0.005	0.00E+00	1.84E-07	1.84E-07	1.84E-06	7.68E-11	2.6	4.90E+02		NO	NO	
Nitrogen dioxide	7.50E-02	1	0.005	0.00E+00	1.85E-02	1.85E-02	1.85E-01	7.72E-06						
Particulate matter	9.00E-02	0	0.01	5.90E+07	2.86E-02	5.90E+07	5.90E+08	2.46E+04						
Styrene	2.57E-07	1	0.005	0.00E+00	6.35E-08	6.35E-08	6.35E-07	2.64E-11		100			NO	
Toluene	5.44E-07	1	0.005	0.00E+00	1.34E-07	1.34E-07	1.34E-06	5.60E-11	23	2.52E+02		NO	NO	
1,1,1-Trichloroethane (methyl chloroform)	3.44E-08	1	0.005	0.00E+00	8.50E-09	8.50E-09	8.50E-08	3.54E-12		5.63E+02			NO	
1,2,4-Trimethylbenzene	4.25E-07	1	0.005	0.00E+00	1.05E-07	1.05E-07	1.05E-06	4.37E-11		2.13E+02			NO	
1,3,5-Trimethylbenzene	2.99E-07	1	0.005	0.00E+00	7.38E-08	7.38E-08	7.38E-07	3.08E-11		69.2	1.40E+02		NO	NO
Xylenes	1.67E-06	1	0.005	0.00E+00	4.12E-07	4.12E-07	4.12E-06	1.72E-10	1.4	82		NO	NO	
Vinyl chloride	2.23E-07	1	0.005	0.00E+00	5.51E-08	5.51E-08	5.51E-07	2.29E-11		1.40E+01			NO	
Zinc	4.14E-07	0	0.01	2.71E+02	1.31E-07	2.71E+02	2.71E+03	1.13E-01	10	1.00E+05	4.70E+02	NO	NO	NO

SCREENING OF OBODM MODEL RESULTS FOR BURNING
HIGH EXPLOSIVE (HE) CONTAMINATED WASTES at TA-16-388
WITH PROPANE
10-Year Soil Concentrations Screened Against LANL ESLs and NMED or EPA Region 6 Industrial SSLs
20,000 lbs/yr and 250 lbs/event, Propane @ 1 gal/min

OBODM Modeling Results		
Soil Active Layer	0.02	meters
Soil Bulk Density	1200	kg/m³
Ann Avg Part Bnd Dose	0.83262	(µg·hr)/m³
Ann Avg Part Phase Dose	0.98983	(µg·hr)/m³
Ann Avg Vapor Phase Dose	1.1301	(µg·hr)/m³
Ann Part Bnd Grav Dep	4.75E+06	µg/m²
Ann Part Phase Grav Dep	2.47E+07	µg/m²

Contaminant	EF g/g	Fv	Deposition Velocity, V_D m/sec	Gravitational Deposition µg/m²	Dry Deposition µg/m²	Total Deposition µg/m²	10-Yr Total Deposition µg/m²	10-Yr Soil Concentration mg/kg	Screening Values: LANL ESL mg/kg	NMED I/O Soil mg/kg	R6 Med Spec Ind SSL mg/kg	Results Ecological Screen	Results Human Health Screen: NMED	R6	
Acenaphthene	1.00E-05	1	0.005	0.00E+00	2.03E-04	2.03E-04	2.03E-03	8.48E-08	0.25	3.35E+04		NO	NO		
Acetaldehyde	6.30E-05	1	0.005	0.00E+00	1.28E-03	1.28E-03	1.28E-02	5.34E-07		3.84E+02			NO		
Acetone	1.07E-03	1	0.005	0.00E+00	2.18E-02	2.18E-02	2.18E-01	9.07E-06	12	2.81E+04		NO	NO		
Acetonitrile	1.07E-03	1	0.005	0.00E+00	2.18E-02	2.18E-02	2.18E-01	9.07E-06			2.30E+03			NO	
Acetophenone	1.74E-07	1	0.005	0.00E+00	3.54E-06	3.54E-06	3.54E-05	1.47E-09		1.48E+03			NO		
Acrolein	3.90E-05	1	0.005	0.00E+00	7.93E-04	7.93E-04	7.93E-03	3.31E-07		7.52E-01			NO		
Aluminum	7.13E-07	0	0.01	1.76E+01	2.54E-05	1.76E+01	1.76E+02	7.33E-03		1.00E+05			NO		
Ammonium Hydroxide	1.07E-03	1	0.005	0.00E+00	2.18E-02	2.18E-02	2.18E-01	9.07E-06							
Anthracene	1.50E-05	0.998	0.005	1.43E-01	3.05E-04	1.43E-01	1.43E+00	5.95E-05	210	1.00E+05		NO	NO		
Barium	4.20E-07	0	0.01	1.04E+01	1.50E-05	1.04E+01	1.04E+02	4.32E-03	110	1.00E+05		NO	NO		
BDNPF Ether	6.41E-04	1	0.005	0.00E+00	1.30E-02	1.30E-02	1.30E-01	5.43E-06							
Benzaldehyde	1.04E-04	1	0.005	0.00E+00	2.12E-03	2.12E-03	2.12E-02	8.81E-07			6.80E+04			NO	
Benzene	1.02E-03	1	0.005	0.00E+00	2.07E-02	2.07E-02	2.07E-01	8.63E-06	24	2.58E+01		NO	NO		
Benzo[a]anthracene	5.00E-06	0.881	0.005	2.83E+00	9.85E-05	2.83E+00	2.83E+01	1.18E-03	3	2.34E+01		NO	NO		
Benzo[a]pyrene	5.00E-06	0.265	0.005	1.75E+01	8.20E-05	1.75E+01	1.75E+02	7.28E-03	9.6	2.34		NO	NO		
Benzo[b&k]fluoranthene	7.00E-06	0.966	0.005	1.13E+00	1.41E-04	1.13E+00	1.13E+01	4.71E-04	18	2.34E+01		NO	NO		
Benzo[b&k]fluoranthene	7.00E-06	0.273	0.005	2.42E+01	1.15E-04	2.42E+01	2.42E+02	1.01E-02	62	2.34E+02		NO	NO		
Benzyl alcohol	3.96E-05	1	0.005	0.00E+00	8.06E-04	8.06E-04	8.06E-03	3.36E-07			1.00E+05			NO	
1-3-Butadiene	1.34E-06	1	0.005	0.00E+00	2.73E-05	2.73E-05	2.73E-04	1.14E-08		2.38			NO		
Butyl Acetate	2.14E-04	N/A	0.005	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!							
Butyl benzyl phthalate	1.22E-07	0.948	0.005	3.02E-02	2.45E-06	3.02E-02	3.02E-01	1.26E-05	90		2.40E+02	NO		NO	
Butyl Nitrite	1.07E-03	N/A	0.005	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!							
Carbon monoxide	9.00E-02	1	0.005	0.00E+00	1.83E+00	1.83E+00	1.83E+01	7.63E-04							
Carbon tetrachloride	6.89E-08	1	0.005	0.00E+00	1.40E-06	1.40E-06	1.40E-05	5.84E-10		8.64			NO		
Chloroform	2.14E-04	1	0.005	0.00E+00	4.35E-03	4.35E-03	4.35E-02	1.81E-06	8	9.59		NO	NO		
Chloromethane (methyl chloride)	2.84E-07	1	0.005	0.00E+00	5.78E-06	5.78E-06	5.78E-05	2.41E-09		5.34E+01			NO		
Chromium (tot)	3.97E-07	0	0.01	9.79E+00	1.41E-05	9.79E+00	9.79E+01	4.08E-03	2.3	1.00E+05	5.00E+02	NO	NO	NO	
Chrysene	9.00E-06	0.744	0.005	1.10E+01	1.71E-04	1.10E+01	1.10E+02	4.56E-03	2.4	2.31E+03		NO	NO		
Crotonaldehyde	6.00E-06	1	0.005	0.00E+00	1.22E-04	1.22E-04	1.22E-03	5.09E-08		1.70E-01			NO		
Cyclohexane	2.07E-05	1	0.005	0.00E+00	5.43E-04	5.43E-04	5.43E-03	2.26E-07			1.40E+02			NO	
Dibenzo[ah]anthracene	2.00E-07	0.055	0.005	8.98E-01	3.06E-06	8.98E-01	8.98E+00	3.74E-04	12	2.34		NO	NO		
Dibutyl phthalate	3.30E-07	0.994	0.005	9.41E-03	6.70E-06	9.42E-03	9.42E-02	3.92E-06	1.10E-02	6.84E+04		NO	NO		
1,2-Dichloroethane	2.14E-03	1	0.005	0.00E+00	4.35E-02	4.35E-02	4.35E-01	1.81E-05		1.52E+01			NO		
1,1-Dichloroethylene (vinylidene Cl)	2.15E-07	1	0.005	0.00E+00	4.37E-06	4.37E-06	4.37E-05	1.82E-09	11		4.70E+02	NO		NO	
Diethylphthalate	7.00E-08	1	0.005	0.00E+00	1.42E-06	1.42E-06	1.42E-05	5.93E-10		1.00E+05			NO		
Dimethyl phthalate	1.88E-07	1	0.005	0.00E+00	3.82E-06	3.82E-06	3.82E-05	1.59E-09	10	1.00E+05		NO	NO		
2,4-Dinitrotoluene	3.21E-04	0.999	0.005	1.53E+00	6.53E-03	1.53E+00	1.53E+01	6.38E-04		1.37E+03			NO		
DMSO	5.34E-05	N/A	0.005	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!							
Dioctyl phthalate	9.19E-07	0.852	0.005	6.47E-01	1.80E-05	6.47E-01	6.47E+00	2.69E-04	1.1			NO			
Dioxin/Furan TEQ Equivalent	---	---	---	---	---	---	---	**4.30E-05**	**2.90E-07**		1.80E-05	**YES**		NO	
Ethyl Acetate	2.14E-03	N/A	0.005	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!							
Ethylbenzene	5.49E-05	1	0.005	0.00E+00	1.12E-03	1.12E-03	1.12E-02	4.65E-07		1.28E+02			NO		
Ethyl chloride	6.89E-08	1	0.005	0.00E+00	1.40E-06	1.40E-06	1.40E-05	5.84E-10		1.54E+02			NO		
Ethanol	2.14E-03	N/A	0.005	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!							
Fluoranthene	2.00E-05	0.992	0.005	7.61E-01	4.06E-04	7.61E-01	7.61E+00	3.17E-04	22	2.44E+04		NO	NO		
Fluorene	1.00E-06	1	0.005	0.00E+00	2.03E-05	2.03E-05	2.03E-04	8.48E-09	4.1	2.65E+04		NO	NO		
Formaldehyde	3.03E-04	1	0.005	0.00E+00	6.16E-03	6.16E-03	6.16E-02	2.57E-06			42			NO	
Total Furans	---	---	---	---	---	---	---	1.05E-03		2.12E+01	9.5		NO	NO	For non-carc
Hexane	1.60E-05	1	0.005	0.00E+00	3.25E-04	3.25E-04	3.25E-03	1.36E-07		3.80E+01			NO		
Hydrogen chloride	1.07E-03	1	0.005	0.00E+00	2.18E-02	2.18E-02	2.18E-01	9.07E-06			1.00E+05			NO	
Indeno[1,2,3-cd]pyrene	5.00E-06	0.005	0.005	2.36E+01	7.51E-05	2.36E+01	2.36E+02	9.85E-03	62	2.34E+01		NO	NO		
Isopropyl Alcohol	5.34E-04	1	0.005	0.00E+00	1.09E-02	1.09E-02	1.09E-01	4.53E-06							
Mercury	2.14E-05	1	2.90E-02	0.00E+00	2.52E-03	2.52E-03	2.52E-02	1.05E-06	1.30E-02	1.00E+05		NO	NO		
Methanol	9.62E-03	1	0.005	0.00E+00	1.96E-01	1.96E-01	1.96E+00	8.15E-05		1.00E+05			NO		
Methylene chloride	3.21E-04	1	0.005	0.00E+00	6.53E-03	6.53E-03	6.53E-02	2.72E-06	2.6	4.90E+02		NO	NO		
Methylcyclohexane	1.56E-04	1	0.005	0.00E+00	3.17E-03	3.17E-03	3.17E-02	1.32E-06		7.89E+01			NO		
Methyl ethyl ketone	4.27E-05	1	0.005	0.00E+00	8.69E-04	8.69E-04	8.69E-03	3.62E-07			3.40E+04			NO	
Methyl isobutyl ketone	1.10E-05	1	0.005	0.00E+00	2.24E-04	2.24E-04	2.24E-03	9.32E-08		7.01E+03			NO		
Naphthalene	1.62E-04	1	0.005	0.00E+00	3.30E-03	3.30E-03	3.30E-02	1.37E-06	0.96	3.00E+02		NO	NO		
Nitric Acid	1.07E-03	N/A	0.005	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!							
Nitrogen dioxide	7.50E-02	1	0.005	0.00E+00	1.53E+00	1.53E+00	1.53E+01	6.36E-04							
Particulate matter	2.00E-01	0	0.01	4.93E+06	7.13E+00	4.93E+06	4.93E+07	2.06E+03							
Phenanthrene	7.17E-06	0.999	0.005	3.41E-02	1.46E-04	3.42E-02	3.42E-01	1.43E-05	30	2.05E+04		NO	NO		
Phenol	1.50E-05	1	0.005	0.00E+00	3.17E-04	3.17E-04	3.17E-03	1.32E-07	0.79	1.00E+05		NO	NO		
Potassium Hydroxide	1.07E-03	N/A	0.005	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!							
Pyrene	2.00E-06	0.994	0.005	5.70E-02	4.06E-05	5.71E-02	5.71E-01	2.38E-05	18	3.09E+04		NO	NO		
sodium Hydroxide	4.27E-03	N/A	0.005	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!							
Styrene	4.99E-05	1	0.005	0.00E+00	1.02E-03	1.02E-03	1.02E-02	4.23E-07		100			NO		
Sulfuric Acid	5.34E-03	N/A	0.005	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!							
Sulfur dioxide	2.50E-03	1	0.005	0.00E+00	5.09E-02	5.09E-02	5.09E-01	2.12E-05							
Tetrahydrofuran	3.21E-04	1	0.005	0.00E+00	6.53E-03	6.53E-03	6.53E-02	2.72E-06			2.50E+02			NO	
Toluene	1.07E-03	1	0.005	0.00E+00	2.18E-02	2.18E-02	2.18E-01	9.07E-06	23	252		NO	NO		
1,1,1-Trichloroethane (methyl chloroform)	3.44E-08	1	0.005	0.00E+00	7.00E-07	7.00E-07	7.00E-06	2.92E-10		563			NO		
1,2-Trichloroethane	2.14E-03	N/A	0.005	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!							
Trichloroethylene	5.34E-04	1	0.005	0.00E+00	1.09E-02	1.09E-02	1.09E-01	4.53E-06	42	1.56		NO	NO		
1,2,4-Trimethylbenzene	2.43E-04	1	0.005	0.00E+00	4.94E-03	4.94E-03	4.94E-02	2.06E-06		213			NO		
1,3,5-Trimethylbenzene	5.57E-04	1	0.005	0.00E+00	1.13E-02	1.13E-02	1.13E-01	4.72E-06		69.2			NO		
Xylenes	5.77E-04	1	0.005	0.00E+00	1.17E-02	1.17E-02	1.17E-01	4.89E-06	14	82		NO	NO		
Vinyl chloride	2.23E-07	1	0.005	0.00E+00	4.54E-06	4.54E-06	4.54E-05	1.89E-09		14			NO		

Zinc	6.26E-05	0	0.01	1.54E+03	2.23E-03	1.54E+03	1.54E+04	6.43E-01	10	1.00E+05		NO	NO		6.43E-02

Dioxin/Furan TEQ Equivalent Analysis									TEQ	TEQ Equivalent Conc	HQ
1234678-HpCDD	**1.49E-12**	**0.003**	0.005	3.66E-05	2.65E-11	3.66E-05	3.66E-04	1.53E-08	**0.01**	1.53E-10	0.00
1234678-HpCDF	3.42E-08	0.01	0.005	8.35E-01	6.03E-07	8.35E-01	8.35E+00	3.48E-04	0.01	3.48E-06	12.00
123478-HxCDF	2.13E-08	0.049	0.005	5.00E-01	3.61E-07	5.00E-01	5.00E+00	2.08E-04	0.1	2.08E-05	71.77
1234789-HpCDF	7.89E-09	0.057	0.005	3.54E-02	1.21E-07	3.54E-02	3.54E-01	1.47E-05	0.01	1.47E-07	0.51
123678-HxCDF	9.47E-09	0.052	0.005	4.27E-02	1.45E-07	4.27E-02	4.27E-01	1.78E-05	0.1	1.78E-06	6.13
12378-PeCDF	7.89E-09	0.268	0.005	2.75E-02	1.30E-07	2.75E-02	2.75E-01	1.14E-05	0.05	5.72E-07	1.97
OCDF	3.95E-08	0.002	0.005	9.72E-01	7.02E-07	9.72E-01	9.72E+00	4.05E-04	0.001	4.05E-07	1.40
234678-HxCDF	5.77E-09	0.055	0.005	2.59E-02	8.82E-08	2.59E-02	2.59E-01	1.08E-05	0.1	1.08E-06	3.72
23478-PeCDF	1.88E-08	0.221	0.005	6.96E-02	3.04E-07	6.96E-02	6.96E-01	2.90E-05	0.5	1.45E-05	50.01
2378-TCDF	5.52E-09	0.77	0.005	6.03E-03	1.05E-07	6.03E-03	6.03E-02	2.51E-06	0.1	2.51E-07	0.87
Total TEQ Equivalent Conc										**4.30E-05**	148.38
Total Furans Concentration								1.05E-03			

SCREENING OF OBODM MODEL RESULTS FOR BURNING
HIGH EXPLOSIVE (HE) CONTAMINATED WASTES at TA-I6-388
Annual Average Peak Air Concentrations Screened Against 0.1xPRGs
20,000 lbs/yr and 250 lbs/event

OBODM Modeling Results		
Ann. Avg. Vapor	1.1277	µg/m³
Ann. Avg. Part. Bnd.	0.83117	µg/m³
Ann. Avg. Part. Phase	0.98786	µg/m³

