



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2

DATE: May 8, 2009

SUBJECT: Summary of Ranking Documents for the Lightman Administrative Record

FROM: Renee Gelblat, RPM
Southern New Jersey Remediation Section

TO: File

The Administrative Record for the Proposed Plan for the Lightman Drum Superfund Site in Camden County, New Jersey contains a summary of the ranking documents. A full copy of the three volumes of ranking documents is available upon request from the EPA Region 2 office. Please contact Renee Gelblat at 212-637-4414 or at gelblat.renee@epa.gov.

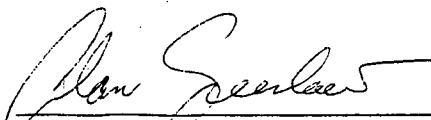
FINAL
HAZARD RANKING SYSTEM EVALUATION
LIGHTMAN DRUM COMPANY
WINSLOW TOWNSHIP, CAMDEN COUNTY, NEW JERSEY
PREPARED UNDER

WORK ASSIGNMENT NO. 053-2JZZ
CONTRACT NO. 68-W9-0051

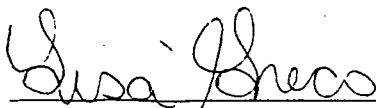
MAY 1999

VOLUME 1 OF 3

SUBMITTED BY:



ALAN GREENLAW
SITE MANAGER



LISA GRECO
TASK LEADER



ALAN GREENLAW
WORK ASSIGNMENT MANAGER

SECTION I: SITE SUMMARY

**LIGHTMAN DRUM COMPANY
Winslow Township, New Jersey**

The Lightman Drum Company site is located in Winslow Township, Camden County, New Jersey, along Route 73. Lightman Drum acquired the property in April 1974 and began recycling drums. Lightman Drum received drums, some full or partially full; which were emptied before they could be forwarded to an off-site location for cleaning. Initially, Lightman dug a pit at the rear of the property to discard the contents of any drum that arrived "heavy." This practice was discovered by an adjacent property owner, who contacted the New Jersey Department of Environmental Protection (NJDEP). A formal complaint was filed and Lightman was taken to court and ordered to line the pit or stop the practice.

The NJDEP continued to monitor operations at the site and in 1977, during a site inspection, discovered that Lightman had installed two 5,000-gallon underground storage tanks. Lightman applied for, and was granted, a Temporary Operating Authority (TOA) permit to receive and store specific special waste types prior to final disposition at an approved hazardous waste disposal facility. The facility was allowed to accept chemical powders, pesticides, waste oils, emulsions, oil sludges, paint, pigment, ink residues, ketones, alcohols, mixed solvents, acids and alkalis. The TOA was in effect for a period of one year, pending the approval of an engineering design for the facility. Under the TOA, Lightman consolidated chemical residues in the underground storage tanks, in drums, and in trailers. Numerous violations occurred during this period of operation, which led to the subsequent denial of Lightman's application to continue as a hazardous waste storage facility.

In an NJDEP 1987 sampling event and the resulting April 12, 1988 AO, the following contaminants were indicated as being present in site soils; 1,2,4-trichlorobenzene, tetrachlorethene, 1,4-dichlorobenzene, 1,2-dichlorobenzene, 1,3-dichlorobenzene, bis(2-ethylhexyl)phthalate, butyl benzyl phthalate, di-n octyl phthalate, aroclor-1254, chromium, cadmium and lead.

Lightman was ordered to conduct a Remedial Investigation (RI) to determine the impact of the pollution on human health and the environment. Data collected during the investigation documented that a release of hazardous substances from the site to ground water had occurred as a result of operations of the Lightman Drum Company. Within four miles of the site, seven public supply wells and numerous private wells utilize the Kirkwood-Cohansey Aquifer (the contaminated aquifer) as a source of drinking water. Over 20,000 people using the aquifer for drinking water are potentially affected by the site.

[The description of the site (release) is based on information available at the time the site was scored. The description may change as additional information is gathered on the sources and extent of contamination. See 56 FR 5600, February 11, 1991, or subsequent FR notices.]

