EPA

# NATIONAL TECHNICAL INFORMATION SERVICE

# RECORDS OF DECISION ABSTRACTS FY86

JANUARY 1987

HAZARDOUS SITE CONTROL DIVISION
U.S. ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C.

# FY86 RECORDS OF DECISION (RODS)

| Site Name, State | Signature Date |
|---|---|
| ** REGION I | |
| Auburn Road Landfill, NH | 09/17/86 |
| Baird & McGuire, MA | 09/30/86 |
| Industri-plex, MA | 09/30/86 |
| Kellogg-Deering Well Field, CT | 09/25/86 |
| Tinkham Garage, NH | 09/30/86 |
| Winthrop Landfill, ME | 11/22/86* |
| ** REGION II | |
| Brewster Well Field, NY | 09/30/86 |
| Caldwell Trucking, NJ | 09/25/86 |
| Combe Fill North, NJ | 09/29/86 |
| Combe Fill South, NJ | 09/29/86 |
| Florence Landfill, NJ | 06/27/86 |
| Hyde Park, NY | 11/26/85* |
| Kentucky Avenue Well Field, NY | 09/30/86 |
| Lang Property, NJ | 09/29/86 |
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| Price Landfill, NJ | 09/29/86** |
| Rockaway Borough Well Field, NJ | 09/29/86 |
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| Blosenski Landfill, PA | 09/29/86 |
| Bruin Lagoon, PA | 09/29/86** |
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| Delaware City PVC, DE | 09/30/86 |
| Drake, PA | 05/13/86** |
| Industrial Lane, PA | 09/29/86 |
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| Leetown Pesticide, WV | 03/31/86 |
| Limestone Road, MD | 09/30/86 |
| Middletown Road, MD | 03/17/86 |
| Millcreek Dump, PA | 05/07/86 |
| Taylor Borough, PA | 03/17/86** |
| Tybouts Corner, DE | 03/06/86 |
| Westline, PA | 07/03/86 |

*-Enforcement Decision Document
**-Second Remedial Action
****-Fourth Remedial Action

FY86 RECORDS OF DECISION (RODS) (continued)

| Site Name, State | Signature Date |
|---|---|
| ** REGION IV | |
| A. L. Taylor, KY | 06/18/86 |
| Coleman Evans, FL | 09/25/86 |
| Distler Brickyard, KY | 08/19/86 |
| Distler Farm, KY | 08/19/86 |
| Gallaway Ponds, TN | 09/26/86 |
| Hipps Road Landfill, FL | 09/03/86 |
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| Lees Lane Landfill, KY | 09/25/86*/** |
| Mowbray Engineering, AL | 09/25/86 |
| Pepper's Steel, FL | 03/12/86* |
| Pioneer Sand, FL | 09/26/86 |
| SCRDI/Dixiana, SC | 09/26/86 |
| Sapp Battery, FL | 09/26/86 |
| ** REGION V | |
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| Fields Brook, OH | 09/30/86 |
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| Lake Sandy Jo, IN | 09/26/86 |
| LaSalle Electrical, IL | 08/29/86 |
| Metamora Landfill, MI | 09/30/86 |
| New Brighton/Arden Hills/St. Anthony, MN | 06/30/86**** |
| Novaco Industries, MI | 06/27/86 |
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| Seymour, IN | 09/30/86 |
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| ** REGION VI | |
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| Sikes Disposal Pit, TX | 09/18/86 |
| United Creosoting, TX | 09/30/86 |
| ** REGION VII | |
| Des Moines TCE, IA | 07/21/86 |

FY86 RECORDS OF DECISION (RODS) (continued)

| Site Name, State | Signature Date |
|---|---|
| ** REGION VIII | |
| Denver Radium Street Sites, CO | 03/24/86 |
| Denver/ROBCO | 09/30/86** |
| Libby Ground Water, MT | 09/26/86 |
| Marshall, CO | 09/26/86 |
| North Dakota Arsenic Trioxide, ND | 09/26/86 |
| Smuggler, CO | 09/26/86* |
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| ** REGION IX | |
| Iron Mountain Mine, CA | 10/03/86 |
| ** REGION X | |
| Queen City Farms, WA (IRM) | 10/24/85* |
| Toftdahl Drums, WA | 09/30/86 |
| United Chrome, OR | 09/12/86 |

# REGION I

| TECHNICAL REPORT DATA<br>*(Please read Instructions on the reverse before completing)* | | |
|---|---|---|
| 1. REPORT NO.<br>EPA/ROD/R01-86/018 | 2. | 3. RECIPIENT'S ACCESSION NO. |
| 4. TITLE AND SUBTITLE<br>SUPERFUND RECORD OF DECISION<br>Auburn Road, NH | | 5. REPORT DATE<br>September 17, 1986<br>6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | | 10. PROGRAM ELEMENT NO.<br>11. CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report<br>14. SPONSORING AGENCY CODE<br>800/00 |
| 15. SUPPLEMENTARY NOTES | | |

16. ABSTRACT

The Auburn Road Landfill site, located in the Town of Londonderry, New Hampshire, consists of approximately 200 acres which contain four documented hazardous waste disposal areas. The site was owned by Ms. Hariclia Thomopoulus from 1931 until 1974, when Mr. George Thomopoulus inherited ownership from his mother. In 1977, the present owner, Derry Sand and Gravel, Inc., purchased the site. Prior to the 1960s, activities at the site consisted of sand and gravel excavation. Between 1964 and 1974, the New Hampshire Division of Public Health issued permits to the Town of Londonderry to operate separate sections of the Thomopoulus property as disposal sites currently referred to as the Town Dump, the Tire Dump, the Septage Lagoon, and the Solid Waste Landfill. Although authorized for disposal of only municipal refuse, tires and demolition debris, all four source areas contain evidence of disposal of industrial wastes including numerous exposed and partially buried 55-gallon steel drums. In August 1979 the State of New Hampshire required that no more drums be accepted, and later the same year, the New Hampshire Water Supply and Pollution Control Commission found contamination of surface water and ground water caused by VOCs. In January 1980, landfill operations were terminated on the entire site. Ground water, used as a drinking water source for approximately 275 homes and 260 mobile homes - all within a one-mile radius of the site, is the principal problem of concern. The primary contaminants of concern include: VOCs (See attached sheet)

| 17. KEY WORDS AND DOCUMENT ANALYSIS | | |
|---|---|---|
| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
| Superfund Record of Decision<br>Auburn Road, NH<br>Contaminated Media: sw, gw, soil, sediments<br>Key contaminants: VOCs, TCE, organics,<br>inorganics, heavy metals | | |
| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS (This Report)<br>None<br>20. SECURITY CLASS (This page)<br>None | 21. NO. OF PAGES<br>43<br>22. PRICE |

16. ABSTRACT (continued)

including TCE, extractable organics, heavy metals, and inorganics.

The selected remedial action consists of extending the current water service provided by the Manchester Water Works to 17 homes along Auburn Road and to approximately 260 mobile home units in the Whispering Pines Mobile Home Village. The estimated present worth cost for this remedy is $2,372,000 with estimated annual O&M of $57,000.

| TECHNICAL REPORT DATA<br>*(Please read Instructions on the reverse before completing)* | | |
|---|---|---|
| 1. REPORT NO.<br>EPA/ROD/R01-86/017 | 2. | 3. RECIPIENT'S ACCESSION NO |
| 4. TITLE AND SUBTITLE<br>SUPERFUND RECORD OF DECISION<br>Baird & McGuire, MA | | 5. REPORT DATE<br>September 30, 1986<br>6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | | 8. PERFORMING ORGANIZATION REPORT NO |
| 9 PERFORMING ORGANIZATION NAME AND ADDRESS | | 10. PROGRAM ELEMENT NO<br>11 CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report<br>14. SPONSORING AGENCY CODE<br>800/00 |
| 15. SUPPLEMENTARY NOTES | | |

16. ABSTRACT

The Baird & McGuire site encompasses approximately twenty acres in Holbrook, Norfolk County, MA. Wetlands occupy approximately 44 percent of the site with approximately 66 percent of the site lying within a 100-year flood plain. Baird & McGuire, Inc. (BMI) operated a chemical mixing and batching company from 1912 to 1983. Between 1954 and 1977 the company was fined at least 35 times by the EPA for numerous violations. Consultants to the Town of Holbrook reported that BMI's disposal practices from 1959 to 1962 were the source of ground water and wetlands contamination. In February 1982 a citizen's complaint of an oily substance on the Cochato River initiated a site inspection which reported surface water, ground water, and wetlands contamination. BMI was also found to be in violation of hazardous substance hauling practices. In March 1983 heavy rains caused a breach of the creosote collection lagoon resulting in an EPA-initiated Immediate Removal Action. This action included: the removal of approximately 1,000 cubic yards of contaminated soils, construction of a clay cap, installation of a ground water interception/recirculation system, and erection of limited fencing. In May 1983, Holbrook revoked BMI's permit to store chemicals and ordered it to dismantle the existing storage facilities. Dioxin, detected in surficial soil samples in July 1985, prompted an EPA-initiated second removal response involving the installation of 5700 feet of fencing and extensive soil, ground water, surface
(See attached sheet)

17. KEY WORDS AND DOCUMENT ANALYSIS

| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
|---|---|---|
| Superfund Record of Decision<br>Baird & McGuire, MA<br>Contaminated Media: gw, soils<br>Key contaminants: VOCs, organics, PAHs, dioxin, pesticides, metals | | |

| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS *(This Report)*<br>None | 21. NO. OF PAGES<br>84 |
|---|---|---|
| | 20. SECURITY CLASS *(This page)*<br>None | 22 PRICE |

16. ABSTRACT (continued)

water, and air sampling. The primary contaminants of concern include: VOCs, organics, PAHs, dioxin, pesticides, and metals.

The selected remedial action includes: excavation in "hot areas" to remove approximately 191,000 cubic yards of contaminated soils; onsite incineration of excavated soils; ground water extraction and onsite treatment with discharge to an onsite aquifer; restoration of wetlands at excavated areas; construction of levees; relocation of the Unnamed Brook; ground water monitoring; and air quality monitoring. The estimated capital costs are $44,386,000 with 30-year O&M costs of $4,132,000.

| TECHNICAL REPORT DATA<br>*(Please read Instructions on the reverse before completing)* | | |
|---|---|---|
| 1. REPORT NO.<br>EPA/ROD/R01-86/020 | 2. | 3. RECIPIENT'S ACCESSION NO. |
| 4. TITLE AND SUBTITLE<br>SUPERFUND RECORD OF DECISION<br>Industri-plex, MA | | 5. REPORT DATE<br>September 30, 1986<br>6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | | 10. PROGRAM ELEMENT NO<br>11 CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report<br>14. SPONSORING AGENCY CODE<br>800/00 |
| 15. SUPPLEMENTARY NOTES | | |

16 ABSTRACT

The Industri-plex site is a 245-acre industrial park located in Woburn, Massachusetts. Various manufacturing facilities operated on the site from 1853 to 1968. During these years the site has supported manufacturers of sulfuric acid (and related chemicals), animal hide glue, arsenic insecticides, acetic acid, dry colors and munitions; and producers of organic chemicals including phenol, benzene and toluenes. Prior to 1934, waste materials appear to have been randomly disposed of over a wide area. The wastes were used to fill lowlands, wetlands and shallow ponds, and as construction material to build dikes and levees to contain liquid wastes. After 1934 wastes were deposited directly on top of the existing deposits and reached heights in excess of forty feet above natural grade. The presence of hazardous substances was detected in 1979 when the current owner of the site, Mark Phillip Trust, began developing portions of the site. As site development began to encroach on the buried animal glue manufacturing wastes, a very strong and pervasive "rotten egg" odor was released. Despite repeated citizen complaints and notices of violations issued by the MDQE, the Trust continued its development of the site. Portions of stockpiled wastes sloughed off, releasing hydrogen sulfide gases to the atmosphere and toxic metals and soils to the pond and wetlands. Large areas of the contaminated soils are exposed at the surface thereby allowing individuals and animals to come in direct contact with
(See Attached Sheet)

| 17. KEY WORDS AND DOCUMENT ANALYSIS | | |
|---|---|---|
| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
| Record of Decision<br>Industri-plex, MA<br>Contaminated Media; soil, sludge, gw, air<br>Key contaminants: VOCs, heavy metals, toluene, benzene | | |
| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS *(This Report)*<br>None | 21. NO. OF PAGES<br>244 |
| | 20. SECURITY CLASS *(This page)*<br>None | 22 PRICE |

16. ABSTRACT (continued)

arsenic, chromium and lead. Other contaminants of concern include benzene and toluene.

The selected remedial alternative for this site includes the following actions. For contaminated soils and sludges: site grading; installation of a permeable soil cover cap over certain areas; implementation of institutional controls; water quality monitoring; and post closure maintenance consistent with RCRA regulations. For ground water: an interim remedy of pumping "hot spot" areas and ground water treatment to control odors, air stripping to remove VOCs and discharge to the upgradient portion of the aquifer; and ground water monitoring. For air: stabilization of the side slopes of the East and West Hide Piles; installation of a gas collection layer; installation of a synthetic membrane cap to establish impermeability; and treatment of gaseous emissions with either activated carbon or thermal oxidation with the final treatment selection to be decided after the impermeable cover has been installed; implementation of air quality monitoring program; and routine maintenance. The estimated capital cost for the entire remedial action is $12,302,300 or $12,612,000 depending on air treatment with annual O&M of $285,500 or $311,000 depending on air treatment.

## TECHNICAL REPORT DATA

*(Please read Instructions on the reverse before completing)*

| 1. REPORT NO. | 2. | 3 RECIPIENT'S ACCESSION NO |
|---|---|---|
| EPA/ROD/R01-86/019 | | |

| 4. TITLE AND SUBTITLE | 5. REPORT DATE |
|---|---|
| SUPERFUND RECORD OF DECISION<br>Kellogg-Deering Well Field, CT | September 25, 1986<br>6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | 10. PROGRAM ELEMENT NO<br>11 CONTRACT/GRANT NO. |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report<br>14. SPONSORING AGENCY CODE<br>800/00 |
| 15 SUPPLEMENTARY NOTES | |

16. ABSTRACT

The Kellogg-Deering Well Field site, also known as the Smith Well Field, is a 100-acre public supply well field in southwestern Fairfield County, along the western bank of the Norwalk River, Norwalk, CT. The well field is owned and operated by the Norwalk First Taxing District Water Department (NFTD) serving approximately 45,000 people. The primary source of public water supply to the NFTD is surface water from four reservoirs, with ground water as a secondary source. In 1975, trichoroethene (TCE) was discovered in the ground water. Between 1975 and 1980 the Connecticut Department of Environmental Protection performed onsite sampling and initiated investigations at several local industries since the well field is being impacted by contamination outside the site boundaries. The potential primary source of ground water contamination is located to the eastern edge of the site area. Contaminants are migrating with the ground water from areas of high concentration toward the well field. The movement is partially influenced by the pumping of the production wells. TCE is the primary contaminant of concern. Other identified contaminants include: PCE, 1-2-DCE, methylene chloride, xylenes, and benzene.

The selected remedial action for this site involves air stripping of the contaminated ground water and subsequent discharge into the existing conventional water treatment plant and distribution system; and air and ground water monitoring. The estimated capital cost associated with this remedy is $69,751 with annual O&M costs of $52,836.

17. KEY WORDS AND DOCUMENT ANALYSIS

| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
|---|---|---|
| Record of Decision<br>Kellogg-Deering Well Field, CT<br>Contaminated Media: gw<br>Key contaminants: VOCs, TCE | | |

| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS *(This Report)* | 21 NO. OF PAGES |
|---|---|---|
| | None | 44 |
| | 20. SECURITY CLASS *(This page)* | 22. PRICE |
| | None | |

| TECHNICAL REPORT DATA<br>*(Please read Instructions on the reverse before completing)* | | |
|---|---|---|
| 1. REPORT NO.<br>EPA/ROD/R01-86/016 | 2. | 3. RECIPIENT'S ACCESSION NO |
| 4. TITLE AND SUBTITLE<br>SUPERFUND RECORD OF DECISION<br>Tinkham Garage, NH | | 5. REPORT DATE<br>September 30, 1986<br>6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | | 10. PROGRAM ELEMENT NO<br>11. CONTRACT/GRANT NO. |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report<br>14. SPONSORING AGENCY CODE<br>800/00 |
| 15. SUPPLEMENTARY NOTES | | |

16. ABSTRACT

The Tinkham Garage site encompasses 375 acres of residential and undeveloped land in Londonderry, NH. Approximately 400 people reside within a condominium complex on the western boundary of the site. Additional housing includes private, one-family homes within site boundaries to the north. An unnamed tributary and an attached intermittent stream branch through the condominium complex and discharge into Beaver Brook, which discharges to the Merrimack River further south. The 100-year flood plain forms an approximately 2-acre wetland at the tributary's confluence with Beaver Brook. The flood plain widens considerably south of the complex forming a 66-acre wetland. In addition, a 57-acre wetland exists to the southeast of the site. Some residents within the site continue to use the bedrock aquifer for drinking water purposes. Ground water in the bedrock discharges to the tributary via surface and ground migration. Between 1978 and 1979, waste disposal activities behind Tinkham garage included the direct surface dumping of liquids and sludge from tank truck washings. In April 1978 citizen complaints of foam and odors in a small unnamed brook resulted in a site cleanup and the excavation of a diversion trench to direct surface run-off. The RI, completed in January 1986, documented contamination from volatile and extractable organic compounds associated with ground water in overburden and bedrock aquifers, surface water and in soil located in the field behind Tinkham garage and in the condominium complex.
(See Attached Sheet)

| 17. KEY WORDS AND DOCUMENT ANALYSIS | | |
|---|---|---|
| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
| Record of Decision<br>Tinkham Garage, NH<br>Contaminated Media: gw, sw, soils, sediments<br>wetlands<br>Key contaminants: VOCs, organics, sludge, metals<br>PCBs, TCE | | |
| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS *(This Report)*<br>None | 21. NO. OF PAGES<br>126 |
| | 20. SECURITY CLASS *(This page)*<br>None | 22. PRICE |

16. ABSTRACT (continued)

Specifically, contaminated soil within the complex was associated with the individual domestic waste leaching fields for a number of buildings within the complex. Two other source areas existed within the complex: a refuse area for disposal of soils excavated from the leach fields; and a low lying contaminated swale area in close proximity to the unnamed tributary. The swale is suspected to be another site of direct discharge of liquid wastes to the ground surface. The primary contaminants of concern include: VOCs, organic sludges and metals.

The selected remedial action includes: excavation of approximately 10,800 cubic yards of contaminated soils behind Tinkham garage; field work and analytical modeling to determine the need for the removal of additional, potentially contaminated soils in the condominium complex; onsite treatment of all excavated contaminated soils by either aeration, composting or soil washing; regrading and revegetation of excavated source areas after treated soils have been returned to their original locations; reconstruction of any removed leach fields; restoration of wetlands where contaminated soils are excavated; extraction and offsite treatment of contaminated ground water at Derry, NH publicly owned waste water treatment works, which may lead to offsite pretreatment; and ground water monitoring onsite and offsite. The estimated capital cost is $2,058,000 with annual O&M of $874,000.

## TECHNICAL REPORT DATA
*(Please read Instructions on the reverse before completing)*

| 1. REPORT NO. | 2. | 3. RECIPIENT'S ACCESSION NO. |
|---|---|---|
| EPA/ROD/R01-85/015 | | |

| 4. TITLE AND SUBTITLE | 5. REPORT DATE |
|---|---|
| SUPERFUND ENFORCEMENT DECISION DOCUMENT<br>Winthrop Landfill, ME (EDD) | November 22, 1985<br>6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | 10. PROGRAM ELEMENT NO<br>11 CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report<br>14. SPONSORING AGENCY CODE<br>800/00 |

15. SUPPLEMENTARY NOTES

16. ABSTRACT

The Winthrop Landfill consists of two contiguous parcels of 11 acres, with approximately 9.5 acres located along the western shore of Annabessacook Lake in the Town of Winthrop, Maine. The site was initially used in the 1920s as a sand and gravel pit. In the 1930s, parts of the site became the Winthrop Town Dump, accepting mixed municipal, commercial, and industrial wastes. The site received hazardous substances between the early 1950s and mid-1970s. It is estimated that more than 3 million gallons of chemical wastes, mostly complex organic compounds including resins, plasticizers, solvents, and other process chemicals, were disposed at the site. Wastes were openly burned until 1972, and landfilling occurred from 1972 until 1982.

The selected remedial action for this site includes: the extension of an alternate water supply to residences in close proximity to the landfill; construction of a chain link fence around the landfill, and imposition of deed restrictions prohibiting use of the landfill for activities other than the remedial action; prohibition of ground water withdrawals for purposes other than remedial action; prohibition of excavation in the landfill, except for residential construction or remedial action; quarterly sampling of monitoring points in sensitive areas; grading and placement of a RCRA cap over the entire landfill; completion of engineering design work (geologic, hydrogeologic, and treatability pilot studies); and establishment of an Alternate Concentration Limit (ACL) (See Attached Sheet)

17. KEY WORDS AND DOCUMENT ANALYSIS

| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
|---|---|---|
| Enforcement Decision Document<br>Winthrop Landfill, ME (EDD)<br>Contaminated Media: gw<br>Key contaminants: organics, solvents, toluene | | |

| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS *(This Report)* | 21. NO. OF PAGES |
|---|---|---|
| | None | 49 |
| | 20. SECURITY CLASS *(This page)* | 22. PRICE |
| | None | |

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16. ABSTRACT (continued)

for each contaminant in the ground water based on RCRA Section 264.94(b) criteria. If the ACL is exceeded, installation and operation of an interceptor system and construction and operation of a water treatment facility northeast of the landfill will be implemented. Total capital cost for the selected remedial alternative is estimated to be $6,000,000. O&M for the recommended alternative is estimated at $42,000 per year if the ACL is not exceeded. Should the ACL be exceeded, O&M of the ground water extraction and treatment system, along with monitoring and cap maintenance, will cost between $360,000 and $1,480,000 per year, depending upon the method used to treat the contaminants. Under the terms of the Consent Decree, Inmont Corporation and the Town of Winthrop will provide funding for O&M at the site.