Contaminant	EF (g/g)	Fv	Ann. Avg. Air Conc. µg/m³	SCREENING VALUES: PRG Carc µg/m³	PRG Non-Carc µg/m³	0.1xPRG Carc µg/m³	0.1xPRG Non-Carc µg/m³	SCREENING RESULTS: 0.1xPRG Carc	0.1xPRG Non-Carc	
Acenaphthene	1.00E-05	1	1.13E-05		2.20E+02	0.00E+00	2.20E+01		NO	
Acetaldehyde	6.30E-05	1	7.10E-05	8.70E-01	9.4	8.70E-02	9.40E-01	NO	NO	
Acetone	1.07E-03	1	1.21E-03		3.30E+03	0.00E+00	3.30E+02		NO	
Acetonitrile	1.07E-03	1	1.21E-03		6.20E+01	0.00E+00	6.20E+00		NO	
Acetophenone	1.74E-07	1	1.96E-07			0.00E+00	0.00E+00			
Acrolein	3.90E-05	1	4.40E-05		2.10E-02	0.00E+00	2.10E-03		NO	2.09E-02
Alummum	7.13E-07	0	7.04E-07		5.1	0.00E+00	5.10E-01		NO	
Ammonium Hydroxide	1.07E-03	1	1.21E-03		1.00E+02		1.00E+01		NO	
Anthracene	1.50E-05	0.998	1.69E-05		1.10E+03	0.00E+00	1.10E+02		NO	
Barium	4.20E-07	0	4.15E-07		0.52	0.00E+00	5.20E-02		NO	
BDNPF Ether	6.41E-04	1	7.23E-04							
Benzaldehyde	1.04E-04	1	1.17E-04		3.70E+02	0.00E+00	3.70E+01		NO	
Benzene	1.02E-03	1	1.15E-03	2.50E-01	3.10E+01	2.50E-02	3.10E+00	NO	NO	4.60E-02
Benzo[a]anthracene	5.00E-06	0.881	5.46E-06	9.20E-03		9.20E-04	0.00E+00	NO		
Benzo[a]pyrene	5.00E-06	0.265	4.55E-06	9.20E-04		9.20E-05	0.00E+00	NO		4.94E-02
Benzo[b&k]fluoanthene	7.00E-06	0.966	7.82E-06	9.20E-03		9.20E-04	0.00E+00	NO		
Benzo[b&k]fluoanthene	7.00E-06	0.273	6.38E-06	9.20E-02		9.20E-03	0.00E+00	NO		
Benzyl alcohol	3.96E-05	1	4.47E-05		1.10E+03	0.00E+00	1.10E+02		NO	
1-3-Butadiene	1.34E-06	1	1.51E-06	6.10E-02	2.1	6.10E-03	2.10E-01	NO	NO	
Butyl Acetate	2.14E-04	N/A	#VALUE!							
Butyl benzyl phthalate	1.22E-07	0.948	1.36E-07		7.30E+02	0.00E+00	7.30E+01		NO	
Butyl Nitrite	1.07E-06	N/A	#VALUE!							
Carbon monoxide	9.00E-02	1	1.01E-01			0.00E+00	0.00E+00			
Carbon tetrachloride	6.89E-08	1	7.77E-08	1.30E-01	2.6	1.30E-02	2.60E-01	NO	NO	
Chloroform	2.14E-04	1	2.41E-04	8.30E-02	5.10E+01	8.30E-03	5.10E+00	NO	NO	2.91E-02
Chloromethane (methyl chloride)	2.84E-07	1	3.20E-07		9.50E+01	0.00E+00	9.50E+00		NO	
Chromium (tot)	3.97E-07	0	3.92E-07	1.60E-04		1.60E-05	0.00E+00	NO		2.45E-02
Chrysene	9.00E-06	0.744	9.47E-06	9.20E-01		9.20E-02	0.00E+00	NO		
Crotonaldehyde	6.00E-06	1	6.77E-06	3.50E-03		3.50E-04	0.00E+00	NO		1.93E-02
Cyclohexane	2.67E-05	1	3.01E-05		6.20E+03	0.00E+00	6.20E+02		NO	
Dibenzo[ah]anthracene	2.00E-07	0.055	1.69E-07	9.20E-04		9.20E-05	0.00E+00	NO		
Dibutyl phthalate	3.30E-07	0.994	3.72E-07		3.70E+02		3.70E+01		NO	
1,2-Dichloroethane	2.14E-03	1	2.41E-03	7.40E-02	5.10E+00	7.40E-03	5.10E-01	NO	NO	3.26E-01
1,1-Dichloroethylene (vinylidene Cl)	2.15E-07	1	2.42E-07		2.10E+02	0.00E+00	2.10E+01		NO	
Diethylphthalate	7.00E-08	1	7.89E-08		2.90E+03	0.00E+00	2.90E+02		NO	
Dimethyl phthalate	1.88E-07	1	2.12E-07		3.70E+04	0.00E+00	3.70E+03		NO	
2,4-Dinitrotoluene	3.21E-04	1	3.62E-04		7.30E+00		7.30E-01		NO	
DMSO	5.34E-05	N/A	#VALUE!							
Dioctyl phthalate	9.19E-07	0.852	9.96E-07		1.50E+02	0.00E+00	1.50E+01		NO	
Dioxin/Furan TEQ	---	---	1.47E-08	4.50E-08		4.50E-09	0.00E+00	YES		3.26E+00
Ethyl Acetate	2.14E-03	N/A	#VALUE!		3.30E+03	0.00E+00	3.30E+02		#VALUE!	
Ethylbenzene	5.49E-05	1	6.19E-05		1.10E+03	0.00E+00	1.10E+02		NO	
Ethyl chloride	6.89E-08	1	7.77E-08	2.3	1.00E+04	2.30E-01	1.00E+03	NO	NO	
Ethanol	2.14E-03	N/A	#VALUE!							
Fluoanthene	2.00E-05	0.992	2.25E-05		1.50E+02	0.00E+00	1.50E+01		NO	
Fluorene	1.00E-06	1	1.13E-06		1.50E+02	0.00E+00	1.50E+01		NO	
Formaldehyde	3.03E-04	1	3.42E-04	1.50E-01		1.50E-02		NO		2.28E-02
Hexane	1.60E-05	1	1.80E-05		2.10E+02	0.00E+00	2.10E+01		NO	
Hydrogen chloride	1.07E-03	1	1.21E-03		2.10E+01	0.00E+00	2.10E+00		NO	
Indeno[1,2,3-cd]pyrene	5.00E-06	0.005	4.16E-06	9.20E-03		9.20E-04	0.00E+00	NO		
Isopropyl Alcohol	5.34E-04	1	6.02E-04							
Mercury	2.14E-05	1	2.41E-05		3.10E-01	0.00E+00	3.10E-02		NO	
Methanol	9.62E-03	1	1.08E-02		1.80E+03	0.00E+00	1.80E+02		NO	
Methylene chloride	3.21E-04	1	3.62E-04	4.1	3.10E+03	4.10E-01	3.10E+02	NO	NO	
Methylcyclohexane	1.56E-04	1	1.76E-04		3.10E+03	0.00E+00	3.10E+02		NO	
Methyl ethyl ketone	4.27E-05	1	4.82E-05		5.10E+03	0.00E+00	5.10E+02		NO	
Methyl isobutyl ketone	1.10E-05	1	1.24E-05		3.10E+03	0.00E+00	3.10E+02		NO	
Napthalene	1.62E-04	1	1.83E-04		3.1	0.00E+00	3.10E-01		NO	
Nitric Acid	1.07E-03	N/A	#VALUE!							
Nitrogen dioxide	7.50E-02	1	8.46E-02			0.00E+00	0.00E+00			
Particulate matter	2.00E-01	0	1.98E-01			0.00E+00	0.00E+00			

Phenanthrene	7.17E-06	0.999	8.08E-06			0.00E+00	0.00E+00			
Phenol	1.56E-05	1	1.76E-05		1.10E+03	0.00E+00	1.10E+02		NO	
Potassium Hydroxide	1.07E-03	N/A	#VALUE!							
Pyrene	2.00E-06	0.994	2.25E-06		1.10E+02	0.00E+00	1.10E+01		NO	
sodium Hydroxide	4.27E-03	N/A	#VALUE!							
Styrene	4.99E-05	1	5.63E-05		1.10E+03	0.00E+00	1.10E+02		NO	
Sulfur dioxide	2.50E-03	1	2.82E-03			0.00E+00	0.00E+00			
Sulfuric Acid	5.34E-03	N/A	#VALUE!							
Tetrahydrafuran	3.21E-04	1	3.62E-04	9.90E-01	3.10E+02	9.90E-02	3.10E+01	NO	NO	
Toluene	1.07E-03	1	1.21E-03		4.00E+02	0.00E+00	4.00E+01		NO	
1,1,1-Trichloroethane (methyl chloroform)	3.44E-08	1	3.88E-08		2.30E+03	0.00E+00	2.30E+02		NO	
1,2-Trichloroethane	2.14E-03	N/A	#VALUE!							
Trichloroethylene	5.34E-04	1	6.02E-04	1.72E-02	3.70E+01	1.72E-03	3.70E+00	NO	NO	3.50E-01
1,2,4-Trimethylbenzene	2.43E-04	1	2.74E-04		6.2	0.00E+00	6.20E-01		NO	
1,3,5-Trimethylbenzene	5.57E-04	1	6.28E-04		6.2	0.00E+00	6.20E-01		NO	
Xylenes	5.77E-04	1	6.51E-04		1.10E+02	0.00E+00	1.10E+01		NO	
Vinyl chloride	2.23E-07	1	2.51E-07	1.10E-01	1.00E+02	1.10E-02	1.00E+01	NO	NO	
Zinc	6.26E-05	0	6.18E-05			0.00E+00	0.00E+00			

			Dioxin/Furan Concentration	TEQ	D/F TEQ Equivalent Concentration					
1234678-HpCDD	**1.49E-12**	**0.003**	1.24E-12	**0.01**	1.24E-14	**0.01**	**0.003**	**1.49E-12**	**0.00E+00**	**1.49E-14**
1234678-HpCDF	3.42E-08	0.01	2.85E-08	0.1	2.85E-09	0.1	0.01	3.42E-08	0.00E+00	3.42E-09
123478-HxCDF	2.13E-08	0.049	1.80E-08	0.1	1.80E-09	0.1	0.049	2.13E-08	0.00E+00	2.13E-09
1234789-HpCDF	7.89E-09	0.057	6.69E-09	0.01	6.69E-11	0.01	0.057	7.89E-09	0.00E+00	7.89E-11
123678_HxCDF	9.47E-09	0.052	8.02E-09	0.01	8.02E-11	0.01	0.052	9.47E-09	0.00E+00	9.47E-11
12378-PeCDF	7.89E-09	0.268	7.18E-09	0.05	3.59E-10	0.05	0.268	7.89E-09	0.00E+00	3.95E-10
OCDF	3.95E-08	0.002	3.29E-08	0.0001	3.29E-12	0.0001	0.002	3.95E-08	0.00E+00	3.95E-12
234578-HxCDF	5.77E-09	0.055	4.89E-09	0.1	4.89E-10	0.1	0.055	5.77E-09	0.00E+00	5.77E-10
23478-PeCDF	1.88E-08	0.221	1.69E-08	0.5	8.43E-09	0.5	0.221	1.88E-08	0.00E+00	9.40E-09
2378-TCDF	5.52E-09	0.77	5.85E-09	0.1	5.85E-10	0.1	0.77	5.52E-09	0.00E+00	5.52E-10
Total TEQ Equivalent Conc					**1.47E-08**					

ISOMER	**EF (g/g)**	**Fv**	Dioxin/Furan Concentration	TEQ	D/F TEQ Equivalent Concentration
1234678-HpCDD	**1.49E-12**	**0.003**	1.24E-12	**0.01**	1.24E-14
OCDD	2.99E-11	0.002	2.49E-11	0.0001	2.49E-15
HpCDF	4.55E-11	0.057	3.86E-11	0.1	3.86E-12
HxCDF	2.53E-11	0.049	2.14E-11	0.1	2.14E-12
PeCDF	1.64E-11	0.221	1.47E-11	0.5	7.35E-12
TCDF	7.47E-12	0.77	7.91E-12	0.1	7.91E-13
Total TEQ Equivalent Conc					1.42E-11

1234678-HpCDD	**1.49E-12**	**0.003**	1.24E-12	**0.01**	1.24E-14
1234678-HpCDF	3.42E-08	0.01	2.85E-08	0.1	2.85E-09
123478-HxCDF	2.13E-08	0.049	1.80E-08	0.1	1.80E-09
1234789-HpCDF	7.89E-09	0.057	6.69E-09	0.01	6.69E-11
123678_HxCDF	9.47E-09	0.052	8.02E-09	0.01	8.02E-11
OCDF	3.95E-08	0.002	3.29E-08	0.0001	3.29E-12
Total TEQ Equivalent Conc					**4.80E-09**

SCREENING OF OBODM MODEL RESULTS FOR BURNING HIGH EXPLOSIVE (HE) CONTAMINATED WASTES at TA-16-388

1-Hour Peak Air Concentrations Screened Against AIEC Values

20,000 lbs/yr and 250 lbs/event

OBODM Modeling Results		
1-Hour Vapor	713.4	$\mu g/m^3$
1-Hour Part. Bnd.	673.5	$\mu g/m^3$
1-Hour Part. Phase	766.1	$\mu g/m^3$

Contaminant	EF (g/g)	Fv	Ann. Avg. Air Conc. $\mu g/m^3$	Ann. Avg. Air Conc. mg/m^3	Screening Value AIEC mg/m^3	Screening Results	AHQ
Acenaphthene	1.00E-05	1	7.13E-03	7.13E-06	1.3	NO	
Acetaldehyde	6.30E-05	1	4.49E-02	4.49E-05	81.05	NO	
Acetone	1.07E-03	1	7.63E-01	7.63E-04	475	NO	
Acetonitrile	1.07E-03	1	7.63E-01	7.63E-04	21.82	NO	
Acetophenone	1.74E-07	1	1.24E-04	1.24E-07	30	NO	
Acrolein	3.90E-05	1	2.78E-02	2.78E-05	1.90E-04	NO	0.1
Aluminum	7.13E-07	0	5.46E-04	5.46E-07			
Ammonium Hydroxide	1.07E-03	1	7.63E-01	7.63E-04			
Anthracene	1.50E-05	0.998	1.07E-02	1.07E-05	6	NO	
Barium	4.20E-07	0	3.22E-04	3.22E-07	1.5	NO	
BDNPF Ether	6.41E-04	1	4.57E-01	4.57E-04			
Benzaldehyde	1.04E-04	1	7.42E-02	7.42E-05	1.5	NO	
Benzene	1.02E-03	1	7.28E-01	7.28E-04	1.3	NO	
Benzo[a]anthracene	5.00E-06	0.881	3.54E-03	3.54E-06	0.3	NO	
Benzo[a]pyrene	5.00E-06	0.265	3.42E-03	3.42E-06	0.6	NO	
Benzo[b&k]fluoanthene	7.00E-06	0.966	4.98E-03	4.98E-06	0.6	NO	
Benzo[b&k]fluoanthene	7.00E-06	0.273	4.79E-03	4.79E-06	0.6	NO	
Benzyl alcohol	3.96E-05	1	2.83E-02	2.83E-05	60	NO	
1-3-Butadiene	1.34E-06	1	9.56E-04	9.56E-07			
Butyl Acetate	2.14E-04	N/A	#VALUE!	#VALUE!			
Butyl benzyl phthalate	1.22E-07	0.948	8.68E-05	8.68E-08	15	NO	
Butyl Nitrite	1.07E-06	N/A	#VALUE!	#VALUE!			
Carbon monoxide	9.00E-02	1	6.42E+01	6.42E-02			
Carbon tetrachloride	6.89E-08	1	4.92E-05	4.92E-08	1.9	NO	
Chloroform	2.14E-04	1	1.53E-01	1.53E-04	0.15	NO	
Chloromethane (methyl chloride)	2.84E-07	1	2.03E-04	2.03E-07	200	NO	
Chromium (tot)	3.97E-07	0	3.04E-04	3.04E-07	1.5	NO	
Chrysene	9.00E-06	0.744	6.33E-03	6.33E-06	0.6	NO	
Crotonaldehyde	6.00E-06	1	4.28E-03	4.28E-06			
Cyclohexane	2.67E-05	1	1.90E-02	1.90E-05			
Dibenzo[ah]anthracene	2.00E-07	0.055	1.35E-04	1.35E-07	30	NO	
Dibutyl phthalate	3.30E-07	0.994	2.35E-04	2.35E-07	15	NO	
1,2-Dichloroethane	2.14E-03	1	1.53E+00	1.53E-03	202	NO	

1,1-Dichloroethylene (vinylidene Cl)	2.15E-07	1	1.53E-04	1.53E-07	75	NO
Diethylphthalate	7.00E-08	1	4.99E-05	4.99E-08	15	NO
Dimethyl phthalate	1.88E-07	1	1.34E-04	1.34E-07	15	NO
2,4-Dinitrotoluene	3.21E-04	0.999	2.29E-01	2.29E-04	0.6	NO
DMSO	5.34E-05	N/A	#VALUE!	#VALUE!		
Dioctyl phthalate	9.19E-07	0.852	6.50E-04	6.50E-07	50	NO
1234678-HpCDD	1.49E-12	0.003	1.00E-09	1.00E-12	6.00E-01	NO
Ethyl Acetate	2.14E-03	N/A	#VALUE!	#VALUE!		
Ethylbenzene	5.49E-05	1	3.92E-02	3.92E-05	500	NO
Ethyl chloride	6.89E-08	1	4.92E-05	4.92E-08		
Ethanol	2.14E-03	N/A	#VALUE!	#VALUE!		
Fluoanthene	2.00E-05	0.992	1.43E-02	1.43E-05	0.015	NO
Fluorene	1.00E-06	1	7.13E-04	7.13E-07	11.56	NO
Formaldehyde	3.03E-04	1	2.16E-01	2.16E-04	0.094	NO
1234678-HpCDF	3.42E-08	0.01	2.30E-05	2.30E-08	1.50E-01	NO
123478-HxCDF	2.13E-08	0.049	1.44E-05	1.44E-08	7.50E-03	NO
1234789-HpCDF	7.89E-09	0.057	5.33E-06	5.33E-09	2.50E-01	NO
123678_HxCDF	9.47E-09	0.052	6.40E-06	6.40E-09	2.50E-03	NO
12378-PeCDF	7.89E-09	0.268	5.40E-06	5.40E-09	7.50E-03	NO
OCDF	3.95E-08	0.002	2.66E-05	2.66E-08	7.50E-03	NO
234578-HxCDF	5.77E-09	0.055	3.90E-06	3.90E-09	1.50E-03	NO
23478-PeCDF	1.88E-08	0.221	1.28E-05	1.28E-08	7.50E-05	NO
2378-TCDF	5.52E-09	0.77	3.89E-06	3.89E-09	2.00E-03	NO
Hexane	1.60E-05	1	1.14E-02	1.14E-05		
Hydrogen chloride	1.07E-03	1	7.63E-01	7.63E-04		
Indeno[1,2,3-cd]pyrene	5.00E-06	0.005	3.37E-03	3.37E-06	0.5	NO
Isopropyl Alcohol	5.34E-04	1	3.81E-01	3.81E-04		
Mercury	2.14E-05	1	1.53E-02	1.53E-05	1.80E-03	NO
Methanol	9.62E-03	1	6.86E+00	6.86E-03	28	NO
Methylene chloride	3.21E-04	1	2.29E-01	2.29E-04	14	NO
Methylcyclohexane	1.56E-04	1	1.11E-01	1.11E-04		
Methyl ethyl ketone	4.27E-05	1	3.05E-02	3.05E-05	13	NO
Methyl isobutyl ketone	1.10E-05	1	7.85E-03	7.85E-06	300	NO
Napthalene	1.62E-04	1	1.16E-01	1.16E-04	75	NO
Nitric Acid	1.07E-03	N/A	#VALUE!	#VALUE!		
Nitrogen dioxide	7.50E-02	1	5.35E+01	5.35E-02		
Particulate matter	2.00E-01	0	1.53E+02	1.53E-01		
Phenanthrene	7.17E-06	0.999	5.11E-03	5.11E-06	1	NO
Phenol	1.56E-05	1	1.11E-02	1.11E-05	5.8	NO
Potassium Hydroxide	1.07E-03	N/A	#VALUE!	#VALUE!		
Pyrene	2.00E-06	0.994	1.43E-03	1.43E-06	15	NO
sodium Hydroxide	4.27E-03	N/A	#VALUE!	#VALUE!		
Styrene	4.99E-05	1	3.56E-02	3.56E-05	21	NO
Sulfuric Acid	5.34E-03	N/A	#VALUE!	#VALUE!		
Sulfur dioxide	2.50E-03	1	1.78E+00	1.78E-03		
Tetrahydrafuran	3.21E-04	1	2.29E-01	2.29E-04	750	NO
Toluene	1.07E-03	1	7.63E-01	7.63E-04	37	NO

1,1,1-Trichloroethane (methyl chloroform)	3.44E-08		1	2.45E-05	2.45E-08	68	NO
1,2-Trichloroethane	2.14E-03	N/A		#VALUE!	#VALUE!		
Trichloroethylene	5.34E-04		1	3.81E-01	3.81E-04	698	NO
1,2,4-Trimethylbenzene	2.43E-04		1	1.73E-01	1.73E-04		
1,3,5-Trimethylbenzene	5.57E-04		1	3.97E-01	3.97E-04	125	NO
Xylenes	5.77E-04		1	4.12E-01	4.12E-04	22	NO
Vinyl chloride	2.23E-07		1	1.59E-04	1.59E-07	180	NO
Zinc	6.26E-05		0	4.80E-02	4.80E-05	30	NO

Table 3-5. Emission Factors for Propane

Contaminant	EF (lb/1000 gal)[b]
Carbon monoxide	1.90E+00
Nitrogen dioxide	1.40E+01
Sulfur dioxide[a]	1.80E-02
Particulate matter	4.00E-01

[a] Based on a sulfur content of 0.18 grains/100 cubic feet.

