

STATE OF COLORADO

Roy Romer, Governor
Patti Shwayder, Acting Executive Director

Dedicated to protecting and improving the health and environment of the people of Colorado

HAZARDOUS MATERIALS AND WASTE MANAGEMENT DIVISION

4300 Cherry Creek Dr. S. 222 S. 6th Street, Room 232
Denver, Colorado 80222-1530 Grand Junction, Colorado 81501-2768
Phone (303) 692-3300 Phone (303) 248-7164
Fax (303) 759-5355 Fax (303) 248-7198



Colorado Department
of Public Health
and Environment

October 3, 1995

Steve Slaten
IAG Project Coordinator-ER
Department of Energy
Rocky Flats Office
P.O. Box 928
Golden CO 80402-0928

RE: Field Investigation-Derived Materials (IDM) at Operable Unit 7

Dear Mr. Slaten:

The Colorado Department of Public Health and Environment, Hazardous Materials and Waste Management Division and the Environmental Protection Agency have reviewed DOE's request to return Field Investigation-Derived Materials generated during the OU 7 Phase I RFI/RI to the present landfill. This proposal is approved and should be incorporated into the final Interim Measure/Interim Remedial Action (IM/IRA) for OU 7.

If you have any questions regarding the approval of this proposal, please contact Carl Spreng at 692-3358.

Sincerely,

Joe Schieffelin
Rocky Flats Unit Leader
Hazardous Waste Control Program

cc: Kurt Muenchow, DOE
Steve Hahn, Kaiser-Hill
Laurie Peterson-Wright, RMRS
Bill Fraser, EPA
Laura Perrault, AGO
Steve Tarlton, RFPU



ADMIN RECCRD

A-OU07-000430

1/19



Department of Energy

ROCKY FLATS FIELD OFFICE
P.O. BOX 928
GOLDEN, COLORADO 80402-0928

APR 28 1995

95-DOE-08198

Mr. Martin Hestmark
U. S. Environmental Protection Agency, Region VIII
ATTN: Rocky Flats Project Manager, 8HWM-RI
999 18th Street, Suite 500, 8WM-C
Denver, Colorado 80202-2405

Mr. Joe Schieffelin, Unit Leader
Hazardous Waste Facilities
Colorado Department of Public Health and the Environment
4300 Cherry Creek Drive South
Denver, Colorado 80222-1530

Gentlemen:

Enclosed for your approval is the Department of Energy's (DOE) proposal to return Phase 1 Field Investigation-Derived Material (IDM) to the present landfill before the cap is put in place. This proposal is consistent with a letter (95-DOE-08227) previously submitted by the Department of Energy (DOE) on March 16, 1995.

During the Operable Unit (OU) No. 7 Phase I Field Investigation, 237 drums of IDM were generated. Of the 237 drums, 64 drums contain RCRA hazardous waste and the remaining 173 drums contain no RCRA hazardous waste.

The DOE proposes that the drums of non-hazardous IDM be disposed in accordance with the site procedure 4-F99-ENV-OPS-FO.23.

The 64 drums of RCRA hazardous waste IDM are designated as RCRA hazardous solely because they contain F039 waste and because the RCRA risk analysis ratio is greater than one. This risk evaluates the human exposure pathways of direct ingestion of soil, dermal absorption of constituents from soil, inhalation of suspended (airborne) soil, and ingestion of food grown in contaminated soil. None of the drums have any other associated waste codes. Because the OU 7 landfill is undergoing a RCRA equivalent closure, and because this waste came directly from characterizing the landfill, we propose returning this waste to the landfill before the cap is put in place.

By returning the RCRA hazardous waste IDM to the landfill, the RCRA and CERCLA constituents in the IDM will be controlled to the same extent as the waste already there. Once the landfill is capped the soil pathway will no longer exist and the disposition is protective of human health and the environment. In addition, this solution is cost effective and provides waste minimization by avoiding the introduction of different constituents to a new disposal site.

M. Hestmark & J. Schieffelin
95-DOE-08198

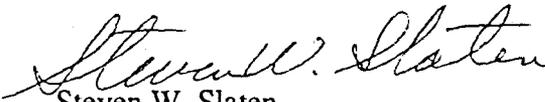
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APR 28 1995

Enclosed is a summary of the drummed IDM proposed to be put back in the landfill and each drum's characterization information.

Since this issue has an impact on the content of the IM/IRA decision document, the Department of Energy would appreciate a response two weeks from receipt of this letter.

Sincerely,


Steven W. Slaten
IAG Project Coordinator
Environmental Restoration

Enclosure

cc w/o Enclosure:

J. Ahlquist, EM-452, HQ
C. Gesalman, EM-453, HQ
H. Belencan, EM-453, HQ
L. Ekman, EM-453, HQ
K. Klein, OOM, RFFO
J. Roberson, AMER, RFFO
F. Lockhart, ER, RFFO
J. Wienand, ER, RFFO
V. Witherill, ER, RFFO
B. Thatcher, ER, RFFO
P. Witherill, ER, RFFO
B. Williamson, ER, RFFO
G. Doyle, WMD, RFFO
S. Stiger, EG&G
E. Mast, EG&G
L. Peterson-Wright, EG&G
Admin Records