SECTION II: DOCUMENTATION RECORD

HRS DOCUMENTATION RECORD-REVIEW COVER SHEET

Name of Site: Lightman Drum Company

Contact Persons

Site Investigation:	Foster Wheeler	201-597-7000
	Kathy Moyik	212-637-4339
Documentation Record:	Ben Conetta	212-637-4435
	Alan Greenlaw	201-529-4700

Pathways, Components, or Threats Not Scored

The surface water pathway was not scored since insufficient data exist. No surface water or sediment samples were collected in either the Phase I or the Phase II Remedial Investigations. The nearest surface water is the Pump Creek, which borders the western property line of the site. The Pump Creek is located approximately 1,000 feet from known areas of activity on the site.

The soil exposure pathway was not scored as preliminary calculations indicated that it would have an insignificant impact on the overall site score. Although contamination of site surface soil is documented, there are no residences, schools, or day care centers on or within 200 feet of the areas of contamination.

The air pathway was not scored as preliminary calculations indicated that it would have an insignificant impact on the overall site score.

HRS DOCUMENTATION RECORD

Name of Site: Lightman Drum Company

EPA Region: II

Date Prepared: May 14, 1999

Street Address of Site: Route 73

County and State: Camden, New Jersey

CERCLIS ID No.: NJD014743678 (Ref. No. 3)

General Location in the State: Winslow Township, Cedarbrook, New Jersey

Topographic Map: Williamstown

Latitude: 39° 43' 47.0"

Longitude: 74° 54' 21.3"

Ref. No. 30

Scores

Air Pathway	Not scored
Ground Water Pathway	84.05
Soil Exposure Pathway	Not scored
Surface Water Pathway	Not scored

HRS SITE SCORE

42.03

WORKSHEET FOR COMPUTING HRS SITE SCORE

	<u>S</u>	<u>S²</u>
1. Ground Water Migration Pathway Score (S_{gw}) (from Table 3-1, line 13)	84.05	7064.40
2a. Surface Water Overland/Flood Migration Component (from Table 4-1, line 30)	NS	NS
2b. Ground Water to Surface Water Migration Component (from Table 4-25, line 28)	NS	NS
2c. Surface Water Migration Pathway Score (S_{sw}) Enter the larger of lines 2a and 2b as the pathway score.	NS	NS
3. Soil Exposure Pathway Score (S_s) (from Table 5-1, line 22)	NS	NS
4. Air Migration Pathway Score (S_a) (from Table 6-1, line 12)	NS	NS
5. Total of $S_{gw}^2 + S_{sw}^2 + S_s^2 + S_a^2$		7060.40
6. HRS Site Score Divide the value on line 5 by 4 and take the square root	42.03	

NS - Not Scored

HRS DOCUMENTATION RECORD

1. Site Name: LIGHTMAN DRUM COMPANY
(as entered in CERCLIS)
2. Site CERCLIS Number: NJD014743678
3. Site Reviewer: ALAN GREENLAW
4. Date: 4/6/99
5. Site Location: CEDARBROOK, WINSLOW TWP., CAMDEN, NEW JERSEY
(City/County, State)
6. Congressional District: 01
7. Site Coordinates: Single
Latitude: 39°43'47.0" Longitude: 74°54'21.3"

	Score
Ground Water Migration Pathway Score (Sgw)	84.05
Surface Water Migration Pathway Score (Ssw)	0.00
Soil Exposure Pathway Score (Ss)	0.00
Air Migration Pathway Score (Sa)	0.00
Site Score	42.03