[b] EF (lb/1000 gal) = emission factor in pounds of waste per 1000 gallons of propane

SCREENING OF OBODM MODEL RESULTS FOR BURNING
HIGH EXPLOSIVE (HE) CONTAMINATED WASTES at TA-16-388
WITH PROPANE

10-Year Soil Concentrations Screened Against LANL ESLs and NMED or EPA Region 6 Industrial SSLs

15,000 gal/yr of propane and 35 lbs/event of HE Contaminated Waste, Propane @ 1 gal/min

OBODM Modeling Results		
Soil Active Layer	0.02	meters
Soil Bulk Density	1200	kg/m^3
Ann Avg Part Bnd Dose	0.25302	$(\mu g \cdot hr)/m^3$
Ann Avg Part Phase Dose	0.28465	$(\mu g \cdot hr)/m^3$
Ann Avg Vapor Phase Dose	0.32992	$(\mu g \cdot hr)/m^3$
Ann Part Bnd Grav Dep	1.23E+06	$\mu g/m^2$
Ann Part Phase Grav Dep	6.41E+06	$\mu g/m^2$

Contaminant	EF g/g	Fv	Deposition Velocity, V_D m/sec	Gravitational Deposition $\mu g/m^2$	Dry Deposition $\mu g/m^2$	Total Deposition $\mu g/m^2$	10-Yr Total Deposition $\mu g/m^2$	10-Yr Soil Concentration mg/kg	Screening Values: LANL ESL mg/kg	NMED I/O Soil mg/kg	R6 Med Spec Ind SSL mg/kg	Results Ecological Screen	Results Human Health Screen: NMED	R6	
Acenaphthene	1.00E-05	1	0.005	0.00E+00	5.94E-05	5.94E-05	5.94E-04	2.47E-08	0.25	3.35E+04		NO	NO		
Acetaldehyde	6.30E-05	1	0.005	0.00E+00	3.74E-04	3.74E-04	3.74E-03	1.56E-07		3.84E+02			NO		
Acetone	1.07E-03	1	0.005	0.00E+00	6.35E-03	6.35E-03	6.35E-02	2.65E-06	1.2	2.81E+04		NO	NO		
Acetonitrile	1.07E-03	1	0.005	0.00E+00	6.35E-03	6.35E-03	6.35E-02	2.65E-06			2.30E+03			NO	
Acetophenone	1.74E-07	1	0.005	0.00E+00	1.03E-06	1.03E-06	1.03E-05	4.31E-10		1.48E+03			NO		
Acrolein	3.90E-05	1	0.005	0.00E+00	2.32E-04	2.32E-04	2.32E-03	9.65E-08		7.52E-01			NO		
Aluminum	7.13E-07	0	0.01	4.57E+00	7.31E-06	4.57E+00	4.57E+01	1.90E-03		1.00E+05			NO		
Ammonium Hydroxide	1.07E-03	1	0.005	0.00E+00	6.35E-03	6.35E-03	6.35E-02	2.65E-06							
Anthracene	1.50E-05	0.998	0.005	3.70E-02	8.90E-05	3.71E-02	3.71E-01	1.54E-05	210	1.00E+05		NO	NO		
Barium	4.20E-07	0	0.01	2.69E+00	4.30E-06	2.69E+00	2.69E+01	1.12E-03	110	1.00E+05		NO	NO		
BDNPF Ether	6.41E-04	1	0.005	0.00E+00	3.81E-03	3.81E-03	3.81E-02	1.59E-06							
Benzaldehyde	1.04E-04	1	0.005	0.00E+00	6.18E-04	6.18E-04	6.18E-03	2.57E-07			6.80E+04			NO	
Benzene	1.02E-03	1	0.005	0.00E+00	6.06E-03	6.06E-03	6.06E-02	2.52E-06	24	2.58E+01		NO	NO		
Benzo[a]anthracene	5.00E-06	0.881	0.005	7.33E-01	2.89E-05	7.33E-01	7.33E+00	3.06E-04	3	2.34E+01		NO	NO		
Benzo[a]pyrene	5.00E-06	0.265	0.005	4.53E+00	2.46E-05	4.53E+00	4.53E+01	1.89E-03	9.6	2.34		NO	NO		
Benzo[b&k]fluoranthene	7.00E-06	0.966	0.005	2.93E-01	4.12E-05	2.93E-01	2.93E+00	1.22E-04	18	2.34E+01		NO	NO		
Benzo[b&k]fluoranthene	7.00E-06	0.273	0.005	6.27E+00	3.45E-05	6.27E+00	6.27E+01	2.61E-03	62	2.34E+02		NO	NO		
Benzyl alcohol	3.96E-05	1	0.005	0.00E+00	2.35E-04	2.35E-04	2.35E-03	9.80E-08			1.00E+05			NO	
1-3-Butadiene	1.34E-06	1	0.005	0.00E+00	7.96E-06	7.96E-06	7.96E-05	3.32E-09		2.38			NO		
Butyl Acetate	2.14E-04	N/A	0.005	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!							
Butyl benzyl phthalate	1.22E-07	0.948	0.005	7.82E-03	7.16E-07	7.82E-03	7.82E-02	3.26E-06	90		2.40E+02	NO		NO	
Butyl Nitrite	1.07E-06	N/A	0.005	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!							
Carbon monoxide	9.00E-02	1	0.005	0.00E+00	5.34E-01	5.34E-01	5.34E+00	2.23E-04							
Carbon tetrachloride	6.89E-08	1	0.005	0.00E+00	4.09E-07	4.09E-07	4.09E-06	1.70E-10		8.64			NO		
Chloroform	2.14E-04	1	0.005	0.00E+00	1.27E-03	1.27E-03	1.27E-02	5.30E-07	8	9.59		NO	NO		
Chloromethane (methyl chloride)	2.84E-07	1	0.005	0.00E+00	1.69E-06	1.69E-06	1.69E-05	7.03E-10		5.34E+01			NO		
Chromium (tot)	3.97E-07	0	0.01	2.54E+00	4.07E-06	2.54E+00	2.54E+01	1.06E-03	2.3	1.00E+05	5.00E+02	NO	NO	NO	
Chrysene	9.00E-06	0.744	0.005	2.84E+00	5.03E-05	2.84E+00	2.84E+01	1.18E-03	2.4	2.31E+03		NO	NO		
Crotonaldehyde	6.00E-06	1	0.005	0.00E+00	3.56E-05	3.56E-05	3.56E-04	1.48E-08		1.70E-01			NO		
Cyclohexane	2.67E-05	1	0.005	0.00E+00	1.59E-04	1.59E-04	1.59E-03	6.61E-08			1.40E+02			NO	
Dibenzo[ah]anthracene	2.00E-07	0.055	0.005	2.33E-01	9.26E-07	2.33E-01	2.33E+00	9.71E-05	12	2.34		NO	NO		
Dibutyl phthalate	3.30E-07	0.994	0.005	2.44E-03	1.96E-06	2.44E-03	2.44E-02	1.02E-06	1.10E-02	6.84E+04		NO	NO		
1,2-Dichloroethane	2.14E-03	1	0.005	0.00E+00	1.27E-02	1.27E-02	1.27E-01	5.30E-06		1.52E+01			NO		
1,1-Dichloroethylene (vinylidene Cl)	2.15E-07	1	0.005	0.00E+00	1.28E-06	1.28E-06	1.28E-05	5.32E-10	11		4.70E+02	NO		NO	
Diethylphthalate	7.00E-08	1	0.005	0.00E+00	4.16E-07	4.16E-07	4.16E-06	1.73E-10		1.00E+05			NO		
Dimethyl phthalate	1.88E-07	1	0.005	0.00E+00	1.12E-06	1.12E-06	1.12E-05	4.65E-10	10	1.00E+05		NO	NO		
2,4-Dinitrotoluene	3.21E-04	0.999	0.005	3.96E-01	1.91E-03	3.98E-01	3.98E+00	1.66E-04		1.37E+03			NO		
DMSO	5.34E-05	N/A	0.005	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!							
Dioctyl phthalate	9.19E-07	0.852	0.005	1.68E-01	5.27E-06	1.68E-01	1.68E+00	6.98E-05	1.1			NO			
Dioxin/Furan TEQ Equivalent	---	---	---	---	---	---	---	**1.12E-05**	**2.90E-07**		1.80E-05	YES		NO	
Ethyl Acetate	2.14E-03	N/A	0.005	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!							
Ethylbenzene	5.49E-05	1	0.005	0.00E+00	3.26E-04	3.26E-04	3.26E-03	1.36E-07		1.28E+02			NO		
Ethyl chloride	6.89E-08	1	0.005	0.00E+00	4.09E-07	4.09E-07	4.09E-06	1.70E-10		1.54E+02			NO		
Ethanol	2.14E-03	N/A	0.005	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!							
Fluoranthene	2.00E-05	0.992	0.005	1.97E-01	1.19E-04	1.97E-01	1.97E+00	8.22E-05	22	2.44E+04		NO	NO		
Fluorene	1.00E-06	1	0.005	0.00E+00	5.94E-06	5.94E-06	5.94E-05	2.47E-09	4.1	2.65E+04		NO	NO		
Formaldehyde	3.03E-04	1	0.005	0.00E+00	1.80E-03	1.80E-03	1.80E-02	7.50E-07			42			NO	
Total Furans	---	---	---	---	---	---	---	2.72E-04		2.12E+01	9.5		NO	NO	For non-carc
Hexane	1.60E-05	1	0.005	0.00E+00	9.50E-05	9.50E-05	9.50E-04	3.96E-08		3.80E+01			NO		
Hydrogen chloride	1.07E-03	1	0.005	0.00E+00	6.35E-03	6.35E-03	6.35E-02	2.65E-06			1.00E+05			NO	
Indeno[1,2,3-cd]pyrene	5.00E-06	0.005	0.005	6.13E+00	2.28E-05	6.13E+00	6.13E+01	2.55E-03	62	2.34E+01		NO	NO		
Isopropyl Alcohol	5.34E-04	1	0.005	0.00E+00	3.17E-03	3.17E-03	3.17E-02	1.32E-06							
Mercury	2.14E-05	1	2.90E-02	0.00E+00	7.37E-04	7.37E-04	7.37E-03	3.07E-07	1.30E-02	1.00E+05		NO	NO		
Methanol	9.62E-03	1	0.005	0.00E+00	5.71E-02	5.71E-02	5.71E-01	2.38E-05		1.00E+05			NO		
Methylene chloride	3.21E-04	1	0.005	0.00E+00	1.91E-03	1.91E-03	1.91E-02	7.94E-07	2.6	4.90E+02		NO	NO		
Methylcyclohexane	1.56E-04	1	0.005	0.00E+00	9.26E-04	9.26E-04	9.26E-03	3.86E-07		7.89E+01			NO		
Methyl ethyl ketone	4.27E-05	1	0.005	0.00E+00	2.54E-04	2.54E-04	2.54E-03	1.06E-07			3.40E+04			NO	
Methyl isobutyl ketone	1.10E-05	1	0.005	0.00E+00	6.53E-05	6.53E-05	6.53E-04	2.72E-08		7.01E+03			NO		
Napthalene	1.62E-04	1	0.005	0.00E+00	9.62E-04	9.62E-04	9.62E-03	4.01E-07	0.96	3.00E+02		NO	NO		
Nitric Acid	1.07E-03	N/A	0.005	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!							
Nitrogen dioxide	7.50E-02	1	0.005	0.00E+00	4.45E-01	4.45E-01	4.45E+00	1.86E-04							
Particulate matter	2.00E-01	0	0.01	1.28E+06	2.05E+00	1.28E+06	1.28E+07	5.34E+02							
Phenanthrene	7.17E-04	0.999	0.005	8.84E-03	4.26E-05	8.88E-03	8.88E-02	3.70E-06	10	2.05E+04		NO	NO		
Phenol	1.56E-05	1	0.005	0.00E+00	9.26E-05	9.26E-05	9.26E-04	3.86E-08	0.79	1.00E+05		NO	NO		
Potassium Hydroxide	1.07E-03	N/A	0.005	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!							
Pyrene	2.00E-05	0.994	0.005	1.48E-02	1.19E-05	1.48E-02	1.48E-01	6.17E-06	18	3.09E+04		NO	NO		
Sodium Hydroxide	4.27E-03	N/A	0.005	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!							
Styrene	4.99E-05	1	0.005	0.00E+00	2.96E-04	2.96E-04	2.96E-03	1.23E-07		100			NO		
Sulfuric Acid	3.34E-03	N/A	0.005	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!							
Sulfur dioxide	2.50E-03	1	0.005	0.00E+00	1.48E-02	1.48E-02	1.48E-01	6.19E-06							
Tetrahydrofuran	3.21E-04	1	0.005	0.00E+00	1.91E-03	1.91E-03	1.91E-02	7.94E-07			2.50E+02			NO	
Toluene	1.07E-03	1	0.005	0.00E+00	6.35E-03	6.35E-03	6.35E-02	2.65E-06	23	232		NO	NO		
1,1,1-Trichloroethane (methyl chloroform)	3.44E-08	1	0.005	0.00E+00	2.04E-07	2.04E-07	2.04E-06	8.51E-11		563			NO		
1,2-Trichloroethane	2.14E-03	N/A	0.005	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!							
Trichloroethylene	5.34E-04	1	0.005	0.00E+00	3.17E-03	3.17E-03	3.17E-02	1.32E-06	42	1.56		NO	NO		
1,2,4-Trimethylbenzene	2.43E-04	1	0.005	0.00E+00	1.44E-03	1.44E-03	1.44E-02	6.01E-07		213			NO		
1,3,5-Trimethylbenzene	5.57E-04	1	0.005	0.00E+00	3.31E-03	3.31E-03	3.31E-02	1.38E-06		69.2			NO		
Xylenes	5.77E-04	1	0.005	0.00E+00	3.43E-03	3.43E-03	3.43E-02	1.43E-06	1.4	82		NO	NO		
Vinyl chloride	2.23E-07	1	0.005	0.00E+00	1.32E-06	1.32E-06	1.32E-05	5.52E-10		14			NO		

Zinc	6.26E-05	0	0.01	4.01E+02	6.41E-04	4.01E+02	4.01E+03	1.67E-01	10	1.00E+05		NO	NO	1.67E-02

Dioxin/Furan TEQ Equivalent Analysis									TFQ	TEQ Equivalent Conc	HQ
1234678-HpCDD	**1.49E-12**	**0.003**	0.005	9.52E-06	7.61E-12	9.52E-06	9.52E-05	3.97E-09	**0.01**	3.97E-11	0.00
1234678-HpCDF	3.42E-08	0.01	0.005	2.17E-01	1.73E-07	2.17E-01	2.17E+00	9.04E-05	0.01	9.04E-07	3.12
123478-HxCDF	2.13E-08	0.049	0.005	1.30E-01	1.04E-07	1.30E-01	1.30E+00	5.41E-05	0.1	5.41E-06	18.66
1234789-HpCDF	7.89E-09	0.057	0.005	9.17E-03	3.66E-08	9.17E-03	9.17E-02	3.82E-06	0.01	3.82E-08	0.13
123678 HxCDF	9.47E-09	0.052	0.005	1.11E-02	4.38E-08	1.11E-02	1.11E-01	4.61E-06	0.1	4.61E-07	1.59
12378-PeCDF	7.89E-09	0.268	0.005	7.12E-03	3.89E-08	7.12E-03	7.12E-02	2.97E-06	0.05	1.48E-07	0.51
OCDF	3.95E-08	0.002	0.005	2.53E-01	2.02E-07	2.53E-01	2.53E+00	1.05E-04	0.001	1.05E-07	0.36
234678-HxCDF	5.77E-09	0.055	0.005	6.72E-03	2.67E-08	6.72E-03	6.72E-02	2.80E-06	0.1	2.80E-07	0.97
23478-PeCDF	1.88E-08	0.221	0.005	1.80E-02	9.14E-08	1.80E-02	1.80E-01	7.52E-06	0.5	3.76E-06	12.97
2378-TCDF	5.52E-09	0.77	0.005	1.56E-03	3.10E-08	1.56E-03	1.56E-02	6.52E-07	0.1	6.52E-08	0.22
Total TEQ Equivalent Conc										**1.12E-05**	38.53
Total Furans Concentration								2.72E-04			

SCREENING OF OBODM MODEL RESULTS FOR BURNING
HIGH EXPLOSIVE (HE) CONTAMINATED WASTES at TA-16-388
Annual Average Peak Air Concentrations Screened Against 0.1xPRGs
15,000 gal/yr of propane and 35 lbs/event of HE Contaminated Waste, Propane @ 1 gal/min

OBODM Modeling Results		
Ann. Avg. Vapor	0.32996	$\mu g/m^3$
Ann. Avg. Part. Bnd.	0.25322	$\mu g/m^3$
Ann. Avg. Part. Phase	0.28479	$\mu g/m^3$