Drum Number and Designation	Constituents	RCRA Risk Analysis Carcinogenic Ratio	RCRA Risk Analysis Noncarcinogenic Ratio	Inclusive Risk Analysis Noncarcinogenic Ratio	LDR Treatment Standard	Analytical Results	Units	Comments
2600SIT Non-RCRA hazardous	Cumulative Risks	0.000284	0.000305	2.418				
	Constituents							
2957SIT Non-RCRA hazardous	Barium			1.045	7.6	330	mg/kg	16.5 mg/L TCLP
	Cadmium	0.000284		1.368	0.19	1.1	mg/kg	0.22 mg/L TCLP
3007SIT RCRA hazardous	Cumulative Risks	1.979	0.00224	1.594	NA	200	mg/kg	
	Constituents							
3024SIT RCRA hazardous	Benzo(a)anthracene	0.175			3.4	0.15	mg/kg	
	Benzo(a)pyrene	1.518			3.4	0.13	mg/kg	
3023SIT RCRA hazardous	Benzo(b)fluoranthene	0.245			6.8	0.21	mg/kg	
	Cumulative Risks	2.974	1.009					
2995SIT RCRA hazardous	Constituents							
	Barium		1.003		7.6	317	mg/kg	15.85 mg/L TCLP
2995SIT RCRA hazardous	Benzo(a)anthracene	0.174			3.4	0.149	mg/kg	
	Benzo(a)pyrene	1.690			3.4	0.145	mg/kg	
2995SIT RCRA hazardous	Benzo(b)fluoranthene	0.171			6.8	0.146	mg/kg	
	Bis(2-ethylhexyl)phthalate	0.121			28	0.281	mg/kg	
2995SIT RCRA hazardous	Indeno(1,2,3-cd)pyrene	0.195			3.4	0.167	mg/kg	
	Cumulative Risks	4.816	1.036					
2995SIT RCRA hazardous	Constituents							
	Barium		1.001		7.6	316	mg/kg	15.80 mg/L TCLP
2995SIT RCRA hazardous	Benzo(a)anthracene	0.459			3.4	0.393	mg/kg	
	Benzo(a)pyrene	3.060			3.4	0.262	mg/kg	
2995SIT RCRA hazardous	Bis(2-ethylhexyl)phthalate	0.997			28	2.327	mg/kg	
	Indeno(1,2,3-cd)pyrene	0.293			3.4	0.251	mg/kg	
2995SIT RCRA hazardous	Cumulative Risks	309.114	0.00606					
	Constituents							
2995SIT RCRA hazardous	Aroclor-1242	306.306			10	1.3	mg/kg	
	Benzo(a)pyrene	2.219			3.4	0.19	mg/kg	

Drum Number and Designation	Constituents	RCRA Risk Analysis Carcinogenic Ratio	RCRA Risk Analysis Noncarcinogenic Ratio	Inclusive Risk Analysis Noncarcinogenic Ratio	LDR Treatment Standard	Analytical Results	Units	Comments
2980ST RCRA hazardous	Aroclor -1254	10.642			10	0.0452	mg/kg	
	Benzo(a)anthracene	0.316			3.4	0.271	mg/kg	
	Benzo(a)pyrene	3.008			3.4	0.258	mg/kg	
	Benzo(b)fluoranthene	0.379			6.8	0.325	mg/kg	
	Dibenzo(a,h)anthracene	2.111			8.2	0.181	mg/kg	
	Indeno(1,2,3-cd)pyrene	0.231			3.4	0.198	mg/kg	
Cumulative Risks		16.582	0.00481					
2979ST RCRA hazardous	Aroclor -1254	10.620			10	0.0451	mg/kg	
	Benzo(a)anthracene	0.302			3.4	0.259	mg/kg	
	Benzo(a)pyrene	2.842			3.4	0.243	mg/kg	
	Benzo(b)fluoranthene	0.360			6.8	0.308	mg/kg	
	Dibenzo(a,h)anthracene	2.148			8.2	0.184	mg/kg	
	Indeno(1,2,3-cd)pyrene	0.217			3.4	0.185	mg/kg	
Cumulative Risks		6.987	0.00563					
2978ST RCRA hazardous	Benzo(a)anthracene	0.418			3.4	0.358	mg/kg	
	Benzo(a)pyrene	3.669			3.4	0.314	mg/kg	
	Benzo(b)fluoranthene	0.544			6.8	0.466	mg/kg	
	Dibenzo(a,h)anthracene	2.028			8.2	0.174	mg/kg	
	Indeno(1,2,3-cd)pyrene	0.206			3.4	0.177	mg/kg	
	Cumulative Risks		6.987	0.00563				
2977ST RCRA hazardous	Benzo(a)anthracene	0.418			3.4	0.358	mg/kg	
	Benzo(a)pyrene	3.669			3.4	0.314	mg/kg	
	Benzo(b)fluoranthene	0.544			6.8	0.466	mg/kg	
	Dibenzo(a,h)anthracene	2.028			8.2	0.174	mg/kg	
	Indeno(1,2,3-cd)pyrene	0.206			3.4	0.177	mg/kg	
	Cumulative Risks		16.582	0.00481				
Constituents								
Aroclor -1254		10.620			10	0.451	mg/kg	