# REGION II

## TECHNICAL REPORT DATA
*(Please read Instructions on the reverse before completing)*

| 1. REPORT NO. | 2. | 3. RECIPIENT'S ACCESSION NO |
|---|---|---|
| EPA/ROD/R02-86/036 | | |

| 4. TITLE AND SUBTITLE | 5. REPORT DATE |
|---|---|
| SUPERFUND RECORD OF DECISION<br>Brewster Well Field, NY | September 30, 1986<br>6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | 10. PROGRAM ELEMENT NO.<br>11. CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report<br>14. SPONSORING AGENCY CODE<br>800/00 |

15. SUPPLEMENTARY NOTES

16. ABSTRACT

The Brewster Well Field, located on the northern bank of the East Branch Croton River, is three-quarters of a mile east of the Village of Brewster, Town of Southeast, Putnam County, NY. The land to the north and west, containing the community of Brewster Hill and the Village of Brewster respectively, is largely residential, while most of the land south of the site area is occupied by commercial or light industrial facilities. Since 1954 when Well Field No. 1 was developed, the Village of Brewster has used the aquifers beneath the Village-owned land as a water supply source. In 1967 Well Field No. 2 was brought on line. The two well fields consist of a total of 18 shallow wells. In 1978 evidence of volatile halogenated organic compound contamination from an unidentified source first appeared. Five alternative water sources were subsequently added to the water supply system. Prior to drought conditions arising in 1981, East Branch Croton River surface water was also used at times to supplement the water supply system. Since 1979, the Village of Brewster has conducted studies to identify potential alternative ground water sources and to test spray aeration as a potential treatment method for VHO removal. In 1984 under a Cooperative Agreement with the EPA Office of Research and Development, the Village installed a fullscale packed column for treatment of the entire Village supply. It has been concluded that treatment of existing sources is the most promising of the alternatives for solving existing contamination
(See attached sheet)

17. KEY WORDS AND DOCUMENT ANALYSIS

| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
|---|---|---|
| Superfund Record of Decision<br>Brewster Well Field, NY<br>Contaminated Media: gw, sw, soil<br>Key contaminants: VOCs, TCE, PCE, DCE | | |

| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS (This Report) | 21. NO. OF PAGES |
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| | None | 55 |
| | 20. SECURITY CLASS (This page) | 22 PRICE |
| | None | |

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16. ABSTRACT (continued)

problems, and based on trends, it is believed that the Well Field has reached a steady state condition, whereby contaminant levels are not expected to increase at the Well Field in the future. VHOs have been the primary contaminants detected in the ground water. The principle contaminants were found to be tetrachloroethylene, trichloroethylene, and 1,2-dichloroethylene.

The selected remedial action includes: continued operation of the existing air stripper to treat the water supply; design and construction of a ground water management system which will include ground water extraction wells, air stripper treatment of extracted ground water and reinjection of treated water. Details of the ground water management system will be determined during design. The estimated capital cost for this remedial action is $163,912 with annual O&M of $27,468.

| TECHNICAL REPORT DATA (Please read Instructions on the reverse before completing) | | |
|---|---|---|
| 1. REPORT NO. EPA/ROD/R02-86/029 | 2. | 3. RECIPIENT'S ACCESSION NO |
| 4. TITLE AND SUBTITLE SUPERFUND RECORD OF DECISION Caldwell Trucking, NJ | | 5. REPORT DATE September 25, 1986 |
| | | 6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | | 10. PROGRAM ELEMENT NO |
| | | 11. CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS U.S. Environmental Protection Agency 401 M Street, S.W. Washington, D.C. 20460 | | 13. TYPE OF REPORT AND PERIOD COVERED Final ROD Report |
| | | 14. SPONSORING AGENCY CODE 800/00 |
| 15. SUPPLEMENTARY NOTES | | |

16. ABSTRACT

The Caldwell Trucking Company site is a 12.2-acre property in Fairfield Township, Essex County, NJ which is bordered by light industry to the north, west, and southwest and is directly across from the Essex County Airport property. Approximately 45 small businesses are situated within one mile of the site. The nearest major residential area is about 1,000 feet northeast of the site. The Passaic River is located about 4,000 feet northeast and is used as a public water supply. Numerous residential wells north of the site are no longer in use and most of the residents now use municipal water. The Caldwell Trucking Company was incorporated by the State of NJ in 1946 for the purpose of cleaning residential septic tanks. For a number of years, Caldwell emptied septic systems and transported the waste to an old slaughter house property (now part of the Caldwell site) for disposal in one of the open, unlined lagoons present on site. Based on information supplied by Caldwell in 1973, wastes would be treated with a disinfectant such as sodium hypochlorite and allowed to settle. Later, the "clarified" liquid layer would be pumped out and transported by tank truck to a large seepage lagoon where the liquid would percolate quickly through the sandy soil. In the mid-1950s light industry developing in the area, may have discharged hazardous substances into their septic systems to be subsequently pumped out and deposited on the Caldwell property. There were also other trucking companies who brought septic substances to the site, which may (See Attached Sheet)

| 17. KEY WORDS AND DOCUMENT ANALYSIS | | |
|---|---|---|
| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
| Record of Decision<br>Caldwell Trucking, NJ<br>Contaminated Media: gw, sw, soil, sediment<br>Key contaminants: PAHs, PCBs, PCE, TCE, VOCs, inorganics, lead | | |
| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS (This Report) None | 21. NO. OF PAGES 66 |
| | 20. SECURITY CLASS (This page) None | 22. PRICE |

16. ABSTRACT (continued)

have been mixed with hazardous wastes. There are also indications that spent solvents and other industrial liquid wastes were disposed of in onsite lagoons. In 1972 seepage and odors from the site revealed that Caldwell was disposing of septic waste in this manner without the necessary permits. They were licensed to transport waste but were not an approved disposal facility. A 1973 application to operate as a sanitary landfill was denied by the NJDEP. Subsequently, Caldwell backfilled all lagoons except one, which was covered with plywood. At the start of the RI in 1982, the Caldwell property showed almost no visible signs of a septic waste disposal facility. The source of contamination, which had been deposited in unlined lagoons, had been backfilled 12 years earlier. The primary contaminants of concern include: VOCs, TCE, PCBs, PAHs, inorganics, and lead.

The selected remedial action includes: excavation and treatment, via heat addition, of approximately 28,000 cubic yards of contaminated soils and waste materials; disposal of treated soils in a secure landfill to be constructed at the site in accordance with RCRA requirements; restoration of a last potable water resource by providing treatment, via air stripping, of municipal public water supply well number 7; provision of an alternate water supply for residents potentially affected by ground water contamination from the site; preparation of a supplemental RI/FS to identify the extent and other sources of ground water contamination and to develop and evaluate appropriate remedial alternatives. Estimated capital costs for this remedial action are $5,490,000 with annual O&M costs of $48,000.

## TECHNICAL REPORT DATA
*(Please read Instructions on the reverse before completing)*

| 1. REPORT NO. | 2. | 3. RECIPIENT'S ACCESSION NO. |
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| EPA/ROD/R02-86/028 | | |

| 4. TITLE AND SUBTITLE | 5. REPORT DATE |
|---|---|
| SUPERFUND RECORD OF DECISION<br>Combe Fill North Landfill, NJ | September 29, 1986<br>6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | 10. PROGRAM ELEMENT NO<br>11. CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report<br>14. SPONSORING AGENCY CODE<br>800/00 |
| 15. SUPPLEMENTARY NOTES | |

16. ABSTRACT

The Combe Fill North site is located in Mount Olive Township, NJ, near the intersection of U.S. Highway 206 and Interstate 80. The former landfill comprises 65 acres of the 103-acre property. The area surrounding the site is primarily wooded, with small residential areas, farms and light industry nearby. Approximately 10,000 people rely on ground water supplied from wells downgradient of the site. Between 1966 and 1978, the site operated as a sanitary municipal landfill, accepting municipal, vegetative, and non-chemical industrial wastes, along with small amounts of dry sewage sludge. From September 1978 until January 1981, the landfill was owned and operated by the Combe Fill Corporation (CFC). During this time, CFC was repeatedly cited for violations of New Jersey solid waste administration codes. In 1979, public outrage at the disposal practices of CFC led to formation of SMOTHER (Save Mount Olive Township-Halt Environmental Rape), a public action group which conducted ground water sampling and initiated procedures to include the Combe Fill North site on the NPL. During the RI, ground water, soils, leachate, sediments and surface water were sampled. Low levels of volatile organics were found in soils and leachate, and hexachlorobenzene, phenol and bis (2-ethylhexyl) phthalate were detected in low concentrations in ground water samples.

(See Attached Sheet)

17. KEY WORDS AND DOCUMENT ANALYSIS

| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
|---|---|---|
| Record of Decision<br>Combe Fill North Landfill, NJ<br>Contaminated Media: soils, ground water<br>Key contaminants: methylene chloride, ethylbenzene, toluene, phenol | | |

| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS (This Report)<br>None | 21. NO. OF PAGES<br>75 |
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| | 20. SECURITY CLASS (This page)<br>None | 22. PRICE |

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EPA/ROD/R02-86/028
Combe Fill North Landfill, NJ

16. ABSTRACT (continued)

The selected remedial action for the Combe Fill North site includes: grading and compacting the 65-acre waste disposal area; capping the landfill in accordance with appropriate solid waste management criteria; installation of a drainage system, including perimeter ditches and corrugated metal pipes; installation of a methane ventilation system; fencing the entire site; and implementation of an appropriate monitoring program to ensure the effectiveness of the remedial action. Estimated capital cost for the remedy is $10,500,000 with annual O&M costs of $168,000.

## TECHNICAL REPORT DATA
*(Please read Instructions on the reverse before completing)*

| 1. REPORT NO. | 2. | 3. RECIPIENT'S ACCESSION NO. |
|---|---|---|
| EPA/ROD/R02-86/032 | | |

| 4. TITLE AND SUBTITLE | 5. REPORT DATE |
|---|---|
| SUPERFUND RECORD OF DECISION<br>Combe Fill South Landfill, NJ | September 29, 1986 |
| | 6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | 10. PROGRAM ELEMENT NO |
| | 11. CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report |
| | 14. SPONSORING AGENCY CODE<br>800/00 |

15. SUPPLEMENTARY NOTES

16. ABSTRACT

The Combe Fill South Landfill site is located in Morris County, New Jersey, 20 miles west of Morristown. The site consists of a 115-acre parcel of land owned by the Combe Fill Corporation which contains three separate fill areas comprising 65 acres. Illegal waste disposal is suspected in two fields northwest and southeast of the site. The site is situated on a hill, causing runoff to drain almost radially from the site. Leachate, ground water and surface runoff constitute the headwaters of Trout Brook, which flows through Hacklebarney State Park. The brook is stocked with trout and is used for recreational purposes by park visitors. A large portion of nearby wetlands area was cleared to construct the landfill. The Combe Fill South Landfill was operated for 40 years as a municipal landfill, permitted to accept municipal and non-hazardous industrial wastes, sewage sludge, septic tank wastes, chemicals and waste oils. Testing indicated that the fill material consists mainly of highly decomposed rubbish, and that no "hot spots" or localized sources of hazardous substances exist. Cover at the site is extremely poor, leading to infiltration of leachate into underlying aquifers. The primary contaminants of concern are VOCs, including TCE, PCE, toluene, benzene and methylene chloride, which have contaminated the shallow and deep aquifers that are the primary source of potable water for local residents.

(See Attached Sheet)

17. KEY WORDS AND DOCUMENT ANALYSIS

| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
|---|---|---|
| Record of Decision<br>Combe Fill South Landfill, NJ<br>Contaminated Media: gw, sw, air, soil, sediments<br>Key contaminants: VOCs, benzene, TCE, PCE, toluene | | |

| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS *(This Report)* | 21. NO. OF PAGES |
|---|---|---|
| | None | 92 |
| | 20. SECURITY CLASS *(This page)* | 22 PRICE |
| | None | |

EPA/ROD/R02-86/032
Combe Fill South Landfill, NJ

16. ABSTRACT (continued)

The selected remedial action for the Combe Fill South site includes: an alternate water supply for affected residences; capping of the 65-acre landfill in accordance with RCRA requirements; active gas collection and treatment system; pumping and onsite treatment of shallow ground water and leachate with discharge to Trout Brook; surface water controls to accommodate seasonal precipitation and storm runoff; site fencing; monitoring to ensure remedial action effectiveness; and a supplemental FS to evaluate the need for deep aquifer remediation. Estimated capital cost of the remedial action is $46,060,700 with annual O&M costs approximately $673,000 for the first 5 years.

## TECHNICAL REPORT DATA
*(Please read Instructions on the reverse before completing)*

| 1. REPORT NO. | 2. | 3. RECIPIENT'S ACCESSION NO. |
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| EPA/ROD/R02-86/024 | | |

| 4. TITLE AND SUBTITLE | 5. REPORT DATE |
|---|---|
| SUPERFUND RECORD OF DECISION<br>Florence Landfill, NJ | June 27, 1986<br>6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | 10. PROGRAM ELEMENT NO<br>11 CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.Wt<br>Washington, D.C. 20460 | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report<br>14. SPONSORING AGENCY CODE<br>800/00 |
| 15. SUPPLEMENTARY NOTES | |

16. ABSTRACT

The Florence Land Recontouring (FLR) Landfill is a 60-acre site located on Cedar Lane Extension in the Townships of Florence, Mansfield, and Springfield in Burlington County, New Jersey. The site consists of a 29-acre landfill, two lagoons, a pond and two tanks, and is located in a combined residential-agricultural area. The site is bounded by land purchased by Burlington County for a new 600-acre solid waste management facility and by Assiscunk Creek, a tributary to the Delaware River which is used for recreation and irrigation. The FLR landfill was operated as a solid waste disposal facility from late 1973 to late 1981 and was permitted to accept sanitary and non-chemical industrial wastes. In 1975, the New Jersey Department of Environmental Protection investigated chemical waste disposal at the site and disclosed that 95 tons of hazardous waste consisting of phthalates, heavy metals and vinyl chloride monomers had been illegally disposed at the site. Elevated levels of hazardous substance have been discovered in soils and groundwater within the landfill.

The selected remedial alternative includes: construction of a synthetic membrane and clay composite cap, a circumferential soil/bentonite slurry containment wall, an upgradient ground water interceptor system and a new stormwater management system; leachate treatment and disposal at a POTW or the Burlington County Solid Waste Complex; gas collection and treatment; removal and disposal of lagoon liquids and sediments, and (See Attached Sheet)

17. KEY WORDS AND DOCUMENT ANALYSIS

| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
|---|---|---|
| Record of Decision<br>Florence Landfill, NJ<br>Contaminated Media: gw, soil, sediments<br>Key contaminants: heavy metals, phthalates, phenols, VOCs | | |

| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS *(This Report)* None | 21. NO. OF PAGES 154 |
|---|---|---|
| | 20. SECURITY CLASS *(This page)* None | 22 PRICE |

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16. ABSTRACT (continued)

other surface debris; construction of a partial fence with warning signs; and supplemental sampling of ground water, surface water and sediments during design. The estimated capital cost for the selected remedy is $8,021,000 with annual O&M costs of $170,000.

## TECHNICAL REPORT DATA
*(Please read Instructions on the reverse before completing)*

| 1. REPORT NO. | 2. | 3. RECIPIENT'S ACCESSION NO |
|---|---|---|
| EPA/ROD/R02-86/038 | | |

| 4. TITLE AND SUBTITLE | 5. REPORT DATE |
|---|---|
| ENFORCEMENT DECISION DOCUMENT<br>Hyde Park, NY | November 26, 1985<br>6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | 10. PROGRAM ELEMENT NO<br>11 CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report<br>14. SPONSORING AGENCY CODE<br>800/00 |

15. SUPPLEMENTARY NOTES

16. ABSTRACT

The Hyde Park landfill, approximately 15 acres in area, is located in the northwest corner of the Town of Niagara, New York. It is immediately surrounded by several industrial facilities and property owned by the Power Authority for the State of New York (PASNY). Th Niagara River, an international waterbody, is located 2000 feet to the northwest. Between 1954 and 1975, Occidental Chemical Corporation (OCC) disposed of approximately 80,000 tons of chemical wastes at the landfill and 0.6 to 1.6 tons of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) contaminated material. Between 1975 and 1979, OCC, pursuant to directives from the State, implemented a number of remedial actions. These actions included capping the site, and installing a shallow tile drain and a ground water monitoring program. Soil and ground water are contaminated with VOCs, organics, toluene, phenol, PCBs and dioxin.

The selected remedy for this site includes: installation of a prototype purge well system to extract non-aqueous phase liquids (NAPL) for destruction by incineration; installation of an overburden tile drain system; implementation of engineering controls for an industrial protection program designed to eliminate exposure to nearby workers; installation of ground water wells as part of a residential community monitoring program; installation of the first stage of a bedrock NAPL Plume Containment System; installation of two to three purge wells as an aqueous phase liquid (APL) Plume
(See attached sheet)

17. KEY WORDS AND DOCUMENT ANALYSIS

| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
|---|---|---|
| Enforcement Decision Document<br>Hyde Park, NY<br>Contaminated Media: soils, gw<br>Key contaminants: VOCs, organics, PCBs, toluene, phenol | | |

| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS (This Report)<br>None | 21. NO OF PAGES<br>79 |
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EPA/ROD/R02-86/038
Hyde Park, NY

16. ABSTRACT (continued)

Containment System; implemenation of a lower formation and deep formation study; implementation of a Niagara Gorge Seep program; treatment of ground water with activated carbon; implementation of a monitoring program. The estimated present worth cost for this remedial alternative is $17,000,000.

## TECHNICAL REPORT DATA
*(Please read Instructions on the reverse before completing)*

| 1. REPORT NO. | 2. | 3. RECIPIENT'S ACCESSION NO. |
|---|---|---|
| EPA/ROD/R02-86/027 | | |

| 4. TITLE AND SUBTITLE | 5. REPORT DATE |
|---|---|
| SUPERFUND RECORD OF DECISION<br>Kentucky Avenue Well Field, NY | September 30, 1986<br>6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | 10. PROGRAM ELEMENT NO<br>11. CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report<br>14. SPONSORING AGENCY CODE<br>800/00 |

15. SUPPLEMENTARY NOTES

16. ABSTRACT

The Kentucky Avenue Well Field, part of the Elmira Water Board (EWB) public water supply system, covers approximately 12 square miles in the south central part of Chemung County, New York. The site is at the confluence of two major valleys within the Chemung River Basin and is boardered by Newton Creek on the eastern perimeter. The major part of the valley is primarily residential and commercial, with little or no agricultural usage. The Kentucky Avenue Well Field, part of the EWB network of wells and reservoirs serving area residents, was closed in September 1980 following the discovery of elevated levels of TCE. The Chemung River and the Newton Creek aquifer are the primary sources of drinking water. Results of continued ground water sampling conducted by the Chemung County Health Department, New York State Department of Health, New York Department of Environmental Conservation, and EPA, showed that the TCE was found throughout the Newton Creek aquifer. EPA initiated a removal action in March 1985 to provide alternate water supplies to impacted residences not connected with the public water distribution system. Between March 1985 and March 1986 a two-phase hookup connected 43 homes to the public water distribution system. Studies to identify current private well residences requiring public water distribution system hookup and plume migration investigations are continuing. The primary contaminants of concern include: TCE, VOCs, and chlorinated solvents.
(See Attached Sheet)

17. KEY WORDS AND DOCUMENT ANALYSIS

| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
|---|---|---|
| Record of Decision<br>Kentucky Avenue Well Field, NY<br>Contaminated Media: gw<br>Key contaminants: TCE, VOCs, chlorinated solvents | | |

| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS *(This Report)* | 21. NO. OF PAGES |
|---|---|---|
| | None | 64 |
| | 20. SECURITY CLASS *(This page)* | 22. PRICE |
| | None | |

EPA/ROD/R02-86/027
Kentucky Avenue Well Field, NY

16. ABSTRACT (continued)

The selected remedial action includes: investigation of all residences in the study area to identify private well use. Upon completion, all private well users will be connected to public water supplies; installation of monitoring wells upgradient of the Sullivan Street wells, with sampling at and upgradient of the wells to be performed on a quarterly basis; preparation of a supplemental source control RI/FS to identify the source of contamination and to determine appropriate source control measures. The source control RI/FS will be a composite of both ongoing and proposed studies at various potential source sites within the study area. The estimated capital cost is $303,800 with annual O&M of $19,000.

## TECHNICAL REPORT DATA
*(Please read Instructions on the reverse before completing)*

| 1. REPORT NO. | 2. | 3. RECIPIENT'S ACCESSION NO |
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| EPA/ROD/R02-86/031 | | |

| 4. TITLE AND SUBTITLE | 5. REPORT DATE |
|---|---|
| SUPERFUND RECORD OF DECISION<br>Lang Property, NJ | September 29, 1986<br>6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | 10. PROGRAM ELEMENT NO.<br>11 CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | 13 TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report<br>14. SPONSORING AGENCY CODE<br>800/00 |
| 15. SUPPLEMENTARY NOTES | |

16. ABSTRACT

The Lang Property site is a 40-acre parcel of land in a sparsely populated rural area of Pemberton Township, Burlington County, New Jersey. The site is flat and consists of an unpaved access road leading to a 4-acre clearing. Unauthorized disposal of hazardous wastes appears to have occurred over a 2-acre area within the clearing. Abandoned vehicles, tires and other debris are scattered throughout the site. The site is located within New Jersey's Pinelands National Reserve, a forest expanse nationally recognized as a valuable environmental resource, and is within the 100-year flood plain. In June 1975, 1200-1500 drums of unidentified chemical waste were discovered in a clearing at the end of the unpaved road. In 1976, Edward and Florence Lang, owners of the property, were ordered by the State to remove all drums and contaminated soil. Prior to removal, the contents of the drums were apparently spilled onto the ground or disposed of in what has been described as "onsite lagoons". The contents of the drums appear to be the source of contamination occurring at the site. The main contaminants of concern at the Lang Property are VOCs and metals, which have contaminated soils, sediments, ground water, and surface water on site.

The selected remedial action at the Lang site includes: excavation of approximately 6500 cubic yards of contaminated soils and waste material with offsite disposal at an approved landfill; extraction and onsite treatment of contaminated ground water with
(See Attached Sheet)

17. KEY WORDS AND DOCUMENT ANALYSIS

| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
|---|---|---|
| Record of Decision<br>Lang Property, NJ<br>Contaminated Media: soil, gw<br>Key contaminants: VOCs, heavy metals | | |

| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS (This Report)<br>None | 21. NO. OF PAGES<br>82 |
|---|---|---|
| | 20. SECURITY CLASS (This page)<br>None | 22. PRICE |

16. ABSTRACT (continued)

reinjection of treated water into the aquifer; restoration of the excavated area by filling and grading, including removal of surface debris as necessary; installation of a security fence; and monitoring to ensure remedy effectiveness. Estimated capital costs for the remedy are $2,322,000 with annual O&M costs of $612,000.

| TECHNICAL REPORT DATA<br>*(Please read Instructions on the reverse before completing)* | | |
|---|---|---|
| 1. REPORT NO.<br>EPA/ROD/R02-86/037 | 2. | 3. RECIPIENT'S ACCESSION NO |
| 4. TITLE AND SUBTITLE<br>SUPERFUND RECORD OF DECISION<br>Marathon Battery, NY | | 5. REPORT DATE<br>September 30, 1986<br>6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | | 10. PROGRAM ELEMENT NO<br>11 CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report<br>14. SPONSORING AGENCY CODE<br>800/00 |
| 15. SUPPLEMENTARY NOTES | | |

16 ABSTRACT

The Marathon Battery Company (MBC) site, located in the Village of Cold Spring, Putnam County, NY, has two components: the East Foundry Cove Marsh (EFCM), and Constitution Marsh. The site began as a battery manufacturing plant in 1952, producing military and commercial batteries for a period of 27 years. During this time the site property changed ownership and its name several times. It operated as the MBC from 1969 to 1979. Approximately 50,000 kg of cadmium were discharged into the EFCM as a result of MBC's wastewater treatment system. A bypass valve, used during system overloads and shutdowns, diverted flow to EFCM. This occurred at least twice weekly for periods of time ranging from a few hours to a full operating shift. In 1965 the New York State Department of Health ordered the plant to disconnect its industrial discharge from the Village's sanitary sewer upon concluding that the battery plant's process effluent could not be managed by a new proposed sewage treatment system. Accommodating the directive, the plant shut down the diversion pumps and bypassed the entire wastewater flow into the storm sewer to EFCM. Between September 1972 and July 1973 hydraulic dredging of the channel, which connects EFCM to Constitution Marsh, removed approximately 90,000 square meters of sediment. Approximately 4,000 cubic meters of dredged material were then retained in a diked enclosure constructed over a parking lot on the battery facility property. During the dewatering process, the sediments were allowed to settle and the

(See Attached Sheet)

| 17. KEY WORDS AND DOCUMENT ANALYSIS | | |
|---|---|---|
| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
| Record of Decision<br>Marathon Battery, NY<br>Contaminated Media: sediments, sw<br>Key contaminants: heavy metals, cadmium | | |
| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS *(This Report)* | 21. NO. OF PAGES |
| | 20 SECURITY CLASS *(This page)* NONE | 22. PRICE 98 |

16. ABSTRACT (continued)

supernatant was passed through a storm drain and back into Foundry Cove. The primary contaminants of concern include: cadmium, cobalt, and nickel.