Contaminant	EF (g/g)	Fv	Ann. Avg. Air Conc. $\mu g/m^3$	SCREENING VALUES: PRG Carc $\mu g/m^3$	PRG Non-Carc $\mu g/m^3$	0.1xPRG Carc $\mu g/m^3$	0.1xPRG Non-Carc $\mu g/m^3$	SCREENING RESULTS: 0.1xPRG Carc	0.1xPRG Non-Carc	
Acenaphthene	1.00E-05	1	3.30E-06		2.20E+02	0.00E+00	2.20E+01		NO	
Acetaldehyde	6.30E-05	1	2.08E-05	8.70E-01	9.4	8.70E-02	9.40E-01	NO	NO	
Acetone	1.07E-03	1	3.53E-04		3.30E+03	0.00E+00	3.30E+02		NO	
Acetonitrile	1.07E-03	1	3.53E-04		6.20E+01	0.00E+00	6.20E+00		NO	
Acetophenone	1.74E-07	1	5.74E-08			0.00E+00	0.00E+00			
Acrolein	3.90E-05	1	1.29E-05		2.10E-02	0.00E+00	2.10E-03		NO	6.13E-03
Aluminum	7.13E-07	0	2.03E-07		5.1	0.00E+00	5.10E-01		NO	
Ammonium Hydroxide	1.07E-03	1	3.53E-04		1.00E+02		1.00E+01		NO	
Anthracene	1.50E-05	0.998	4.95E-06		1.10E+03	0.00E+00	1.10E+02		NO	
Barium	4.20E-07	0	1.20E-07		0.52	0.00E+00	5.20E-02		NO	
BDNPF Ether	6.41E-04	1	2.12E-04							
Benzaldehyde	1.04E-04	1	3.43E-05		3.70E+02	0.00E+00	3.70E+01		NO	
Benzene	1.02E-03	1	3.37E-04	2.50E-01	3.10E+01	2.50E-02	3.10E+00	NO	NO	1.35E-02
Benzo[a]anthracene	5.00E-06	0.881	1.60E-06	9.20E-03		9.20E-04	0.00E+00	NO		
Benzo[a]pyrene	5.00E-06	0.265	1.37E-06	9.20E-04		9.20E-05	0.00E+00	NO		1.49E-02
Benzo[b&k]fluoanthene	7.00E-06	0.966	2.29E-06	9.20E-03		9.20E-04	0.00E+00	NO		
Benzo[b&k]fluoanthene	7.00E-06	0.273	1.92E-06	9.20E-02		9.20E-03	0.00E+00	NO		
Benzyl alcohol	3.96E-05	1	1.31E-05		1.10E+03	0.00E+00	1.10E+02		NO	
1-3-Butadiene	1.34E-06	1	4.42E-07	6.10E-02	2.1	6.10E-03	2.10E-01	NO	NO	
Butyl Acetate	2.14E-04	N/A	#VALUE!							
Butyl benzyl phthalate	1.22E-07	0.948	3.98E-08		7.30E+02	0.00E+00	7.30E+01		NO	
Butyl Nitrite	1.07E-06	N/A	#VALUE!							
Carbon monoxide	9.00E-02	1	2.97E-02			0.00E+00	0.00E+00			
Carbon tetrachloride	6.89E-08	1	2.27E-08	1.30E-01	2.6	1.30E-02	2.60E-01	NO	NO	
Chloroform	2.14E-04	1	7.06E-05	8.30E-02	5.10E+01	8.30E-03	5.10E+00	NO	NO	8.51E-03
Chloromethane (methyl chloride)	2.84E-07	1	9.37E-08		9.50E+01	0.00E+00	9.50E+00		NO	
Chromium (tot)	3.97E-07	0	1.13E-07	1.60E-04		1.60E-05	0.00E+00	NO		7.07E-03
Chrysene	9.00E-06	0.744	2.79E-06	9.20E-01		9.20E-02	0.00E+00	NO		
Crotonaldehyde	6.00E-06	1	1.98E-06	3.50E-03		3.50E-04	0.00E+00	NO		5.66E-03
Cyclohexane	2.67E-05	1	8.81E-06		6.20E+03	0.00E+00	6.20E+02		NO	
Dibenzo[ah]anthracene	2.00E-07	0.055	5.15E-08	9.20E-04		9.20E-05	0.00E+00	NO		
Dibutyl phthalate	3.30E-07	0.994	1.09E-07		3.70E+02		3.70E+01		NO	
1,2-Dichloroethane	2.14E-03	1	7.06E-04	7.40E-02	5.10E+00	7.40E-03	5.10E-01	NO	NO	9.54E-02
1,1-Dichloroethylene (vinylidene Cl)	2.15E-07	1	7.09E-08		2.10E+02	0.00E+00	2.10E+01		NO	
Diethylphthalate	7.00E-08	1	2.31E-08		2.90E+03	0.00E+00	2.90E+02		NO	
Dimethyl phthalate	1.88E-07	1	6.20E-08		3.70E+04	0.00E+00	3.70E+03		NO	
2,4-Dinitrotoluene	3.21E-04	1	1.06E-04		7.30E+00		7.30E-01		NO	
DMSO	5.34E-05	N/A	#VALUE!							
Dioctyl phthalate	9.19E-07	0.852	2.93E-07		1.50E+02	0.00E+00	1.50E+01		NO	
Dioxin/Furan TEQ	---	---	4.43E-09	4.50E-08		4.50E-09	0.00E+00	NO		9.85E-01
Ethyl Acetate	2.14E-03	N/A	#VALUE!		3.30E+03	0.00E+00	3.30E+02		#VALUE!	
Ethylbenzene	5.49E-05	1	1.81E-05		1.10E+03	0.00E+00	1.10E+02		NO	
Ethyl chloride	6.89E-08	1	2.27E-08	2.3	1.00E+04	2.30E-01	1.00E+03	NO	NO	
Ethanol	2.14E-03	N/A	#VALUE!							
Fluoanthene	2.00E-05	0.992	6.59E-06		1.50E+02	0.00E+00	1.50E+01		NO	
Fluorene	1.00E-06	1	3.30E-07		1.50E+02	0.00E+00	1.50E+01		NO	
Formaldehyde	3.03E-04	1	1.00E-04	1.50E-01		1.50E-02		NO		6.67E-03
Hexane	1.60E-05	1	5.28E-06		2.10E+02	0.00E+00	2.10E+01		NO	
Hydrogen chloride	1.07E-03	1	3.53E-04		2.10E+01	0.00E+00	2.10E+00		NO	
Indeno[1,2,3-cd]pyrene	5.00E-06	0.005	1.27E-06	9.20E-03		9.20E-04	0.00E+00	NO		
Isopropyl Alcohol	5.34E-04	1	1.76E-04							
Mercury	2.14E-05	1	7.06E-06		3.10E-01	0.00E+00	3.10E-02		NO	
Methanol	9.62E-03	1	3.17E-03		1.80E+03	0.00E+00	1.80E+02		NO	
Methylene chloride	3.21E-04	1	1.06E-04	4.1	3.10E+03	4.10E-01	3.10E+02	NO	NO	
Methylcyclohexane	1.56E-04	1	5.15E-05		3.10E+03	0.00E+00	3.10E+02		NO	
Methyl ethyl ketone	4.27E-05	1	1.41E-05		5.10E+03	0.00E+00	5.10E+02		NO	
Methyl isobutyl ketone	1.10E-05	1	3.63E-06		3.10E+03	0.00E+00	3.10E+02		NO	
Napthalene	1.62E-04	1	5.35E-05		3.1	0.00E+00	3.10E-01		NO	
Nitric Acid	1.07E-03	N/A	#VALUE!							
Nitrogen dioxide	7.50E-02	1	2.47E-02			0.00E+00	0.00E+00			
Particulate matter	2.00E-01	0	5.70E-02			0.00E+00	0.00E+00			

Phenanthrene	7.17E-06	0.999	2.37E-06			0.00E+00	0.00E+00			
Phenol	1.56E-05	1	5.15E-06		1.10E+03	0.00E+00	1.10E+02		NO	
Potassium Hydroxide	1.07E-03	N/A	#VALUE!							
Pyrene	2.00E-06	0.994	6.59E-07		1.10E+02	0.00E+00	1.10E+01		NO	
sodium Hydroxide	4.27E-03	N/A	#VALUE!							
Styrene	4.99E-05	1	1.65E-05		1.10E+03	0.00E+00	1.10E+02		NO	
Sulfur dioxide	2.50E-03	1	8.25E-04			0.00E+00	0.00E+00			
Sulfuric Acid	5.34E-03	N/A	#VALUE!							
Tetrahydrafuran	3.21E-04	1	1.06E-04	9.90E-01	3.10E+02	9.90E-02	3.10E+01	NO	NO	
Toluene	1.07E-03	1	3.53E-04		4.00E+02	0.00E+00	4.00E+01		NO	
1,1,1-Trichloroethane (methyl chloroform)	3.44E-08	1	1.14E-08		2.30E+03	0.00E+00	2.30E+02		NO	
1,2-Trichloroethane	2.14E-03	N/A	#VALUE!							
Trichloroethylene	5.34E-04	1	1.76E-04	1.72E-02	3.70E+01	1.72E-03	3.70E+00	NO	NO	1.02E-01
1,2,4-Trimethylbenzene	2.43E-04	1	8.02E-05		6.2	0.00E+00	6.20E-01		NO	
1,3,5-Trimethylbenzene	5.57E-04	1	1.84E-04		6.2	0.00E+00	6.20E-01		NO	
Xylenes	5.77E-04	1	1.90E-04		1.10E+02	0.00E+00	1.10E+01		NO	
Vinyl chloride	2.23E-07	1	7.36E-08	1.10E-01	1.00E+02	1.10E-02	1.00E+01	NO	NO	
Zinc	6.26E-05	0	1.78E-05			0.00E+00	0.00E+00			

			Dioxin/Furan Concentration	TEQ	D/F TEQ Equivalent Concentration					
1234678-HpCDD	**1.49E-12**	**0.003**	3.78E-13	**0.01**	3.78E-15	**0.01**	**0.003**	**1.49E-12**	**0.00E+00**	**1.49E-14**
1234678-HpCDF	3.42E-08	0.01	8.69E-09	0.1	8.69E-10	0.1	0.01	3.42E-08	0.00E+00	3.42E-09
123478-HxCDF	2.13E-08	0.049	5.47E-09	0.1	5.47E-10	0.1	0.049	2.13E-08	0.00E+00	2.13E-09
1234789-HpCDF	7.89E-09	0.057	2.03E-09	0.01	2.03E-11	0.01	0.057	7.89E-09	0.00E+00	7.89E-11
123678_HxCDF	9.47E-09	0.052	2.44E-09	0.01	2.44E-11	0.01	0.052	9.47E-09	0.00E+00	9.47E-11
12378-PeCDF	7.89E-09	0.268	2.16E-09	0.05	1.08E-10	0.05	0.268	7.89E-09	0.00E+00	3.95E-10
OCDF	3.95E-08	0.002	1.00E-08	0.0001	1.00E-12	0.0001	0.002	3.95E-08	0.00E+00	3.95E-12
234578-HxCDF	5.77E-09	0.055	1.49E-09	0.1	1.49E-10	0.1	0.055	5.77E-09	0.00E+00	5.77E-10
23478-PeCDF	1.88E-08	0.221	5.08E-09	0.5	2.54E-09	0.5	0.221	1.88E-08	0.00E+00	9.40E-09
2378-TCDF	5.52E-09	0.77	1.72E-09	0.1	1.72E-10	0.1	0.77	5.52E-09	0.00E+00	5.52E-10
Total TEQ Equivalent Conc					**4.43E-09**					

ISOMER	**EF (g/g)**	**Fv**	Dioxin/Furan Concentration	TEQ	D/F TEQ Equivalent Concentration
1234678-HpCDD	**1.49E-12**	**0.003**	3.78E-13	**0.01**	3.78E-15
OCDD	2.99E-11	0.002	7.58E-12	0.0001	7.58E-16
HpCDF	4.55E-11	0.057	1.17E-11	0.1	1.17E-12
HxCDF	2.53E-11	0.049	6.50E-12	0.1	6.50E-13
PeCDF	1.64E-11	0.221	4.43E-12	0.5	2.22E-12
TCDF	7.47E-12	0.77	2.33E-12	0.1	2.33E-13
Total TEQ Equivalent Conc					4.28E-12

1234678-HpCDD	**1.49E-12**	**0.003**	3.78E-13	**0.01**	3.78E-15
1234678-HpCDF	3.42E-08	0.01	8.69E-09	0.1	8.69E-10
123478-HxCDF	2.13E-08	0.049	5.47E-09	0.1	5.47E-10
1234789-HpCDF	7.89E-09	0.057	2.03E-09	0.01	2.03E-11
123678_HxCDF	9.47E-09	0.052	2.44E-09	0.01	2.44E-11
OCDF	3.95E-08	0.002	1.00E-08	0.0001	1.00E-12
Total TEQ Equivalent Conc					**1.46E-09**

SCREENING OF OBODM MODEL RESULTS FOR BURNING HIGH EXPLOSIVE (HE) CONTAMINATED WASTES at TA-16-388

1-Hour Peak Air Concentrations Screened Against AIEC Values

15,000 gal/yr of propane and 35 lbs/event of HE Contaminated Waste, Propane @ 1 gal/min

OBODM Modeling Results		
1-Hour Vapor	184.106	$\mu g/m^3$
1-Hour Part. Bnd.	206.076	$\mu g/m^3$
1-Hour Part. Phase	214.857	$\mu g/m^3$

Contaminant	EF (g/g)	Fv	Ann. Avg. Air Conc. $\mu g/m^3$	Ann. Avg. Air Conc. mg/m^3	Screening Value AIEC mg/m^3	Screening Results	AHQ
Acenaphthene	1.00E-05	1	1.84E-03	1.84E-06	1.3	NO	
Acetaldehyde	6.30E-05	1	1.16E-02	1.16E-05	81.05	NO	
Acetone	1.07E-03	1	1.97E-01	1.97E-04	475	NO	
Acetonitrile	1.07E-03	1	1.97E-01	1.97E-04	21.82	NO	
Acetophenone	1.74E-07	1	3.20E-05	3.20E-08	30	NO	
Acrolein	3.90E-05	1	7.18E-03	7.18E-06	1.90E-04	NO	0.0
Aluminum	7.13E-07	0	1.53E-04	1.53E-07			
Ammonium Hydroxide	1.07E-03	1	1.97E-01	1.97E-04			
Anthracene	1.50E-05	0.998	2.76E-03	2.76E-06	6	NO	
Barium	4.20E-07	0	9.02E-05	9.02E-08	1.5	NO	
BDNPF Ether	6.41E-04	1	1.18E-01	1.18E-04			
Benzaldehyde	1.04E-04	1	1.91E-02	1.91E-05	1.5	NO	
Benzene	1.02E-03	1	1.88E-01	1.88E-04	1.3	NO	
Benzo[a]anthracene	5.00E-06	0.881	9.34E-04	9.34E-07	0.3	NO	
Benzo[a]pyrene	5.00E-06	0.265	1.00E-03	1.00E-06	0.6	NO	
Benzo[b&k]fluoanthene	7.00E-06	0.966	1.29E-03	1.29E-06	0.6	NO	
Benzo[b&k]fluoanthene	7.00E-06	0.273	1.40E-03	1.40E-06	0.6	NO	
Benzyl alcohol	3.96E-05	1	7.29E-03	7.29E-06	60	NO	
1-3-Butadiene	1.34E-06	1	2.47E-04	2.47E-07			
Butyl Acetate	2.14E-04	N/A	#VALUE!	#VALUE!			
Butyl benzyl phthalate	1.22E-07	0.948	2.26E-05	2.26E-08	15	NO	
Butyl Nitrite	1.07E-06	N/A	#VALUE!	#VALUE!			
Carbon monoxide	9.00E-02	1	1.66E+01	1.66E-02			
Carbon tetrachloride	6.89E-08	1	1.27E-05	1.27E-08	1.9	NO	
Chloroform	2.14E-04	1	3.94E-02	3.94E-05	0.15	NO	
Chloromethane (methyl chloride)	2.84E-07	1	5.23E-05	5.23E-08	200	NO	
Chromium (tot)	3.97E-07	0	8.53E-05	8.53E-08	1.5	NO	
Chrysene	9.00E-06	0.744	1.71E-03	1.71E-06	0.6	NO	
Crotonaldehyde	6.00E-06	1	1.10E-03	1.10E-06			
Cyclohexane	2.67E-05	1	4.92E-03	4.92E-06			
Dibenzo[ah]anthracene	2.00E-07	0.055	4.10E-05	4.10E-08	30	NO	
Dibutyl phthalate	3.30E-07	0.994	6.08E-05	6.08E-08	15	NO	
1,2-Dichloroethane	2.14E-03	1	3.94E-01	3.94E-04	202	NO	

1,1-Dichloroethylene (vinylidene Cl)	2.15E-07	1	3.96E-05	3.96E-08	75	NO
Diethylphthalate	7.00E-08	1	1.29E-05	1.29E-08	15	NO
Dimethyl phthalate	1.88E-07	1	3.46E-05	3.46E-08	15	NO
2,4-Dinitrotoluene	3.21E-04	0.999	5.91E-02	5.91E-05	0.6	NO
DMSO	5.34E-05	N/A	#VALUE!	#VALUE!		
Dioctyl phthalate	9.19E-07	0.852	1.72E-04	1.72E-07	50	NO
1234678-HpCDD	1.49E-12	0.003	3.07E-10	3.07E-13	6.00E-01	NO
Ethyl Acetate	2.14E-03	N/A	#VALUE!	#VALUE!		
Ethylbenzene	5.49E-05	1	1.01E-02	1.01E-05	500	NO
Ethyl chloride	6.89E-08	1	1.27E-05	1.27E-08		
Ethanol	2.14E-03	N/A	#VALUE!	#VALUE!		
Fluoanthene	2.00E-05	0.992	3.69E-03	3.69E-06	0.015	NO
Fluorene	1.00E-06	1	1.84E-04	1.84E-07	1.56	NO
Formaldehyde	3.03E-04	1	5.58E-02	5.58E-05	0.094	NO
1234678-HpCDF	3.42E-08	0.01	7.04E-06	7.04E-09	1.50E-01	NO
123478-HxCDF	2.13E-08	0.049	4.37E-06	4.37E-09	7.50E-03	NO
1234789-HpCDF	7.89E-09	0.057	1.62E-06	1.62E-09	2.50E-01	NO
123678_HxCDF	9.47E-09	0.052	1.94E-06	1.94E-09	2.50E-03	NO
12378-PeCDF	7.89E-09	0.268	1.58E-06	1.58E-09	7.50E-03	NO
OCDF	3.95E-08	0.002	8.14E-06	8.14E-09	7.50E-03	NO
234578-HxCDF	5.77E-09	0.055	1.18E-06	1.18E-09	1.50E-03	NO
23478-PeCDF	1.88E-08	0.221	3.78E-06	3.78E-09	7.50E-05	NO
2378-TCDF	5.52E-09	0.77	1.04E-06	1.04E-09	2.00E-03	NO
Hexane	1.60E-05	1	2.95E-03	2.95E-06		
Hydrogen chloride	1.07E-03	1	1.97E-01	1.97E-04		
Indeno[1,2,3-cd]pyrene	5.00E-06	0.005	1.03E-03	1.03E-06	0.5	NO
Isopropyl Alcohol	5.34E-04	1	9.83E-02	9.83E-05		
Mercury	2.14E-05	1	3.94E-03	3.94E-06	1.80E-03	NO
Methanol	9.62E-03	1	1.77E+00	1.77E-03	28	NO
Methylene chloride	3.21E-04	1	5.91E-02	5.91E-05	14	NO
Methylcyclohexane	1.56E-04	1	2.87E-02	2.87E-05		
Methyl ethyl ketone	4.27E-05	1	7.86E-03	7.86E-06	13	NO
Methyl isobutyl ketone	1.10E-05	1	2.03E-03	2.03E-06	300	NO
Napthalene	1.62E-04	1	2.98E-02	2.98E-05	75	NO
Nitric Acid	1.07E-03	N/A	#VALUE!	#VALUE!		
Nitrogen dioxide	7.50E-02	1	1.38E+01	1.38E-02		
Particulate matter	2.00E-01	0	4.30E+01	4.30E-02		
Phenanthrene	7.17E-06	0.999	1.32E-03	1.32E-06	1	NO
Phenol	1.56E-05	1	2.87E-03	2.87E-06	5.8	NO
Potassium Hydroxide	1.07E-03	N/A	#VALUE!	#VALUE!		
Pyrene	2.00E-06	0.994	3.68E-04	3.68E-07	15	NO
sodium Hydroxide	4.27E-03	N/A	#VALUE!	#VALUE!		
Styrene	4.99E-05	1	9.19E-03	9.19E-06	21	NO
Sulfuric Acid	5.34E-03	N/A	#VALUE!	#VALUE!		
Sulfur dioxide	2.50E-03	1	4.60E-01	4.60E-04		
Tetrahydrafuran	3.21E-04	1	5.91E-02	5.91E-05	750	NO
Toluene	1.07E-03	1	1.97E-01	1.97E-04	37	NO

1,1,1-Trichloroethane (methyl chloroform)	3.44E-08		1	6.33E-06	6.33E-09	68	NO
1,2-Trichloroethane	2.14E-03	N/A		#VALUE!	#VALUE!		
Trichloroethylene	5.34E-04		1	9.83E-02	9.83E-05	698	NO
1,2,4-Trimethylbenzene	2.43E-04		1	4.47E-02	4.47E-05		
1,3,5-Trimethylbenzene	5.57E-04		1	1.03E-01	1.03E-04	125	NO
Xylenes	5.77E-04		1	1.06E-01	1.06E-04	22	NO
Vinyl chloride	2.23E-07		1	4.11E-05	4.11E-08	180	NO
Zinc	6.26E-05		0	1.35E-02	1.35E-05	30	NO

Table 3-5. Emission Factors for Propane

Contaminant	EF (lb/1000 gal)[b]
Carbon monoxide	1.90E+00
Nitrogen dioxide	1.40E+01
Sulfur dioxide[a]	1.80E-02
Particulate matter	4.00E-01

[a] Based on a sulfur content of 0.18 grains/100 cubic feet.