Drum Number and Designation	Constituents	RCRA Risk Analysis Carcinogenic Ratio	RCRA Risk Analysis Noncarcinogenic Ratio	Inclusive Risk Analysis Noncarcinogenic Ratio	LDR Treatment Standard	Analytical Results	Units	Comments
2973S1 RCRA hazardous	Benzo(a)anthracene	0.302			3.4	0.259	mg/kg	
	Benzo(a)pyrene	2.842			3.4	0.243	mg/kg	
	Benzo(b)fluoranthene	0.360			6.8	0.308	mg/kg	
	Dibenzo(a,h)anthracene	2.148			8.2	0.184	mg/kg	
	Indeno(1,2,3-cd)pyrene	0.217			3.4	0.185	mg/kg	
Cumulative Risks		13.035	0.000924					
2972S1 RCRA hazardous	Constituents							
	Aroclor-1254	10.559						
	Benzo(a)anthracene	0.201			10	0.0448	mg/kg	
	Benzo(a)pyrene	2.010			3.4	0.172	mg/kg	
	Benzo(b)fluoranthene	0.205			3.4	0.173	mg/kg	
Cumulative Risks		13.398	0.00414		6.8	0.175	mg/kg	
2974S1 RCRA hazardous	Constituents							
	Aroclor-1254	10.674						
	Benzo(a)anthracene	0.207			10	0.0453	mg/kg	
	Benzo(a)pyrene	2.044			3.4	0.178	mg/kg	
	Benzo(b)fluoranthene	0.207			3.4	0.175	mg/kg	
Cumulative Risks		16.582	0.0048062		6.8	0.177	mg/kg	
2970S1 RCRA hazardous	Constituents							
	Aroclor-1254	10.620						
	Benzo(a)anthracene	0.302			10	0.0451	mg/kg	
	Benzo(a)pyrene	2.842			3.4	0.259	mg/kg	
	Benzo(b)fluoranthene	0.360			3.4	0.243	mg/kg	
Cumulative Risks		31.516	0.00609		6.8	0.308	mg/kg	
2970S1 RCRA hazardous	Constituents							
	Aroclor-1254	306.306						
	Benzo(a)anthracene	0.415			10	1.3	mg/kg	
	Benzo(a)pyrene	3.777			3.4	0.355	mg/kg	
					3.4	0.323	mg/kg	

Drum Number and Designation	Constituents	RCRA Risk Analysis Carcinogenic Ratio	RCRA Risk Analysis Noncarcinogenic Ratio	Inclusive Risk Analysis Noncarcinogenic Ratio	LDR Treatment Standard	Analytical Results	Units	Comments
2969 S/T RCRA Hazardous	Benzo(b)fluoranthene	0.557			6.8	0.477	mg/kg	
	Dibenzo(a,h)anthracene	2.135			8.2	0.183	mg/kg	
	Indeno(1,2,3-cd)pyrene	0.217			3.4	0.186	mg/kg	
	Cumulative Risks	3.231	0.00103					
2968 S/T RCRA Hazardous	Constituents							
	Aroclor-1254	10.657			10	0.0452	mg/kg	
	Benzo(a)anthracene	0.209			3.4	0.179	mg/kg	
	Benzo(a)pyrene	2.091			3.4	0.179	mg/kg	
2957 S/T RCRA Hazardous	Benzo(b)fluoranthene	0.211			6.8	0.181	mg/kg	
	Cumulative Risks	13.231	0.00105					
	Constituents							
	Aroclor-1254	10.657			10	0.0452	mg/kg	
2958 S/T RCRA Hazardous	Benzo(a)anthracene	0.209			3.4	0.179	mg/kg	
	Benzo(a)pyrene	2.091			3.4	0.179	mg/kg	
	Benzo(b)fluoranthene	0.211			6.8	0.181	mg/kg	
	Cumulative Risks	13.1516	0.00609					
2958 S/T RCRA Hazardous	Constituents							
	Aroclor-1254	306.306			10	1.3	mg/kg	
	Benzo(a)anthracene	0.415			3.4	0.355	mg/kg	
	Benzo(a)pyrene	3.777			3.4	0.323	mg/kg	
2958 S/T RCRA Hazardous	Benzo(b)fluoranthene	0.557			6.8	0.477	mg/kg	
	Dibenzo(a,h)anthracene	2.135			8.2	0.183	mg/kg	
	Indeno(1,2,3-cd)pyrene	0.217			3.4	0.186	mg/kg	
	Cumulative Risks	315.160	0.00707					
2958 S/T RCRA Hazardous	Constituents							
	Aroclor-1254	306.306			10	1.3	mg/kg	
	Benzo(a)anthracene	0.598			3.4	0.512	mg/kg	
	Benzo(a)pyrene	5.334			3.4	0.457	mg/kg	
2958 S/T RCRA Hazardous	Benzo(b)fluoranthene	0.779			6.8	0.667	mg/kg	
	Bis(2-ethylhexyl)phthalate	0.111			28	0.26	mg/kg	
	Dibenzo(a,h)anthracene	2.052			8.2	0.176	mg/kg	