The selected remedial action for the EFCM component of the site includes: hydraulic dredging of approximately 23,000$m^3$ of sediments; sediment chemical fixation; offsite disposal of approximately 47,000$m^3$ of processed sediments; dredging, water treatment and disposal; marsh restoration; and long-term monitoring. The selected remedial action for Constitution Marsh includes: a no-action alternative with long term sediment and water monitoring; a public awareness program; and site access restrictions. The estimated capital cost for both remedial components is $16,640,000 with O&M costs of $3,530,000 for the first year; $180,000 for years 2-5; and $127,000 for years 6-30.

## TECHNICAL REPORT DATA
*(Please read Instructions on the reverse before completing)*

| 1. REPORT NO. | 2. | 3. RECIPIENT'S ACCESSION NO. |
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| EPA/ROD/R02-86/025 | | |

| 4. TITLE AND SUBTITLE | 5. REPORT DATE |
|---|---|
| SUPERFUND RECORD OF DECISION<br>Metaltec/Aerosystems, NJ | June 30, 1986<br>6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | 10. PROGRAM ELEMENT NO<br>11 CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report<br>14. SPONSORING AGENCY CODE<br>800/00 |
| 15. SUPPLEMENTARY NOTES | |

16. ABSTRACT

The Metaltec/Aerosystems site is located at the intersection of Maple, Gibson, and Wildcat Roads in Franklin Borough, Sussex County, New Jersey. The property consists of an abandoned manufacturing facility that once produced metal ballpoint pen casings, paint spray guns, lipstick cases and other assorted metal parts. The site is presently used to assemble ice machines and the manufacture of glassware for research purposes. In its current state, the site contains several sources of hazardous substances that pose a threat to public health and the environment. These sources include a back filled lagoon area, two open areas which adjoin the Metaltec building, and an open parcel of land located near the swamp at the northeast corner of the site. These parcels of property exhibit high levels of pollutants and contaminants in the soil and the underlying ground water. Hazardous substances detected include trichloroethylene, trans-1,2-dichloroethene, vinyl chloride, and copper.

The cost-effective remedial action selected for this site includes: excavation and treatment via heat addition (rotary dryer) of approximately 10,000 cubic yards of organic contaminated soils within Parcel 1 and offsite disposal at an approved landfill; excavation and offsite disposal of approximately 4,000 cubic yards of contaminated soils within Parcels 2, 3, and 4; preparation of a supplemental RI and FS to identify the extent of ground water contamination and develop and evaluate appropriate remedial
(See Attached Sheet)

17. KEY WORDS AND DOCUMENT ANALYSIS

| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
|---|---|---|
| Record of Decision<br>Metaltec/Aerosystems, NJ<br>Contaminated Media: gw, soil<br>Key contaminants: VOCs, heavy metals, TCE, vinyl chloride | | |

| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS *(This Report)* | 21. NO. OF PAGES |
|---|---|---|
| | None | 81 |
| | 20. SECURITY CLASS *(This page)* | 22. PRICE |
| | None | |

EPA/ROD/R02-86/025
Metaltec/Aerosystems,NJ

16. ABSTRACT (continued)

alternatives; and provision of an alternate water supply for affected Borough of Franklin residents by constructing a pipeline connection to the Borough of Hamburg public water supply system. The estimated capital cost for the selected alternative with disposal in a sanitary landfill is $7,005,000 and with disposal in a RCRA landfill is $11,735,000. The annual O&M cost is $179,000.

## TECHNICAL REPORT DATA
*(Please read Instructions on the reverse before completing)*

| 1. REPORT NO. | 2. | 3. RECIPIENT'S ACCESSION NO |
|---|---|---|
| EPA/ROD/R02-86/035 | | |

| 4. TITLE AND SUBTITLE | 5. REPORT DATE |
|---|---|
| SUPERFUND RECORD OF DECISION<br>Price Landfill, NJ<br>(Second Remedial Action) | September 29, 1986<br>6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | 10. PROGRAM ELEMENT NO<br>11. CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report<br>14. SPONSORING AGENCY CODE<br>800/00 |

15. SUPPLEMENTARY NOTES

16. ABSTRACT

Price Landfill (also known as "Price's Landfill Number One" and "Price's Pit") is a 26-acre site located in Egg Harbor Township and Pleasantville City, Atlantic County, NJ approximately six miles northwest of Atlantic City, NJ. The relatively flat site is located within the 11,600-acre watershed of Absecon Creek. Land use in the immediate area consists of residential properties, small business properties, sand and gravel excavations, and undeveloped rural lots. Price landfill was originally a sand and gravel excavation operation owned by Mr. Charles Price, which ceased operating in 1968 when the pit was excavated to within approximately two feet of the water table. In 1969, the facility became a commercial solid waste landfill and in May 1971, began accepting a combination of both drummed and bulk liquid waste. Some liquid wastes were poured directly into the landfill from open tank truck spigots. Other waste was buried in 55-gallon drums, some of which were punctured or opened prior to disposal. An estimated 9.1 million gallons of chemical wastes were disposed of at the site. In 1980, residential wells in the area were found to be contaminated with volatile organic compounds, and the Atlantic County Health Department recommended that their use as a potable water supply be discontinued. As an interim measure, potable water was provided from tank trucks and, in December 1981, 37 affected residents were connected to the New Jersey Water Company (NJWC) System. During the summer of 1982, EPA and the State of NJ
(See Attached Sheet)

17. KEY WORDS AND DOCUMENT ANALYSIS

| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
|---|---|---|
| Record of Decision<br>Price Landfill, NJ<br>(Second Remedial Action)<br>Contaminated Media: gw, sw<br>Key contaminants: VOCs, organics,<br>inorganics, TCE, sludge | | |

| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS *(This Report)* | 21. NO. OF PAGES |
|---|---|---|
| | None | 157 |
| | 20. SECURITY CLASS *(This page)* | 22. PRICE |
| | None | |

16. ABSTRACT (continued)

implemented initial remedial measures to assure against the contaminant plume reaching the Atlantic County Municipal Utilities Authority (ACMUA) public water supply wellfield. These measures included the construction of an interconnection with the NJWC system, redevelopment of three ACMUA production wells, installation of granular activated carbon filtration units, and implementation of a water conservation program. In September 1983 EPA issued a Record of Decision based on the results of a 1982 RI/FS. The selected option included: abandonment of the ACMUA existing upper and lower Cohansey aquifer water supply wellfield; relocation and replacement of the ACMUA wellfield and transmission facilities to provide a 13.5 million gallon per day capacity and consideration, in addition to the wellfield relocation, of plume management, source control, and ground water treatment alternatives. The primary contaminants of concern include: VOCs, organics, inorganics, and TCE.

The selected remedial action includes: installation of a security fence around the landfill site; installation of ground water extraction wells adjacent to the landfill to control the contaminant source; installation of ground water extraction wells hydraulically downgradient from the landfill to abate the contaminant plume; construction of a ground water/leachate pretreatment facility at or near the site; construction of a force main to the ACMUA interceptor system; extraction of contaminated ground water, followed by pretreatment, and ultimate disposal and treatment at the ACMUA waste water treatment plant; quarterly monitoring of ground water quality for approximately 25 years; and construction of a landfill cap at the conclusion of the ground water extraction process. The estimated capital cost is $9,050,000 with annual O&M for years 1-5 of $1,010,000 and $255,000 for years 6-25.

| TECHNICAL REPORT DATA<br>*(Please read Instructions on the reverse before completing)* | | |
|---|---|---|
| 1. REPORT NO.<br>EPA/ROD/R02-86/034 | 2. | 3. RECIPIENT'S ACCESSION NO. |
| 4. TITLE AND SUBTITLE<br>SUPERFUND RECORD OF DECISION<br>Rockaway Borough Well Field, NJ | | 5. REPORT DATE<br>September 29, 1986<br>6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | | 10. PROGRAM ELEMENT NO<br>11. CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report<br>14. SPONSORING AGENCY CODE<br>800/00 |
| 15. SUPPLEMENTARY NOTES | | |

16. ABSTRACT

The Rockaway Borough Well Field site is located in Rockaway Borough, Morris County, New Jersey, and consists of three municipal supply wells which are in a glacial aquifer designated by EPA as the sole source aquifer for Rockaway Borough and the surrounding communities. High concentrations of TCE and PCE have been detected in the aquifer since 1980, but no sources of contamination have been identified. In 1981, the Borough of Rockaway constructed a three-bed granular activated carbon adsorption system to treat contaminated well water. Treatment has effectively reduced volatile organic contaminant concentrations in finished water to less than 1 part per billion (ppb). Although thirteen VOCs have been detected in the well water, TCE and PCE are the primary contaminants of concern. The site was listed on the NPL in December of 1982, and the RI/FS was initiated in 1985.

The selected remedial action for the Rockaway Borough site includes: Rockaway Borough maintaining the existing filtration system and modifying operations to ensure compliance with Safe Drinking Water Act standards; and EPA continuing the RI/FS in an attempt to identify the source and extent of contamination and evaluate additional remedial action alternatives to address source control. Estimated capital cost of this remedial action is zero with annual O&M costs of $74,800.

| 17. KEY WORDS AND DOCUMENT ANALYSIS | | |
|---|---|---|
| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
| Record of Decision<br>Rockaway Borough Well Field, NJ<br>Contaminated Media: gw<br>Key contaminants: TCE, PCE, VOCs | | |
| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS *(This Report)*<br>None | 21. NO. OF PAGES<br>60 |
| | 20. SECURITY CLASS *(This page)*<br>None | 22. PRICE |

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## TECHNICAL REPORT DATA
*(Please read Instructions on the reverse before completing)*

| 1. REPORT NO. | 2. | 3. RECIPIENT'S ACCESSION NO |
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| EPA/ROD/R02-86/030 | | |

| 4. TITLE AND SUBTITLE | 5. REPORT DATE |
|---|---|
| SUPERFUND RECORD OF DECISION<br>Sharkey Landfill, NJ | September 29, 1986 |
| | 6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | 10. PROGRAM ELEMENT NO |
| | 11. CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report |
| | 14. SPONSORING AGENCY CODE<br>800/00 |

15. SUPPLEMENTARY NOTES

16. ABSTRACT

The Sharkey Landfill site comprises approximately 90 acres in the Parsippany - Troy Hills and East Hanover Townships, Morris County, NJ. The site consists of 4 disconnected areas: North Fill, South Fill, Northwest Fill, Southwest Fill. Two aquifers are found at this site. The upper aquifer, which comes into contact with fill material in portions of the landfill, primarily drains into the bordering Rockaway and Whippany Rivers. These rivers are used for recreational activities, and the Rockaway serves as a potable water source further downstream. The Passaic Valley Water Commission utilizes this aquifer for public supply. The lower aquifer completes a public supply well in East Hanover Township. In 1945 the site began accepting municipal solid waste from NJ counties. Between 1962 and 1969, Ciba-Geigy Co. allegedly disposed of 753,000 lbs. of hazardous and/or toxic materials. From April 1972 to May 1972, 25,700 tons of non-chemical wastes and 1,160 tons of "liquid and/or chemical wastes" described as cesspool-type, and sludge from the adjacent Parsippany-Troy Hills Sewage Treatment Plant (PTHSTP) were also deposited at the site. Between 1979 and 1981 refuse was removed from the South Fill portion of the site and re-disposed in the North Fill area for a PTHSTP expansion. Currently, landfill contaminants have migrated and continue to migrate into the shallow aquifer beneath the site and the adjacent surface water bodies. Although available data do not suggest that significant quantities of
(See Attached Sheet)

17. KEY WORDS AND DOCUMENT ANALYSIS

| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
|---|---|---|
| Record of Decision<br>Sharkey Landfill, NJ<br>Contaminated Media: gw, sw, soil,<br>Key contaminants: VOCs, TCE, organics,<br>inorganics, heavy metals | | |

| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS *(This Report)* | 21. NO. OF PAGES |
|---|---|---|
| | None | 66 |
| | 20. SECURITY CLASS *(This page)* | 22. PRICE |
| | None | |

16. ABSTRACT (continued)

hazardous substances are being released at the present time, there exists the potential for future releases of contaminants at levels which could pose a serious threat to public health and the environment. The primary contaminants of concern include: VOCs, TCE, organics, inorganics, and heavy metals.

The selected remedial action includes: capping of the landfill in accordance with relevant RCRA requirements, including the appropriate grading of fill areas; a venting system for landfill gases; extraction and treatment of shallow ground water and leachate; surface water controls to accommodate seasonal precipitation and storm water runoff as well as erosion control for river banks; security fencing to restrict site access; and a environmental monitoring program to ensure the effectiveness of the remedial action. The estimated capital cost is $23,173,000 with annual O&M of $330,000.

| TECHNICAL REPORT DATA *(Please read Instructions on the reverse before completing)* | | |
|---|---|---|
| 1. REPORT NO. EPA/ROD/R02-86/033 | 2. | 3. RECIPIENT'S ACCESSION NO |
| 4. TITLE AND SUBTITLE SUPERFUND RECORD OF DECISION Syncon Resins, NJ | | 5. REPORT DATE September 29, 1986<br>6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | | 10. PROGRAM ELEMENT NO<br>11. CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS U.S. Environmental Protection Agency 401 M Street, S.W. Washington, D.C. 20460 | | 13. TYPE OF REPORT AND PERIOD COVERED Final ROD Report<br>14. SPONSORING AGENCY CODE 800/00 |
| 15. SUPPLEMENTARY NOTES | | |

16. ABSTRACT

The Syncon Resins site encompasses approximately 15 acres and is located in a heavily industrialized area of northern New Jersey. The Syncon Resin facility produced alkyd resin carriers for pigments, paints, and varnish products. In the production process excess xylene or toluene was separated from the wastewater and reused in subsequent reactions. The remaining wastewater was subsequently pumped to an unlined leaching pond (lagoon) to evaporate or percolate into the soil. The sampling performed during the remedial investigation indicated extensive onsite contamination in the soil, ground water, building dirt/dust, and stainless vessels and tanks. Four general classes of chemical contaminants were found onsite: organic compounds, pesticides, PCBs and metals.

The cost-effective remedial action selected for this site includes: removing the contents of the storage tanks and vessels for offsite disposal; decontaminating buildings and tank structures as necessary; excavation of lagoon liquids, sediments and grossly contaminated surface soils and dispose offsite; install a cover over the site that allows natural flushing; pump and treat ground water; and conduct supplemental studies to evaluate methods which enhance the effectiveness of flushing and/or treatment and destruction of contaminated soils. The estimated capital cost for the selected remedial action is $5,600,000 and annual O&M costs are approximately $209,000.

| 17. KEY WORDS AND DOCUMENT ANALYSIS | | |
|---|---|---|
| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
| Record of Decision<br>Syncon Resins, NJ<br>Contaminated Media: gw, sediment, soil<br>Key contaminants: organic compounds, pesticides, PCBs, heavy metals | | |
| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS *(This Report)* None<br>20. SECURITY CLASS *(This page)* None | 21. NO. OF PAGES 62<br>22 PRICE |

**TECHNICAL REPORT DATA**
*(Please read Instructions on the reverse before completing)*

| 1. REPORT NO. | 2. | 3. RECIPIENT'S ACCESSION NO. |
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| EPA/ROD/R02-86/026 | | |

| 4. TITLE AND SUBTITLE | 5. REPORT DATE |
|---|---|
| SUPERFUND RECORD OF DECISION<br>Vestal Water Supply Well 1-1, NY | June 27, 1986<br>6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | 10 PROGRAM ELEMENT NO<br>11. CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report<br>14. SPONSORING AGENCY CODE<br>800/00 |

15 SUPPLEMENTARY NOTES

16. ABSTRACT

The Vestal Water Supply Well 1-1 is located in the Town of Vestal, Broom County, NY on the south bank of the Susquehenna River with an industrial park immediately to the southeast of the well, and several marsh areas and drainage ditches encompassing and interlacing the industrial park. Well 1-1 is one of three production wells in Water District 1 intended to provide drinking water to several water districts in the Vestal area. In 1978 a chemical spill at the IBM plant in Endicott, a town across the Susquehenna River, led to a testing program for all drinking wells in the vicinity for synthetic compounds. As a result of this testing, significant concentrations of chlorinated solvents were discovered in well 1-1, and the well pumpage was diverted to the Susquehenna River where it presently continues to discharge under a NPDES permit. Subsequent investigation has since indicated that the presence of chlorinated solvents in the well is not related to the spill at the IBM plant. In late 1982 an investigation, contracted by the Town of Vestal, implicated, in part, the area around the southeast corner of Stage Road as a suspected source. This is an area which borders with the industrial park along Stage Road. In July 1985 the EPA rejected a FS recommendation to construct a large capacity water main between Water Districts 1 and 5 in order to improve the reliability of the District 1 supply. This recommendation was rejected because the agency believed that a sufficient capacity of good quality water
(See Attached Sheet)

17. KEY WORDS AND DOCUMENT ANALYSIS

| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
|---|---|---|
| Record of Decision<br>Vestal Water Supply Well 1-1, NY<br>Contaminated Media: gw<br>Key contaminants: VOCs, TCE, chlorinated solvents | | |

| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS *(This Report)* None | 21. NO. OF PAGES 51 |
|---|---|---|
| | 20. SECURITY CLASS *(This page)* None | 22 PRICE |

16. ABSTRACT (continued)

still existed for the service area, and that no short-term threat of losing this capacity was present. The primary contaminants of concern include: VOCs, TCE.

The selected remedial action includes: restoration of District 1 water supply capacity to the level that existed prior to loss of well 1-1; provision of a water supply to the district that exceeds applicable or relevant and appropriate standards, thereby providing a very high level of public health protection; hydraulic containment of the plume of contaminants via pumping well 1-1, thereby protecting other District 1 water supply wells and cessation of untreated discharge from well 1-1 to the Susquehenna River. The estimated capital cost is $389,400 with annual O&M costs of $119,750.

# REGION III

## TECHNICAL REPORT DATA
*(Please read Instructions on the reverse before completing)*

| 1. REPORT NO. | 2. | 3. RECIPIENT'S ACCESSION NO |
|---|---|---|
| EPA/ROD/R03-86/032 | | |

| 4. TITLE AND SUBTITLE | 5. REPORT DATE |
|---|---|
| SUPERFUND RECORD OF DECISION<br>Army Creek Landfill, DE | September 30, 1986 |
| | 6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | 10. PROGRAM ELEMENT NO. |
| | 11 CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report |
| | 14. SPONSORING AGENCY CODE<br>800/00 |

15 SUPPLEMENTARY NOTES

16. ABSTRACT

The Army Creek Landfill (ACL), formerly known as the Llangollen Landfill, is located approximately two miles southwest of New Castle, Delaware, and is adjacent to the Delaware Sand and Gravel Landfill Superfund site. ACL, a former sand and gravel quarry, is owned by New Castle County. The County operated this 44-acre landfill, which accepted municipal wastes, from 1960 until its closure in 1968 when it was filled to capacity. An estimated 1.9 million cubic yards of refuse were landfilled at the site, 30 percent of which (or approximately 600,000 cubic yards) now lies below the seasonal high water table. In late 1971, water in a residential well downgradient of the site developed quality problems. Results from a subsequent investigation showed that leachate, most likely originating from the Army Creek and Delaware Sand and Gravel Landfills, was contaminating local aquifers. This lead to the installation of a ground water recovery system designed to maintain a ground water divide between the landfills and the Artesian Water Company Wellfield located downgradient of the landfills. The primary contaminants of concern include: VOCs, inorganics, heavy metals, benzene, and chromium.

The selected remedial action for this site will be implemented in a two-phased approach. Phase 1: Install a RCRA type cap to minimize infiltration of rainwater. Capping of the landfill will include site clearing, regrading of the existing cover (See attached sheet)

17. KEY WORDS AND DOCUMENT ANALYSIS

| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
|---|---|---|
| Superfund Record of Decision<br>Army Creek Landfill, DE<br>Contaminated Media: soil, sediments, sw, gw<br>Key contaminants: VOCs, inorganics, heavy metals, chromium | | |

| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS *(This Report)* | 21. NO. OF PAGES |
|---|---|---|
| | None | 54 |
| | 20. SECURITY CLASS *(This page)* | 22 PRICE |
| | None | |

16. ABSTRACT (continued)

surface, adding soil backfill to achieve grades, installing the cap with gas vents, and construction of drainage ditches to direct run-off away from the landfill; continue operation of the downgradient recovery well network; evaluate the capping system and the downgradient pumping network for five years after the cap is installed. This evaluation will include, but not be limited to, monitoring water levels, pumping rates and water quality. Phase 2: After the five year evaluation period, a determination will be made on whether to install upgradient controls to intercept lateral ground water inflow on the northwestern boundary of the landfill; continue monitoring the water levels, pumping rates and water quality as in Phase 1; O&M will include as a minimum, regular inspections and, as necessary, repairs to the RCRA cap. The ground water recovery system will be monitored to assure that it is capturing the contaminated plume. The estimated capital cost for this two-phased remedial action is $12,030,000, or $12,340,000 with upgradient controls. O&M costs are estimated at $306,000, or $388,000 with upgradient controls.

| TECHNICAL REPORT DATA<br>*(Please read Instructions on the reverse before completing)* | | |
|---|---|---|
| 1. REPORT NO.<br>EPA/ROD/R03-86/029 | 2. | 3. RECIPIENT'S ACCESSION NO |
| 4. TITLE AND SUBTITLE<br>SUPERFUND RECORD OF DECISION<br>Blosenski Landfill, PA | | 5. REPORT DATE<br>September 29, 1986<br>6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | | 10. PROGRAM ELEMENT NO<br>11 CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report<br>14. SPONSORING AGENCY CODE<br>800/00 |
| 15. SUPPLEMENTARY NOTES | | |

16. ABSTRACT

The Blosenski Landfill site is located on 13.6 acres in West Caln Township, Chester County, PA. The site is bordered by heavily wooded and agricultural areas. Approximately 467 residents live within one mile of the site. Beginning in the 1950s the site operated as a landfill accepting municipal and industrial wastes. In 1971 the site was purchased by Mr. Joseph Blosenski, who operated the landfill until the early 1980s. Wastes were randomly dumped on the surface during the operating period, and included solvents, waste water treatment sludges, demolition and construction wastes, undercoating materials and open and leaking drums. Numerous citizen complaints of odors, smoke and airborne debris led to petition and regulatory actions against Mr. Blosenski. In 1982, EPA conducted a Site Inspection and found serious ground water contamination. The primary contaminants of concern are VOCs including benzene, toluene and TCE, and inorganics including lead, cadmium, chromium and mercury.