[b] EF (lb/1000 gal) = emission factor in pounds of waste per 1000 gallons of propane

SCREENING OF OBODM MODEL RESULTS FOR
BURNING BULK HIGH EXPLOSIVES (HE) at TA-16-388 with PROPANE ASSISTANCE
10-Year Soil Concentrations Screened Against LANL ESLs and NMED or EPA Region 6 Industrial SSLs
20,000 lbs/yr @ 250 lbs/event of bulk HE and 15,000 gal/yr of propane

OBODM Modeling Results		
Ann. Avg. Vapor	1.1277	µg/m³
Ann. Avg. Part. Bnd.	0.83117	µg/m³
Ann. Avg. Part. Phase	0.98786	µg/m³

Contaminant	EF (g/g)	Fv	Ann. Avg. Air Conc. µg/m³	SCREENING VALUES PRG Carc µg/m³	PRG Non-Carc µg/m³	0.1*PRG Carc µg/m³	0.1*PRG Non-Carc µg/m³	SCREENING RESULTS PRG Carc	PRG Non-Carc	HQ	AAQS µg/m³	
Barium	4.20E-07	0	4.15E-07		0.52	0	0.052		NO			
Benzene	4.88E-06	1	5.50E-06	2.50E-01	3.10E+01	0.025	3.1	NO	NO			
Benzyl alcohol	1.91E-09	1	2.15E-09		1.10E+03	0	110		NO			
1-3-Butadiene	4.98E-07	1	5.62E-07	6.10E-02	2.1	0.0061	0.21	NO	NO			
Carbon monoxide	2.80E-02	1	3.16E-02			0	0					
Carbon tetrachloride	6.89E-08	1	7.77E-08	1.30E-01	2.6	0.013	0.26	NO	NO			
Chloromethane (methyl chloride)	2.84E-07	1	3.20E-07		9.50E+01	0	9.5		NO			
Chromium (tot)	3.97E-07	0	3.92E-07	1.60E-04		0.000016	0	NO		2.45E-02		
Cyclohexane	9.07E-08	1	1.02E-07		6.20E+03	0	620		NO			
Dibutyl phthalate	3.30E-07	1	3.72E-07		3.70E+02	0	37		NO			
1,1-Dichloroethylene (vinylidene Cl)	2.15E-07	1	2.42E-07		2.10E+02	0	21		NO			
Diethylphthalate	6.58E-08	1	7.42E-08		2.90E+03	0	290		NO			
Ethylbenzene	7.96E-07	1	8.98E-07		1.10E+03	0	110		NO			
Ethyl chloride	6.89E-08	1	7.77E-08	2.3	1.00E+04	0.23	1000	NO	NO			
Hexane	9.07E-08	1	1.02E-07		2.10E+02	0	21		NO			
Hydrogen chloride	9.97E-04	1	1.12E-03		2.10E+01	0	2.1		NO			
Methylene chloride	7.46E-07	1	8.41E-07	4.1	3.10E+03	0.41	310	NO	NO			
Nitrogen dioxide	7.50E-02	1	8.46E-02			0	0				95.6	8.85E-04
Particulate matter	9.00E-02	0	8.89E-02			0	0				60	1.48E-03
Styrene	2.57E-07	1	2.90E-07		1.10E+03	0	110		NO			
Toluene	5.44E-07	1	6.13E-07		4.00E+02	0	40		NO			
1,1,1-Trichloroethane (methyl chloroform)	3.44E-08	1	3.88E-08		2.30E+03	0	230		NO			
1,2,4-Trimethylbenzene	4.25E-07	1	4.79E-07		6.2	0	0.62		NO			
1,3,5-Trimethylbenzene	2.99E-07	1	3.37E-07		6.2	0	0.62		NO			
Xylenes	1.67E-06	1	1.88E-06		1.10E+02	0	11		NO			
Vinyl chloride	2.23E-07	1	2.51E-07	1.10E-01	1.00E+02	0.011	10	NO	NO			
Zinc	4.14E-07	0	4.09E-07			0	0					

7-Day TSP AAQS

Particulate matter	9.00E-02	0	7.84E+01	µg/m³

30-Day TSP AAQS

Particulate matter	9.00E-02	0	3.59E+01	µg/m³

24-Hour TSP AAQS

24-Hour Avg PP Conc	2820.93	µg/m³	
Particulate matter	9.00E-02	0	2.54E+02

SCREENING OF OBODM MODEL RESULTS FOR
BURNING BULK HIGH EXPLOSIVES (HE) at TA-16-388 with PROPANE ASSISTANCE
10-Year Soil Concentrations Screened Against LANL ESLs and NMED or EPA Region 6 Industrial SSLs
20,000 lbs/yr @ 250 lbs/event of bulk HE and 15,000 gal/yr of propane

OBODM Modeling Results		
1-Hour Vapor	713.4	$\mu g/m^3$
1-Hour Part. Bnd.	673.5	$\mu g/m^3$
1-Hour Part. Phase	766.13	$\mu g/m^3$

Contaminant	EF (g/g)	Fv	Ann. Avg. Air Conc. $\mu g/m^3$	Ann. Avg. Air Conc. mg/m^3	Screening Value AIEC mg/m^3	Screening Results	Screening Ratio	AAQS mg/m^3	
Barium	4.20E-07	0	3.22E-04	3.22E-07	1.5	NO			
Benzene	4.88E-06	1	3.48E-03	3.48E-06	1.3	NO			
Benzyl alcohol	1.91E-09	1	1.36E-06	1.36E-09	60	NO			
1-3-Butadiene	4.98E-07	1	3.55E-04	3.55E-07					
Carbon monoxide	2.80E-02	1	2.00E+01	2.00E-02				15.3	1.31E-03
Carbon tetrachloride	6.89E-08	1	4.92E-05	4.92E-08	1.9	NO			
Chloromethane (methyl chloride)	2.84E-07	1	2.03E-04	2.03E-07	200	NO			
Chromium (tot)	3.97E-07	0	3.04E-04	3.04E-07	1.5	NO			
Cyclohexane	9.07E-08	1	6.47E-05	6.47E-08					
Dibutyl phthalate	3.30E-07	1	2.35E-04	2.35E-07	15	NO			
1,1-Dichloroethylene (vinylidene Cl)	2.15E-07	1	1.53E-04	1.53E-07	75	NO			
Diethylphthalate	6.58E-08	1	4.69E-05	4.69E-08	15	NO			
Ethylbenzene	7.96E-07	1	5.68E-04	5.68E-07	500	NO			
Ethyl chloride	6.89E-08	1	4.92E-05	4.92E-08					
Hexane	9.07E-08	1	6.47E-05	6.47E-08					
Hydrogen chloride	9.97E-04	1	7.11E-01	7.11E-04					
Methylene chloride	7.46E-07	1	5.32E-04	5.32E-07	14	NO			
Nitrogen dioxide	7.50E-02	1	5.35E+01	5.35E-02					
Particulate matter	9.00E-02	0	6.90E+01	6.90E-02					
Styrene	2.57E-07	1	1.83E-04	1.83E-07	21	NO			
Toluene	5.44E-07	1	3.88E-04	3.88E-07	37	NO			
1,1,1-Trichloroethane (methyl chloroform)	3.44E-08	1	2.45E-05	2.45E-08	68	NO			
1,2,4-Trimethylbenzene	4.25E-07	1	3.03E-04	3.03E-07					
1,3,5-Trimethylbenzene	2.99E-07	1	2.13E-04	2.13E-07	125	NO			
Xylenes	1.67E-06	1	1.19E-03	1.19E-06	22	NO			
Vinyl chloride	2.23E-07	1	1.59E-04	1.59E-07	180	NO			
Zinc	4.14E-07	0	3.17E-04	3.17E-07	30	NO			

8-Hour AAQS

CO 8-Hour Vapor	11415.4	$\mu g/m^3$		
Carbon monoxide	2.80E-02	1	3.20E+02	3.20E-01

24-Hour AAQS

NOx 24-Hour Vapor	3805.13	$\mu g/m^3$		
Nitrogen dioxide	7.50E-02	1	2.85E+02	2.85E-01

SCREENING OF OBODM MODEL RESULTS FOR
BURNING BULK HIGH EXPLOSIVES (HE) at TA-16-388 with PROPANE ASSISTANCE
10-Year Soil Concentrations Screened Against LANL ESLs and NMED or EPA Region 6 Industrial SSLs
20,000 lbs/yr @ 250 lbs/event of bulk HE and 15,000 gal/yr of propane

OBODM Modeling Results		
Soil Active Layer	0.02	meters
Soil Bulk Density	1200	kg/m^3
Ann Avg Part Bnd Dose	0.83262	$(\mu g \cdot hr)/m^3$
Ann Avg Vapor Phase Dose	1.1301	$(\mu g \cdot hr)/m^3$
Ann Avg Part Phase Dose	0.98983	$(\mu g \cdot hr)/m^3$
Ann Part Bnd Grav Dep	4.75E+06	$\mu g/m^2$
Ann Part Phase Grav Dep	2.47E+07	$\mu g/m^2$

Contaminant	EF g/g	Fv	Deposition Velocity, V_D m/sec	Gravitational Deposition $\mu g/m^2$	Dry Deposition $\mu g/m^2$	Total Deposition $\mu g/m^2$	10-Yr Total Deposition $\mu g/m^2$	10-Yr Soil Concentration mg/kg	Screening Values: LANL ESL mg/kg	Screening Values: NMED I/O Soil mg/kg	Screening Values: R6 Med Spec Ind SSL mg/kg	SCREENING RESULTS: Results Ecological Screen	SCREENING RESULTS: Results Human Health Screen: NMED	SCREENING RESULTS: Results Human Health Screen: R6
Barium	4.20E-07	0	0.01	1.04E+01	4.16E-09	1.04E+01	1.04E+02	4.32E-03	110	1.00E+05		NO	NO	
Benzene	4.88E-06	1	0.005	0.00E+00	2.76E-08	2.76E-08	2.76E-07	1.15E-11	24	2.58E+01		NO	NO	
Benzyl alcohol	1.91E-09	1	0.005	0.00E+00	1.08E-11	1.08E-11	1.08E-10	4.50E-15			1.00E+05			NO
1-3-Butadiene	4.98E-07	1	0.005	0.00E+00	2.81E-09	2.81E-09	2.81E-08	1.17E-12		2.38			NO	
Carbon monoxide	2.80E-02	1	0.005	0.00E+00	1.58E-04	1.58E-04	1.58E-03	6.59E-08						
Carbon tetrachloride	6.89E-08	1	0.005	0.00E+00	3.89E-10	3.89E-10	3.89E-09	1.62E-13		8.64			NO	
Chloromethane (methyl chloride)	2.84E-07	1	0.005	0.00E+00	1.60E-09	1.60E-09	1.60E-08	6.69E-13		5.34E+01			NO	
Chromium (tot)	3.97E-07	0	0.01	9.79E+00	3.93E-09	9.79E+00	9.79E+01	4.08E-03	2.3	1.00E+05	5.00E+02	NO	NO	NO
Cyclohexane	9.07E-08	1	0.005	0.00E+00	5.13E-10	5.13E-10	5.13E-09	2.14E-13			1.40E+02			NO
Dibutyl phthalate	3.30E-07	1	0.005	0.00E+00	1.86E-09	1.86E-09	1.86E-08	7.77E-13	1.10E-02	6.84E+04		NO	NO	
1,1-Dichloroethylene (vinylidene Cl)	2.15E-07	1	0.005	0.00E+00	1.21E-09	1.21E-09	1.21E-08	5.06E-13	11		4.70E+02	NO		NO
Diethylphthalate	6.58E-08	1	0.005	0.00E+00	3.72E-10	3.72E-10	3.72E-09	1.55E-13		1.00E+05			NO	
Ethylbenzene	7.96E-07	1	0.005	0.00E+00	4.50E-09	4.50E-09	4.50E-08	1.87E-12		1.28E+02			NO	
Ethyl chloride	6.89E-08	1	0.005	0.00E+00	3.89E-10	3.89E-10	3.89E-09	1.62E-13		1.54E+02			NO	
Hexane	9.07E-08	1	0.005	0.00E+00	5.13E-10	5.13E-10	5.13E-09	2.14E-13		3.80E+01			NO	
Hydrogen chloride	9.97E-04	1	0.005	0.00E+00	5.63E-06	5.63E-06	5.63E-05	2.35E-09			1.00E+05			NO
Methylene chloride	7.46E-07	1	0.005	0.00E+00	4.22E-09	4.22E-09	4.22E-08	1.76E-12	2.6	4.90E+02		NO	NO	
Nitrogen dioxide	7.50E-02	1	0.005	0.00E+00	4.24E-04	4.24E-04	4.24E-03	1.77E-07						
Particulate matter	9.00E-02	0	0.01	2.22E+06	8.91E-04	2.22E+06	2.22E+07	9.25E+02						
Styrene	2.57E-07	1	0.005	0.00E+00	1.45E-09	1.45E-09	1.45E-08	6.05E-13		100			NO	
Toluene	5.44E-07	1	0.005	0.00E+00	3.07E-09	3.07E-09	3.07E-08	1.28E-12	23	252		NO	NO	
1,1,1-Trichloroethane (methyl chloroform)	3.44E-08	1	0.005	0.00E+00	1.94E-10	1.94E-10	1.94E-09	8.10E-14		563			NO	
1,2,4-Trimethylbenzene	4.25E-07	1	0.005	0.00E+00	2.40E-09	2.40E-09	2.40E-08	1.00E-12		213			NO	
1,3,5-Trimethylbenzene	2.99E-07	1	0.005	0.00E+00	1.69E-09	1.69E-09	1.69E-08	7.04E-13		69.2			NO	
Xylenes	1.67E-06	1	0.005	0.00E+00	9.44E-09	9.44E-09	9.44E-08	3.93E-12	1.4	82		NO	NO	
Vinyl chloride	2.23E-07	1	0.005	0.00E+00	1.26E-09	1.26E-09	1.26E-08	5.25E-13		14			NO	
Zinc	4.14E-07	0	0.01	1.02E+01	4.10E-09	1.02E+01	1.02E+02	4.25E-03	10	1.00E+05		NO	NO	

SCREENING OF OBODM MODEL RESULTS FOR
BURNING BULK HIGH EXPLOSIVES (HE) at TA-16-388 with PROPANE ASSISTANCE
10-Year Soil Concentrations Screened Against LANL ESLs and NMED or EPA Region 6 Industrial SSLs
35 lbs/event of bulk HE and 15,000 gal/yr of propane annually

OBODM Modeling Results		
Ann. Avg. Vapor	0.32996	µg/m³
Ann. Avg. Part. Bnd.	0.25322	µg/m³
Ann. Avg. Part. Phase	0.28479	µg/m³

Contaminant	EF (g/g)	Fv	Ann. Avg. Air Conc. µg/m³	SCREENING VALUES PRG Carc µg/m³	PRG Non-Carc µg/m³	0.1*PRG Carc µg/m³	0.1*PRG Non-Carc µg/m³	SCREENING RESULTS PRG Carc	PRG Non-Carc	HQ	AAQS µg/m³	
Barium	4.20E-07	0	1.20E-07		0.52	0	0.052		NO			
Benzene	4.88E-06	1	1.61E-06	2.50E-01	3.10E+01	0.025	3.1	NO	NO			
Benzyl alcohol	1.91E-09	1	6.30E-10		1.10E+03	0	110		NO			
1-3-Butadiene	4.98E-07	1	1.64E-07	6.10E-02	2.1	0.0061	0.21	NO	NO			
Carbon monoxide	2.80E-02	1	9.24E-03			0	0					
Carbon tetrachloride	6.89E-08	1	2.27E-08	1.30E-01	2.6	0.013	0.26	NO	NO			
Chloromethane (methyl chloride)	2.84E-07	1	9.37E-08		9.50E+01	0	9.5		NO			
Chromium (tot)	3.97E-07	0	1.13E-07	1.60E-04		0.000016	0	NO		7.07E-03		
Cyclohexane	9.07E-08	1	2.99E-08		6.20E+03	0	620		NO			
Dibutyl phthalate	3.30E-07	1	1.09E-07		3.70E+02	0	37		NO			
1,1-Dichloroethylene (vinylidene Cl)	2.15E-07	1	7.09E-08		2.10E+02	0	21		NO			
Diethylphthalate	6.58E-08	1	2.17E-08		2.90E+03	0	290		NO			
Ethylbenzene	7.96E-07	1	2.63E-07		1.10E+03	0	110		NO			
Ethyl chloride	6.89E-08	1	2.27E-08	2.3	1.00E+04	0.23	1000	NO	NO			
Hexane	9.07E-08	1	2.99E-08		2.10E+02	0	21		NO			
Hydrogen chloride	9.97E-04	1	3.29E-04		2.10E+01	0	2.1		NO			
Methylene chloride	7.46E-07	1	2.46E-07	4.1	3.10E+03	0.41	310	NO	NO			
Nitrogen dioxide	7.50E-02	1	2.47E-02			0	0				95.6	2.59E-04
Particulate matter	9.00E-02	0	2.56E-02			0	0				60	4.27E-04
Styrene	2.57E-07	1	8.48E-08		1.10E+03	0	110		NO			
Toluene	5.44E-07	1	1.79E-07		4.00E+02	0	40		NO			
1,1,1-Trichloroethane (methyl chloroform)	3.44E-08	1	1.14E-08		2.30E+03	0	230		NO			
1,2,4-Trimethylbenzene	4.25E-07	1	1.40E-07		6.2	0	0.62		NO			
1,3,5-Trimethylbenzene	2.99E-07	1	9.87E-08		6.2	0	0.62		NO			
Xylenes	1.67E-06	1	5.51E-07		1.10E+02	0	11		NO			
Vinyl chloride	2.23E-07	1	7.36E-08	1.10E-01	1.00E+02	0.011	10	NO	NO			
Zinc	4.14E-07	0	1.18E-07			0	0					