8

Drum Number and Designation	Constituents	RCRA Risk Analysis Carcinogenic Ratio	RCRA Risk Analysis Noncarcinogenic Ratio	Inclusive Risk Analysis Noncarcinogenic Ratio	LDR Treatment Standard	Analytical Results	Units	Comments
2964ST RCRA hazardous	Indeno(1,2,3-cd)pyrene	0.241			3.4	0.207	mg/kg	
	Cumulative Risks	313.516	0.00609					
	Constituents							
	Aroclor-1254	306.306			10	1.3	mg/kg	
	Benzo(a)anthracene	0.415			3.4	0.355	mg/kg	
	Benzo(a)pyrene	3.777			3.4	0.323	mg/kg	
	Benzo(b)fluoranthene	0.557			6.8	0.477	mg/kg	
	Dibenzo(a,h)anthracene	2.135			8.2	0.183	mg/kg	
	Indeno(1,2,3-cd)pyrene	0.217			3.4	0.186	mg/kg	
2962ST RCRA hazardous	Cumulative Risks	309.114	0.00609					
	Constituents							
	Aroclor-1254	306.306						
	Benzo(a)pyrene	2.219			10	1.3	mg/kg	
	Benzo(b)fluoranthene	0.292			3.4	0.19	mg/kg	
	Bis(2-ethylhexyl)phthalate	0.111			6.8	0.25	mg/kg	
	Indeno(1,2,3-cd)pyrene	0.164			2.8	0.26	mg/kg	
3009ST RCRA hazardous	Cumulative Risks	72134	0.0923					
	Constituents							
	Aroclor-1254	38.877						
	Benzo(a)anthracene	0.453			10	0.165	mg/kg	
	Benzo(a)pyrene	4.638			3.4	0.388	mg/kg	
	Benzo(b)fluoranthene	0.479			3.4	0.397	mg/kg	
	Bis(2-ethylhexyl)phthalate	0.556			6.8	0.41	mg/kg	
	Dibenzo(a,h)anthracene	4.038			2.8	1.297	mg/kg	
	Hexachlorobenzene	22.906			8.2	0.346	mg/kg	
	Indeno(1,2,3-cd)pyrene	0.439			10	0.468	mg/kg	
3008ST RCRA hazardous	Cumulative Risks	72134	0.0923					
	Constituents							
	Aroclor-1254	38.877						
	Benzo(a)anthracene	0.453			10	0.165	mg/kg	
	Benzo(a)pyrene	4.639			3.4	0.388	mg/kg	
					3.4	0.397	mg/kg	

Drum Number and Designation	Constituents	RCRA Risk Analysis Carcinogenic Ratio	RCRA Risk Analysis Noncarcinogenic Ratio	Inclusive Risk Analysis Noncarcinogenic Ratio	LDR Treatment Standard	Units	Analytical Results	Units	Comments
3006ST RCRA Hazardous	Benzo(b)fluoranthene	0.479			6.8	mg/kg	0.41	mg/kg	
	Bis(2-ethylhexyl)phthalate	0.556			28	mg/kg	1.297	mg/kg	
	Dibenzo(a,h)anthracene	4.038			8.2	mg/kg	0.346	mg/kg	
	Hexachlorobenzene	22.906			10	mg/kg	0.468	mg/kg	
	Indeno(1,2,3-cd)pyrene	0.439			3.4	mg/kg	0.376	mg/kg	
	Cumulative Risks	72.434	0.0923						
	Constituents								
3005ST RCRA Hazardous	Aroclor-1254	38.877			10	mg/kg	0.165	mg/kg	
	Benzo(a)anthracene	0.453			3.4	mg/kg	0.388	mg/kg	
	Benzo(a)pyrene	4.639			3.4	mg/kg	0.397	mg/kg	
	Benzo(b)fluoranthene	0.479			6.8	mg/kg	0.41	mg/kg	
	Bis(2-ethylhexyl)phthalate	0.556			28	mg/kg	1.297	mg/kg	
	Dibenzo(a,h)anthracene	4.038			8.2	mg/kg	0.346	mg/kg	
	Hexachlorobenzene	22.906			10	mg/kg	0.468	mg/kg	
Cumulative Risks	99.140	0.119							
3004ST RCRA Hazardous	Constituents								
	Aroclor-1254	57.766			10	mg/kg	0.245	mg/kg	
	Benzo(a)anthracene	0.549			3.4	mg/kg	0.470	mg/kg	
	Benzo(a)pyrene	5.641			3.4	mg/kg	0.483	mg/kg	
	Benzo(b)fluoranthene	0.585			6.8	mg/kg	0.501	mg/kg	
	Bis(2-ethylhexyl)phthalate	0.717			28	mg/kg	1.674	mg/kg	
	Dibenzo(a,h)anthracene	4.800			8.2	mg/kg	0.411	mg/kg	
Hexachlorobenzene	28.495			10	mg/kg	0.582	mg/kg		
Cumulative Risks	65.34	0.084							
3004ST RCRA Hazardous	Constituents								
	Aroclor-1254	34.165			10	mg/kg	0.145	mg/kg	
	Benzo(a)anthracene	0.424			3.4	mg/kg	0.363	mg/kg	
	Benzo(a)pyrene	4.336			3.4	mg/kg	0.371	mg/kg	
Benzo(b)fluoranthene	0.447			6.8	mg/kg	0.383	mg/kg		