GROUND WATER MIGRATION PATHWAY SCORESHEET

GROUND WATER MIGRATION PATHWAY Factor Categories & Factors	Maximum Value	Value Assigned
Likelihood of Release to an Aquifer Aquifer: KIRKWOOD-COHANSEY		
1. Observed Release	550	550
2. Potential to Release		
2a. Containment	10	10
2b. Net Precipitation	10	0
2c. Depth to Aquifer	5	5
2d. Travel Time	35	35
2e. Potential to Release [lines 2a(2b+2c+2d)]	500	400
3. Likelihood of Release	550	550
Waste Characteristics		
4. Toxicity/Mobility	*	2.00E+02
5. Hazardous Waste Quantity	*	10000
6. Waste Characteristics	100	32
Targets		
7. Nearest Well	50	2.00E+01
8. Population		
8a. Level I Concentrations	**	0.00E+00
8b. Level II Concentrations	**	0.00E+00
8c. Potential Contamination	**	3.74E+02
8d. Population (lines 8a+8b+8c)	**	3.74E+02
9. Resources	5	0.00E+00
10. Wellhead Protection Area	20	0.00E+00
11. Targets (lines 7+8d+9+10)	**	3.94E+02
12. Targets (including overlaying aquifers)	**	3.94E+02
13. Aquifer Score	100	84.05
GROUND WATER MIGRATION PATHWAY SCORE (Sgw)	100	84.05

* Maximum value applies to waste characteristics category.

** Maximum value not applicable.

REFERENCES

<u>Reference Number</u>	<u>Description of the Reference</u>
1.	Hazard Ranking System; Final Rule, 40 Code of Federal Regulations Part 300, Federal Register, Volume 55, No. 241, December 14, 1990. (1 page)
2.	Superfund Chemical Data Matrix (SCDM), June 1996 (13 pages, non-consecutive)
3.	United States Environmental Protection Agency (USEPA) Superfund Program, Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS), List 8: Site/Action Listing, p. 213, January 11, 1999. (1 page)
4.	Phase II Remedial Investigation (RI), Lightman Drum Co., Winslow Township, NJ, prepared by International Exploration, Inc. (INTEX), October 1990. (53 pages, consecutive).
5.	Memorandum from Linda M. Appel, New Jersey Department of Environmental Protection (NJDEP) Hazardous Site Mitigation Specialist II, Quality Assurance Section, Bureau of Environmental Measurements and Quality Assurance, to Steve Byrnes, NJDEP Technical Coordinator, Bureau of Environmental Evaluation and Risk Assessment, Subject: Analytical Data Validation of Sampling Conducted at Berlin, Camden County, NJ, Analysis Performed by ETC According to ACO Requirements, Tier I CLP Deliverable Requirements, February 1, 1991. (11 pages, consecutive)
6.	RI, Lightman Drum Company, Berlin, NJ, prepared by INTEX, September 1989. (81 pages, non-consecutive)
7.	NJDEP Permit, Lightman Drum Company, November 2, 1978. (1 page)
8.	Correspondence between David J. Shotwell, NJDEP, Bureau Chief, Bureau of Field Operations, to Jerome Lightman, Subject: Administrative Order, April 12, 1988. (8 pages, consecutive)
9.	Memorandum from J. Hartman, NJDEP, to File, Subject: Site Investigation Report of the Lightman Drum Company, May 18-19, 1977. (4 pages, consecutive)
10.	NJDEP, Division of Waste Management Site Inspection Report, November 20, 1984. (7 pages, consecutive)
11.	Memorandum from Terry Ostrander, NJDEP, to Tom Downey, NJDEP, Subject: Lightman Drum Company, Inc., Cedarbrook, Winslow Twp., Camden County, October 21, 1984. (19 pages, consecutive)
12.	Mailgram from Beatrice S. Tylutki, Director, to Lightman Drum Company, Subject: Expiration of Temporary Operating Authority, April 30, 1979. (1 page)