The selected remedial action for the site will be conducted in four phases. Phase I - installation of a public water supply to 12 residences; Phase 2 - excavation and removal of buried drums and other material with offsite disposal in a RCRA landfill; Phase 3 - perform a pre-design study to further sample ground and surface waters to delineate extent and magnitude of contamination. Based on the results of the study, (See Attached Sheet)

| 17. KEY WORDS AND DOCUMENT ANALYSIS | | |
|---|---|---|
| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
| ~~Record of Decision~~<br>Blosenski Landfill, PA<br>Contaminated Media: gw, soil<br>Key contaminants: VOCs, heavy metals, TCE, benzene, toluene | | |
| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS *(This Report)*<br>20. SECURITY CLASS *(This page)* | 21. NO. OF PAGES 9<br>22 PRICE |

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16. ABSTRACT (continued)

ground water will be pumped and treated for a maximum of two years to ACLs established by EPA; Phase 4 - install a low permeability RCRA cover on the landfill, divert surface water and construct a gas venting system. Phases 1-3 will be implemented concurrently. Estimated capital cost of the remedy ranges between $11,000,000 and $15,000,000, with a baseline cost of $13,000,000. O&M costs are estimated to be $534,300 for the first two years.

| TECHNICAL REPORT DATA<br>*(Please read Instructions on the reverse before completing)* | | |
|---|---|---|
| 1. REPORT NO.<br>EPA/ROD/R03-86/025 | 2. | 3. RECIPIENT'S ACCESSION NO. |
| 4. TITLE AND SUBTITLE<br>SUPERFUND RECORD OF DECISION<br>Bruin Lagoon, PA<br>(Second Remedial Action) | | 5. REPORT DATE<br>September 29, 1986<br>6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | | 10. PROGRAM ELEMENT NO.<br>11. CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report<br>14. SPONSORING AGENCY CODE<br>800/00 |
| 15. SUPPLEMENTARY NOTES | | |

16. ABSTRACT

Bruin Lagoon is located about 45 miles north of Pittsburgh in Bruin Borough, Butler County, PA. The site occupies over four acres and is located along the western bank of the South Branch of Bear Creek, approximately seven miles upstream of the creek's confluence with the Allegheny River. The site is also partially situated in the 100-year flood plain of the creek. The commercial and main residential areas of Bruin Borough are located less than five blocks from the site and over 30 residences lie within 500 feet of Bruin Lagoon. Beginning in the 1930s, Bruin Oil Company, located on property adjacent to the site, used the lagoon for disposal of wastes resulting from the production of white oil (mineral oil). Disposal operations continued for more than 40 years. In 1968 a breach in the lagoon dike caused an acidic sludge spill into the South Branch of Bear Creek which killed 4 million fish in the Allegheny River. An RI/FS report, begun in July 1981, resulted in a remedial action between August 1983 and May 1984. The first remedial action included: removal of liquid floating on top of the open lagoon and offsite disposal; lagoon and dike stabilization; removal of scrap tanks and equipment; installation of a multi-layer impermeable cap; and construction of a channel to prevent ground water from entering the site. In May 1984 a previously unidentified sludge layer, releasing toxic gases, was penetrated during remedial construction. EPA declared an emergency situation, stopped all remedial activities, and
(See Attached Sheet)

| 17. KEY WORDS AND DOCUMENT ANALYSIS | | |
|---|---|---|
| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
| Record of Decision<br>Bruin Lagoon, PA<br>(Second Remedial Action)<br>Contaminated Media: gw, sw, sediments<br>Key contaminants: organics, heavy metals, oils, sludge, inorganics, acids | | |
| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS *(This Report)*<br>None | 21. NO. OF PAGES<br>34 |
| | 20. SECURITY CLASS *(This page)*<br>None | 22. PRICE |

EPA/ROD/R03-86/025
Bruin Lagoon, PA
(Second Remedial Action)

16. ABSTRACT (continued)

initiated an immediate emergency action. These actions were terminated in September 1984 after the site was stabilized and secured. EPA, upon completion of the emergency work, determined the need for a reevaluation of the site. The primary contaminants of concern include: toxic gases, heavy metals, oils, inorganics, and acidic sludge.

The selected remedial action includes: onsite stabilization/neutralization of sludge and perched liquid zone; in-situ treatment of bedrock underneath the former lagoon area; completion of dike reinforcement; capping the former lagoon area with a multi-layer cap; monitoring and maintenance of the site, cap and ground water. The estimated capital cost is $2,695,000 with annual O&M of $16,000.

**TECHNICAL REPORT DATA**
*(Please read Instructions on the reverse before completing)*

| 1. REPORT NO. | 2. | 3. RECIPIENT'S ACCESSION NO |
|---|---|---|
| EPA/ROD/R03-86/030 | | |

| 4. TITLE AND SUBTITLE | 5. REPORT DATE |
|---|---|
| SUPERFUND RECORD OF DECISION<br>Chisman Creek, VA | September 30, 1986<br>6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | 10. PROGRAM ELEMENT NO.<br>11 CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report<br>14. SPONSORING AGENCY CODE<br>800/00 |
| 15. SUPPLEMENTARY NOTES | |

16. ABSTRACT

The Chisman Creek site, located in Southeastern York County, VA, is in a 520-acre sub-watershed of the Chisman Creek coastal Basin on the Virginia Peninsula. As a tidal estuary, Chisman Creek flows easterly into Chesapeake Bay. Approximately 500 to 1,000 people live within one mile of the site in this primarily residential area. Chisman Creek supports private and commercial marinas and numerous private docks, and is also a popular fishing area. In 1957 and 1958, two units of the Virginia Power Yorktown Power Generating Station began burning coal mixed with coke from a nearby petroleum refinery. Fly ash was produced by these units until 1974. A private contractor, employed between 1957 and 1974 to haul the fly ash from the generating station, disposed of large quantities of this incinerated coal by-product in four abandoned sand and gravel pits in the Chisman Creek watershed, approximately two miles south of the generating station. No dust control measures were employed during the hauling, and uncontrolled erosin caused fly ash to wash from the pits into Chisman Creek and its tributaries during heavy rains. The remedial investigation conducted at the site found contaminants in the fly ash, the sediments of Chisman Creek and its tributaries, the ground water within and adjacent to the pits, and in surface water. The primary contaminants of concern include: trace metals (nickel and vanadium), and inorganics.

(See attached sheet)

17. KEY WORDS AND DOCUMENT ANALYSIS

| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
|---|---|---|
| Superfund Record of Decision<br>Chisman Creek, VA<br>Contaminated Media: gw, sw, soil sediments, wetlands<br>Key contaminants: trace metals (nickel and vanadium), inorganics | | |

| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS *(This Report)* None | 21. NO. OF PAGES 46 |
|---|---|---|
| | 20. SECURITY CLASS *(This page)* None | 22 PRICE |

EPA/ROD/R03-86/030
Chisman Creek, VA

16. ABSTRACT (continued)

The selected remedial action includes: capping Areas A and B with a soil layer overlaid with topsoil and vegetative growth; capping Area C with a low-permeability compacted soil layer overlaid with topsoil and vegetative growth; installation of a subsurface drain on the west, south, and east sides of Area C to lower the water table below the bottom of the fly ash; transportation of ground water drainage from Area C to an onsite treatment plant; extension of the Newport News and the Allen Mill Road waterlines to affected homes; implementation of deed restrictions or other controls to prohibit excavation of soil and restrict onsite building and ground water use. The estimated capital cost for this remedy is $14,119,000 with O&M costs for year one of $506,000 and $64,000 for years 2-30.

| TECHNICAL REPORT DATA<br>*(Please read Instructions on the reverse before completing)* | | |
|---|---|---|
| 1. REPORT NO.<br>EPA/ROD/R03-86/031 | 2. | 3. RECIPIENT'S ACCESSION NO |
| 4. TITLE AND SUBTITLE<br>SUPERFUND RECORD OF DECISION<br>Delaware City PVC, DE | | 5. REPORT DATE<br>September 30, 1986<br>6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | | 10. PROGRAM ELEMENT NO<br>11 CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report<br>14. SPONSORING AGENCY CODE<br>800/00 |
| 15 SUPPLEMENTARY NOTES | | |

16. ABSTRACT

The Delaware City PVC site is located two miles northwest of Delaware City, New Castle County, Delaware. In 1966 Stauffer Chemical Company (SCC) of Westport, Connecticut, founded the Delaware City PVC Plant, which is used for the manufacturing of polyvinylchloride resin (PVC), polyvinyl acetate and other polymers. From 1971 to 1974 off-grade PVC resin, sludge from the wastewater treatment system and residue from the stripping process were disposed of in two onsite pits. These "buried sludge pits" were closed and covered in 1979. Off-grade PVC resin was disposed of in a third pit. This material was removed and the pits backfilled in 1974. In May 1981 Formosa acquired the PVC manufacturing and processing facility and has continued operations to present. The two buried sludge pits and the third disposal pit were retained by SCC as part of its Carbon Disulfide Plant, located adjacent to the PVC Plant property. An EPA conducted inspection in May 1982 indicated serious contamination of the shallow ground water. Currently, ground water, surface water, and soils are contaminated with PVC, benzyl chloride monomer (VCM), TCE, and 1,2-dichloroethane (EDC).

The description of the selected remedial action for each area of this site is provided below. Off-Grade Batch Pits: excavate and remove existing PVC sludge and contaminated soils; install a double synthetic liner; install monitoring wells and perform quarterly sample analysis for TCE, EDC, VCM. The excavated material will be

(See attached sheet)

| 17. KEY WORDS AND DOCUMENT ANALYSIS | | |
|---|---|---|
| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
| Superfund Record of Decision<br>Delaware City PVC, DE<br>Contaminated Media: gw, sw, soil<br>Key contaminants:TCE, PVC, EDC, VCM | | |
| 18. DISTRIBUTION STATEMENT | 19 SECURITY CLASS *(This Report)*<br>None | 21. NO. OF PAGES<br>57 |
| | 20. SECURITY CLASS *(This page)*<br>None | 22 PRICE |

16. ABSTRACT (continued)

processed and recovered (estimated at 80-85%) as a saleable finished product to the maximum extent possible. Non-recoverable material will be disposed of offsite at an approved RCRA facility. Stormwater Reservoir: The same remedy as described for the above off-grade batch pits. Unlined Ditches: excavate and remove PVC sludge and dispose of at an approved RCRA facility; install a single synthetic liner. Aerated Lagoons: excavate and remove PVC sludge; clean and repair lagoons as necessary; install a double synthetic liner; install monitoring wells and perform quarterly sampling analysis for TCE, EDC and VCM. The excavated material will be recovered to the maximum extent possible (estimated to be 80-85%) and non-recoverable material will be disposed of offsite at an approved RCRA facility. Closed Buried Sludge Pits: place a drainage layer on top of the existing synthetic cap; cover with a second synthetic cap and topsoil and revegetate. Former PVC Storage Area: cover and cap the entire area with a double synthetic cap. Ground Water: install a line of six ground water recovery wells at the northern edge of the contaminant plume, and another six wells at the southern edge. Reuse the collected ground water in Formosa's plant operations. During periods of low water demand in the plant, treat the ground water in the existing waste water treatment plant. Install two monitoring wells at the southern edge of the plume. Provide an alternate water supply for existing contaminated wells. Operation and Maintenance: as a minimum, regular inspections and, as necessary, repairs to the liners and caps. The ground water recovery system will be routinely monitored to assure that it is capturing the contaminated plume. The estimated capital cost for the remedy is $1,904,000 with annual O&M costs of $43,000.

## TECHNICAL REPORT DATA
*(Please read Instructions on the reverse before completing)*

| 1. REPORT NO. | 2. | 3. RECIPIENT'S ACCESSION NO |
|---|---|---|
| EPA/ROD/R03-86/033 | | |

| 4. TITLE AND SUBTITLE | 5. REPORT DATE |
|---|---|
| SUPERFUND RECORD OF DECISION<br>Drake Chemical, PA<br>(Second Remedial Action) | May 13, 1986<br>6. PERFORMING ORGANIZATION CODE |
| 7 AUTHOR(S) | 8. PERFORMING ORGANIZATION REPORT NO |
| 9 PERFORMING ORGANIZATION NAME AND ADDRESS | 10. PROGRAM ELEMENT NO.<br>11 CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report<br>14. SPONSORING AGENCY CODE<br>800/00 |

15. SUPPLEMENTARY NOTES

16. ABSTRACT

The Drake Chemical site is located in Lock Haven, Clinton County, PA. Between 1962 and 1982 Drake Chemical, Inc. (DCI) manufactured batches of specialty, intermediate chemicals for producers of dyes, pharmaceuticals, cosmetics, herbicides, and pesticides. The herbicide Fenac, manufactured at the plant, is a major site contaminant. The eight-acre inactive site contains six major buildings. Inside and surrounding the process buildings are approximately sixty process tanks and reactors. Approximately ten large tanks used for bulk storage of acids, bases, and fuel oils are outside. Also located onsite are two lined and three unlined wastewater treatment lagoons. Chemical sludge and contaminated soil cover underlie much of the open area while construction debris is strewn about. Drums and bulk waste may be buried at the site. The primary contaminants of concern include: inorganics and organics including toluene, benzene, TCE, and xylene.

The selected interim remedy is the second phase of a three phase cleanup action. It includes: drainage and removal of the two lined lagoons and treatment of drained liquid and sludge in an offsite RCRA-permitted facility; removal of all tanks, buildings, and debris; decontamination of all metal structures that can be salvagable as scrap; disposal in a RCRA facility any material not decontaminated and treatment of any liquids removed to a RCRA-permitted treatment facility; incineration of warehouse-stored
(See Attached Sheet)

17. KEY WORDS AND DOCUMENT ANALYSIS

| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
|---|---|---|
| Record of Decision<br>Drake Chemical, PA<br>(Second Remedial Action)<br>Contaminated Media: soils, sludges, gw<br>Key contaminants: organics, inorganics | | |

| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS *(This Report)*<br>None | 21. NO. OF PAGES<br>47 |
|---|---|---|
| | 20. SECURITY CLASS *(This page)*<br>None | 22. PRICE |

EPA/ROD/R03-86/033
Drake Chemical, PA
(Second Remedial Action)

16. ABSTRACT (continued)

chemicals at an offsite RCRA-permitted incinerator; and analysis and disposal (if needed) of the decontamination fluid in a RCRA-permitted facility. The estimated baseline capital cost for this remedy is $3,143,000 with no anticipated O&M costs.

## TECHNICAL REPORT DATA
*(Please read Instructions on the reverse before completing)*

| 1. REPORT NO. | 2. | 3. RECIPIENT'S ACCESSION NO |
|---|---|---|
| EPA/ROD/R03-86/028 | | |

| 4. TITLE AND SUBTITLE | 5. REPORT DATE |
|---|---|
| SUPERFUND RECORD OF DECISION<br>Industrial Lane, PA | September 29, 1986<br>6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | 10. PROGRAM ELEMENT NO<br>11 CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report<br>14. SPONSORING AGENCY CODE<br>800/00 |
| 15. SUPPLEMENTARY NOTES | |

16. ABSTRACT

The Industrial Lane site encompasses approximately two square miles in Wiliams Township, Northampton County, Pennsylvania. A portion of the Chrin Landfill, a Pennsylvania Department of Environmental Resources permitted landfill, is on the site as are several active and abandoned industrial properties, commercial establishments, railroads and farming/residential areas. As a result of the detection of low level ground water contamination, the Chrin Landfill was placed on the NPL in February 1983. In addition to the preparation of a Remedial Investigation, two Feasibility Studies for the Industrial Lane site were also prepared. The first, known as Operable Unit I, focuses on the remedial alternatives for private well users. The second, Operable Unit II, will focus on remedial actions addressing ground water remediation. No consistent contaminant plume has been detected to date due to the complex geology of the area. Possible industrial activities contributing to the contamination include, but may not be limited to, iron ore extraction and iron works operations. The possibility also exists that refuse and/or other unknown substances were more recently disposed of into one or more of the iron ore extraction pits on the Chrin Landfill and industrial complex facility. While residential wells located upgradient of the Chrin Landfill have historically contained only background levels of VOCs, the chemicals detected in wells within the Glendon Boro residential community represent the primary contaminants of
(See Attached Sheet)

17. KEY WORDS AND DOCUMENT ANALYSIS

| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
|---|---|---|
| Record of Decision<br>Industrial Lane, PA<br>Contaminated Media; gw<br>Key contaminants: VOCs, TCE | | |

| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS *(This Report)* | 21. NO. OF PAGES |
|---|---|---|
| | None | 29 |
| | 20. SECURITY CLASS *(This page)* | 22 PRICE |
| | None | |

16. ABSTRACT (continued)

concern. These include tetrachloroethene, trichloroethane, and chloroform.

The selected remedial action for this site involves the provision of an alternate water supply to approximately 15 households. Since existing curb service is available this action only involves installation of several lines to the designated households. The estimated capital cost for this action is $30,800 with no annual O&M.

## TECHNICAL REPORT DATA
*(Please read Instructions on the reverse before completing)*

| 1. REPORT NO. | 2. | 3. RECIPIENT'S ACCESSION NO |
|---|---|---|
| EPA/ROD/R03-86/027 | | |

| 4. TITLE AND SUBTITLE | 5. REPORT DATE |
|---|---|
| SUPERFUND RECORD OF DECISION<br>Lansdowne Radiation, PA<br>(Second Remedial Action) | September 22, 1986<br>6. PERFORMING ORGANIZATION CODE |
| 7 AUTHOR(S) | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | 10 PROGRAM ELEMENT NO<br>11 CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report<br>14. SPONSORING AGENCY CODE<br>800/00 |

15. SUPPLEMENTARY NOTES

16. ABSTRACT

The Lansdowne Radiation site consists of two attached residences located at 105/107 East Stratford Avenue, Lansdowne, PA. The building is located in a residential area, approximately two miles from Philadelphia. The dwellings were contaminated with radium and other radionuclides between 1924 and 1944 as a result of work done in one of the houses. In 1924 Dr. Dicran Kabakjian, a professor of physics at the University of PA, opened up what was essentially a family-run business to refine radium and produce medical devices in his home at 105 E. Stratford Avenue. After Dr. Kabakjian's death in 1945, from conditions not linked directly to radium exposure, the house twice changed ownership; first to the Tallant family, then to the Kirzirian family. In 1963, based on information gathered from private individuals, the State Department of Health inspected the house and found extremely high levels of radiation. A decontamination effort in 1964 consisted of removing as much radium as practical by sanding, scraping, vacuuming, and washing the house walls, floors and ceilings. Some concrete floor and wooden floor boards were also removed. It is postulated that the acid fumes from the radium purification procedure used, as well as spills, carried the radium contamination deep into the wood and plaster of the home. After cleanup, the house received epoxy-based paint coatings to limit the outward migration of the radium that remained deeply embedded in the actual structure. In December 1964, four months after the completion of
(See Attached Sheet)

17. KEY WORDS AND DOCUMENT ANALYSIS

| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field.Group |
|---|---|---|
| Record of Decision<br>Lansdowne Radiation, PA<br>(Second Remedial Action)<br>Contaminated Media: soil, air<br>Key contaminants: radium, actinium,<br>thorium, protactinium | | |

| 18. DISTRIBUTION STATEMENT | 19 SECURITY CLASS (This Report)<br>None | 21 NO. OF PAGES<br>18 |
|---|---|---|
| | 20. SECURITY CLASS (This page)<br>None | 22 PRICE |

EPA/ROD/R03-86/027
Lansdowne Radiation, PA
(Second Remedial Action)

16. ABSTRACT (continued)

the decontamination, the U.S. Public Health Service (USPHS), basing its report on a 16 hour-per-day-exposure, concluded the radiation dose rate received by the occupants, the Kizirian family, was just above the then existing guidelines of 0.5 rem/yr, and that further decontamination of the house would be impractical. Contamination at the Bashore family home at 107 E. Stratford Avenue was not addressed. The first remedial action at this site, initiated in August 1985, provided temporary housing for one of the residents. No further decontamination can currently be performed without removing the structural members, walls, and floors. Furniture and appliances that can not be decontaminated are pending remedial actions. The primary contaminant of concern is radium with actinium, thorium, and protactinium as secondary contaminants.

The selected remedial action for this second operable unit includes: dismantling of the twin house. All radioactive materials above established permissible levels will be packed and sealed in approved containers, and disposed of at an approved offsite disposal facility; contaminated soil located in and around the house will be excavated and removed to established permissible levels. Some soil in surrounding lots along the property lines may be removed if sampling or monitoring during excavation shows migration of the radium beyond the original property; the sewer lateral leading from the contaminated house to Stratford Avenue will be removed; approximately two hundred feet of sewer line from in front of the house to Union Avenue will be replaced; operation and maintenance associated with this action will include maintenance of the vacant property lot. The capital cost has been estimated at $4,000,000-$4,500,000 with O&M costs reported to be "minimal".

## TECHNICAL REPORT DATA
*(Please read Instructions on the reverse before completing)*

| 1. REPORT NO. | 2. | 3. RECIPIENT'S ACCESSION NO. |
|---|---|---|
| EPA/ROD/R03-86/022 | | |

| 4. TITLE AND SUBTITLE | 5. REPORT DATE |
|---|---|
| SUPERFUND RECORD OF DECISION<br>Leetown Pesticide, WV | March 31, 1986<br>6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | 10. PROGRAM ELEMENT NO.<br>11. CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report<br>14. SPONSORING AGENCY CODE<br>800/00 |

15. SUPPLEMENTARY NOTES

16. ABSTRACT

The Leetown Pesticide site is located in northeast West Virginia, approximately 8 miles south of Martinsburg, West Virginia. The "site" is actually composed of a number of areas affected by surface disposal of pesticides, agricultural use of pesticides, and landfilling. A total of eight specific areas of waste disposal or accumulation were identified during the initial RI study. Of these eight areas, two were the result of alleged disposal of pesticide-contaminated debris from a fire that occurred in 1975 at the Miller Chemical Company. These two areas include the former pesticide pile and the suspected pesticide landfarm areas. Four of the contaminated areas are associated with former use of the land for orchard production. The two remaining sites are active landfills.