Drum Number and Designation	Constituents	RCRA Risk Analysis Carcinogenic Ratio	RCRA Risk Analysis Noncarcinogenic Ratio	Inclusive Risk Analysis Noncarcinogenic Ratio	LDR Treatment Standard	Units	Analytical Results	Units	Comments
3003S1 RCRA hazardous	Bis(2-ethylhexyl)phthalate	0.497			28	mg/kg	1.159	mg/kg	
	Dibenzo(a,h)anthracene	3.811			8.2	mg/kg	0.326	mg/kg	
	Hexachlorobenzene	21.206			10	mg/kg	0.433	mg/kg	
	Indeno(1,2,3-cd)pyrene	0.412			3.4	mg/kg	0.353	mg/kg	
	Cumulative Risks	65.341	0.0841						
3002S1 RCRA hazardous	Constituents								
	Aroclor-1254	34.165			10	mg/kg	0.145	mg/kg	
	Benzo(a)anthracene	0.424			3.4	mg/kg	0.363	mg/kg	
	Benzo(a)pyrene	4.336			3.4	mg/kg	0.371	mg/kg	
	Benzo(b)fluoranthene	0.447			6.8	mg/kg	0.383	mg/kg	
	Bis(2-ethylhexyl)phthalate	0.497			28	mg/kg	1.159	mg/kg	
	Dibenzo(a,h)anthracene	3.811			8.2	mg/kg	0.326	mg/kg	
	Hexachlorobenzene	21.206			10	mg/kg	0.433	mg/kg	
	Indeno(1,2,3-cd)pyrene	0.412			3.4	mg/kg	0.353	mg/kg	
	Cumulative Risks	65.341	0.0841						
3001S1 RCRA hazardous	Constituents								
	Aroclor-1254	34.165			10	mg/kg	0.145	mg/kg	
	Benzo(a)anthracene	0.424			3.4	mg/kg	0.363	mg/kg	
	Benzo(a)pyrene	4.336			3.4	mg/kg	0.371	mg/kg	
	Benzo(b)fluoranthene	0.447			6.8	mg/kg	0.383	mg/kg	
	Bis(2-ethylhexyl)phthalate	0.497			28	mg/kg	1.159	mg/kg	
	Dibenzo(a,h)anthracene	3.811			8.2	mg/kg	0.326	mg/kg	
	Hexachlorobenzene	21.206			10	mg/kg	0.433	mg/kg	
	Indeno(1,2,3-cd)pyrene	0.412			3.4	mg/kg	0.353	mg/kg	
	Cumulative Risks	65.341	0.0841						
3001S1 RCRA hazardous	Constituents								
	Aroclor-1254	34.165			10	mg/kg	0.145	mg/kg	
	Benzo(a)anthracene	0.424			3.4	mg/kg	0.363	mg/kg	
	Benzo(a)pyrene	4.336			3.4	mg/kg	0.371	mg/kg	
	Benzo(b)fluoranthene	0.447			6.8	mg/kg	0.383	mg/kg	

Drum Number and Designation	Constituents	RCRA Risk Analysis Carcinogenic Ratio	RCRA Risk Analysis Noncarcinogenic Ratio	Inclusive Risk Analysis Noncarcinogenic Ratio	LDR Treatment Standard	Units	Analytical Results	Units	Comments
3000S1 RCRA hazardous	Dibenzo(a,h)anthracene	3.811				mg/kg	0.326	mg/kg	
	Hexachlorobenzene	21.206			10	mg/kg	0.433	mg/kg	
	Indeno(1,2,3-cd)pyrene	0.412			3.4	mg/kg	0.353	mg/kg	
	Cumulative Risks	65.341	0.084						
2999S1 RCRA hazardous	Constituents								
	Aroclor-1254	34.165			10	mg/kg	0.145	mg/kg	
	Benzo(a)anthracene	0.424			3.4	mg/kg	0.363	mg/kg	
	Benzo(a)pyrene	4.336			3.4	mg/kg	0.371	mg/kg	
	Benzo(b)fluoranthene	0.447			6.8	mg/kg	0.383	mg/kg	
	Bis(2-ethylhexyl)phthalate	0.497			28	mg/kg	1.159	mg/kg	
	Dibenzo(a,h)anthracene	3.811			8.2	mg/kg	0.326	mg/kg	
	Hexachlorobenzene	21.206			10	mg/kg	0.433	mg/kg	
Cumulative Risks	156.297	0.00135		3.4	mg/kg	0.353	mg/kg		
2998S1 RCRA hazardous	Constituents								
	Aroclor-1242	156.039			10	mg/kg	0.662	mg/kg	
	Benzo(b)fluoranthene	0.175			6.8	mg/kg	0.15	mg/kg	
	Cumulative Risks	156.297	0.00135						
2997S1 RCRA hazardous	Constituents								
	Aroclor-1242	156.039			10	mg/kg	0.662	mg/kg	
	Benzo(b)fluoranthene	0.175			6.8	mg/kg	0.15	mg/kg	
	Cumulative Risks	313.516	0.00609						
2996S1 RCRA hazardous	Constituents								
	Aroclor-1242	306.306			10	mg/kg	1.3	mg/kg	
	Benzo(a)anthracene	0.415			3.4	mg/kg	0.355	mg/kg	
	Benzo(a)pyrene	3.777			3.4	mg/kg	0.323	mg/kg	
	Benzo(b)fluoranthene	0.557			6.8	mg/kg	0.477	mg/kg	
	Dibenzo(a,h)anthracene	2.135			8.2	mg/kg	0.183	mg/kg	
Cumulative Risks	86.664	0.575		3.4	mg/kg	0.186	mg/kg		
Constituents									