7-Day TSP AAQS

Particulate matter	9.00E-02	0	7.84E+01	µg/m³

30-Day TSP AAQS

Particulate matter	9.00E-02	0	3.59E+01	µg/m³

24-Hour TSP AAQS

24-Hour Avg PP Conc	2820.93	µg/m³	
Particulate matter	9.00E-02	0	2.54E+02

SCREENING OF OBODM MODEL RESULTS FOR
BURNING BULK HIGH EXPLOSIVES (HE) at TA-16-388 with PROPANE ASSISTANCE
10-Year Soil Concentrations Screened Against LANL ESLs and NMED or EPA Region 6 Industrial SSLs
35 lbs/event of bulk HE and 15,000 gal/yr of propane annually

OBODM Modeling Results		
1-Hour Vapor	184.106	µg/m³
1-Hour Part. Bnd.	206.076	µg/m³
1-Hour Part. Phase	214.857	µg/m³

Contaminant	EF (g/g)	Fv	Ann. Avg. Air Conc. µg/m³	Ann. Avg. Air Conc. mg/m³	Screening Value AIEC mg/m³	Screening Results	Screening Ratio	A..QS m /m³	
Barium	4.20E-07	0	9.02E-05	9.02E-08	1.5	NO			
Benzene	4.88E-06	1	8.98E-04	8.98E-07	1.3	NO			
Benzyl alcohol	1.91E-09	1	3.52E-07	3.52E-10	60	NO			
1-3-Butadiene	4.98E-07	1	9.17E-05	9.17E-08					
Carbon monoxide	2.80E-02	1	5.15E+00	5.15E-03				15.3	3.37E-04
Carbon tetrachloride	6.89E-08	1	1.27E-05	1.27E-08	1.9	NO			
Chloromethane (methyl chloride)	2.84E-07	1	5.23E-05	5.23E-08	200	NO			
Chromium (tot)	3.97E-07	0	8.53E-05	8.53E-08	1.5	NO			
Cyclohexane	9.07E-08	1	1.67E-05	1.67E-08					
Dibutyl phthalate	3.30E-07	1	6.08E-05	6.08E-08	15	NO			
1,1-Dichloroethylene (vinylidene Cl)	2.15E-07	1	3.96E-05	3.96E-08	75	NO			
Diethylphthalate	6.58E-08	1	1.21E-05	1.21E-08	15	NO			
Ethylbenzene	7.96E-07	1	1.47E-04	1.47E-07	500	NO			
Ethyl chloride	6.89E-08	1	1.27E-05	1.27E-08					
Hexane	9.07E-08	1	1.67E-05	1.67E-08					
Hydrogen chloride	9.97E-04	1	1.84E-01	1.84E-04					
Methylene chloride	7.46E-07	1	1.37E-04	1.37E-07	14	NO			
Nitrogen dioxide	7.50E-02	1	1.38E+01	1.38E-02					
Particulate matter	9.00E-02	0	1.93E+01	1.93E-02					
Styrene	2.57E-07	1	4.73E-05	4.73E-08	21	NO			
Toluene	5.44E-07	1	1.00E-04	1.00E-07	37	NO			
1,1,1-Trichloroethane (methyl chloroform)	3.44E-08	1	6.33E-06	6.33E-09	68	NO			
1,2,4-Trimethylbenzene	4.25E-07	1	7.82E-05	7.82E-08					
1,3,5-Trimethylbenzene	2.99E-07	1	5.50E-05	5.50E-08	125	NO			
Xylenes	1.67E-06	1	3.07E-04	3.07E-07	22	NO			
Vinyl chloride	2.23E-07	1	4.11E-05	4.11E-08	180	NO			
Zinc	4.14E-07	0	8.90E-05	8.90E-08	30	NO			

8-Hour AAQS

CO 8-Hour Vapor	11415.4	µg/m³		
Carbon monoxide	2.80E-02	1	3.20E+02	3.20E-01

24-Hour AAQS

NOx 24-Hour Vapor	3805.13	µg/m³		
Nitrogen dioxide	7.50E-02	1	2.85E+02	2.85E-01

SCREENING OF OBODM MODEL RESULTS FOR
BURNING BULK HIGH EXPLOSIVES (HE) at TA-16-388 with PROPANE ASSISTANCE
10-Year Soil Concentrations Screened Against LANL ESLs and NMED or EPA Region 6 Industrial SSLs
35 lbs/event of bulk HE and 15,000 gal/yr of propane annually

OBODM Modeling Results		
Soil Active Layer	0.02	meters
Soil Bulk Density	1200	kg/m^3
Ann Avg Part Bnd Dose	0.25302	$(\mu g \cdot hr)/m^3$
Ann Avg Vapor Phase Dose	0.32992	$(\mu g \cdot hr)/m^3$
Ann Avg Part Phase Dose	0.28465	$(\mu g \cdot hr)/m^3$
Ann Part Bnd Grav Dep	1.23E+06	$\mu g/m^2$
Ann Part Phase Grav Dep	6.41E+06	$\mu g/m^2$

Contaminant	EF g/g	Fv	Deposition Velocity, V_D m/sec	Gravitational Deposition $\mu g/m^2$	Dry Deposition $\mu g/m^2$	Total Deposition $\mu g/m^2$	10-Yr Total Deposition $\mu g/m^2$	10-Yr Soil Concentration mg/kg	Screening Values: LANL ESL mg/kg	Screening Values: NMED I/O Soil mg/kg	Screening Values: R6 Med Spec Ind SSL mg/kg	SCREENING RESULTS: Results Ecological Screen	SCREENING RESULTS: Results Human Health Screen: NMED	SCREENING RESULTS: Results Human Health Screen: R6
Barium	4.20E-07	0	0.01	2.69E+00	1.20E-09	2.69E+00	2.69E+01	1.12E-03	110	1.00E+05		NO	NO	
Benzene	4.88E-06	1	0.005	0.00E+00	8.05E-09	8.05E-09	8.05E-08	3.35E-12	24	2.58E+01		NO	NO	
Benzyl alcohol	1.91E-09	1	0.005	0.00E+00	3.15E-12	3.15E-12	3.15E-11	1.31E-15			1.00E+05			NO
1-3-Butadiene	4.98E-07	1	0.005	0.00E+00	8.22E-10	8.22E-10	8.22E-09	3.42E-13		2.38			NO	
Carbon monoxide	2.80E-02	1	0.005	0.00E+00	4.62E-05	4.62E-05	4.62E-04	1.92E-08						
Carbon tetrachloride	6.89E-08	1	0.005	0.00E+00	1.14E-10	1.14E-10	1.14E-09	4.74E-14		8.64			NO	
Chloromethane (methyl chloride)	2.84E-07	1	0.005	0.00E+00	4.68E-10	4.68E-10	4.68E-09	1.95E-13		5.34E+01			NO	
Chromium (tot)	3.97E-07	0	0.01	2.54E+00	1.13E-09	2.54E+00	2.54E+01	1.06E-03	2.3	1.00E+05	5.00E+02	NO	NO	NO
Cyclohexane	9.07E-08	1	0.005	0.00E+00	1.50E-10	1.50E-10	1.50E-09	6.23E-14			1.40E+02			NO
Dibutyl phthalate	3.30E-07	1	0.005	0.00E+00	5.44E-10	5.44E-10	5.44E-09	2.27E-13	1.10E-02	6.84E+04		NO	NO	
1,1-Dichloroethylene (vinylidene Cl)	2.15E-07	1	0.005	0.00E+00	3.55E-10	3.55E-10	3.55E-09	1.48E-13	11		4.70E+02	NO		NO
Diethylphthalate	6.58E-08	1	0.005	0.00E+00	1.09E-10	1.09E-10	1.09E-09	4.52E-14		1.00E+05			NO	
Ethylbenzene	7.96E-07	1	0.005	0.00E+00	1.31E-09	1.31E-09	1.31E-08	5.47E-13		1.28E+02			NO	
Ethyl chloride	6.89E-08	1	0.005	0.00E+00	1.14E-10	1.14E-10	1.14E-09	4.74E-14		1.54E+02			NO	
Hexane	9.07E-08	1	0.005	0.00E+00	1.50E-10	1.50E-10	1.50E-09	6.23E-14		3.80E+01			NO	
Hydrogen chloride	9.97E-04	1	0.005	0.00E+00	1.64E-06	1.64E-06	1.64E-05	6.85E-10			1.00E+05			NO
Methylene chloride	7.46E-07	1	0.005	0.00E+00	1.23E-09	1.23E-09	1.23E-08	5.13E-13	2.6	4.90E+02		NO	NO	
Nitrogen dioxide	7.50E-02	1	0.005	0.00E+00	1.24E-04	1.24E-04	1.24E-03	5.16E-08						
Particulate matter	9.00E-02	0	0.01	5.77E+05	2.56E-04	5.77E+05	5.77E+06	2.40E+02						
Styrene	2.57E-07	1	0.005	0.00E+00	4.24E-10	4.24E-10	4.24E-09	1.77E-13		100			NO	
Toluene	5.44E-07	1	0.005	0.00E+00	8.97E-10	8.97E-10	8.97E-09	3.74E-13	23	252		NO	NO	
1,1,1-Trichloroethane (methyl chloroform)	3.44E-08	1	0.005	0.00E+00	5.67E-11	5.67E-11	5.67E-10	2.36E-14		563			NO	
1,2,4-Trimethylbenzene	4.25E-07	1	0.005	0.00E+00	7.01E-10	7.01E-10	7.01E-09	2.92E-13		213			NO	
1,3,5-Trimethylbenzene	2.99E-07	1	0.005	0.00E+00	4.93E-10	4.93E-10	4.93E-09	2.06E-13		69.2			NO	
Xylenes	1.67E-06	1	0.005	0.00E+00	2.75E-09	2.75E-09	2.75E-08	1.15E-12	1.4	82		NO	NO	
Vinyl chloride	2.23E-07	1	0.005	0.00E+00	3.68E-10	3.68E-10	3.68E-09	1.53E-13		14			NO	
Zinc	4.14E-07	0	0.01	2.65E+00	1.18E-09	2.65E+00	2.65E+01	1.11E-03	10	1.00E+05		NO	NO	

Worst-Case Emission Factors for Burning Contaminated Wastes at TA-16-388

Soil Active Layer	0.02	**meters**
Soil Bulk Density	1200	**kg/m^3**
Ann Avg Part Bnd Dose	160.25	**(µg·hr)/m^3**
Ann Avg Part Phase Dose	154.8	**(µg·hr)/m^3**
Ann Part Bnd Grav Dep	2.11E+08	**µg/m^2**
Ann Part Phase Grav Dep	1.73E+09	**µg/m^2**

Contaminant	EF g/g	Fv	Deposition Velocity, V_D m/sec	Gravitational Deposition µg/m^2	Dry Deposition µg/m^2	Total Deposition µg/m^2	10-Yr Total Deposition µg/m^2	10-Yr Soil Concentration mg/kg	Screening Values: LANL ESL mg/kg	Screening Values: NMED I/O Soil mg/kg	Screening Values: R6 Med Spec Ind SSL mg/kg	Results Ecological Screen	Results Human Health Screen: NMED	Results Human Health Screen: R6
Acenaphthene	1.00E-05	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		3.35E+04			NO	
Acetaldehyde	6.30E-05	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		3.84E+02			NO	
Acetone	3.50E-05	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.7	2.81E+04		NO	NO	
Acetophenone	1.74E-07	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		1.48E+03			NO	
Acrolein	3.90E-05	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		7.52E-01			NO	
Aluminum	7.13E-07	0	0.01	1.23E+03	1.14E-06	1.23E+03	1.23E+04	5.14E-01		1.00E+05			NO	
Anthracene	1.50E-05	0.998	0.005	6.34E+00	2.40E-08	6.34E+00	6.34E+01	2.64E-03	200	1.00E+05		NO	NO	
Barium	4.20E-07	0	0.01	7.26E+02	6.73E-07	7.26E+02	7.26E+03	3.03E-01	2.4	1.00E+05		NO	NO	
Benzaldehyde	1.04E-04	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			6.80E+04			NO
Benzene	1.02E-03	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		2.58E+01			NO	
Benzo[a]anthracene	5.00E-06	0.881	0.005	1.26E+02	4.77E-07	1.26E+02	1.26E+03	5.24E-02		2.34E+01			NO	
Benzo[a]pyrene	5.00E-06	0.265	0.005	7.77E+02	2.94E-06	7.77E+02	7.77E+03	3.24E-01		2.34			NO	
Benzo[b&k]fluoanthene	7.00E-06	0.966	0.005	5.03E+01	1.91E-07	5.03E+01	5.03E+02	2.10E-02	18	2.34E+01		NO	NO	
Benzo[b&k]fluoanthene	7.00E-06	0.273	0.005	1.08E+03	4.08E-06	1.08E+03	1.08E+04	4.48E-01		2.34E+02			NO	
Benzyl alcohol	3.96E-05	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			1.00E+05			NO
1-3-Butadiene	1.34E-06	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		2.38			NO	
Butyl benzyl phthalate	1.22E-07	0.948	0.005	1.34E+00	5.08E-09	1.34E+00	1.34E+01	5.59E-04			2.40E+02			NO
Carbon monoxide	9.00E-02	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00						
Carbon tetrachloride	6.89E-08	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		8.64			NO	
Chloromethane (methyl chloride)	2.84E-07	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		5.34E+01			NO	
Chromium (tot)	3.97E-07	0	0.01	6.87E+02	6.36E-07	6.87E+02	6.87E+03	2.86E-01	1.4	1.00E+05	5.00E+02	NO	NO	NO
Chrysene	9.00E-06	0.744	0.005	4.87E+02	1.85E-06	4.87E+02	4.87E+03	2.03E-01	2.5	2.31E+03		NO	NO	
Crotonaldehyde	6.00E-06	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		1.70E-01			NO	
Cyclohexane	2.67E-05	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			1.40E+02			NO
Dibenzo[ah]anthracene	2.00E-07	0.055	0.005	4.00E+01	1.51E-07	4.00E+01	4.00E+02	1.67E-02		2.34			NO	
Dibutyl phthalate	3.30E-07		0.005		2.64E-07	2.64E-07	2.64E-06	1.10E-10		6.84E+04			NO	
1,1-Dichloroethylene (vinylidene Cl)	2.15E-07	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			4.70E+02			NO
Diethylphthalate	7.00E-08	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		1.00E+05			NO	
Dimethyl phthalate	1.88E-07	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		1.00E+05			NO	
Dioctyl phthalate	9.19E-07	0.852	0.005	2.88E+01	1.09E-07	2.88E+01	2.88E+02	1.20E-02						
Dioxin	1.49E-12	0.978	0.005	6.93E-06	2.63E-14	6.93E-06	6.93E-05	2.89E-09			1.80E-05			NO
Ethylbenzene	5.49E-05	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		1.28E+02			NO	
Ethyl chloride	6.89E-08	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		1.54E+02			NO	

Fluoanthene	2.00E-05	0.992	0.005	3.38E+01	1.28E-07	3.38E+01	3.38E+02	1.41E-02	26	2.44E+04		NO	NO	
Fluorene	1.00E-06	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		2.65E+04			NO	
Formaldehyde	3.03E-04	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			42			NO
Furan	1.50E-07	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			9.5			NO
Hexane	1.60E-05	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		3.80E+01			NO	
Hydrogen chloride	9.97E-04	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			1.00E+05			NO
Indeno[1,2,3-cd]pyrene	5.00E-06	0.005	0.005	1.05E+03	3.99E-06	1.05E+03	1.05E+04	4.38E-01		2.34E+01			NO	
Methylene chloride	7.46E-07	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		4.90E+02			NO	
Methylcyclohexane	1.56E-04	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		7.89E+01			NO	
Methyl ethyl ketone	1.30E-05	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			3.40E+04			NO
Methyl isobutyl ketone	1.10E-05	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		7.01E+03			NO	
Napthalene	1.62E-04	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		3.00E+02			NO	
Nitrogen dioxide	7.50E-02	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00						
Particulate matter	2.00E-01	0	0.01	3.46E+08	3.21E-01	3.46E+08	3.46E+09	1.44E+05						
Phenanthrene	7.17E-06	0.999	0.005	1.52E+00	5.74E-09	1.52E+00	1.52E+01	6.32E-04	11	2.05E+04		NO	NO	
Phenol	1.56E-05	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		1.00E+05			NO	
Pyrene	2.00E-06	0.994	0.005	2.54E+00	9.62E-09	2.54E+00	2.54E+01	1.06E-03	15	3.09E+04		NO	NO	
Styrene	4.99E-05	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		100			NO	
Sulfur dioxide	2.50E-03	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00						
Toluene	1.22E-04	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	71	252		NO	NO	
1,1,1-Trichloroethane (methyl chloroform)	3.44E-08	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		563			NO	
1,2,4-Trimethylbenzene	2.43E-04	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		213			NO	
1,3,5-Trimethylbenzene	5.57E-04	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		69.2			NO	
Xylenes	5.77E-04	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		82			NO	
Vinyl chloride	2.23E-07	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		14			NO	
Zinc	6.26E-05	0	0.01	1.08E+05	1.00E-04	1.08E+05	1.08E+06	4.51E+01		1.00E+05			NO	

Ann Part Phase Grav Dep	9.58E+07	$\mu g/m^2$	@ (379600; 3967920)

Chromium (+6)	3.97E-07	0	0.01	3.80E+01	6.36E-07	3.80E+01	3.80E+02	1.58E-02	0.2	3.40E+03		NO	NO	

Worst-Case Emission Factors for Burning Contaminated Wastes at TA-16-388

Ann. Avg. Vapor	196.29	$\mu g/m^3$
Ann. Avg. Part. Bnd.	160.83	$\mu g/m^3$
Ann. Avg. Part. Phase	155.33	$\mu g/m^3$