The results of the contaminant release and exposure study indicate that the suspected landfarm and apple orchards do not appear to comprise significant sources of environmental contamination. The only three areas out of the eight investigated that present concentrations of pesticides above ambient soil background (non-pesticide use areas) and orchard background levels (pesticide application areas) are the following:

- Former Pesticide Pile Area (presently: Robinson Property)
- Former Jefferson Orchard Mixing Area (presently: Robinson Property)
- Former Crimm Orchard Packing Shed (presently: Tabb Barn).

(See Attached Sheet)

17. KEY WORDS AND DOCUMENT ANALYSIS

| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
|---|---|---|
| Record of Decision<br>Leetown Pesticide, WV<br>Contaminated Media: soil, sediments<br>Key contaminants: pesticides, organics, inorganics | | |

| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS *(This Report)* | 21. NO. OF PAGES |
|---|---|---|
| | None | 92 |
| | 20. SECURITY CLASS *(This page)* | 22. PRICE |
| | None | |

16. ABSTRACT (continued)

The selected remedial action for this site includes: excavation and consolidation of approximately 3600 cubic yards of contaminated soil from the three areas mentioned above; placement of these soils in an onsite "treatment bed" to enhance anaerobic biodegradation of the pesticide contamination; removal and offsite disposal of the contaminated flooring, a wooden spray wagon, and drums of pesticide product in a permitted hazardous waste facility; construction of a monitoring well network; and construction of surface water diversion systems, sedimentation channels, and diversion dikes. Total capital cost for the selected remedial alternative is estimated to be $1,014,000 with O&M costs approximately $10,000 for the first year and $7,500 for the second.

## TECHNICAL REPORT DATA
*(Please read Instructions on the reverse before completing)*

| 1. REPORT NO. | 2. | 3. RECIPIENT'S ACCESSION NO |
|---|---|---|
| EPA/ROD/R03-86/026 | | |

| 4. TITLE AND SUBTITLE | 5. REPORT DATE |
|---|---|
| SUPERFUND RECORD OF DECISION<br>Limestone Road, MD | September 30, 1986<br>6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | 8 PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | 10. PROGRAM ELEMENT NO<br>11. CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report<br>14. SPONSORING AGENCY CODE<br>800/00 |
| 15. SUPPLEMENTARY NOTES | |

16. ABSTRACT

The Limestone Road site is located 2.5 miles east southeast of Cumberland, Allegheny County, MD on the western flank of Irons Mountain. The 210-acre site consists of two parcels of land, the former Diggs Sanitation Company (DSC-20 acres) and the Cumberland Cement and Supply Company (CC & SC - 191 acres). The site is bordered on the southwest by several residences, and immediately to the northwest lie the Cumberland City Dump and undeveloped land. The site includes large areas of landfilled and dumped commercial, residential and demolition refuse on both properties. About 110 tons of a chromium containing sludge were also disposed of on the properties. Currently, 18 residences are within a half-mile downhill of the site, 5 within 100 yards, and one on the Diggs property. The water supply for these residences is ground water from private wells. Ground water in the area of the site has the potential to be contaminated with inorganic and organic constituents. In the mid 1970s, Mr. Charles Steiner, President of CC & SC, began allowing various contractors to dump clean fill (housing demolition material) on the property to provide a larger and more level working surface. However, a variety of waste has reportedly been dumped into a ravine on the property. In April 1981, Mr. Joseph Diggs, a licensed hazardous waste hauler and owner of DSC, was allegedly involved in the dumping of 99 tons of hazardous waste containing chromium, lead, and cadmium into a ravine on CC & SC property. In addition, an alleged 11 tons of hazardous waste have
(See Attached Sheet)

17. KEY WORDS AND DOCUMENT ANALYSIS

| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
|---|---|---|
| Record of Decision<br>Limestone Road, MD<br>Contaminated Media: gw, sw, sediments<br>Key contaminants: VOCs, organics, inorganics, TCE, chromium | | |

| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS *(This Report)* | 21. NO. OF PAGES |
|---|---|---|
| | None | 77 |
| | 20. SECURITY CLASS *(This page)* | 22 PRICE |
| | None | |

16. ABSTRACT (continued)

been reportedly disposed of on the Diggs property as an extension of previous filling and grading operations. The nearby Cumberland City Dump functioned as a municipal landfill from 1932 to 1968. Fly ash, miscellaneous solid metal wastes, and numerous tires are currently exposed on the northern and southern faces of the dump. Several crushed and rusted drums were noted along the banks of the inactive landfill. The primary contaminants of concern include: VOCs, base-neutral compounds, TCE, PCE, heavy metals.

The selected interim remedial action includes: site grading; capping of contaminated soil on all properties; fencing of both properties; continued monitoring of groundwater, surface water, and sediment; complete historical review of pertinent geological information; collection of regional offsite and onsite geological information; chemical analysis of the shale to determine its composition; reevaluation and establishment of background data control points; frequent sampling to increase the data base; increase in the number of stream and residential sampling; evaluation of the effects of natural and/or domestic (plumbing) conditions on the overall water quality of the area. The estimated capital cost is $1,192,580. O&M cost will be determined after completion of ground water studies.

## TECHNICAL REPORT DATA
*(Please read Instructions on the reverse before completing)*

| 1. REPORT NO. | 2. | 3. RECIPIENT'S ACCESSION NO. |
|---|---|---|
| EPA/ROD/R03-86/021 | | |

| 4. TITLE AND SUBTITLE | 5. REPORT DATE |
|---|---|
| SUPERFUND RECORD OF DECISION<br>Middletown Road, MD | March 17, 1986<br>6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | 8 PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | 10. PROGRAM ELEMENT NO<br>11 CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report<br>14. SPONSORING AGENCY CODE<br>800/00 |
| 15. SUPPLEMENTARY NOTES | |

16. ABSTRACT

The Middletown Road Site is a privately owned waste dump, consisting of approximately 2.3 acres, located off Maryland Route 50 near Annapolis, Anne Arundel County, Maryland. The site operated as a dump, primarily for rubble and construction debris, for several decades without proper State permits. In 1981, it was discovered that approximately 40 drums and four dumpster loads of suspected hazardous substances were on the site.

On June 24, 1983, $384,000 in CERCLA money was allocated for immediate removal measures to excavate and remove hazardous substances and contaminated soil. The removal activities conducted at the site consisted of: the removal of contaminated soil and 5-gallon pails of marine paint; additional soil sampling to confirm adequate contaminant removal; installation of six ground water monitoring wells around the perimeter of the site; drum sampling, testing and the relocation of one million tires on the site in order to conduct a more comprehensive subsurface investigation. Material removed during the Immediate Removal Action included 68 drums, 70 contaminated tires, and 610 tons of contaminated soil.

A remedial investigation was conducted to determine whether any remedial action would be needed before deleting the site from EPA's National Priorities List. Based on the findings of the RI, no risk to receptors via direct contact, inhalation, or ingestion was found. Therefore, a No Action Alternative has been recommended, since there are no
(See Attached Sheet)

17. KEY WORDS AND DOCUMENT ANALYSIS

| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
|---|---|---|
| Record of Decision<br>Middletown Road, MD<br>Contaminated Media: None-no observed release<br>Key contaminants: N/A | | |

| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS *(This Report)* | 21. NO. OF PAGES |
|---|---|---|
| | None | 38 |
| | 20. SECURITY CLASS *(This page)* | 22 PRICE |
| | None | |

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16. ABSTRACT (continued)

releases from the Middletown Road Site which may threaten public health. The State of Maryland will monitor onsite wells as a part of its existing closed waste site inspection schedule.

| TECHNICAL REPORT DATA<br>*(Please read Instructions on the reverse before completing)* | | |
|---|---|---|
| 1. REPORT NO.<br>EPA/ROD/R03-86/023 | 2. | 3. RECIPIENT'S ACCESSION NO |
| 4. TITLE AND SUBTITLE<br>SUPERFUND RECORD OF DECISION<br>Millcreek, PA | | 5. REPORT DATE<br>May 7, 1986<br>6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | | 10. PROGRAM ELEMENT NO.<br>11. CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report<br>14. SPONSORING AGENCY CODE<br>800/00 |
| 15. SUPPLEMENTARY NOTES | | |

16. ABSTRACT

The Millcreek site is a 84.5-acre tract of land located in Millcreek Township, Erie County, Pennsylvania. The site was once a 75-acre freshwater wetland. During the past 40 years, all but 4 acres have been filled with foundry sand and industrial and municipal waste. The site operated as an unpermitted active landfill during this time. For the past 15 years, unknown parties bulk disposed halogenated volatile solvents in soils in the eastern portion of the site. This disposal has resulted in significant ground water contamination both on and offsite. Unit cancer risk calculations reveal that offsite ground water contamination exceeds $10^{-2}$ cancer risk levels adjacent to the eastern portion of the site. In addition, Region III's Remedial Investigation discovered extensive soil, sediment, and surface water contamination. The major clases of compounds detected included: polychlorinated biphenyls (PCBs), polynuclear aromatic hydrocarbons (PAHs), phthalates, volatile organics, phenols and metals such as lead and copper.

The selected remedial action for this site includes: excavation and consolidation of contaminated soil and sediments under a RCRA cap to meet proposed criteria; site grading; placing a soil cover over remaining low level contaminated soils not exceeding the proposed criteria; construction of surface water management basins and ditches; revegetation of soil cover and cap; installation of additional monitoring wells;
(See Attached Sheet)

| 17. KEY WORDS AND DOCUMENT ANALYSIS | | |
|---|---|---|
| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
| Record of Decision<br>Millcreek, PA<br>Contaminated Media: gw, sediments, soil, sw, wetlands<br>Key contaminants: VOCs, heavy metals, phenols, PCBs, PAHs, TCE, | | |
| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS *(This Report)*<br>None<br>20. SECURITY CLASS *(This page)*<br>None | 21. NO. OF PAGES<br>159<br>22. PRICE |

16. ABSTRACT (continued)

construction of a flood retention basin on property owned by Millcreek Township; pumping and treating of contaminated ground water; additional sampling and well installation and ground water monitoring. Total capital cost estimates for the selected remedial alternative vary from $12,000,000 to $18,000,000 with an estimated baseline cost of $15,000,000. For these estimates, capital costs included all costs associated with excavation, regrading, revegetating, capping and ground water pumping and treating for two years. Additional sampling and monitoring wells will be considered as part of the design. Design is estimated to cost approximately $1,000,000 and will be funded entirely by Trust Fund monies. Total present worth cost for O&M is estimated to be $1,763,000.

## TECHNICAL REPORT DATA

*(Please read Instructions on the reverse before completing)*

| 1. REPORT NO. | 2. | 3. RECIPIENT'S ACCESSION NO. |
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| EPA/ROD/R03-86/020 | | |

| 4. TITLE AND SUBTITLE | 5. REPORT DATE |
|---|---|
| SUPERFUND RECORD OF DECISION<br>Taylor Borough, PA<br>(Second Remedial Action) | March 17, 1986<br>6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | 10. PROGRAM ELEMENT NO.<br>11. CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report<br>14. SPONSORING AGENCY CODE<br>800/00 |

15. SUPPLEMENTARY NOTES

16. ABSTRACT

The Taylor Borough site is located in the Borough of Taylor in Lackawanna County, Pennsylvania. The site is an abandoned landfill located in a strip mine. Underlying the site is a series of underground mines. As a result of the landfill operation, which ceased in 1968, the topography of the site consists of relatively rolling terrain between steep slopes of mine spoil piles and unreclaimed strip mines. In June 1985, a Record of Decision (ROD) was approved for the site. The ROD deferred a decision on ground water action because analytical results for ground water samples collected in April 1985 were not available. Additional consideration of site ground water conditions was also needed because of unusual hydrogeologic conditions.

In the June 1985 ROD, reference is made to a release of contaminants into a coal seam based on the analysis of samples collected from Well 3C in September 1984. As noted in the RI, the data validation review found that the reported results are of questionable accuracy. Additionally, the two subsequent sampling efforts that were attempted did not identify any contamination. Since no release of site contaminants to the ground water has been documented, there is no need for ground water remedial action at this time; however, a monitoring program is warranted to verify that no release is occurring. To meet this objective, existing monitoring wells in the coal seams underlying the site (wells 1B, 2C, 3C, 4C, 5B, 6A, 7C, 7D, 8B) should be monitored on a semiannual basis for
(See Attached Sheet)

17. KEY WORDS AND DOCUMENT ANALYSIS

| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
|---|---|---|
| Record of Decision<br>Taylor Borough, PA (Second Remedial Action)<br>Contaminated Media: None - no observed release<br>Key contaminants: N/A | | |

| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS *(This Report)* | 21. NO. OF PAGES |
|---|---|---|
| | None | 12 |
| | 20. SECURITY CLASS *(This page)* | 22 PRICE |
| | None | |

16. ABSTRACT (continued)

all priority pollutant volatile organics and Hazardous Substance List metals for, at a minimum, five years after the surface remedial action is completed. It is estimated that the current cost to conduct one round of sampling and analysis for metals and volatiles at the monitoring wells identified is $8,000, or $16,000 for semiannual monitoring.

## TECHNICAL REPORT DATA

*(Please read Instructions on the reverse before completing)*

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|---|---|
| 1. REPORT NO. EPA/ROD/R03-86/019 | 2. |
| 3. RECIPIENT'S ACCESSION NO | |
| 4. TITLE AND SUBTITLE SUPERFUND RECORD OF DECISION Tybouts Corner Landfill, DE | 5. REPORT DATE March 6, 1986 |
| | 6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | 10. PROGRAM ELEMENT NO. |
| | 11. CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS U.S. Environmental Protection Agency 401 M Street, S.W. Washington, D.C. 20460 | 13. TYPE OF REPORT AND PERIOD COVERED Final ROD Report |
| | 14. SPONSORING AGENCY CODE 800/00 |
| 15. SUPPLEMENTARY NOTES | |

16. ABSTRACT

The Tybouts Corner Landfill site is located in northern Delaware, approximately ten miles south of Wilmington, in New Castle County. The landfill consists of two fill areas. The main fill is about 47 acres in size and is located near the confluence of Pigeon Run and Red Lion Creek. A smaller fill area, estimated to be about four acres, is located just west of Pigeon Run. The site was originally a sand and gravel pit. When the landfill began to operate, plans indicate that no clay liner or other impervious material was placed below the fill and no impervious cap was placed on top of the fill following abandonment. Tybouts Corner Landfill was used by the New Castle County Department of Public Works as a municipal sanitary landfill for the disposal of municipal and domestic refuse from December 1968 until July 1971. In addition, industrial wastes were disposed there during the active life of the landfill. These industrial wastes included: trichloroethylene, vinyl chloride, 1,2-dichloroethane; benzene and various other organic and inorganic chemicals.

The main threat posed by Tybouts Corner Landfill is that the hazardous substances disposed of in the landfill are contaminating the local and regional aquifers which are a main source of water for the region. The selected remedial action for this site includes: excavation of all municipal and industrial wastes, as well as contaminated

(See Attached Sheet)

17. KEY WORDS AND DOCUMENT ANALYSIS

| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
|---|---|---|
| Record of Decision<br>Tybouts Corner Landfill, DE<br>Contaminated Media: gw, soil<br>Key contaminants: VOCs, TCE,<br>benzene, vinyl chloride, xylenes | | |

| | | |
|---|---|---|
| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS (This Report) None | 21. NO. OF PAGES 73 |
| | 20. SECURITY CLASS (This page) None | 22. PRICE |

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16. ABSTRACT (continued)

subsoils in the west fill and consolidation with the main fill; capping of the consolidated main fill area with a multi-layered RCRA cap; installation of a subsurface drain or trench system; implementation of a health and safety plan; and establishing a monitoring program. In addition, the offsite plume of contaminated ground water in the Upper Hydrologic Zone (UHZ) of the Potomac will be pumped and treated or otherwise disposed of, either onsite or offsite at a local sewage treatment plant. The goal of the offsite ground water treatment will be to reduce the level of contaminants to 100 ppb of total volatile organics, and $10^{-4}$ cancer risk level for cancer-causing contaminants. During the pumping, institutional controls will be utilized to prevent use of contaminated ground water. The ROD does not provide estimated capital cost and annual O&M costs for the selected remedial action.

## TECHNICAL REPORT DATA
*(Please read Instructions on the reverse before completing)*

| 1. REPORT NO. | 2. | 3. RECIPIENT'S ACCESSION NO |
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| EPA/ROD/R03-86/024 | | |

| 4. TITLE AND SUBTITLE | 5. REPORT DATE |
|---|---|
| SUPERFUND RECORD OF DECISION<br>Westline Site, PA | July 3, 1986<br>6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | 10. PROGRAM ELEMENT NO<br>11. CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report<br>14. SPONSORING AGENCY CODE<br>800/00 |
| 15. SUPPLEMENTARY NOTES | |

16. ABSTRACT

The Westline Site is located in Westline, Lafayette Township, McKean County, PA. The site, encompassing approximately 40 acres, is bordered by Kinzua Creek to the south, Turnip Run to the east, and a wetland area to the west. For the purpose of this investigation, the northern border extends 250 feet north of the former chemical plant foundation. Located at the center of the site is a popular landmark, the Westline Inn. Beginning in 1901, the Day Chemical Company, converted lumber into charcoal, methanol and acetic acid. The plant changed owners three times before equipment deterioration and declining profits forced its closure in 1952. Several tar-like deposits from the wood chemical processing operations remain onsite. The largest deposit was excavated in September of 1983 by the removal action implemented by the EPA. Another tar deposit, approximately 6 inches deep and 1,500 square feet in total area, still exists. Several smaller tar deposits are located intermittently in the low-lying areas of the ground surface. Tar is also seen along the banks of an unnamed tributary. The FS has estimated a total of 710 cubic yards of tar and tar soils onsite. During the initial EPA site inspection in July of 1982, a sample of waste material was collected from tar seepage and analyzed for priority pollutants. Eighteen tentatively identified compounds were detected. In March 1986, a second wood tar sample was collected to verify the presence or absence of polynuclear aromatic hydrocarbons (PAH). The primary
(See Attached Sheet)

17. KEY WORDS AND DOCUMENT ANALYSIS

| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
|---|---|---|
| Record of Decision<br>Westline Site, PA<br>Contaminated Media: gw, sw, sediments, soils, wetlands<br>Key contaminants: phenols, PAH compounds | | |

| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS *(This Report)* | 21. NO. OF PAGES |
|---|---|---|
| | None | 45 |
| | 20. SECURITY CLASS *(This page)* | 22. PRICE |
| | None | |

16. ABSTRACT (continued)

contaminants of concern include phenol, 2,4-dimethylphenol, and PAH compounds.

The selected remedial action for this site includes: excavation of all wood tar deposits and subsequent hauling of these wastes to a permitted offsite facility; backfilling of the excavated areas with clean soil and vegetation; incineration of excavated deposits with a high heating value and low ash content technique; ground water verification study; and air monitoring. The baseline capital costs for this remedial action is $744,000. O&M will not be required for the areas where tar will be excavated, but periodic inspection of the areas to assure the remedy is effective will be necessary. Following the ground water verification study, O&M will be reconsidered.

# REGION IV

## TECHNICAL REPORT DATA
*(Please read Instructions on the reverse before completing)*

| 1. REPORT NO. | 2. | 3. RECIPIENT'S ACCESSION NO. |
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| EPA/ROD/R04-86/009 | | |

| 4. TITLE AND SUBTITLE | 5. REPORT DATE |
|---|---|
| SUPERFUND RECORD OF DECISION<br>A. L. Taylor, KY | June 18, 1986<br>6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | 10. PROGRAM ELEMENT NO<br>11 CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report<br>14. SPONSORING AGENCY CODE<br>800/00 |
| 15. SUPPLEMENTARY NOTES | |

16. ABSTRACT

The A. L. Taylor site, also known as "Valley of the Drums", is located in a small valley in northern Bullitt County outside of Brooks, Kentucky. This site was first identified as a waste disposal site by the Kentucky Department of Natural Resources and Environmental Protection (KDNREP) in 1967. The owner, Mr. Taylor, excavated pits on site, emptied the contents of drums into them, and then recycled the drums. Soil from nearby hillsides was eventually used to cover the pits. Thousands of drums were also stored on the surface. Mr. Taylor never applied for the required State permits throughout the history of site operations from 1967 to 1977. The KDNREP first documented releases of hazardous substances in 1975. They pursued legal actions against Mr. Taylor until his death in late 1977. In January 1979 the EPA responded to releases of oil and hazardous substances at the site. In 1980 the KDNREP contacted six responsible parties who identified and removed approximately 30% of the waste remaining on the surface of the site. In 1981 the EPA, upon inspection, discovered deteriorating and leaking drums and discharges of pollutants into the nearby creek. EPA conducted a removal action to upgrade the existing treatment system and remove the remaining 4,200 drums of surface waste offsite for recycling or disposal. There remains an unknown amount of waste buried onsite. The hazardous substances detected at this site include approximately 140 compounds of the following classes:
(See Attached Sheet)

17. KEY WORDS AND DOCUMENT ANALYSIS

| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
|---|---|---|
| Record of Decision<br>A. L. Taylor, KY<br>Contaminated Media: sw, gw, sediments<br>Key contaminants: Heavy metals, inorganics, PCBs, organics, VOCs, PAHs, toluene, PCE, vinyl chloride, xylene | | |

| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS (This Report)<br>None | 21. NO OF PAGES<br>50 |
|---|---|---|
| | 20. SECURITY CLASS (This page)<br>None | 22. PRICE |

16. ABSTRACT (continued)

heavy metals, ketones, phthalates, PCBs, chlorinated alkanes and alkenes, aromatics, chlorinated aromatics, and polynuclear aromatics (PAHs).

The selected remedial action for this site includes: removal of pond water; securing pond sediments, sludge and materials from low-lying areas beneath the cap; installing a final cap cover for containment of the waste materials; constructing a surface water drainage diversion to re-route surface water; implementing a performance monitoring program to evaluate the effectiveness of the clay cap to mitigate surface chemical migration. The capital cost for the selected remedial alternative is estimated to be $795,349. O&M costs for this selected remedy were not specified. The Commonwealth of Kentucky will assume the O&M costs one year after the completion of construction.

## TECHNICAL REPORT DATA
*(Please read Instructions on the reverse before completing)*

| 1. REPORT NO. | 2. | 3 RECIPIENT'S ACCESSION NO |
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| EPA/ROD/R04-86/019 | | |

| 4. TITLE AND SUBTITLE | 5 REPORT DATE |
|---|---|
| SUPERFUND RECORD OF DECISION<br>Coleman Evans, FL | September 25, 1986 |
| | 6. PERFORMING ORGANIZATION CODE |
| 7 AUTHOR(S) | 8 PERFORMING ORGANIZATION REPORT NO |
| 9 PERFORMING ORGANIZATION NAME AND ADDRESS | 10. PROGRAM ELEMENT NO |
| | 11 CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | 13 TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report |
| | 14. SPONSORING AGENCY CODE<br>800/00 |

15. SUPPLEMENTARY NOTES

16. ABSTRACT

The Coleman Evans Wood Preserving Company site is an active 11-acre wood preserving facility located in the town of Whitehouse, Duval County, Florida. The site consists of two distinct areas: the western portion, which comprises the wood treating facility; and the eastern portion, which consists of a landfill area which has been used for the disposal of wood chip and other wastes. Land use around the site is primarily residential and light commercial/industrial. Since 1954, Coleman Evans has produced wood products impregnated with PCP. Wastes from the process were discharged into an onsite drainage ditch, and two unlined sludge disposal pits. In 1980, ground water underneath the site was found to be contaminated. As a result, Coleman Evans constructed a closed-loop treatment system. In 1985, an immediate removal action was taken to remove the contents of the two unlined pits. Subsequent site investigations confirm soil and ground water contamination, with PCP the primary contaminant of concern.