Drum Number and Designation	Constituents	RCRA Risk Analysis Carcinogenic Ratio	RCRA Risk Analysis Noncarcinogenic Ratio	Inclusive Risk Analysis Noncarcinogenic Ratio	LDR Treatment Standard	Units	Analytical Results	Units	Comments	
2994SI RCRA hazardous	Aroclor-1254	57.766			10	mg/kg	0.245	mg/kg		
	Benzo(a)anthracene	0.500			3.4	mg/kg	0.428	mg/kg		
	Benzo(a)pyrene	4.834			3.4	mg/kg	0.414	mg/kg		
	Benzo(b)fluoranthene	0.622			6.8	mg/kg	0.533	mg/kg		
	Bis(2-ethylhexyl)phthalate	0.182			28	mg/kg	0.425	mg/kg		
	Dibenzo(a,h)anthracene	3.273			8.2	mg/kg	0.28	mg/kg		
	Hexachlorobenzene	18.986			10	mg/kg	0.388	mg/kg		
	Indeno(1,2,3-cd)pyrene	0.357			3.4	mg/kg	0.306	mg/kg		
	Cumulative Risks	16.582	0.0048							
	Constituents									
2983SI RCRA hazardous	Aroclor-1254	10.620			10	mg/kg	0.0451	mg/kg		
	Benzo(a)anthracene	0.302			3.4	mg/kg	0.259	mg/kg		
	Benzo(a)pyrene	2.842			3.4	mg/kg	0.243	mg/kg		
	Benzo(b)fluoranthene	0.360			6.8	mg/kg	0.308	mg/kg		
	Dibenzo(a,h)anthracene	2.148			8.2	mg/kg	0.184	mg/kg		
	Indeno(1,2,3-cd)pyrene	0.217			3.4	mg/kg	0.185	mg/kg		
	Cumulative Risks	65.341	0.841							
	Constituents									
	3067SI RCRA hazardous	Aroclor-1254	34.165			10	mg/kg	0.145	mg/kg	
		Benzo(a)anthracene	0.424			3.4	mg/kg	0.363	mg/kg	
Benzo(a)pyrene		4.336			3.4	mg/kg	0.371	mg/kg		
Benzo(b)fluoranthene		0.447			6.8	mg/kg	0.383	mg/kg		
Bis(2-ethylhexyl)phthalate		0.497			28	mg/kg	1.159	mg/kg		
Dibenzo(a,h)anthracene		3.811			8.2	mg/kg	0.326	mg/kg		
Hexachlorobenzene		21.206			10	mg/kg	0.433	mg/kg		
Indeno(1,2,3-cd)pyrene		0.412			3.4	mg/kg	0.353	mg/kg		
Cumulative Risks		20.706	0.0052							
Constituents										
Aroclor-1242		7.348			10	mg/kg	0.0312	mg/kg		
	Aroclor-1254	10.249			10	mg/kg	0.0435	mg/kg		
	Benzo(a)anthracene	0.197			3.4	mg/kg	0.169	mg/kg		

Drum Number and Designation	Constituents	RCRA Risk Analysis Carcinogenic Ratio	RCRA Risk Analysis Noncarcinogenic Ratio	Inclusive Risk Analysis Noncarcinogenic Ratio	LDR Treatment Standard	Analytical Results	Units	Comments
3065S RCRA hazardous	Benzo(a)pyrene	2.323			3.4 mg/kg	0.199	mg/kg	
	Benzo(b)fluoranthene	0.253			6.8 mg/kg	0.217	mg/kg	
	Indeno(1,2,3-cd)pyrene	0.230			3.4 mg/kg	0.197	mg/kg	
	Cumulative Risks	17.13	0.00150					
3064S RCRA hazardous	Constituents							
	Aroclor-1242	16.847			10 mg/kg	0.0715	mg/kg	
	Benzo(a)anthracene	0.172			3.4 mg/kg	0.147	mg/kg	
	Cumulative Risks	17.02	0.00187					
3056S RCRA hazardous	Constituents							
	Aroclor-1242	16.847			10 mg/kg	0.0715	mg/kg	
	Benzo(a)anthracene	0.152			3.4 mg/kg	0.131	mg/kg	
	Bis(2-ethylhexyl)phthalate	0.116			28 mg/kg	0.270	mg/kg	
3055S RCRA hazardous	Constituents							
	Aroclor-1242	16.847			10 mg/kg	0.0715	mg/kg	
	Cumulative Risks	22.060	0.00604					
	Constituents							
3050S RCRA hazardous	Aroclor-1242	9.248			10 mg/kg	0.0393	mg/kg	
	Aroclor-1254	9.602			10 mg/kg	0.041	mg/kg	
	Benzo(a)anthracene	0.166			3.4 mg/kg	0.142	mg/kg	
	Benzo(a)pyrene	2.414			3.4 mg/kg	0.207	mg/kg	
	Benzo(b)fluoranthene	0.286			6.8 mg/kg	0.245	mg/kg	
	Indeno(1,2,3-cd)pyrene	0.237			3.4 mg/kg	0.203	mg/kg	
	Cumulative Risks	11.475	0.000749					
3042S RCRA hazardous	Constituents							
	Aroclor-1254	8.365			10 mg/kg	0.0355	mg/kg	
	Benzo(a)anthracene	0.239			3.4 mg/kg	0.205	mg/kg	
	Benzo(a)pyrene	2.365			3.4 mg/kg	0.203	mg/kg	
	Benzo(b)fluoranthene	0.277			6.8 mg/kg	0.238	mg/kg	
Cumulative Risks	9.027	0.00939		3.4 mg/kg	0.175	mg/kg		