REFERENCES

<u>Reference Number</u>	<u>Description of the Reference</u>
13.	Letter from Beatrice S. Tylutki, NJDEP, Director, Solid Waste Administration, to Nathan R. Frenkel, Executive Vice President, Environmental Consulting and Testing Services, Subject: Lightman Drum - Facility No. 6436A, June 28, 1979. (1 page)
14.	Manifest #108393, May 29, 1979. (1 page)
15.	Manifest #0182908 Summary, August 18, 1983. (2 pages, consecutive)
16.	Investigation Report, The Office of the Camden County Fire Marshal Fire Investigation Unit, prepared by Anthony R. Braig, Investigation #84-7-183-I, July 26, 1984. (11 pages, consecutive)
17.	Memorandum from William Krimson, NJDEP, to Charles Krauss, NJDEP, Subject: Lightman Drum, Inc. - Fire, July 27, 1984. (2 pages, consecutive)
18.	Lightman Drum Company Well Logs and Monitoring Well Certifications, 1990. (12 pages, non-consecutive)
19.	Letter from Steven McNulty, Project Engineer, Malcolm Pirnie, Inc., to Diane Leckie, NJDEP, Water Supply Element, Bureau of Water Allocation, Subject: Manual Well Search - Two (2) Mile Radius, Lightman Drum Company Site, November 11, 1998. (217 pages, non-consecutive)
20.	Hydrogeologic Framework of the New Jersey Coastal Plain, Regional Aquifer System Analysis, U.S. Geological Survey (U.S.G.S.) Open File Report 84-730. (7 pages, non-consecutive)
21.	Site inspection sketch by Krimson/Ostrunder, NJDEP inspectors of the Lightman Drum Co., Inc., August 9, 1984. (1 page)
22.	Groundwater Flow Directions and Hydraulic Gradient Determinations Map from Phase II Remedial Investigation, Lightman Drum Company, Winslow Twp., NJ, Prepared for Lightman Drum Company by INTEX, October 1990. (1 page)
23.	Correspondence from Catherine K. Fiolkowski, Subject: Lightman Drum Co., Route 73, Cedar Brook, unknown date. (3 pages, consecutive)
24.	Site investigation: Ed Cotterell, NJDEP, Spills General File Report for Lightman Drum Company, November 12, 1974. (2 pages consecutive)
25.	Memorandum from David Van Eck, NJDEP, HSMS IV, Bureau of Planning and Assessment, to Albert Pleva, NJDEP, Acting Section Chief, Bureau of Planning and Assessment, Subject: Lightman Drum Company, Inc., Route 73, Cedarbrook, Winslow Twp., Camden Co., NJ, unknown date. (17 pages, consecutive)

REFERENCES

<u>Reference Number</u>	<u>Description of the Reference</u>
26.	Record of Meeting between Steven McNulty, Malcolm Pirnie, Inc., and Charles Stevenson, Director of Utilities, Township of Winslow, New Jersey, Subject: Drinking Water Supply Information, March 17, 1999. Includes Attachments (11 pages, non-consecutive)
27.	Record of Telephone Conversation between Lisa Greco, Malcolm Pirnie, Inc., and Dee Hart, Winslow Twp. Board of Education, Subject: School Populations, March 17, 1999. (1 page)
28.	Household, Family, and Group Quarter Characteristics, 1990. (1 page)
29.	Monitoring Well and Soil Sampling Data Sheets, INTEX, for Lightman Drum Company, various dates. (50 pages, non-consecutive)
30.	Four-mile Vicinity Map for the Lightman Drum Company site, compiled from U.S. Geological Survey (U.S.G.S.) Maps, 7.5 Minute Series, "Clementon, New Jersey, 1967"; "Medford Lakes, New Jersey, 1967"; "Williamstown, New Jersey, 1966, photorevised 1981"; "Hammonton, New Jersey, 1966, photorevised 1981." (1 sheet)
31.	Well Location Map, Lightman Drum Company and Vicinity, Winslow Twp., New Jersey, source: Alfred E. Patton Street Map, date unknown. (1 page)
32.	Record of Telephone Conversation between Lisa Greco, Malcolm Pirnie, Inc., and Mary Sader, Chesilhurst Municipal Building, Subject: Drinking Water Information, March 25, 1999. (1 page)
33.	Record of Telephone Conversation between Lisa Greco, Malcolm Pirnie, Inc., and Janet Drialo, Waterford Township Municipal Utilities Authority, Subject: Drinking Water Information, March 25, 1999. (1 page)
34.	Revised Work Plan for RI, Lightman Drum Company, Inc., prepared by INTEX, January 1989. (63 pages, consecutive)
35.	Letter from James J. Groome, NJDEP, Section Chief, Bureau of State Case Management, to Mr. Jerome Lightman, Lightman Drum Company, Inc., Subject: RI Work Plan Dated September 1988, December 19, 1988. (4 pages, consecutive)
36.	Letter from David Sweeney, NJDEP, Section Chief, Bureau of State Case Management, to Mr. Jerome Lightman, Lightman Drum Company, Inc., Subject: Revised RI Work Plan, January 1989, February 22, 1989. (2 pages, consecutive)
37.	Letter from Gay Dreamer, INTEX, Inc., to Mr. Nicholas Eisenhauer, NJDEP, Bureau of Case Management, Subject: Work Plan Addendum, March 8, 1989. (6 pages, consecutive)