The selected remedial action for this site includes: all soils and sediments with PCP concentrations greater than 10 mg/kg will be excavated, approximately 9,000 cubic yards; excavated soils will be incinerated in a temporary onsite incineration unit. Decontamianted soils will be backfilled onsite; ground water recovery will be conducted for dewatering to facilitate excavation and to treat ground water with PCP concentrations greater than 1.01 mg/l. Recovered ground water will be stored and
(See Attached Sheet)

17. KEY WORDS AND DOCUMENT ANALYSIS

| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c COSATI Field/Group |
|---|---|---|
| Record of Decision<br>Coleman Evans, FL<br>Contaminated Media: gw, soil, sediments<br>Key contaminants: PCP | | |

| 18. DISTRIBUTION STATEMENT | 19 SECURITY CLASS (This Report)<br>None | 21 NO OF PAGES<br>31 |
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| | 20 SECURITY CLASS (This page)<br>None | 22 PRICE |

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Coleman Evans, FL

16. ABSTRACT (continued)

analyzed. If the level of PCP exceeds 1 ug/l, the ground water will be treated by an onsite carbon adsorption unit to a level below 1 ug/l PCP in accordance with Chapter 17-3.061.3(m) of the Florida Administrative Code before discharge to the surface water environment via the onsite drainage ditch. Other incidental Hazardous Substance List compounds identified in ground water during the implementation of this remedy will be cleaned up to levels which comply with Drinking Water Standards. Clean up compounds for which no standards exist will be to non-detection levels. The estimated capital cost for the remedy is $3,000,000 - $3,800,000 with no O&M costs.

## TECHNICAL REPORT DATA
*(Please read Instructions on the reverse before completing)*

| 1. REPORT NO. | 2. | 3. RECIPIENT'S ACCESSION NO |
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| EPA/ROD/R04-86/015 | | |

| 4. TITLE AND SUBTITLE | 5. REPORT DATE |
|---|---|
| SUPERFUND RECORD OF DECISION<br>Distler Brickyard, KY | August 19, 1986<br>6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | 10 PROGRAM ELEMENT NO<br>11 CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report<br>14. SPONSORING AGENCY CODE<br>800/00 |
| 15. SUPPLEMENTARY NOTES | |

16. ABSTRACT

The Distler Brickyard site is located near the Ohio River, approximately one-half mile south of West Point, Kentucky and about 17 miles southwest of Louisville. The 3-acre site is located on a 70-acre abandoned brick manufacturing plant property, and portions of the site lie within the 50-year and 100-year flood plains of the Ohio River. The site consists of the brick complex and associated buildings, and an open field covered with grasses and shrubs. In 1976, Mr. Donald Distler leased the brickyard property from Mr. Thomas Hoeppner, the owner, and began disposing wastes from Distler's Kentucky Liquid Recycling, Inc. firm. In December of 1976, KNREPC learned of the disposal and conducted investigations at the site. These investigations led to Franklin County serving a restraining order to Mr. Distler to discontinue disposal of wastes at the site. Despite the order, disposal continued until January 1979, when KNREPC issued an order to abate operations. A partial removal of drums occurred, leading to later removal of 2,310 drums and visibly contaminated soil. Contents of the drums included liquids, sludges and solids found to be corrosive, volatile and flammable. The RI/FS, begun in April 1984, indicated soil and ground water contamination in the site area. Primary contaminants of concern are VOCs including TCE, DCE, benzene and toluene, naphthalene, bis (2-ethylhexyl) phthalate, and heavy metals.

(See Attached Sheet)

17. KEY WORDS AND DOCUMENT ANALYSIS

| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
|---|---|---|
| Record of Decision<br>Distler Brickyard, KY<br>Contaminated Media: soil, gw<br>Key contaminants: VOCs, heavy metals, TCE, DCE, toluene, benzene, base-neutral compounds | | |

| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS *(This Report)* | 21. NO. OF PAGES |
|---|---|---|
| | None | 82 |
| | 20. SECURITY CLASS *(This page)* | 22 PRICE |
| | None | |

EPA/ROD/R04-86/015
Distler Brickyard, KY

16. ABSTRACT (continued)

The selected remedial action for the site includes: excavation and offsite disposal of soils contaminated above background levels in areas A and B; backfilling with "clean" natural granular soils; grading surface to existing grade and revegetating; and extraction and offsite treatment of contaminated ground water to background levels and reinjection into the aquifer. Estimated present worth cost of the remedy is $7,500,000 with O&M costs of $1,568,000 for years 1 and 2, and $44,000 for years 3-30.

## TECHNICAL REPORT DATA

*(Please read Instructions on the reverse before completing)*

| 1. REPORT NO. | 2. | 3. RECIPIENT'S ACCESSION NO |
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| EPA/ROD/R04-86/011 | | |

| 4. TITLE AND SUBTITLE | 5. REPORT DATE |
|---|---|
| SUPERFUND RECORD OF DECISION<br>Distler Farm, KY | August 19, 1986 |
| | 6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | 10. PROGRAM ELEMENT NO. |
| | 11 CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS | 13. TYPE OF REPORT AND PERIOD COVERED |
| U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | Final ROD Report<br>14. SPONSORING AGENCY CODE<br>800/00 |

15. SUPPLEMENTARY NOTES

16. ABSTRACT

Distler Farm is located in the southwest corner of Jefferson County, KY, approximately one mile northwest of West Point, KY. The property is bordered by U.S. Highway 60/31 W (Dixie Highway) on the northwest; Stump Gap Creek on the southeast; and by cultivated farmland on the northeast and southwest. The site is a three-acre area approximately 1,000 feet from the Ohio River. The site was discovered in early 1977 during the development of an enforcement case against Mr. Donald F. Distler, owner of Kentucky Liquid Recycling, Inc. In an effort to locate sites that Mr. Distler may have used for chemical waste storage or disposal, EPA personnel inspected the site in April 1977. They reported approximately 600 drums of industrial waste stored on the ground surface. In December 1978 the Ohio River and its tributaries flooded, causing drums of industrial wastes from the site to be scattered along the flood plain of the creek. The Governor of Kentucky declared an environmental emergency and Region IV of the EPA supervised recovery and onsite storage of 832 drums containing chemicals characteristic of the paint and varnish industry. The drums were later removed by the Kentucky Natural Resources and Environmental Protection Cabinet (KNREPC). During the cleanup effort U.S. Army personnel located four drum burial sites. Between January 1979 and April 1984, the EPA conducted various surface water, ground water, soil, sediment, and well studies. These studies confirmed the evidence of soil contamination and ground water contamination (See Attached Sheet)

17. KEY WORDS AND DOCUMENT ANALYSIS

| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
|---|---|---|
| Record of Decision<br>Distler Farm, KY<br>Contaminated Media: soils, gw, sediment<br>Key contaminants: metals, inorganics, organics,<br>ketone, radioactive materials, toluene, TCE, PCE | | |

| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS *(This Report)* | 21. NO. OF PAGES |
|---|---|---|
| | None | 26 |
| | 20. SECURITY CLASS *(This page)* | 22. PRICE |
| | None | |

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EPA/ROD/R04-86/011
Distler Farm, KY

16. ABSTRACT (continued)

at the site. No significant site-related contamination appeared in surface waters, sediments or residential wells outside the property boundaries. Prior to the completion of the RI, contaminated soils were removed from the site and transported to permitted hazardous waste disposal facilities; airborne contaminants also are not a problem. Following the removal operations, the pits were backfilled, and the entire affected area was graded, cultivated, and sown with grass seed to control erosion. Hazardous substances in the form of source materials are not present on the site. Surface storage and burial areas have been confirmed as being contaminated. These areas were considered to be the likely sources of potential future releases of contamination. The primary contaminants of concern include: VOCs, PCE, TCE, ketones, toluene, inorganics, radioactive material, and metals.

The selected remedial action includes: excavation and removal of all contaminated soils and offsite disposal in a hazardous waste landfill; backfilling with "clean" natural granular soils, extraction of contaminated groundwater and temporary accumulation and onsite storage; transportation of contaminated groundwater to offsite commercial facility and treatment to background levels; reinjection of uncontaminated water into the aquifer; maintenance of vegetation, erosion repair, and ground water monitoring for a one year period. The capital cost is $11,138,400 with O&M in years 1-10 of $113,600 and $20,000 for years 11-30.

| TECHNICAL REPORT DATA<br>*(Please read Instructions on the reverse before completing)* | | |
|---|---|---|
| 1. REPORT NO.<br>EPA/ROD/R04-86/013 | 2. | 3. RECIPIENT'S ACCESSION NO. |
| 4. TITLE AND SUBTITLE<br>SUPERFUND RECORD OF DECISION<br>Gallaway Ponds, TN | | 5. REPORT DATE<br>September 26, 1986<br>6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | | 10. PROGRAM ELEMENT NO<br>11. CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report<br>14. SPONSORING AGENCY CODE<br>800/00 |
| 15. SUPPLEMENTARY NOTES | | |

16. ABSTRACT

The Gallaway Ponds site is located 2.3 miles northeast of Gallaway, Fayette County, TN. The site lies near the top of a low ridge composed mainly of gravel, sand, and clay terrace deposits. The ridge has been extensively mined for sand and gravel, producing a landscape dotted with water-filled pits up to 50 feet deep. The site encompasses the land area adjacent to and including nine ponds located within a currently inactive (5-acre) portion of a larger (50-acre) active sand and gravel operation. One pond, designated Pond 1, was used for the disposal of liquid and solid waste, including pesticides, glass jars containing solid waste, and drums. Some pits have been used for the disposal of residential trash, demolition debris, and appliances. Disposal of hazardous materials at the site occurred for an undetermined period of time, probably in the 1970s or early 1980s. Drums containing liquid waste were disposed of by emptying the drums into a small pond or by placing the entire drum into the pond. Small glass bottles containing "quality control" samples from pesticide blending operations were disposed of directly to the small pond. No disposal activities at this site have ever been permitted by State or local authorities. In October 1983, the EPA conducted an emergency cleanup of Pond 1, consisting of the excavation and offsite disposal of contaminated sludges and the onsite treatment of the water in the pond. The treated water was subsequently discharged to Ponds 2 and 3, located east of Pond 1. The primary
(See Attached Sheet)

| 17. KEY WORDS AND DOCUMENT ANALYSIS | | |
|---|---|---|
| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
| Record of Decision<br>Gallaway Ponds, TN<br>Contaminated Media: soils, sediments, sw<br>Key contaminants: pesticides, inorganics, organics | | |
| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS *(This Report)*<br>None | 21. NO. OF PAGES<br>48 |
| | 20. SECURITY CLASS *(This page)*<br>None | 22. PRICE |

EPA/ROD/R04-86/013
Gallaway Ponds, TN

16. ABSTRACT (continued)

contaminants of concern include: pesticides, inorganics, chlordane, and toxaphene.

The selected remedial action includes: excavation of contaminated sediments from Ponds 2 and 5 with onsite disposal in Pond 1; proper site closure under Subtitle C of RCRA; dilution of water from Ponds 1,2, and 5 with city water to meet Ambient Water Quality Criteria and subsequent discharge to unnamed tributary; institutional controls which will be fully identified during remedial design; ground water monitoring; inspection and maintenance of the cap. The estimated capital cost is $344,735 with 30-year O&M present worth costs of $163,265.

| TECHNICAL REPORT DATA<br>*(Please read Instructions on the reverse before completing)* | | |
|---|---|---|
| 1. REPORT NO.<br>EPA/ROD/R04-86/010 | 2. | 3. RECIPIENT'S ACCESSION NO. |
| 4. TITLE AND SUBTITLE<br>SUPERFUND RECORD OF DECISION<br>Hipps Road Landfill, FL | | 5 REPORT DATE<br>September 3, 1986<br>6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | | 10. PROGRAM ELEMENT NO<br>11. CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report<br>14. SPONSORING AGENCY CODE<br>800/00 |
| 15. SUPPLEMENTARY NOTES | | |

16. ABSTRACT

Hipps Road Landfill is located at the intersection of Hipps Road and Exline Road in Jacksonville Heights, Duval County, Florida. The area is a semi-rural residential neighborhood. Two homes are physically on the landfill and three other residences are immediately adjacent to it. The landfill is situated above the 500-year flood plain and there are no ecologically sensitive areas nearby. Surface water is not used to supply drinking water in the area, and recreational uses consist of swimming, boating, fishing, and similar activities. Present lateral distance of ground water contamination extends approximately 1,000 feet northeast of the site. In 1968, the property owner, Mr. G. O. Williams (now deceased) contracted with Waste Control of Florida, Inc., a local disposal company, to fill in the site. No record of the fill material exists. Operations ceased in 1970 when a permit request to extend the landfill eastward was denied. Problems were first reported in the early 1970s when a pond adjacent to the landfill developed a thick, smelly film, and fish and nearby vegetation died. No record of action was noted. In February 1983 area residents began to complain of a foul odor and taste in the drinking water. Well sampling identified the presence of VOCs in the drinking water. During re-sampling studies in March, April and August 1983, larger suites of VOCs and metals were discovered. Between June and October 1983, the city installed waterlines supplying the site residents with city water. By January 1985
(See Attached Sheet)

| 17. KEY WORDS AND DOCUMENT ANALYSIS | | |
|---|---|---|
| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
| Record of Decision<br>Hipps Road Landfill, FL<br>Contaminated Media: gw, sw<br>Key contaminants: organics, VOCs, inorganics, toluene, metal | | |
| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS *(This Report)*<br>None<br>20. SECURITY CLASS *(This page)*<br>None | 21. NO. OF PAGES<br>191<br>22 PRICE |

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EPA/ROD/R04-86/010
Hipps Road Landfill, FL

16. ABSTRACT (continued)

ground water was no longer a source for drinking water in the area. The primary contaminants of concern include: VOCs, TCE, metals, xylene, toluene, benzene.

The selected remedial action includes ground water recovery and treatment at the POTW; Subtitle D landfill closure; and institutional controls. The estimated cost for this remedy is $3.9-4.4 million. Capital and O&M costs were not specified separately, however, EPA will fund O&M activities for one year after completion of the remedial action. O&M will continue for 20 years using funds provided by the State of Florida.

## TECHNICAL REPORT DATA
*(Please read Instructions on the reverse before completing)*

| 1. REPORT NO. | 2. | 3. RECIPIENT'S ACCESSION NO. |
|---|---|---|
| EPA/ROD/R04-86/007 | | |

| 4. TITLE AND SUBTITLE | 5. REPORT DATE |
|---|---|
| SUPERFUND RECORD OF DECISION<br>Hollingsworth, FL | April 10, 1986<br>6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | 8 PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | 10. PROGRAM ELEMENT NO<br>11. CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report<br>14. SPONSORING AGENCY CODE<br>800/00 |
| 15 SUPPLEMENTARY NOTES | |

16. ABSTRACT

The Hollingsworth Solderless Terminal Company (HSTC) site is located in Fort Lauderdale, Broward County, Florida. The 3.5-acre site was in operation from 1966 until the company closed the facility on October 1, 1982. HSTC manufactured solderless electrical terminals. The manufacturing process included heat treatment in molten salts baths, degreasing, and electroplating. For approximately eight years, HSTC disposed of wash water and process wastewater contaminated with trichloroethylene (TCE), and/or heavy metals into drainfields adjacent to the manufacturing plant. Disposal practices at the site have been clearly documented; however, the amounts of TCE disposed of and the exact locations and duration of disposal remain undocumented. The waste TCE was used both as a degreasing solvent and for cleaning floors, equipment, etc. Primary contaminants at the site include TCE, vinyl chloride, trans-1,2-dichloroethene, and to a lesser extent, nickel, tin, and copper.

The selected remedial action for this site includes: excavation, aeration and replacement onsite of volatile organic contaminated soils and the recovery of contaminated ground water from the sand zones of the aquifer, with treatment and reinjection into the aquifer. Capital cost for the selected remedial action is estimated to be $653,730 with O&M costs approximately $364,215 per year.

17. KEY WORDS AND DOCUMENT ANALYSIS

| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
|---|---|---|
| Record of Decision<br>Hollingsworth, FL<br>Contaminated Media: gw, soil<br>Key contaminants: Trichloroethylene (TCE), vinyl chloride, trans-1,2-Dichloroethene, heavy metals, VOCs | | |

| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS *(This Report)*<br>None | 21. NO. OF PAGES<br>50 |
|---|---|---|
| | 20. SECURITY CLASS *(This page)*<br>None | 22 PRICE |

| TECHNICAL REPORT DATA (Please read Instructions on the reverse before completing) | | |
|---|---|---|
| 1. REPORT NO. EPA/ROD/R04-86/017 | 2. | 3. RECIPIENT'S ACCESSION NO |
| 4. TITLE AND SUBTITLE ENFORCEMENT DECISION DOCUMENT Lees Lane Landfill, KY (Second Remedial Action) | | 5. REPORT DATE September 25, 1986<br>6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | | 10. PROGRAM ELEMENT NO<br>11. CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS U.S. Environmental Protection Agency 401 M Street, S.W. Washington, D.C. 20460 | | 13. TYPE OF REPORT AND PERIOD COVERED Final ROD Report<br>14. SPONSORING AGENCY CODE 800/00 |
| 15. SUPPLEMENTARY NOTES | | |

16. ABSTRACT

The Lees Lane Landfill (LLL) site is located adjacent to the Ohio River in Jefferson County, Kentucky. Land use at the site has included a sand and gravel quarry, a junkyard, and a landfill. The landfilling operations were reported to have begun in the late 1940s. The site received domestic, commercial, solid municipal, and at least 212,400 tons of mixed industrial waste (some drummed) prior to its closure in April 1975. In March 1975, homeowners in an adjacent community, reported flash fires around their water heaters. A subsequent investigation detected explosive levels of methane gas and seven families were evacuated from homes near the site. A venting system was installed in October 1980. In February 1980, the Kentucky Department of Hazardous Materials and Waste Management (HMWM) discovered approximately 400 drums about one hundred feet from the Ohio River bank. The drums were moved to an approved hazardous waste disposal facility by the LLL owners under court order in September and October 1981. The remaining nonhazardous drummed materials and empty drums were buried onsite. Surface water, soil, and ground water are contaminated with benzene, heavy metals including lead, arsenic, and chromium, and inorganics.

The selected remedy for this site includes: provision for a properly operating gas collection system; consideration of a possible future alternate water supply; cleanup of surface waste area which will involve removal of exposed drums, capping of "hot spot"
(See Attached Sheet)

| 17. KEY WORDS AND DOCUMENT ANALYSIS | | |
|---|---|---|
| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field Group |
| Enforcement Decision Document<br>Lees Lane Landfill, KY<br>(Second Remedial Action)<br>Contaminated Media: soil, gw, sw<br>Key contaminants: VOCs, inorganics, heavy metals, chromium | | |
| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS (This Report) | 21. NO OF PAGES |
| | 20. SECURITY CLASS (This page) None | 22. PRICE 40 |

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16. ABSTRACT (continued)

soils and an area containing exposed trash, and disposal at an approved landfill; bank protection controls which will include the installation of riprap to minimize erosion potential and failure of the Ohio River embankment; estalishment of an ACL for the ground water at the site; institutional controls, which will be fully identified during remedial design; and ground water, gas, and air monitoring. The estimated capital cost for this remedy is $2,343,000 with annual O&M costs of $127,440.

| TECHNICAL REPORT DATA<br>*(Please read Instructions on the reverse before completing)* | | |
|---|---|---|
| 1. REPORT NO.<br>EPA/ROD/R04-86/012 | 2. | 3 RECIPIENT'S ACCESSION NO |
| 4. TITLE AND SUBTITLE<br>SUPERFUND RECORD OF DECISION<br>Mowbray Engineering, AL | | 5 REPORT DATE<br>September 25, 1986<br>6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | | 8 PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | | 10. PROGRAM ELEMENT NO<br>11. CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report<br>14. SPONSORING AGENCY CODE<br>800/00 |
| 15 SUPPLEMENTARY NOTES | | |

16. ABSTRACT

The Mowbray Engineering Company (MEC) site consists of a 3-acre swamp located in Greenville, Butler County, Alabama. The study area evaluated in the RI/FS also included the MEC plant property located across the street from the swamp. The MEC site lies in the 100-year flood plain of the Tanyard Branch, and is saturated most of the year. An aquifer underlying the site supplies 11,400 residents with potable water. Since the early 1940s, MEC has been in the business of repairing electrical transformers. Waste oils generated from this process were dumped onto the ground behind the plant. Oil was also allowed to flow into a city storm sewer drain and ultimately into the swamp. Dumping and other discharges continued until the mid-1970s. A fish kill occurred in 1975 in Tanyard Branch. As a result, MEC installed two underground storage tanks to collect oil for resale and prevent future spills. In 1980 another fish kill occurred, and the State sampled soils to determine the exact source of contamination. PCBs were detected in swamp soils at 500ppm, leading to EPA removing the top six inches of swamp soil and disposing of the wastes in an approved offsite hazardous waste facility. The MEC site was listed on the NPL in 1982, and RI/FS activities were initiated in January, 1985, following discovery of PCBs in concentrations of 1,737ppm in soils contained in the storm water drainage pathway. The primary contaminants of concern are PCBs.