Contaminant	EF (g/g)	Fv	Ann. Avg. Air Conc. $\mu g/m^3$	SCREENING VALUES PRG Carc $\mu g/m^3$	PRG Non-Carc $\mu g/m^3$	0.1xPRG Carc $\mu g/m^3$	0.1xPRG Non-Carc $\mu g/m^3$	SCREENING RESULTS PRG Carc	PRG Non-Carc	
Acenaphthene	1.00E-05	1	1.96E-03		2.20E+02	0.00E+00	2.20E+01		NO	
Acetaldehyde	6.30E-05	1	1.24E-02	8.70E-01	9.4	8.70E-02	9.40E-01	NO		
Acetone	3.50E-05	1	6.87E-03		3.30E+03	0.00E+00	3.30E+02		NO	
Acetophenone	1.74E-07	1	3.42E-05			0.00E+00	0.00E+00			
Acrolein	3.90E-05	1	7.66E-03		2.10E-02	0.00E+00	2.10E-03		YES	
Aluminum	7.13E-07	0	1.11E-04		5.1	0.00E+00	5.10E-01		NO	
Anthracene	1.50E-05	0.998	2.94E-03		1.10E+03	0.00E+00	1.10E+02		NO	
Barium	4.20E-07	0	6.52E-05		0.52	0.00E+00	5.20E-02		NO	
Benzaldehyde	1.04E-04	1	2.04E-02		3.70E+02	0.00E+00	3.70E+01		NO	
Benzene	1.02E-03	1	2.00E-01	2.50E-01	3.10E+01	2.50E-02	3.10E+00	YES		8.01E+00
Benzo[a]anthracene	5.00E-06	0.881	9.60E-04	9.20E-03		9.20E-04	0.00E+00	YES		1.04E+00
Benzo[a]pyrene	5.00E-06	0.265	8.51E-04	9.20E-04		9.20E-05	0.00E+00	YES		9.25E+00
Benzo[b&k]fluoanthene	7.00E-06	0.966	1.37E-03	9.20E-03		9.20E-04	0.00E+00	YES		1.48E+00
Benzo[b&k]fluoanthene	7.00E-06	0.273	1.19E-03	9.20E-02		9.20E-03	0.00E+00	NO		
Benzyl alcohol	3.96E-05	1	7.77E-03		1.10E+03	0.00E+00	1.10E+02		NO	
1-3-Butadiene	1.34E-06	1	2.63E-04	6.10E-02	2.1	6.10E-03	2.10E-01	NO		
Butyl benzyl phthalate	1.22E-07	0.948	2.37E-05		7.30E+02	0.00E+00	7.30E+01		NO	
Carbon monoxide	9.00E-02	1	1.77E+01			0.00E+00	0.00E+00			
Carbon tetrachloride	6.89E-08	1	1.35E-05	1.30E-01	2.6	1.30E-02	2.60E-01	NO	NO	
Chloromethane (methyl chloride)	2.84E-07	1	5.57E-05		9.50E+01	0.00E+00	9.50E+00		NO	
Chromium (tot)	3.97E-07	0	6.17E-05	1.60E-04		1.60E-05	0.00E+00	YES		3.85E+00
Chrysene	9.00E-06	0.744	1.68E-03	9.20E-01		9.20E-02	0.00E+00	NO		
Crotonaldehyde	6.00E-06	1	1.18E-03	3.50E-03		3.50E-04	0.00E+00	YES		3.36E+00
Cyclohexane	2.67E-05	1	5.24E-03		6.20E+03	0.00E+00	6.20E+02		NO	
Dibenzo[ah]anthracene	2.00E-07	0.055	3.26E-05	9.20E-04		9.20E-05	0.00E+00	NO		
Dibutyl phthalate	3.30E-07	1	6.48E-05		3.70E+02		3.70E+01		NO	
1,1-Dichloroethylene (vinylidene Cl)	2.15E-07	1	4.22E-05		2.10E+02	0.00E+00	2.10E+01		NO	
Diethylphthalate	7.00E-08	1	1.37E-05		2.90E+03	0.00E+00	2.90E+02		NO	
Dimethyl phthalate	1.88E-07	1	3.69E-05		3.70E+04	0.00E+00	3.70E+03		NO	
Dioctyl phthalate	9.19E-07	0.852	1.76E-04		1.50E+02	0.00E+00	1.50E+01		NO	
Dioxin	1.49E-12	0.978	2.91E-10	4.50E-08		4.50E-09	0.00E+00	NO		
Ethylbenzene	5.49E-05	1	1.08E-02		1.10E+03	0.00E+00	1.10E+02		NO	
Ethyl chloride	6.89E-08	1	1.35E-05	2.3	1.00E+04	2.30E-01	1.00E+03			
Fluoanthene	2.00E-05	0.992	3.92E-03		1.50E+02	0.00E+00	1.50E+01		NO	
Fluorene	1.00E-06	1	1.96E-04		1.50E+02	0.00E+00	1.50E+01		NO	
Formaldehyde	3.03E-04	1	5.95E-02	1.50E-01		1.50E-02		YES		3.97E+00
Furan	1.50E-07	1	2.94E-05	**4.50E-08**	3.7	4.50E-09	3.70E-01	YES		
Hexane	1.60E-05	1	3.14E-03		2.10E+02	0.00E+00	2.10E+01		NO	
Hydrogen chloride	9.97E-04	1	1.96E-01		2.10E+01	0.00E+00	2.10E+00		NO	
Indeno[1,2,3-cd]pyrene	5.00E-06	0.005	8.05E-04	9.20E-03		9.20E-04	0.00E+00	NO		
Methylene chloride	7.46E-07	1	1.46E-04	4.1	3.10E+03	4.10E-01	3.10E+02	NO		
Methylcyclohexane	1.56E-04	1	3.06E-02		3.10E+03	0.00E+00	3.10E+02		NO	
Methyl ethyl ketone	1.30E-05	1	2.55E-03		5.10E+03	0.00E+00	5.10E+02		NO	
Methyl isobutyl ketone	1.10E-05	1	2.16E-03		3.10E+03	0.00E+00	3.10E+02		NO	
Napthalene	1.62E-04	1	3.18E-02		3.1	0.00E+00	3.10E-01		NO	
Nitrogen dioxide	7.50E-02	1	1.47E+01			0.00E+00	0.00E+00			
Particulate matter	2.00E-01	0	3.11E+01			0.00E+00	0.00E+00			
Phenanthrene	7.17E-06	0.999	1.41E-03			0.00E+00	0.00E+00			
Phenol	1.56E-05	1	3.06E-03		1.10E+03	0.00E+00	1.10E+02		NO	
Pyrene	2.00E-06	0.994	3.92E-04		1.10E+02	0.00E+00	1.10E+01		NO	
Styrene	4.99E-05	1	9.79E-03		1.10E+03	0.00E+00	1.10E+02		NO	
Sulfur dioxide	2.50E-03	1	4.91E-01			0.00E+00	0.00E+00			
Toluene	1.22E-04	1	2.39E-02		4.00E+02	0.00E+00	4.00E+01		NO	

1,1,1-Trichloroethane (methyl chloroform)	3.44E-08	1	6.75E-06		2.30E+03	0.00E+00	2.30E+02		NO	
1,2,4-Trimethylbenzene	2.43E-04	1	4.77E-02		6.2	0.00E+00	6.20E-01		NO	
1,3,5-Trimethylbenzene	5.57E-04	1	1.09E-01		6.2	0.00E+00	6.20E-01		NO	
Xylenes	5.77E-04	1	1.13E-01		1.10E+02	0.00E+00	1.10E+01		NO	
Vinyl chloride	2.23E-07	1	4.38E-05	1.10E-01	1.00E+02	1.10E-02	1.00E+01	NO		
Zinc	6.26E-05	0	9.72E-03			0.00E+00	0.00E+00			

Ann. Avg. Vapor	5.67807	**µg/m³**	@ (379330; 3967740)							
Ann. Avg. Part. Bnd.	6.04343	**µg/m³**	@ (379330; 3967740)							
Ann. Avg. Part. Phase	4.58161	**µg/m³**	@ (379330; 3967740)							
Chromium (tot)	3.97E-07	0	1.82E-06	1.60E-04		1.60E-05	0.00E+00	NO		1.14E-01
Benzene	1.02E-03	1	5.79E-03	2.50E-01	3.10E+01	2.50E-02	3.10E+00	NO		2.32E-01
Acrolein	3.90E-05	1	2.21E-04		2.10E-02	0.00E+00	2.10E-03		NO	1.05E-01
Benzo[a]anthracene	5.00E-06	0.881	2.86E-05	9.20E-03		9.20E-04	0.00E+00	NO		3.11E-02
Benzo[a]pyrene	5.00E-06	0.265	2.97E-05	9.20E-04		9.20E-05	0.00E+00	NO		3.23E-01
Benzo[b&k]fluoanthene	7.00E-06	0.966	3.98E-05	9.20E-03		9.20E-04	0.00E+00	NO		4.33E-02
Crotonaldehyde	6.00E-06	1	3.41E-05	3.50E-03		3.50E-04	0.00E+00	NO		9.73E-02
Formaldehyde	3.03E-04	1	1.72E-03	1.50E-01		1.50E-02		NO		1.15E-01
Ann. Avg. Vapor	62.1849	**µg/m³**	@ (379600; 3967920)							
Ann. Avg. Part. Bnd.	53.7231	**µg/m³**	@ (379600; 3967920)							
Ann. Avg. Part. Phase	44.9435	**µg/m³**	@ (379600; 3967920)							
Chromium (tot)	3.97E-07	0	1.78E-05	1.60E-04		1.60E-05	0.00E+00	YES		1.12E+00
Benzene	1.02E-03	1	6.34E-02	2.50E-01	3.10E+01	2.50E-02	3.10E+00	YES		2.54E+00
Acrolein	3.90E-05	1	2.43E-03		2.10E-02	0.00E+00	2.10E-03		YES	1.15E+00
Benzo[a]anthracene	5.00E-06	0.881	3.06E-04	9.20E-03		9.20E-04	0.00E+00	NO		3.32E-01
Benzo[a]pyrene	5.00E-06	0.265	2.80E-04	9.20E-04		9.20E-05	0.00E+00	YES		3.04E+00
Benzo[b&k]fluoanthene	7.00E-06	0.966	4.33E-04	9.20E-03		9.20E-04	0.00E+00	NO		4.71E-01
Crotonaldehyde	6.00E-06	1	3.73E-04	3.50E-03		3.50E-04	0.00E+00	YES		1.07E+00
Formaldehyde	3.03E-04	1	1.88E-02	1.50E-01		1.50E-02		YES		1.26E+00

Worst-Case Emission Factors for Burning Contaminated Wastes at TA-16-388

1-Hour Vapor	69493.1	$\mu g/m^3$
1-Hour Part. Bnd.	63289.1	$\mu g/m^3$
1-Hour Part. Phase	55678.3	$\mu g/m^3$

Contaminant	EF (g/g)	Fv	Ann. Avg. Air Conc. $\mu g/m^3$	Ann. Avg. Air Conc. mg/m^3	Screening Value AIEC mg/m^3	Screening Results	AHQ
Acenaphthene	1.00E-05	1	6.95E-01	6.95E-04	1.3	NO	
Acetaldehyde	6.30E-05	1	4.38E+00	4.38E-03	81.05	NO	
Acetone	3.50E-05	1	2.43E+00	2.43E-03	475	NO	
Acetophenone	1.74E-07	1	1.21E-02	1.21E-05	30	NO	
Acrolein	3.90E-05	1	2.71E+00	2.71E-03	1.90E-04	YES	14.3
Aluminum	7.13E-07	0	3.97E-02	3.97E-05			
Anthracene	1.50E-05	0.998	1.04E+00	1.04E-03	6	NO	
Barium	4.20E-07	0	2.34E-02	2.34E-05	1.5	NO	
Benzaldehyde	1.04E-04	1	7.23E+00	7.23E-03	1.5	NO	
Benzene	1.02E-03	1	7.09E+01	7.09E-02	1.3	NO	
Benzo[a]anthracene	5.00E-06	0.881	3.44E-01	3.44E-04	0.3	NO	
Benzo[a]pyrene	5.00E-06	0.265	3.25E-01	3.25E-04	0.6	NO	
Benzo[b&k]fluoanthene	7.00E-06	0.966	4.85E-01	4.85E-04	0.6	NO	
Benzo[b&k]fluoanthene	7.00E-06	0.273	4.55E-01	4.55E-04	0.6	NO	
Benzyl alcohol	3.96E-05	1	2.75E+00	2.75E-03	60	NO	
1-3-Butadiene	1.34E-06	1	9.31E-02	9.31E-05			
Butyl benzyl phthalate	1.22E-07	0.948	8.44E-03	8.44E-06	15	NO	
Carbon monoxide	9.00E-02	1	6.25E+03	6.25E+00			
Carbon tetrachloride	6.89E-08	1	4.79E-03	4.79E-06	1.9	NO	
Chloromethane (methyl chloride)	2.84E-07	1	1.97E-02	1.97E-05	200	NO	
Chromium (tot)	3.97E-07	0	2.21E-02	2.21E-05	1.5	NO	
Chrysene	9.00E-06	0.744	6.11E-01	6.11E-04	0.6	NO	
Crotonaldehyde	6.00E-06	1	4.17E-01	4.17E-04			
Cyclohexane	2.67E-05	1	1.86E+00	1.86E-03			
Dibenzo[ah]anthracene	2.00E-07	0.055	1.27E-02	1.27E-05	30	NO	
Dibutyl phthalate	3.30E-07	1	2.29E-02	2.29E-05	15	NO	
1,1-Dichloroethylene (vinylidene Cl)	2.15E-07	1	1.49E-02	1.49E-05	75	NO	
Diethylphthalate	7.00E-08	1	4.86E-03	4.86E-06	15	NO	
Dimethyl phthalate	1.88E-07	1	1.31E-02	1.31E-05	15	NO	
Dioctyl phthalate	9.19E-07	0.852	6.30E-02	6.30E-05	50	NO	
Dioxin	1.49E-12	0.978	1.03E-07	1.03E-10	1.50E-03	NO	
Ethylbenzene	5.49E-05	1	3.82E+00	3.82E-03	500	NO	
Ethyl chloride	6.89E-08	1	4.79E-03	4.79E-06			
Fluoanthene	2.00E-05	0.992	1.39E+00	1.39E-03	0.015	NO	
Fluorene	1.00E-06	1	6.95E-02	6.95E-05	11.56	NO	
Formaldehyde	3.03E-04	1	2.11E+01	2.11E-02	0.094	NO	
Furan	1.50E-07	1	1.04E-02	1.04E-05	2.00E-03	NO	

Hexane	1.60E-05	1	1.11E+00	1.11E-03		
Hydrogen chloride	9.97E-04	1	6.93E+01	6.93E-02		
Indeno[1,2,3-cd]pyrene	5.00E-06	0.005	3.17E-01	3.17E-04	0.5	NO
Methylene chloride	7.46E-07	1	5.18E-02	5.18E-05	14	NO
Methylcyclohexane	1.56E-04	1	1.08E+01	1.08E-02		
Methyl ethyl ketone	1.30E-05	1	9.03E-01	9.03E-04	13	NO
Methyl isobutyl ketone	1.10E-05	1	7.64E-01	7.64E-04	300	NO
Napthalene	1.62E-04	1	1.13E+01	1.13E-02	75	NO
Nitrogen dioxide	7.50E-02	1	5.21E+03	5.21E+00		
Particulate matter	2.00E-01	0	1.11E+04	1.11E+01		
Phenanthrene	7.17E-06	0.999	4.98E-01	4.98E-04	1	NO
Phenol	1.56E-05	1	1.08E+00	1.08E-03	5.8	NO
Pyrene	2.00E-06	0.994	1.39E-01	1.39E-04	15	NO
Styrene	4.99E-05	1	3.47E+00	3.47E-03	21	NO
Sulfur dioxide	2.50E-03	1	1.74E+02	1.74E-01		
Toluene	1.22E-04	1	8.48E+00	8.48E-03	37	NO
1,1,1-Trichloroethane (methyl chloroform)	3.44E-08	1	2.39E-03	2.39E-06	68	NO
1,2,4-Trimethylbenzene	2.43E-04	1	1.69E+01	1.69E-02		
1,3,5-Trimethylbenzene	5.57E-04	1	3.87E+01	3.87E-02	125	NO
Xylenes	5.77E-04	1	4.01E+01	4.01E-02	22	NO
Vinyl chloride	2.23E-07	1	1.55E-02	1.55E-05	180	NO
Zinc	6.26E-05	0	3.49E+00	3.49E-03	30	NO

1-Hour Vapor	4258.8	**µg/m³**	@ (379600, 3967920)					
Acrolein	3.90E-05	1	1.66E-01	1.66E-04	1.90E-04	NO		0.9

1-Hour Vapor	1238.7	**µg/m³**	@ (379330, 3967740)					
Acrolein	3.90E-05	1	4.83E-02	4.83E-05	1.90E-04	NO		0.3

Table 3-5. Emission Factors for Propane

Contaminant	EF (lb/1000 gal)[b]
Carbon monoxide	1.90E+00
Nitrogen dioxide	1.40E+01
Sulfur dioxide[a]	1.80E-02
Particulate matter	4.00E-01

[a] Based on a sulfur content of 0.18 grains/100 cubic feet.