REFERENCES

<u>Reference Number</u>	<u>Description of the Reference</u>
38.	Letter from Joseph A. Rogalski, NJDEP, Assistant Director, Field Operations, Compliance, and Enforcement, to Mr. Jerome Lightman, Lightman Drum Company, Inc., Subject: Penalty Settlement Offer, October 10, 1984. (6 pages, consecutive)
39.	Letter from Joseph A. Rogalski, NJDEP, Assistant Director, Field Operations, Compliance, and Enforcement, to Lightman Drum Company, Subject: Penalty Settlement Offer, March 14, 1986. (5 pages, consecutive)
40.	Record of Correspondence from Lisa Greco, Malcolm Pirnie, Inc., to File, Subject: Off-site Reconnaissance, May 14, 1999. (1 page)
41.	Federal Register/ Vol.45, No. 98/ Monday, May 19, 1980/ Rules and Regulations, page 33123. (1 page)
42.	Hazardous Waste Investigation, Inspector William Zavacky, Dated 4/24/80, location Lightman Drum Company, Routine Inspection. (3 pages, consecutive)
43.	Hazardous Waste Investigation, Inspector William Zavacky, Dated January 19, 1981 and January 22, 1981, location Lightman Drum Company, Follow-up Inspection. (5 pages, consecutive)
44.	Hazardous Waste Investigation, Inspector William Zavacky, Dated 8/17/82, location Lightman Drum Company, Follow-up Complaint. (4 pages, consecutive)
45.	Memo from Dave Potts, NJDEP, Sr. Env. Spec., to HW/EF 04-06, Dated 10/12/82, Re: Lightman Drum Co. C.E. 10/12/82 follow-up investigation. And Hazardous Waste Investigation, Inspector William Zavacky, Dated 10/12/82, location Lightman Drum Company, Follow-up Complaint. (5 pages, consecutive)
46.	NYSDEC, Septic Tank Cleaner & Industrial Waste Collector Permit, JA-070, Lightman Drum Company, dated April 15, 1981. (1 page)
47.	NYSDEC, Septic Tank Cleaner & Industrial Waste Collector Annual Report, JA-070, Lightman Drum Company, date unknown. (1 page)
48.	Hazardous Waste Investigation, Inspector Charles Elmendorf, Dated 3/7/83, location Lightman Drum Company, Routine Follow-up Inspection. (3 pages, consecutive)
49.	The Merck Index, An Encyclopedia of Chemicals, Drugs, and Biologicals, published by Merck & Co., Inc., 1989. (9 pages, non-consecutive)
50.	Area Map of New Jersey Known Contaminated Site Lists, Known Contaminated Sites Within 1 mile Radius of Lightman Drum Site. (2 pages consecutive)
51.	Record of Telephone Conversation between Alan Greenlaw, Malcolm Pirnie, Inc., and Charles Steveson, Winslow Twp. Department of Municipal Utilities, Subject: System Interconnection, May 13, 1999. (1 page)