(See Attached Sheet)

| 17. KEY WORDS AND DOCUMENT ANALYSIS | | |
|---|---|---|
| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
| Record of Decision<br>Mowbray Engineering, AL<br>Contaminated Media: soils<br>Key contaminants: PCBs, oils | | |
| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS *(This Report)*<br>None<br>20. SECURITY CLASS *(This page)*<br>None | 21. NO. OF PAGES<br>73<br>22 PRICE |

EPA/ROD/R04-86/012
Mowbray Engineering, AL

16. ABSTRACT (continued)

The selected remedial action includes: excavation, removal and disposal of the underground storage tanks located on the MEC property; treatment or disposal of waste oils encountered in the swamp area and in the underground storage tanks by a TSCA-approved method; drainage diversion of surface runon around the swamp area; excavation of soils contaminated above 25ppm PCBs and either offsite or onsite incineration, or onsite stabilization/solidification of these soils. Infrared incineration is preferred, but if operating parameters deem this technology impractical, solidification/stabilization will be performed. The remedy also includes grading and revegetating the swamp; proper closure of the abandoned onsite city supply well in accordance with Alabama Department of Environmental Management well closure regulations; and O&M involving maintenance of the drainage diversion ditch, the revegetated area and possibly the solidified matrix. Estimated capital cost of the remedy is $1.2-2.0 million for offsite incineration, $1.1-1.8 million for onsite incineration, and $750,000 for solidification/stabilization. All costs include O&M activity costs.

| TECHNICAL REPORT DATA<br>*(Please read Instructions on the reverse before completing)* | | |
|---|---|---|
| 1. REPORT NO.<br>EPA/ROD/R04-86/008 | 2. | 3. RECIPIENT'S ACCESSION NO |
| 4. TITLE AND SUBTITLE<br>SUPERFUND ENFORCEMENT DECISION DOCUMENT<br>Pepper's Steel, FL | | 5. REPORT DATE<br>March 12, 1986<br>6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | | 10. PROGRAM ELEMENT NO<br>11. CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report<br>14. SPONSORING AGENCY CODE<br>800/00 |
| 15. SUPPLEMENTARY NOTES | | |

16. ABSTRACT

The Pepper's Steel and Alloys site occupies 30 acres known as Tracts 44, 45, and 46 in the Town of Medley, Florida. Medley is located in northern Dade County, approximately 10 miles northwest of Miami and 13 miles inland from the Atlantic Ocean. Additionally, the Pepper's Steel site is located in the "unsewered industrial area" and near three other Superfund sites referenced in the Biscayne Aquifer ROD.

Since the mid-1960s the Pepper's Steel site has been the location of several businesses, many of which are still operating onsite. Operations have included the manufacture of batteries, pre-cast concrete products and fiberglass boats, as well as the repair and service of trucks and heavy equipment. Also, sandblasting and painting services, a concrete batching plant and an automobile scrap operation have been or are located on the site. Various trash and waste products from these activities, including parts of rusted machinery, vehicles, aircraft, oil tanks, transformers, underground storage tanks and batteries have been deposited at the site. The contaminants that have been identified within the soil, sediments, and ground water in and around the site include PCBs, organic compounds and heavy metals such as: lead, arsenic, cadmium, chromium, copper, manganese, mercury, zinc, and antimony.

The selected remedial action for this site includes: collection and offsite disposal of all free oil according to TSCA regulations; excavation of soils exceeding 1 ppm PCB, (See Attached Sheet)

| 17. KEY WORDS AND DOCUMENT ANALYSIS | | |
|---|---|---|
| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
| Enforcement Decision Document<br>Pepper's Steel, FL (EDD)<br>Contaminated Media: soil, sediments, gw<br>Key contaminants: PCBs, organics, heavy metals, arsenic, chromium | | |
| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS *(This Report)*<br>None | 21. NO. OF PAGES<br>38 |
| | 20. SECURITY CLASS *(This page)*<br>None | 22. PRICE |

16. ABSTRACT (continued)

1,000 ppm lead, and 5 ppm arsenic; solidification/stabilization of these soils with a cement-type mixture and placement onsite; institutional controls to ensure future land uses compatible with the remedy; and ground water monitoring to ensure the effectiveness of the remedy. Total capital cost for the selected remedial alternative is estimated to be $5,212,000 with O&M costs approximately $42,500 per year.

## TECHNICAL REPORT DATA
*(Please read Instructions on the reverse before completing)*

| 1. REPORT NO. | 2. | 3. RECIPIENT'S ACCESSION NO |
|---|---|---|
| EPA/ROD/R04-86/016 | | |

| 4. TITLE AND SUBTITLE | 5. REPORT DATE |
|---|---|
| SUPERFUND RECORD OF DECISION<br>Pioneer Sand, FL | September 26, 1986<br>6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | 10. PROGRAM ELEMENT NO<br>11 CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report<br>14. SPONSORING AGENCY CODE<br>800/00 |
| 15. SUPPLEMENTARY NOTES | |

16. ABSTRACT

The Pioneer Sand site, owned by the Pioneer Sand Company (PSC), is an inactive 11-acre quarry located near Belleview, FL. A disposal permit was granted to PSC in 1974 which alllowed the disposal of inert materials including construction debris and shredded automobile strippings. Between 1974 and 1978, phenols and resin compounds were deposited from Newport Industries (currently Reichhold Chemical Company). Domestic and industrial wastes including metal plating sludges were also received from the Pensacola Naval Air Station. Approximately 75 percent of the site is an excavation pit, while the remaining 25 percent is a fill area consisting of the above-mentioned materials. In 1981 the Florida Department of Environmental Regulation did not renew the disposal permit and ordered the waste dumping practices to cease. Based on the RI results for PCB analysis of soils at the site, the EPA conducted an Immediate Removal Action in August 1986. All known areas of PCB concentrations greater than 50 ppm were removed. The primary contaminants of concern include: VOCs, organics, heavy metals, phenols, phthalates, and toluene.

The selected remedial action for the site includes: RCRA Subtitle D landfill closure; leachate collection, treatment, and onsite disposal; surface water treatment and onsite discharge; and cover system for sludge pond waste. The estimated capital cost is $462,025 with O&M costs of $45,000 for the first year, and $34,900 for years 2-30.

17. KEY WORDS AND DOCUMENT ANALYSIS

| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
|---|---|---|
| Record of Decision<br>Pioneer Sand, FL<br>Contaminated Media: soil, sw<br>Key contaminants: VOCs, inorganics,<br>heavy metals | | |

| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS *(This Report)* | 21. NO. OF PAGES |
|---|---|---|
| | None | 85 |
| | 20. SECURITY CLASS *(This page)* | 22 PRICE |
| | None | |

**TECHNICAL REPORT DATA**
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| 1. REPORT NO. | 2. | 3. RECIPIENT'S ACCESSION NO |
|---|---|---|
| EPA/ROD/R04-86/014 | | |

| 4. TITLE AND SUBTITLE | 5. REPORT DATE |
|---|---|
| SUPERFUND RECORD OF DECISION<br>SCRDI Dixiana, SC | September 26, 1986<br>6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | 10. PROGRAM ELEMENT NO<br>11. CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report<br>14. SPONSORING AGENCY CODE<br>800/00 |
| 15. SUPPLEMENTARY NOTES | |

16. ABSTRACT

The SCRDI Dixiana site consists of a 2-acre lot and a warehouse in southeastern Lexington County, South Carolina. The warehouse, located near the center of the property is an abandoned one-story, metal structure. The predominant land use in the areas adjacent to the site are woodlands and light residential development. Approximately 1,193 people use water supply wells within three miles of the site. South Carolina Recycling and Disposal, Inc. (SCRDI) leased the site from G.M.T. in 1978 for drum storage of industrial wastes. Instances of poor handling practices, leaky drums, and exposure to the weather allowed numerous discharges to the environment prior to drum removal. In August 1978 a waste management permit was denied to SCRDI by the South Carolina Department of Health and Environmental Control (SCDHEC) because of poor waste management practices. A suit was filed by SCDHEC against SCRDI during the same month. Removal of all surficial drummed waste and visibly contaminated soils was performed by SCRDI. The Ground Water Protection Division of SCDHEC completed a detailed ground water monitoring program in Autumn 1982 and confirmed ground water contamination underlying the site. No significant site-related surface water, sediment, air, or surface and subsurface soil contamination have appeared. Potential sources of future contamination at the site are former drum storage areas and suspected spill areas. Contamination is presently moving offsite primarily via shallow ground water in response to the hydraulic
(See Attached Sheet)

17. KEY WORDS AND DOCUMENT ANALYSIS

| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
|---|---|---|
| Record of Decision<br>SCRDI Dixiana, SC<br>Contaminated Media: gw<br>Key contaminants: VOCs, PAHs, PCBs, PCE, organics, pesticides, inorganics | | |

| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS *(This Report)* None | 21. NO. OF PAGES 62 |
|---|---|---|
| | 20. SECURITY CLASS *(This page)* None | 22 PRICE |

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16. ABSTRACT (continued)

gradients in various interconnected aquifers. The primary contaminants of concern include: VOCs, PAHs, PCBs, PCE, organics, pesticides, inorganics.

The selected remedial action includes: extraction of contaminated ground water; treatment of contaminated ground water to alternate concentration levels; discharge of treated ground water to surface water (regulated by South Carolina's NPDES Discharge Permit) and no action on soils. The estimated capital cost for this remedial action is $751,250 with O&M estimated at $2,128,100 for a 30-year period. O&M may require anywhere from 3 to 30 years to accomplish.

## TECHNICAL REPORT DATA

*(Please read Instructions on the reverse before completing)*

| 1. REPORT NO. | 2. | 3. RECIPIENT'S ACCESSION NO |
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| EPA/ROD/R04-86/018 | | |

| 4. TITLE AND SUBTITLE | 5. REPORT DATE |
|---|---|
| SUPERFUND RECORD OF DECISION<br>Sapp Battery, FL | September 26, 1986<br>6. PERFORMING ORGANIZATION CODE |
| 7 AUTHOR(S) | 8 PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | 10. PROGRAM ELEMENT NO<br>11 CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report<br>14. SPONSORING AGENCY CODE<br>800/00 |
| 15. SUPPLEMENTARY NOTES | |

16. ABSTRACT

The Sapp Battery site occupies an area of approximately 45 acres in a rural part of Jackson County, Florida. Located on the site are two ponds, connected by a small channel. In 1970, Sapp Battery Service, Inc. began an operation to recover lead from used batteries. The process consisted of breaking open used batteries, dumping the acid outside the plant, recovering the lead, and disposing of the broken battery casings in an onsite man-made fishing pond. In 1977 the acid discharge began killing nearby cypress trees. Sapp Battery subsequently undertook several steps to alleviate the problem, all of which failed. In 1980, Mr. Jerry Sapp, owner of Sapp Battery, closed operations and, in effect, walked away from the site. The RI/FS conducted at the site revealed soils, sediments, surface water and ground water contaminated with lead, cadmium, arsenic, antimony and other heavy metals.

The selected remedial action for this site includes: excavation of soils and sediments containing contaminant levels above those set in the Risk Assessment; fixation of the excavated soils/sediments and onsite disposal of the solidified matrix into a cell built to Florida Class I sanitary Landfill Standards; groundwater removal and treatment of the underlying aquifers; treatment and discharge of contaminated surface water from the onsite swamp and the offsite Steele City Bay area; and monitoring program for potable water wells located within a one-mile radius of the site. Needed

(See Attached Sheet)

17. KEY WORDS AND DOCUMENT ANALYSIS

| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
|---|---|---|
| Record of Decision<br>Sapp Battery, FL<br>Contaminated Media: soil, sw, gw, sediments<br>Key contaminants: lead, cadmium, heavy metals | | |

| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS *(This Report)* | 21 NO OF PAGES |
|---|---|---|
| | None | 31 |
| | 20. SECURITY CLASS *(This page)* | 22. PRICE |
| | None | |

EPA/ROD/R04-86/018
Sapp Battery, FL

16. ABSTRACT (continued)

insitutional controls will be assessed and implemented during the Remedial Design/Remedial Action (RD/RA) phase of the project. Estimated capital cost of the selected remedy is $14,318,544 with annual O&M costs of $25,631.

# REGION V

| TECHNICAL REPORT DATA<br>*(Please read Instructions on the reverse before completing)* | | |
|---|---|---|
| 1. REPORT NO.<br>EPA/ROD/R05-86/045 | 2. | 3. RECIPIENT'S ACCESSION NO. |
| 4. TITLE AND SUBTITLE<br>ENFORCEMENT DECISION DOCUMENT<br>A&F Materials, IL<br>(Second Remedial Action) | | 5. REPORT DATE<br>August 14, 1986<br>6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | | 10. PROGRAM ELEMENT NO<br>11. CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report<br>14. SPONSORING AGENCY CODE<br>800/00 |
| 15. SUPPLEMENTARY NOTES | | |

16. ABSTRACT

The A&F Materials site is located on three and three-quarter acres in Greenup, IL. The site, originally an undeveloped backwater flood zone for the Embarras River, was first developed for a sawmill operation. Mr. Ken Ault purchased the site for the A&F Materials recycling plant, which began operations in March 1977 and continued until it shut down in 1980. The plant processed waste materials (including but not limited to oil, sludge, caustic and sulfuric acid) into fuel oil and fire retardant chemicals. During the course of operations, there were numerous violations of the operating permit issued to the plant by the IEPA. By March 1978, four storage lagoons became filled and began to overflow, contaminating the soil and drainage pathway. In addition, thirteen steel storage tanks containing a mixture of waste oils (contaminated with PCBs and organics), sludges, spent caustics and acids, contaminated water and other waste products, were located onsite. The tanks had failed on several occasions, releasing their contents. In March 1980, May 1982, and December 1982, actions were taken at the site to lower the immediate potential of releases. These actions included lowering the level of wastes in the lagoons, diking, trenching, cleanup and removal of onsite and offsite wastes. In addition, a temporary cap was placed on the consolidated sludge in March 1983. In September 1984, the Aluminum Company of America, Northern Petrochemical, CAM-OR Inc. and Petrolite Corporation entered into a Partial Consent Decree (PCD)
(See attached sheet)

| 17. KEY WORDS AND DOCUMENT ANALYSIS | | |
|---|---|---|
| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
| Enforcement Decision Document<br>A&F Materials, IL<br>(Second Remedial Action)<br>Contaminated Media: gw<br>Key contaminants: VOCs, organics, TCE, metals | | |
| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS *(This Report)*<br>None | 21. NO. OF PAGES<br>49 |
| | 20. SECURITY CLASS *(This page)*<br>None | 22. PRICE |

EPA/ROD/R05-86/045
A&F Materials, IL
(Second Remedial Action)

16. ABSTRACT (continued)

whereby the companies agreed to undertake surface cleanup at the site as an additional removal and remedial action. Pursuant to this PCD, an RI/FS was prepared by the consenting defendants which determined the amount of soil/sludge to be removed and the extent and flow direction of ground water contamination. Following the soil removal in 1985, only phenols and benzoic acid were detected above the non-detectable limits. The most significant contaminants of concern found during the RI/FS include: sulfates, inorganics, TCE, and metals.

The selected remedial action for the site includes: ground water monitoring of the natural purging and dilution of contaminants; institutional controls; and establishment of procedures for regular review of monitoring data. There is no estimated capital cost associated with this remedy, however, the PRPs have agreed to pay the estimated annual O&M costs of $24,000.

| TECHNICAL REPORT DATA<br>*(Please read Instructions on the reverse before completing)* | | |
|---|---|---|
| 1. REPORT NO.<br>EPA/ROD/R05-86/036 | 2. | 3. RECIPIENT'S ACCESSION NO. |
| 4. TITLE AND SUBTITLE<br>SUPERFUND RECORD OF DECISION<br>Arcanum Iron and Metal, OH | | 5. REPORT DATE<br>September 26, 1986<br>6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | | 10. PROGRAM ELEMENT NO.<br>11 CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report<br>14. SPONSORING AGENCY CODE<br>800/00 |
| 15. SUPPLEMENTARY NOTES | | |

16. ABSTRACT

The Arcanum Iron and Metal (AIM) site is a 4.5-acre site located in Twin Township, Darke County, OH just southeast of the city of Arcanum and 25 miles northwest of Dayton. The AIM site operated as a lead battery reprocessing facility from the early 1960s until 1982. During this operation, battery casings were split to extract lead cores for smelting. Battery acids generated from this operation were dumped in a large steel trough and allowed to drain to a low area. Reprocessing of the plastic and black rubber battery casings generated lead oxide sludge and lead particulates which collected on the ground surface and surface ponds onsite. Past practices at the facility included burial of some materials in onsite pits. Results of the surface soil and soil boring samples taken during the RI indicate that lead is the primary contaminant of concern with antimony and arsenic leading the contaminants of secondary concern. Lead was detected in onsite and offsite monitoring wells but not in the six offsite residential wells sampled. Lead contamination was also found in onsite and offsite surface water and sediments and three onsite buildings. In addition, an estimated 3,800 cubic yards of shredded battery casings exist onsite.

The cost effective remedy selected includes: removal of onsite contaminated soils to 500ppm lead and disposal in offsite RCRA Subtitle C landfill; removal of offsite soils to background lead concentrations and disposal of soils above 500ppm in offsite RCRA (See Attached Sheet)

| 17. KEY WORDS AND DOCUMENT ANALYSIS | | |
|---|---|---|
| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
| Record of Decision<br>Arcanum Iron and Metal, OH<br>Contaminated Media: gw, sw, soil, sediment<br>Key contaminants: lead, antimony, arsenic, heavy metals | | |
| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS *(This Report)*<br>None | 21. NO. OF PAGES<br>40 |
| | 20. SECURITY CLASS *(This page)*<br>None | 22 PRICE |

EPA/ROD/R05-86/036
Arcanum Iron and Metal, OH

16. ABSTRACT (continued)

Subtitle C landfill and soils between background and 500ppm onsite; continued ground water monitoring semi-annually; improvement of site drainage; removal of battery casings, conduction of treatability studies, and placement in RCRA Subtitle C landfill; cleaning or demolishing contaminated onsite facilities; and deed restrictions on site land use and aquifer use in the affected areas. Total capital cost of the selected alternative is estimated to be $9,929,000 with annual O&M costs approximately $37,000.

## TECHNICAL REPORT DATA
*(Please read Instructions on the reverse before completing)*

| 1. REPORT NO. | 2. | 3. RECIPIENT'S ACCESSION NO. |
|---|---|---|
| EPA/ROD/R05-86/044 | | |

| 4. TITLE AND SUBTITLE | 5. REPORT DATE |
|---|---|
| SUPERFUND RECORD OF DECISION<br>Arrowhead Refinery, MN | September 30, 1986<br>6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | 8 PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | 10. PROGRAM ELEMENT NO.<br>11 CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report<br>14. SPONSORING AGENCY CODE<br>800/00 |
| 15. SUPPLEMENTARY NOTES | |

16. ABSTRACT

The Arrowhead Refinery site is located in Hermantown, St. Louis County, Minnesota. The site consists of 10 acres of relatively flat land with peaty wetlands scattered across the area, and it is zoned for commercial use. Land use in the vicinity is a combination of residential, commercial, and public. Between 1945 and 1977, the site was used as a waste oil reclaiming facility. The operation generated waste by-products which were discharged into an uncontained 2-acre lagoon and a waste water ditch in a wetland area. Arrowhead Refinery Company, incorporated in 1961, continued refining and recycling operations until 1977, when the Minnesota Pollution Control Agency ordered work to be stopped. Investigations conducted by EPA in 1979 revealed that onsite surface water was transporting contaminants to nearby wetlands areas and navigable waters. In response, a surface water diversion ditch was constructed to prevent further contaminant migration. The primary contaminants of concern are VOCs, PAHs and lead, and they are found in onsite soils, sediments, surface waters and ground water.

The selected remedial action for the Arrowhead Refinery site includes: excavation and onsite incineration of 4,600 cy of sludge and 20,500 cy of contaminated soils and sediments; ground water pumping and treating designed to restore the aquifer and control contaminant migration over a 25-50 year period; extension of a nearby municipal water
(See Attached Sheet)

17. KEY WORDS AND DOCUMENT ANALYSIS

| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
|---|---|---|
| Record of Decision<br>Arrowhead Refinery, MN<br>Contaminated Media: gw, sw, sediments, soil<br>Key contaminants: VOCs, PAHs, lead | | |

| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS (This Report) None | 21. NO. OF PAGES 0 |
|---|---|---|
| | 20. SECURITY CLASS (This page) None | 22 PRICE |

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16. ABSTRACT (continued)

supply system to replace those private water supplies most likely to be affected by ground water contamination; and proper abandonment of individual wells formerly used as drinking water supplies in accordance with State well codes. Estimated capital cost of the remedy is $22,000,000 with annual O&M costs ranging between $130,000 and $180,000.

## TECHNICAL REPORT DATA
*(Please read Instructions on the reverse before completing)*

| 1. REPORT NO. | 2. | 3. RECIPIENT'S ACCESSION NO |
|---|---|---|
| EPA/ROD/R05-86/031 | | |

| 4. TITLE AND SUBTITLE | 5. REPORT DATE |
|---|---|
| ENFORCEMENT DECISION DOCUMENT<br>Burlington Northern, MN | June 4, 1986<br>6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | 8 PERFORMING ORGANIZATION REPORT NO |
| 9 PERFORMING ORGANIZATION NAME AND ADDRESS | 10. PROGRAM ELEMENT NO<br>11 CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | 13 TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report<br>14. SPONSORING AGENCY CODE<br>800/00 |

15. SUPPLEMENTARY NOTES

16. ABSTRACT

The Burlington Northern (BN) site is located in both the City of Baxter and the City of Brainerd, MN. The Mississippi River flows about 3,000 feet east of the plant and residential areas are located to the northeast and southeast, less than 1,000 feet from the site. Since 1907, BN has owned and operated the railroad tie treatment plant on this site. During the 1950s BN began mixing creosote, a preserver, with Number 5 fuel oil in a 1:1 ratio. At some undetermined time, the mixture was changed to creosote and coal tar. This mixture is presently being used in a 70:30 ratio. Wastewater generated from the wood treating process was sent to two shallow, unlined surface impoundments for disposal. The discharge of wastewater to the disposal ponds generated a sludge that contaminated both the underlying soils and ground water. Ground water contamination is restricted to a relatively small area downgradient from the site. The primary contaminants of concern include: PAHs, heterocycles, and phenols.