Drum Number and Designation	Constituents	RCRA Risk Analysis Carcinogenic Ratio	RCRA Risk Analysis Noncarcinogenic Ratio	Inclusive Risk Analysis Noncarcinogenic Ratio	LDR Treatment Standard	Analytical Results	Units	Comments
3041ST RCRA hazardous	Constituents							
	Aroclor-1254	8.836			10	0.0375	mg/kg	
	Bis(2-ethylhexyl)phthalate	0.116			28	0.270	mg/kg	
	Cumulative Risks	21.650	0.00553					
3040ST RCRA hazardous	Constituents							
	Aroclor-1242	8.701			10	0.0369	mg/kg	
	Aroclor-1254	9.808			10	0.0416	mg/kg	
	Benzo(a)anthracene	0.179			3.4	0.153	mg/kg	
	Benzo(a)pyrene	2.358			3.4	0.202	mg/kg	
	Benzo(b)fluoranthene	0.269			6.8	0.231	mg/kg	
	Indeno(1,2,3-cd)pyrene	0.233			3.4	0.199	mg/kg	
Cumulative Risks	22.077	0.00570						
3039ST RCRA hazardous	Constituents							
	Aroclor-1242	9.248			10	0.0393	mg/kg	
	Aroclor-1254	9.677			10	0.0411	mg/kg	
	Benzo(a)anthracene	0.172			3.4	0.147	mg/kg	
	Benzo(a)pyrene	2.369			3.4	0.203	mg/kg	
	Benzo(b)fluoranthene	0.275			6.8	0.236	mg/kg	
	Indeno(1,2,3-cd)pyrene	0.234			3.4	0.200	mg/kg	
Cumulative Risks	25.41	0.00369						
3035ST RCRA hazardous	Constituents							
	Benzo(a)anthracene	0.222			3.4	0.190	mg/kg	
	Benzo(a)pyrene	2.185			3.4	0.187	mg/kg	
	Benzo(b)fluoranthene	0.234			6.8	0.200	mg/kg	
	Cumulative Risks	11.475	0.000719					
	Constituents							
	Aroclor-1254	8.365			10	0.0355	mg/kg	
Benzo(a)anthracene	0.239			3.4	0.205	mg/kg		
Benzo(a)pyrene	2.365			3.4	0.203	mg/kg		
Benzo(b)fluoranthene	0.277			6.8	0.238	mg/kg		
Indeno(1,2,3-cd)pyrene	0.204			3.4	0.175	mg/kg		

Drum Number and Designation	Constituents	RCRA Risk Analysis Carcinogenic Ratio	RCRA Risk Analysis Noncarcinogenic Ratio	Inclusive Risk Analysis Noncarcinogenic Ratio	LDR Treatment Standard	Analytical Results	Units	Comments
3034ST RCRA hazardous	Cumulative Risks	2.741	0.00369					
	Constituents							
	Benzo(a)anthracene	0.222			3.4	0.190	mg/kg	
	Benzo(a)pyrene	2.185			3.4	0.187	mg/kg	
3033ST RCRA hazardous	Benzo(b)fluoranthene	0.234			6.8	0.200	mg/kg	
	Cumulative Risks	2.741	0.00369					
	Constituents							
	Benzo(a)anthracene	0.222			3.4	0.190	mg/kg	
3032ST RCRA hazardous	Benzo(a)pyrene	2.185			3.4	0.187	mg/kg	
	Benzo(b)fluoranthene	0.234			6.8	0.200	mg/kg	
	Cumulative Risks	2.741	0.00369					
	Constituents							
3031ST RCRA hazardous	Aroclor-1254	67.225			10	0.285	mg/kg	
	Benzo(a)anthracene	0.364			3.4	0.311	mg/kg	
	Benzo(a)pyrene	3.364			3.4	0.288	mg/kg	
	Benzo(b)fluoranthene	0.400			6.8	0.342	mg/kg	
	Bis(2-ethylhexyl)phthalate	0.842			28	1.965	mg/kg	
	Indeno(1,2,3-cd)pyrene	0.282			3.4	0.242	mg/kg	
	Cumulative Risks	95.509	0.0240					
	Constituents							
	Aroclor-1254	88.475			10	0.376	mg/kg	
	Benzo(a)anthracene	0.478			3.4	0.409	mg/kg	
3030ST RCRA hazardous	Benzo(a)pyrene	4.368			3.4	0.374	mg/kg	
	Benzo(b)fluoranthene	0.537			6.8	0.460	mg/kg	
	Bis(2-ethylhexyl)phthalate	1.275			28	2.975	mg/kg	
	Indeno(1,2,3-cd)pyrene	0.335			3.4	0.286	mg/kg	
Cumulative Risks	72.511	0.0182						
Constituents								
Aroclor-1254	67.225			10	0.285	mg/kg		
Benzo(a)anthracene	0.364			3.4	0.311	mg/kg		
Benzo(a)pyrene	3.364			3.4	0.288	mg/kg		

Drum Number and Designation	Constituents	RCRA Risk Analysis Carcinogenic Ratio	RCRA Risk Analysis Noncarcinogenic Ratio	Inclusive Risk Analysis Noncarcinogenic Ratio	LDR Treatment Standard	Analytical Results	Units	Comments
3029ST RCRA hazardous	Benzo(b)fluoranthene	0.400			6.8	0.342	mg/kg	
	Bis(2-ethylhexyl)phthalate	0.842			2.8	1.965	mg/kg	
	Indeno(1,2,3-cd)pyrene	0.282			3.4	0.242	mg/kg	
	Cumulative Risks	73.983	0.02					
	Constituents							
3028ST RCRA hazardous	Aroclor-1254	68.246			10	0.290	mg/kg	
	Benzo(a)anthracene	0.394			3.4	0.337	mg/kg	
	Benzo(a)pyrene	3.644			3.4	0.312	mg/kg	
	Benzo(b)fluoranthene	0.429			6.8	0.367	mg/kg	
	Bis(2-ethylhexyl)phthalate	0.943			2.8	2.201	mg/kg	
	Indeno(1,2,3-cd)pyrene	0.288			3.4	0.246	mg/kg	
	Cumulative Risks	65.986	0.0164					
Constituents								
3026ST RCRA hazardous	Aroclor-1254	61.039			10	0.259	mg/kg	
	Benzo(a)anthracene	0.343			3.4	0.293	mg/kg	
	Benzo(a)pyrene	3.159			3.4	0.270	mg/kg	
	Benzo(b)fluoranthene	0.383			6.8	0.328	mg/kg	
	Bis(2-ethylhexyl)phthalate	0.752			2.8	1.755	mg/kg	
	Indeno(1,2,3-cd)pyrene	0.278			3.4	0.238	mg/kg	
	Cumulative Risks	11.979	0.00224					
Constituents								
3025ST RCRA hazardous	Benzo(a)anthracene	0.175			3.4	0.150	mg/kg	
	Benzo(a)pyrene	1.518			3.4	0.130	mg/kg	
	Benzo(b)fluoranthene	0.245			6.8	0.210	mg/kg	
	Cumulative Risks	1.938	0.000370					
	Constituents							
30155ST RCRA hazardous	Benzo(a)anthracene	0.164			3.4	0.140	mg/kg	
	Benzo(a)pyrene	1.460			3.4	0.125	mg/kg	
	Benzo(b)fluoranthene	0.222			6.8	0.190	mg/kg	
	Cumulative Risks	95.509	0.0240					
	Constituents							