[b] EF (lb/1000 gal) = emission factor in pounds of waste per 1000 gallons of propane

Worst-Case Emission Factors for Burning Bulk High Explosives (HE) at TA-16-388

Ann. Avg. Vapor	99.48	µg/m³
Ann. Avg. Part. Bnd.	67.75	µg/m³
Ann. Avg. Part. Phase	68.03	µg/m³

Contaminant	EF (g/g)	Fv	Ann. Avg. Air Conc. µg/m³	SCREENING VALUES PRG Carc µg/m³	PRG Non-Carc µg/m³	PRG Carc µg/m³	PRG Non-Carc µg/m³	SCREENING RESULTS PRG Carc	PRG Non-Carc	HQ
Barium	4.20E-07	0	2.86E-05		0.52	0	0.052		NO	
Benzene	1.02E-03	1	1.01E-01	2.50E-01	3.10E+01	0.025	3.1	YES	NO	4.06E+00
Benzyl alcohol	3.96E-05	1	3.94E-03		1.10E+03	0	110		NO	
1-3-Butadiene	1.34E-06	1	1.33E-04	6.10E-02	2.1	0.0061	0.21	NO	NO	
Carbon monoxide	9.00E-02	1	8.95E+00			0	0			
Carbon tetrachloride	6.89E-08	1	6.85E-06	1.30E-01	2.6	0.013	0.26	NO	NO	
Chloromethane (methyl chloride)	2.84E-07	1	2.83E-05		9.50E+01	0	9.5		NO	
Chromium (tot)	3.97E-07	0	2.70E-05	1.60E-04		0.000016	0	YES		1.69E+00
Cyclohexane	2.67E-05	1	2.66E-03		6.20E+03	0	620		NO	
Dibutyl phthalate	3.30E-07	1	3.28E-05		3.70E+02	0	37		NO	
1,1-Dichloroethylene (vinylidene Cl)	2.15E-07	1	2.14E-05		2.10E+02	0	21		NO	
Diethylphthalate	7.00E-08	1	6.96E-06		2.90E+03	0	290		NO	
Ethylbenzene	5.49E-05	1	5.46E-03		1.10E+03	0	110		NO	
Ethyl chloride	6.89E-08	1	6.85E-06	2.3	1.00E+04	0.23	1000	NO	NO	
Hexane	1.60E-05	1	1.59E-03		2.10E+02	0	21		NO	
Hydrogen chloride	9.97E-04	1	9.92E-02		2.10E+01	0	2.1		NO	
Methylene chloride	7.46E-07	1	7.42E-05	4.1	3.10E+03	0.41	310	NO	NO	
Nitrogen dioxide	7.50E-02	1	7.46E+00			0	0			
Particulate matter	2.00E-01	0	1.36E+01			0	0			
Styrene	4.99E-05	1	4.96E-03		1.10E+03	0	110		NO	
Toluene	1.22E-04	1	1.21E-02		4.00E+02	0	40		NO	
1,1,1-Trichloroethane (methyl chloroform)	3.44E-08	1	3.42E-06		2.30E+03	0	230		NO	
1,2,4-Trimethylbenzene	2.43E-04	1	2.42E-02		6.2	0	0.62		NO	
1,3,5-Trimethylbenzene	5.57E-04	1	5.54E-02		6.2	0	0.62		NO	
Xylenes	5.77E-04	1	5.74E-02		1.10E+02	0	11		NO	
Vinyl chloride	2.23E-07	1	2.22E-05	1.10E-01	1.00E+02	0.011	10	NO	NO	
Zinc	6.26E-05	0	4.26E-03			0	0			

Ann. Avg. Vapor	99.48	µg/m³	@ (379600; 3967920)
Ann. Avg. Part. Bnd.	67.75	µg/m³	@ (379600; 3967920)
Ann. Avg. Part. Phase	60.0654	µg/m³	@ (379600; 3967920)

Benzene	1.02E-03	1	1.01E-01	2.50E-01	3.10E+01	0.025	3.1	YES	NO	4.06E+00
Chromium (tot)	3.97E-07	0	2.38E-05	1.60E-04		0.000016	0	YES		1.49E+00

Ann. Avg. Vapor	15.6814	µg/m³	@ (379330; 3967740)
Ann. Avg. Part. Phase	11.4799	µg/m³	@ (379330; 3967740)

Benzene	1.02E-03	1	1.60E-02	2.50E-01	3.10E+01	0.025	3.1	NO	NO	
Chromium (tot)	3.97E-07	0	4.56E-06	1.60E-04		0.000016	0	NO		2.85E-01

Worst-Case Emission Factors for Burning Bulk High Explosives (HE) at TA-16-388

1-Hour Vapor	49450.4	$\mu g/m^3$
1-Hour Part. Bnd.	36410.2	$\mu g/m^3$
1-Hour Part. Phase	36763	$\mu g/m^3$

Contaminant	EF (g/g)	Fv	Ann. Avg. Air Conc. $\mu g/m^3$	Ann. Avg. Air Conc. mg/m^3	Screening Value AIEC mg/m^3	Screening Results	AHQ
Barium	4.20E-07	0	1.54E-02	1.54E-05	1.5	NO	
Benzene	1.02E-03	1	5.04E+01	5.04E-02	1.3	NO	
Benzyl alcohol	3.96E-05	1	1.96E+00	1.96E-03	60	NO	
1-3-Butadiene	1.34E-06	1	6.63E-02	6.63E-05			
Carbon monoxide	9.00E-02	1	4.45E+03	4.45E+00			
Carbon tetrachloride	6.89E-08	1	3.41E-03	3.41E-06	1.9	NO	
Chloromethane (methyl chloride)	2.84E-07	1	1.40E-02	1.40E-05	200	NO	
Chromium (tot)	3.97E-07	0	1.46E-02	1.46E-05	1.5	NO	
Cyclohexane	2.67E-05	1	1.32E+00	1.32E-03			
Dibutyl phthalate	3.30E-07	1	1.63E-02	1.63E-05	15	NO	
1,1-Dichloroethylene (vinylidene Cl)	2.15E-07	1	1.06E-02	1.06E-05	75	NO	
Diethylphthalate	7.00E-08	1	3.46E-03	3.46E-06	15	NO	
Ethylbenzene	5.49E-05	1	2.71E+00	2.71E-03	500	NO	
Ethyl chloride	6.89E-08	1	3.41E-03	3.41E-06			
Hexane	1.60E-05	1	7.91E-01	7.91E-04			
Hydrogen chloride	9.97E-04	1	4.93E+01	4.93E-02			
Methylene chloride	7.46E-07	1	3.69E-02	3.69E-05	14	NO	
Nitrogen dioxide	7.50E-02	1	3.71E+03	3.71E+00			
Particulate matter	2.00E-01	0	7.35E+03	7.35E+00			
Styrene	4.99E-05	1	2.47E+00	2.47E-03	21	NO	
Toluene	1.22E-04	1	6.03E+00	6.03E-03	37	NO	
1,1,1-Trichloroethane (methyl chloroform)	3.44E-08	1	1.70E-03	1.70E-06	68	NO	
1,2,4-Trimethylbenzene	2.43E-04	1	1.20E+01	1.20E-02			
1,3,5-Trimethylbenzene	5.57E-04	1	2.75E+01	2.75E-02	125	NO	
Xylenes	5.77E-04	1	2.85E+01	2.85E-02	22	NO	
Vinyl chloride	2.23E-07	1	1.10E-02	1.10E-05	180	NO	
Zinc	6.26E-05	0	2.30E+00	2.30E-03	30	NO	

1-Hour Vapor	8525.6	$\mu g/m^3$	@ (379600, 3967920)

Acrolein	3.90E-05	1	3.32E-01	3.32E-04	1.90E-04	YES	1.7

1-Hour Vapor	2389.1	$\mu g/m^3$	@ (379330, 3967740)

Acrolein	3.90E-05	1	9.32E-02	9.32E-05	1.90E-04	NO	0.5

Worst-Case Emission Factors for Burning Bulk High Explosives (HE) at TA-16-388

Soil Active Layer	0.02	meters
Soil Bulk Density	1200	kg/m^3
Ann Avg Part Bnd Dose	16.889	$(\mu g \cdot hr)/m^3$
Ann Avg Part Phase Dose	16.947	$(\mu g \cdot hr)/m^3$
Ann Part Bnd Grav Dep	4.45E+07	$\mu g/m^2$
Ann Part Phase Grav Dep	3.34E+08	$\mu g/m^2$

									Screening Values			SCREENING RESULTS		
Contaminant	EF g/g	Fv	Deposition Velocity, V_D m/sec	Gravitational Deposition $\mu g/m^2$	Dry Deposition $\mu g/m^2$	Total Deposition $\mu g/m^2$	10-Yr Total Deposition $\mu g/m^2$	10-Yr Soil Concentration mg/kg	LANL ESL mg/kg	NMED I/O Soil mg/kg	R6 Med Spec Ind SSL mg/kg	Results Ecological Screen	Results Human Health Screen NMED	R6
Barium	4.20E-07	0	0.01	1.40E+02	7.09E-08	1.40E+02	1.40E+03	5.84E-02	2.4	1.00E+05		NO	NO	
Benzene	1.02E-03	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		2.58E+01			NO	
Benzyl alcohol	3.96E-05	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			1.00E+05			NO
1-3-Butadiene	1.34E-06	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		2.38			NO	
Carbon monoxide	9.00E-02	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00						
Carbon tetrachloride	6.89E-08	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		8.64			NO	
Chloromethane (methyl chloride)	2.84E-07	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		5.34E+01			NO	
Chromium (tot)	3.97E-07	0	0.01	1.32E+02	6.70E-08	1.32E+02	1.32E+03	5.52E-02	1.4	1.00E+05	5.00E+02	NO	NO	NO
Cyclohexane	2.67E-05	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			1.40E+02			NO
Dibutyl phthalate	3.30E-07	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		6.84E+04			NO	
1,1-Dichloroethylene (vinylidene Cl)	2.15E-07	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			4.70E+02			NO
Diethylphthalate	7.00E-08	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		1.00E+05			NO	
Ethylbenzene	5.49E-05	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		1.28E+02			NO	
Ethyl chloride	6.89E-08	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		1.54E+02			NO	
Hexane	1.60E-05	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		3.80E+01			NO	
Hydrogen chloride	9.97E-04	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			1.00E+05			NO
Methylene chloride	7.46E-07	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		4.90E+02			NO	
Nitrogen dioxide	7.50E-02	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00						
Particulate matter	2.00E-01	0	0.01	6.67E+07	3.38E-02	6.67E+07	6.67E+08	2.78E+04						
Styrene	4.99E-05	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		100			NO	
Toluene	1.22E-04	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	71	252		NO	NO	
1,1,1-Trichloroethane (methyl chloroform)	3.44E-08	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		563			NO	
1,2,4-Trimethylbenzene	2.43E-04	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		213			NO	
1,3,5-Trimethylbenzene	5.57E-04	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		69.2			NO	
Xylenes	5.77E-04	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		82			NO	
Vinyl chloride	2.23E-07	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		14			NO	
Zinc	6.26E-05	0	0.01	2.09E+04	1.06E-05	2.09E+04	2.09E+05	8.70E+00		1.00E+05			NO	

Worst-Case Emission Factors for Burning Bulk High Explosives (HE) at TA-16-399

Ann. Avg. Vapor	128.02	µg/m³
Ann. Avg. Part. Bnd.	76.47	µg/m³
Ann. Avg. Part. Phase	87.39	µg/m³

				SCREENING VALUES				SCREENING RESULTS		HQ
			Ann. Avg. Air Conc.	PRG Carc	PRG Non-Carc	PRG Carc	PRG Non-Carc	PRG Carc	PRG Non-Carc	
Contaminant	**EF (g/g)**	**Fv**	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³			
Barium	4.20E-07	0	3.67E-05		0.52	0.00E+00	5.20E-02		NO	
Benzene	4.88E-06	1	6.25E-04	2.50E-01	3.10E+01	2.50E-02	3.10E+00	NO	NO	
Benzyl alcohol	1.91E-09	1	2.45E-07		1.10E+03		1.10E+02		NO	
1-3-Butadiene	4.97E-07	1	6.36E-05	6.10E-02	2.1	6.10E-03	2.10E-01	NO	NO	
Carbon monoxide	2.80E-02	1	3.58E+00				0.00E+00			
Carbon tetrachloride	6.89E-08	1	8.82E-06	1.30E-01	2.6	1.30E-02	2.60E-01	NO	NO	
Chloromethane (methyl chloride)	2.84E-07	1	3.64E-05		9.50E+01	0.00E+00	9.50E+00		NO	
Chromium (tot)	3.97E-07	0	3.47E-05	1.60E-04		1.60E-05	0.00E+00	YES		2.17
Cyclohexane	9.07E-08	1	1.16E-05		6.20E+03	0.00E+00	6.20E+02			
Dibutyl phthalate	3.30E-07	1	4.22E-05		3.70E+02		3.70E+01		NO	
1,1-Dichloroethylene (vinylidene Cl)	2.15E-07	1	2.75E-05		2.10E+02	0.00E+00	2.10E+01		NO	
Diethylphthalate	6.58E-08	1	8.42E-06		2.90E+03		2.90E+02		NO	
Ethylbenzene	7.96E-07	1	1.02E-04		1.10E+03		1.10E+02		NO	
Ethyl chloride	6.89E-08	1	8.82E-06	2.30E+00	1.00E+04	2.30E-01	1.00E+03	NO	NO	
Hexane	9.07E-08	1	1.16E-05		2.10E+02		2.10E+01		NO	
Hydrogen chloride	9.97E-04	1	1.28E-01		2.10E+01	0.00E+00	2.10E+00		NO	
Methylene chloride	7.46E-07	1	9.55E-05	4.10E+00	3.10E+03	4.10E-01	3.10E+02	NO	NO	
Nitrogen dioxide	7.50E-02	1	9.60E+00			0.00E+00				
Particulate matter	9.00E-02	0	7.87E+00			0.00E+00				
Styrene	2.57E-07	1	3.29E-05		1.10E+03	0.00E+00	1.10E+02		NO	
Toluene	5.44E-07	1	6.96E-05		4.00E+02	0.00E+00	4.00E+01		NO	
1,1,1-Trichloroethane (methyl chloroform)	3.44E-08	1	4.40E-06		2.30E+03	0.00E+00	2.30E+02		NO	
1,2,4-Trimethylbenzene	4.25E-07	1	5.44E-05		6.2		6.20E-01		NO	
1,3,5-Trimethylbenzene	2.99E-07	1	3.83E-05		6.20E+00	0.00E+00	6.20E-01		NO	
Xylenes	1.67E-06	1	2.14E-04		1.10E+02		1.10E+01		NO	
Vinyl chloride	2.23E-07	1	2.85E-05	1.10E-01	1.00E+02	1.10E-02	1.00E+01	NO	NO	
Zinc	4.14E-07	0	3.62E-05			0.00E+00				

Ann. Avg. Part. Phase	16.9428	µg/m³	@ (379600; 3967920)						
Chromium (tot)	3.97E-07	0	6.73E-06	1.60E-04		1.60E-05		NO	

Worst-Case Emission Factors for Burning Bulk High Explosives (HE) at TA-16-399

1-Hour Vapor	33129.3	µg/m³
1-Hour Part. Bnd.	22963.3	µg/m³
1-Hour Part. Phase	21097.4	µg/m³

Contaminant	EF (g/g)	Fv	Ann. Avg. Air Conc. µg/m³	Ann. Avg. Air Conc. mg/m³	Screening Value AIEC mg/m³	Screening Results	AHQ
Barium	4.20E-07	0	8.86E-03	8.86E-06	1.5	NO	
Benzene	4.88E-06	1	1.62E-01	1.62E-04	1.3	NO	
Benzyl alcohol	1.91E-09	1	6.33E-05	6.33E-08	60	NO	
1-3-Butadiene	4.97E-07	1	1.65E-02	1.65E-05			
Carbon monoxide	2.80E-02	1	9.28E+02	9.28E-01			
Carbon tetrachloride	6.89E-08	1	2.28E-03	2.28E-06	1.9	NO	
Chloromethane (methyl chloride)	2.84E-07	1	9.41E-03	9.41E-06	200	NO	
Chromium (tot)	3.97E-07	0	8.38E-03	8.38E-06	1.5	NO	
Cyclohexane	9.07E-08	1	3.00E-03	3.00E-06			
Dibutyl phthalate	3.30E-07	1	1.09E-02	1.09E-05	15	NO	
1,1-Dichloroethylene (vinylidene Cl)	2.15E-07	1	7.12E-03	7.12E-06	75	NO	
Diethylphthalate	6.58E-08	1	2.18E-03	2.18E-06	15	NO	
Ethylbenzene	7.96E-07	1	2.64E-02	2.64E-05	500	NO	
Ethyl chloride	6.89E-08	1	2.28E-03	2.28E-06			
Hexane	9.07E-08	1	3.00E-03	3.00E-06			
Hydrogen chloride	9.97E-04	1	3.30E+01	3.30E-02			
Methylene chloride	7.46E-07	1	2.47E-02	2.47E-05	14	NO	
Nitrogen dioxide	7.50E-02	1	2.48E+03	2.48E+00			
Particulate matter	9.00E-02	0	1.90E+03	1.90E+00			
Styrene	2.57E-07	1	8.51E-03	8.51E-06	21	NO	
Toluene	5.44E-07	1	1.80E-02	1.80E-05	37	NO	
1,1,1-Trichloroethane (methyl chloroform)	3.44E-08	1	1.14E-03	1.14E-06	68	NO	
1,2,4-Trimethylbenzene	4.25E-07	1	1.41E-02	1.41E-05			
1,3,5-Trimethylbenzene	2.99E-07	1	9.91E-03	9.91E-06	125	NO	
Xylenes	1.67E-06	1	5.53E-02	5.53E-05	22	NO	
Vinyl chloride	2.23E-07	1	7.39E-03	7.39E-06	180	NO	
Zinc	4.14E-07	0	8.73E-03	8.73E-06	30	NO	

1-Hour Vapor	4585	µg/m³	@ (379600, 3967920)

Acrolein	3.90E-05	1	1.79E-01	1.79E-04	1.90E-04	NO	0.9

1-Hour Vapor	2153.3	µg/m³	@ (379330, 3967740)

Acrolein	3.90E-05	1	8.40E-02	8.40E-05	1.90E-04	NO	0.4

Worst-Case Emission Factors for Burning Contaminated Wastes at TA-16-388

Soil Active Layer	0.02	**meters**
Soil Bulk Density	1200	**kg/m^3**
Ann Avg Part Bnd Dose	76.38	**(µg·hr)/m^3**
Ann Avg Part Phase Dose	87.284	**(µg·hr)/m^3**
Ann Part Bnd Grav Dep	1.73E+08	**µg/m^2**
Ann Part Phase Grav Dep	1.82E+09	**µg/m^2**

Contaminant	EF (g/g)	Fv	Deposition Velocity, V_D m/sec	Gravitational Deposition µg/m^2	Dry Deposition µg/m^2	Total Deposition µg/m^2	10-Yr Total Deposition µg/m^2	10-Yr Soil Concentration mg/kg	Screening Values: LANL ESL mg/kg	Screening Values: NMED I/O Soil mg/kg	Screening Values: R6 Med Spec Ind SSL mg/kg	Results Ecological Screen	Results Human Health Screen: NMED	Results Human Health Screen: R6
Barium	4.20E-07	0	0.01	7.66E+02	3.67E-07	7.66E+02	7.66E+03	3.19E-01	2.4	1.00E+05		NO	NO	
Benzene	4.88E-06	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		2.58E+01			NO	
Benzyl alcohol	1.91E-09	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			1.00E+05			NO
1-3-Butadiene	4.97E-07	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		2.38E+00			NO	
Carbon monoxide	2.80E-02	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00						
Carbon tetrachloride	6.89E-08	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		8.64E+00			NO	
Chloromethane (methyl chloride)	2.84E-07	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		5.34E+01			NO	
Chromium (tot)	3.97E-07	0	0.01	7.24E+02	3.47E-07	7.24E+02	7.24E+03	3.02E-01	1.4	1.00E+05	5.00E+02	NO	NO	NO
Cyclohexane	9.07E-08	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			1.40E+02			NO
Dibutyl phthalate	3.30E-07	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		6.84E+04			NO	
1,1-Dichloroethylene (vinylidene Cl)	2.15E-07	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			4.70E+02			NO
Diethylphthalate	6.58E-08	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		1.00E+05			NO	
Ethylbenzene	7.96E-07	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		1.28E+02			NO	
Ethyl chloride	6.89E-08	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		1.54E+02			NO	
Hexane	9.07E-08	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		3.80E+01			NO	
Hydrogen chloride	9.97E-04	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00			1.00E+05			NO
Methylene chloride	7.46E-07	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		4.90E+02			NO	
Nitrogen dioxide	7.50E-02	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00						
Particulate matter	9.00E-02	0	0.01	1.64E+08	7.86E-02	1.64E+08	1.64E+09	6.84E+04						
Styrene	2.57E-07	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		100			NO	
Toluene	5.44E-07	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	71	2.52E+02		NO	NO	
1,1,1-Trichloroethane (methyl chloroform)	3.44E-08	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		5.63E+02			NO	
1,2,4-Trimethylbenzene	4.25E-07	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		2.13E+02			NO	
1,3,5-Trimethylbenzene	2.99E-07	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		69.2	1.40E+02		NO	NO
Xylenes	1.67E-06	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		82			NO	
Vinyl chloride	2.23E-07	1	0.005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		1.40E+01			NO	
Zinc	4.14E-07	0	0.01	7.55E+02	3.61E-07	7.55E+02	7.55E+03	3.15E-01		1.00E+05	4.70E+02		NO	NO

Ann Part Phase Grav Dep	1.38E+08	**µg/m^2**	@ (379600; 3967920)

Chromium (+6)	3.97E-07	0	0.01	5.47E+01	3.47E-07	5.47E+01	5.47E+02	2.28E-02	0.2	3.40E+03		NO	NO		0.11