Drum Number and Designation	Constituents	RCRA Risk Analysis Carcinogenic Ratio	RCRA Risk Analysis Noncarcinogenic Ratio	Inclusive Risk Analysis Noncarcinogenic Ratio	LDR Treatment Standard	Units	Analytical Results	Units	Comments	
30115T RCRA hazardous	Aroclor-1254	88.475			10	mg/kg	0.376	mg/kg		
	Benzo(a)anthracene	0.478			3.4	mg/kg	0.409	mg/kg		
	Benzo(a)pyrene	4.368			3.4	mg/kg	0.374	mg/kg		
	Benzo(b)fluoranthene	0.537			6.8	mg/kg	0.460	mg/kg		
	Bis(2-ethylhexyl)phthalate	1.275			28	mg/kg	2.975	mg/kg		
	Indeno(1,2,3-cd)pyrene	0.335			3.4	mg/kg	0.286	mg/kg		
	Cumulative Risks		87.718	0.183						
30135T RCRA hazardous	Aroclor-1254	81.142			10	mg/kg	0.344	mg/kg		
	Benzo(a)anthracene	0.396			3.4	mg/kg	0.339	mg/kg		
	Benzo(a)pyrene	4.205			3.4	mg/kg	0.360	mg/kg		
	Benzo(b)fluoranthene	0.546			6.8	mg/kg	0.468	mg/kg		
	Bis(2-ethylhexyl)phthalate	1.101			28	mg/kg	2.569	mg/kg		
	Indeno(1,2,3-cd)pyrene	0.293			3.4	mg/kg	0.251	mg/kg		
	Cumulative Risks		162.72	0.0321						
30125T RCRA hazardous	Aroclor-1254	151.386			10	mg/kg	0.643	mg/kg		
	Benzo(a)anthracene	0.607			3.4	mg/kg	0.520	mg/kg		
	Benzo(a)pyrene	6.687			3.4	mg/kg	0.573	mg/kg		
	Benzo(b)fluoranthene	0.896			6.8	mg/kg	0.768	mg/kg		
	Bis(2-ethylhexyl)phthalate	2.118			28	mg/kg	4.943	mg/kg		
	Indeno(1,2,3-cd)pyrene	0.423			3.4	mg/kg	0.363	mg/kg		
	Cumulative Risks		228.0	0.00278						
30115T RCRA hazardous	Benzo(a)anthracene	0.184			3.4	mg/kg	0.158	mg/kg		
	Benzo(a)pyrene	1.723			3.4	mg/kg	0.148	mg/kg		
	Benzo(b)fluoranthene	0.196			6.8	mg/kg	0.168	mg/kg		
	Indeno(1,2,3-cd)pyrene	0.162			3.4	mg/kg	0.139	mg/kg		
	Cumulative Risks		65.986	0.164						
	Aroclor-1254	61.039			10	mg/kg	0.259	mg/kg		

Drum Number and Designation	Constituents	RCRA Risk Analysis Carcinogenic Ratio	RCRA Risk Analysis Noncarcinogenic Ratio	Inclusive Risk Analysis Noncarcinogenic Ratio	LDR Treatment Standard	Analytical Results		Comments
						Units	Units	
	Benzo(a)anthracene	0.343			3.4	mg/kg	0.293	mg/kg
	Benzo(a)pyrene	3.159			3.4	mg/kg	0.270	mg/kg
	Benzo(b)fluoranthene	0.383			6.8	mg/kg	0.328	mg/kg
	Bis(2-ethylhexyl)phthalate	0.752			28	mg/kg	1.755	mg/kg
	Indeno(1,2,3-cd)pyrene	0.278			3.4	mg/kg	0.238	mg/kg
301051	Cumulative Risks	87.718	0.183					
RCRA hazardous	Constituents							
	Aroclor-1254	81.141			10	mg/kg	0.334	mg/kg
	Benzo(a)anthracene	0.396			3.4	mg/kg	0.339	mg/kg
	Benzo(a)pyrene	4.205			3.4	mg/kg	0.360	mg/kg
	Benzo(b)fluoranthene	0.546			6.8	mg/kg	0.468	mg/kg
	Bis(2-ethylhexyl)phthalate	1.101			28	mg/kg	2.569	mg/kg
	Indeno(1,2,3-cd)pyrene	0.293			3.4	mg/kg	0.251	mg/kg

19/19