The selected alternative for this site consists of onsite treatment and capping. The major components of the alternative include: preparation of a lined staging area for temporary storage of the sludge and contaminated soil; removal of all standing water in the impoundment; excavation and segregation of the sludges for subsequent free oil recovery; excavation of visibly contaminated soil from both impoundments and subsequent storage in the staging area; backfilling of the excavated areas; preparation of a base
(See Attached Sheet)

17. KEY WORDS AND DOCUMENT ANALYSIS

| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
|---|---|---|
| Enforcement Decision Document<br>Burlington Northern, MN<br>Contaminated Media: soil, gw<br>Key contaminants: organics, PAHs, creosote | | |

| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS *(This Report)* | 21. NO. OF PAGES |
|---|---|---|
| | None | 36 |
| | 20. SECURITY CLASS *(This page)* | 22 PRICE |
| | None | |

EPA/ROD/R05-86/031
Burlington Northern, MN

16. ABSTRACT (continued)

for the treatment area; installation of a sump for collection of the storm water and leachate; installation of an irrigation system; land treatment of creosote focusing on the breakdown and transformation of organic constituents by aerobic microorganisms in the top layer of soil, and the immobilization of organic and inorganic constituents on the soil. The final goal of this treatment is not the complete degradation of all waste constituents, but is rather the transformation and immobilization of these constitutents to render soil that is no longer toxic and does not leach harmful constituents. A final RCRA approved cover will be installed following the treatment process. The estimated capital cost for this remedy is $582,000 with annual O&M costs of $36,000.

| TECHNICAL REPORT DATA<br>*(Please read Instructions on the reverse before completing)* | | |
|---|---|---|
| 1. REPORT NO.<br>EPA/ROD/R05-86/037 | 2. | 3. RECIPIENT'S ACCESSION NO |
| 4. TITLE AND SUBTITLE<br>SUPERFUND RECORD OF DECISION<br>Burrows Sanitation Site, MI | | 5 REPORT DATE<br>September 30, 1986<br>6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | | 10. PROGRAM ELEMENT NO.<br>11 CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report<br>14. SPONSORING AGENCY CODE<br>800/00 |
| 15 SUPPLEMENTARY NOTES | | |


16. ABSTRACT

The Burrows Sanitation site is a ten-acre site located on 54th Avenue in Hartford Township, Van Buren County, Michigan. This site was used for dewatering and disposing of metal hydroxide sludges, waste coolants, and soluble oils. Located within a three-quarter mile radius of the site are approximately 150 people living in thirteen permanent residences and a trailer park. These homes obtain water from private wells. Access to the site is restricted by a snow fence, but some sections of the fence are in poor condition, allowing sportsmen and skiers easy access. Two wetland areas, the East Wetland and the Northwest Wetland, are located on the eastern and northwestern edges of the site. The Northwest Wetland was created artificially by the construction of an earthen dam. In July 1984, under a CERCLA Administrative Order by Consent, responsible parties excavated and removed sludges and contaminated soils from four onsite waste disposal areas. Sampling of these areas indicates that the former source materials were removed so they no longer present a potential health threat via direct contact or ingestion. Wastes similar to the excavated wastes remain in the newly identified Spill Area No. 2. Principal contaminants include chromium, copper, lead, nickel, zinc, and cyanide. Test results also indicate that the surface water and sediments in the Northwest Wetland and drainage canal have been impacted by the site. In addition, onsite monitoring wells indicate a limited chemical plume or plumes related to site

(See Attached Sheet)


| 17. KEY WORDS AND DOCUMENT ANALYSIS | | |
|---|---|---|
| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
| Record of Decision<br>Burrows Sanitation Site, MI<br>Contaminated Media: gw, sw, soil, sediment<br>Key contaminants: heavy metals, inorganics | | |
| 18. DISTRIBUTION STATEMENT | 19 SECURITY CLASS *(This Report)*<br>None | 21. NO. OF PAGES<br>52 |
| | 20. SECURITY CLASS *(This page)*<br>None | 22 PRICE |

16. ABSTRACT (continued)

activities. Residential wells in the site vicinity have not been impacted by site contaminants.

The cost-effective remedial action selected for this site includes: purge and treat the contaminated ground water for approximately 3 years, drain the artificial Northwest Wetland; remove and treat approximately 250 cubic yards of metal hydroxide sludge from Spill Area No. 2 and the Northwest Wetland; and dispose of the treated waste at an offsite RCRA facility. Total estimated capital cost for the selected remedial action ranges from $1,256,700 to $1,335,400 depending on the distance to the offsite RCRA facility with O&M costs of $115,000.

## TECHNICAL REPORT DATA
*(Please read Instructions on the reverse before completing)*

| 1. REPORT NO. | 2. | 3. RECIPIENT'S ACCESSION NO. |
|---|---|---|
| EPA/ROD/R05-86/042 | | |

| 4. TITLE AND SUBTITLE | 5. REPORT DATE |
|---|---|
| SUPERFUND RECORD OF DECISION<br>Byron Johnson Salvage Yard, IL<br>(Second Remedial Action) | September 23, 1986<br>6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | 10. PROGRAM ELEMENT NO<br>11. CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report<br>14. SPONSORING AGENCY CODE<br>800/00 |

15. SUPPLEMENTARY NOTES

16. ABSTRACT

The Byron Johnson Salvage Yard is an approximately 20-acre wooded parcel located in Ogle County, Illinois. General rubble and domestic refuse, along with industrial wastes including drums and plating materials, are scattered about this presently inactive site. During the 1960s and early 1970s, the yard operated as a salvage yard and unpermitted landfill. A March 1985 Record of Decision (ROD) implemented a remedial action consisting of excavation and removal of containerized waste and contaminated soil, and onsite treatment of soil containing excessive levels of cyanide. Ground water under and downgradient from the site is contaminated with heavy metals, cyanide and VOCs, including TCE and PCE. Because the material within the Salvage Yard has not yet been removed, wastes still present, both on the surface and buried, act as an ongoing source for ground water contamination.

The selected remedy for this second operable unit includes: installation of whole house carbon filtration systems in affected year-round residences to provide an interim alternate water supply; provision of an interim alternate water supply to residents occupying seasonal (summer-use) homes through distribution of bottled water; ongoing sampling and monitoring program to evaluate the effectiveness and lifetime of the carbon filters; installation of replacement filters after breakthrough occurrence; and disposal of spent filters in accordance with provisions of the Resource Conservation and Recovery
(See Attached Sheet)

17. KEY WORDS AND DOCUMENT ANALYSIS

| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
|---|---|---|
| Record of Decision<br>Byron Johnson Salvage Yard, IL<br>(Second Remedial Action)<br>Contaminated Media: gw<br>Key contaminants: VOCs, TCE, PCE, cyanide, heavy metals | | |

| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS (This Report)<br>None | 21. NO. OF PAGES<br>123 |
|---|---|---|
| | 20. SECURITY CLASS (This page)<br>None | 22. PRICE |

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EPA/ROD/R05-86/042
Byron Johnson Salvage Yard, IL
(Second Remedial Action)

16. ABSTRACT (continued)

Act of 1976, as amended. The IEPA has advocated the selection of the water line alternative and not the selected remedy even though the U.S. EPA considered the water line remedy to be inconsistent with the final ground water remediation program. Because of the State's commitment to provide a permanent water supply, implementation of the ROD recommended alternative is not required to alleviate the current health threat and will not be funded unless the State of Illinois agrees to assume O&M costs and the 10 percent funds match. The estimated capital cost for this remedy is $115,500 with annual O&M estimated to be $165,350.

**TECHNICAL REPORT DATA**
*(Please read Instructions on the reverse before completing)*

| 1. REPORT NO. | 2. | 3. RECIPIENT'S ACCESSION NO. |
|---|---|---|
| EPA/ROD/R05-86/035 | | |

| 4. TITLE AND SUBTITLE | 5. REPORT DATE |
|---|---|
| SUPERFUND RECORD OF DECISION<br>Fields Brook, OH | September 30, 1986<br>6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | 10. PROGRAM ELEMENT NO<br>11. CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report<br>14. SPONSORING AGENCY CODE<br>800/00 |

15. SUPPLEMENTARY NOTES

16. ABSTRACT

Fields Brook is located in the City of Ashtabula, Ohio and drains a 5.6-square mile watershed (defined as the "site"). The 3.5 mile main channel of Fields Brook flows through an industrial area that is one of the largest and most diversified concentrations of chemical plants in Ohio. The brook empties into the Ashtabula River which subsequently flows into Lake Erie 8,000 feet downstream of its confluence with Fields Brook. Industrial sources have contaminated the sediment in Fields Brook with a variety of organic and heavy metal pollutants, including TCE, PCE, chlorobenzene, vinyl chloride, arsenic, zinc, mercury and chromium. Base-neutral compounds including hexachloroethane, toluenediamine and toluene diisocyanate also have been detected in Fields Brook sediments. Sediments taken from the Ashtabula River in the vicinity of Fields Brook are contaminated with PCBs. The U.S. EPA believes that the amount of contamination entering the brook at this time has been substantially reduced due to the recent development of pollution control laws and discharge permitting requirements.

The selected remedial action for the Fields Brook site includes: provisions for the excavation of contaminated sediment from Fields Brook, the temporary storage and dewatering, and the thermal treatment of a portion and the solidification and onsite landfilling of the remainder. Based on criteria presented in the ROD, approximately 36,000 cy of contaminated sediments will be solidified, and 16,000 cy will be thermally
(See Attached Sheet)

17. KEY WORDS AND DOCUMENT ANALYSIS

| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
|---|---|---|
| Record of Decision<br>Fields Brook, OH<br>Contaminated Media: sediments<br>Key contaminants: VOCs, TCE, PCE, base-neutral compounds, PCBs, arsenic, chromium zinc, mercury | | |

| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS *(This Report)* | 21. NO. OF PAGES |
|---|---|---|
| | None | 72 |

16. ABSTRACT (continued)

treated. The remedy also includes treatment of waste water from the dewatering process, and provision of O&M costs for one year. The estimated capital cost of the remedy is $35,100,000 with annual O&M costs of $72,000.

## TECHNICAL REPORT DATA
*(Please read Instructions on the reverse before completing)*

| 1. REPORT NO. | 2. | 3. RECIPIENT'S ACCESSION NO |
|---|---|---|
| EPA/ROD/R05-86/034 | | |

| 4. TITLE AND SUBTITLE | 5. REPORT DATE |
|---|---|
| SUPERFUND RECORD OF DECISION<br>Forest Waste, MI<br>(Second Remedial Action) | June 30, 1986<br>6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | 10. PROGRAM ELEMENT NO<br>11. CONTRACT/GRANT NO. |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report<br>14. SPONSORING AGENCY CODE<br>800/00 |

15. SUPPLEMENTARY NOTES

16. ABSTRACT

The Forest Waste Disposal Site is located at 8359 East Farrand Road, Otisville, Michigan, approximately 12 miles northeast of Flint, and approximately 2 miles northwest of the City of Otisville. The total site area is approximately 112 acres. The site has a landfill with a surface area of approximately 15 acres, and nine surface impoundments with a collective surface area of approximately one acre. From 1973 to 1978, the site received general refuse, industrial and liquid waste, PBBs, and PCBs. Drummed wastes from various sources were disposed of in the landfill area, and waste oils, metallic sludges, paint and resin wastes, and spent sulfuric acid were disposed in the onsite lagoons. Currently, onsite soils and sediments are contaminated with priority pollutant compounds and various organic and heavy metal compounds.

The selected source control remedial alternative includes excavation, treatment and disposal of 4000 $yd^3$ of contaminated sludges, sediments and soils in an offsite RCRA-permitted landfill, and removal, treatment and disposal of 110,000 gallons of aqueous lagoon wastes at a RCRA treatment facility. The estimated capital cost for this remedy is $1,295,000 with no annual O&M costs.

17. KEY WORDS AND DOCUMENT ANALYSIS

| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
|---|---|---|
| Record of Decision<br>Forest Waste, MI<br>(Second Remedial Action)<br>Contaminated Media: soil, sediment, gw<br>Key contaminants: paint sludges,<br>waste oils, heavy metals, acids,<br>PCBs, PBBs, inorganics, VOCs. | | |

| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS *(This Report)* | 21. NO. OF PAGES |
|---|---|---|
| | None | 62 |
| | 20. SECURITY CLASS *(This page)* | 22 PRICE |
| | None | |

## TECHNICAL REPORT DATA
*(Please read Instructions on the reverse before completing)*

| 1. REPORT NO. | 2. | 3. RECIPIENT'S ACCESSION NO |
|---|---|---|
| EPA/ROD/R05-86/043 | | |

| 4. TITLE AND SUBTITLE | 5. REPORT DATE |
|---|---|
| SUPERFUND RECORD OF DECISION<br>Lake Sandy Jo, IN | September 26, 1986 |
| | 6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | 10. PROGRAM ELEMENT NO |
| | 11. CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report |
| | 14. SPONSORING AGENCY CODE<br>800/00 |

15. SUPPLEMENTARY NOTES

16. ABSTRACT

The Lake Sandy Jo site is located on the southeast side of the City of Gary in Lake County, Indiana. The site was a former 40-acre water-filled borrow pit that was used as a landfill between 1971 and 1980. Various wastes including construction and demolition debris, garage and industrial wastes, and drums are believed to be in the site. The area surrounding the site is primarily low density residential property. The borrow pit on the site was originally dug to support construction of I-90/84, which is adjacent to the site. In 1971 the pit was filled with ground water and was used for a short time as a recreational lake. Between 1971 and 1975 the pit was filled with various debris. Complaints were filed by local residents about odors emanating from the site, and in 1976 the owners were ordered to drain the lake and restrict fill to demolition debris only. Later in 1976 the site was sold to Glen and Gordon Martin, who continued filling operations without a permit until the site was closed in 1980. The primary contaminants of concern are PAHs, phthalates and heavy metals, found mainly in soils.

The selected remedial action for this site includes: installation of a soil cover over the landfill with a drainage blanket to control surface seeps; extension of water mains to affected residents in Gary; onsite consolidation of contaminated sediments; ground water and surface water/sediment monitoring; and deed restrictions on landfill property and institutional controls on aquifer use. The estimated capital cost of the remedy is $4,747,000 with annual O&M costs of $63,000.

17. KEY WORDS AND DOCUMENT ANALYSIS

| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
|---|---|---|
| Record of Decision<br>Lake Sandy Jo, IN<br>Contaminated Media: soil, gw, sediments<br>Key contaminants: heavy metals, PAHs,<br>phthalates | | |

| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS *(This Report)*<br>None | 21. NO. OF PAGES<br>66 |
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| | 20. SECURITY CLASS *(This page)*<br>None | 22. PRICE |

## TECHNICAL REPORT DATA
*(Please read Instructions on the reverse before completing)*

| 1. REPORT NO. | 2. | 3. RECIPIENT'S ACCESSION NO. |
|---|---|---|
| EPA/ROD/R05-86/041 | | |

| 4. TITLE AND SUBTITLE | 5. REPORT DATE |
|---|---|
| SUPERFUND RECORD OF DECISION<br>LaSalle Electrical, IL | August 29, 1986 |
| | 6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | 10. PROGRAM ELEMENT NO. |
| | 11. CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS | 13. TYPE OF REPORT AND PERIOD COVERED |
| U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | Final ROD Report |
| | 14. SPONSORING AGENCY CODE<br>800/00 |

15. SUPPLEMENTARY NOTES

16. ABSTRACT

The LaSalle Electrical Utilities (LEU) site is located in west-central LaSalle County in the city of LaSalle in north-central Illinois. There are approximately 190 people and 70 residences located within 1/8 mile of the LEU property. LEU, a former manufacturer of electrical equipment, began operating prior to World War II. Between the late 1940s and 1978, PCBs were utilized in the production of capacitors. Undocumented reports allege the application of PCB-contaminated waste oils as a dust suppressant both on and off the property until as late as 1969. Following the regulation of PCBs, manifests document the disposal of PCBs at all regulated facilities. Beginning in September 1975, numerous government agencies conducted various inspections and issued numerous complaints and orders to the LEU company as a result of its manufacturing and handling practices. Soil sampling conducted by the Illinois Environmental Protection Agency (IEPA) in December 1980 documented onsite PCB contamination. Continued soil sampling revealed offsite contamination in March and May 1981 and the IEPA ordered the company to cease operations in May 1981. The U.S. EPA conducted immediate removal actions that involved fencing the LEU property and capping a portion of the heavily contaminated onsite property; capping contaminated offsite property to the south of the site; and staging, sampling and packaging PCB waste material for future disposal. Of the total 28,690 cubic yards of soil contaminated
(See Attached Sheet)

17. KEY WORDS AND DOCUMENT ANALYSIS

| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
|---|---|---|
| Record of Decision<br>LaSalle Electrical, IL<br>Contaminated Media: soil<br>Key contaminants: PCBs | | |

| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS *(This Report)* | 21. NO. OF PAGES |
|---|---|---|
| | None | 39 |
| | 20. SECURITY CLASS *(This page)* | 22 PRICE |
| | None | |

16. ABSTRACT (continued)

above 5ppm, approximately 22,240 cubic yards are offsite on the commercial property immediately to the south and residential property to the east of the site with approximately 27 affected property owners. The primary contaminant of concern is PCB.

The selected remedial action for this site includes: excavation of approximately 25,530 cubic yards of contaminated residential offsite soil and replacement with clean fill; incineration of contaminated soils with a mobile, onsite, thermal destruction unit; and conventional industrial cleaning, which would include vacuuming, hand washing, steam jet cleaning, and adsorption of all structures where soil removal activities have taken place. The estimated present worth cost is $26,400,000 with no annual O&M costs.

## TECHNICAL REPORT DATA
*(Please read Instructions on the reverse before completing)*

| 1. REPORT NO. | 2. | 3. RECIPIENT'S ACCESSION NO |
|---|---|---|
| EPA/ROD/R05-86/040 | | |

| 4. TITLE AND SUBTITLE | 5. REPORT DATE |
|---|---|
| SUPEFUND RECORD OF DECISION<br>Metamora Landfill, MI | September 30, 1986<br>6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | 10. PROGRAM ELEMENT NO<br>11 CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report<br>14. SPONSORING AGENCY CODE<br>800/00 |
| 15. SUPPLEMENTARY NOTES | |

16. ABSTRACT

The Metamora Landfill site is located in Metamora Township, Lapeer County, MI. The 80-acre landfill was previously used for gravel mining and in 1966 as a privately owned, unregulated dump. In 1969 it was upgraded to meet existing standards, and licensed to receive general refuse. The site accepted both municipal and industrial waste until its closure in 1980. While undocumented, it is likely that the previous owner disposed of waste and drums in unlined excavations (former mining pits or borrow areas). In 1981 approximately eight drums were discovered during borrow excavations for a nearby solid waste transfer station. The Michigan Department of Natural Resources (MDNR) sampled seven of these drums and identified the presence of VOCs, and other organics. A 1982 MDNR study concluded that as many as 35,000 drums, some containing liquid waste, might be present in five disposal areas around the site. The survey concluded that area one (16,000 drums) and area four (10,000 drums) contained about 74% of the total estimated number of burial drums. While each of the five disposal areas was initially considered, areas two, three, and five were eliminated due to the inability to confirm drum presence at inaccessible depths. Remedial actions for ground water, which poses a public health threat, and soil have not been addressed due to insufficient data detailing the extent of contamination. Based on an estimated 26,000 drums and associated waste material between drums in areas one and four, the total estimated waste volume requiring disposal
(See Attached Sheet)

17. KEY WORDS AND DOCUMENT ANALYSIS

| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
|---|---|---|
| Record of Decision<br>Metamora Landfill, MI<br>Contaminated Media: gw, soil<br>Key contaminants: VOCs, TCE, PCE, heavy metals | | |

| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS *(This Report)* None | 21. NO. OF PAGES 31 |
|---|---|---|
| | 20. SECURITY CLASS *(This page)* None | 22 PRICE |

EPA/ROD/R05-86/040
Metamora Landfill, MI

16. ABSTRACT (continued)

is 18,150 cubic yards. The primary contaminants of concern include: VOCs, PCE, TCE, and heavy metals.

The recommended alternative for this operable unit is the excavation of areas one and four, and thermal destruction of all waste at a compliant RCRA offsite incinerator. The estimated 30-year present worth cost is $41,500,000.

## TECHNICAL REPORT DATA
*(Please read Instructions on the reverse before completing)*

| 1. REPORT NO. | 2. | 3. RECIPIENT'S ACCESSION NO |
|---|---|---|
| EPA/ROD/R05-86/033 | | |

| 4. TITLE AND SUBTITLE | 5 REPORT DATE |
|---|---|
| SUPERFUND RECORD OF DECISION<br>New Brighton/Arden Hills/St. Anthony, MN<br>*(Fourth Remedial Action)* | June 30, 1986<br>6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | 10. PROGRAM ELEMENT NO.<br>11. CONTRACT/GRANT NO. |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report<br>14. SPONSORING AGENCY CODE<br>800/00 |

15. SUPPLEMENTARY NOTES

16. ABSTRACT

The New Brighton/Arden Hills/St. Anthony site is located approximately two miles north of the Twin Cities of Minneapolis/St. Paul, Minnesota, and is one of several communities in the area which obtains its municipal water supplies entirely from ground water resources. In June 1981, the Minnesota Pollution Control Agency (MPCA) and the Minnesota Department of Health (MDH) detected organic solvent contamination in the ground water used for municipal drinking water in New Brighton. Prior to these findings, the City of New Brighton had constructed and operated a total of nine municipal wells. From 1982 to 1984 the City shut down six wells (1 to 6), deepened two municipal wells (8 and 9) to the Mt. Simon-Hinckley aquifer and constructed three new wells (10, 11 and 12). These new wells were also finished in the Mt. Simon-Hinckley aquifer. Of the original municipal wells completed in the Prairie du Chien-Jordan aquifer, only well 7 presently shows minimal contamination.

During this same period, several Initial Remedial Measures (IRMs) were implemented at the site. In 1983, granular activated carbon filters were installed on two of New Brighton's wells (5 and 6) to meet peak summertime demands. In addition, pipeline connections to New Brighton's and Arden Hills' water mains were made for several private well users whose wells had excessive levels of contamination. Finally in 1984, the City of St. Anthony, which is immediately south of New Brighton, received a temporary water
(See Attached Sheet)

17. KEY WORDS AND DOCUMENT ANALYSIS

| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
|---|---|---|
| Record of Decision<br>New Brighton/Arden Hills/St. Anthony, MN<br>(Fourth Remedial Action)<br>Contaminated Media: gw<br>Key contaminants: VOCs, TCE, PCE, solvents | | |

| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS *(This Report)* | 21. NO. OF PAGES |
|---|---|---|
| | None | 33 |
| | 20. SECURITY CLASS *(This page)* | 22. PRICE |
| | None | |

EPA/ROD/R05-86/033
New Brighton/Arden Hills/St. Anthony, MN
(Fourth Remedial Action)

16. ABSTRACT (continued)

connection to the City of Roseville. This State-lead IRM was necessary because the City of St. Anthony was experiencing water shortages due to the contamination and subsequent closure of one of their three Prairie du Chien-Jordan aquifer municipal wells. Contamination is now being detected in the remaining two municipal wells and a Phased Feasibility Study (PFS) is currently being conducted for the City's water supply.

The selected remedial action for this site includes the construction of a new well into the Mt. Simon-Hinckley aquifer system to replace New Brighton well 7. Total capital cost for the selected remedial alternative is estimated to be $600,500 with O&M costs approximately $22,820 per year. MPCA is continuing its comprehensive remedial investigation/feasibility study (RI/FS) for the site. A preliminary RI characterizing the site, major migration pathways, and preliminary identification of significant sources has already been completed. MPCA is planning to complete the remaining tasks of the comprehensive RI/FS in 1987 in order to evaluate potential final remedial action(s).

| TECHNICAL REPORT DATA<br>*(Please read Instructions on the reverse before completing)* | | |
|---|---|---|
| 1. REPORT NO.<br>EPA/ROD/R05-86/032 | 2. | 3. RECIPIENT'S ACCESSION NO. |
| 4. TITLE AND SUBTITLE<br>SUPERFUND RECORD OF DECISION<br>Novaco Industries, MI | | 5. REPORT DATE<br>June 27, 1986<br>6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | | 10. PROGRAM ELEMENT NO.<br>11. CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report<br>14. SPONSORING AGENCY CODE<br>800/00 |
| 15. SUPPLEMENTARY NOTES | | |

16. ABSTRACT

Novaco Industries is a one-building facility that occupies a 2.6-acre rectangular parcel of land, located at 9411 Summerfield Road, at the intersection of Summerfield and Piehl, Temperance, Michigan. The site lies 50 miles south of Detroit and 5 miles north of Toledo, Ohio. The Novaco Industries study area consists of Novaco Industries, Veterans of Foreign Wars (VFW) Post 9656 and the Moyer residential property. A below-ground plating tank located within the Novaco Industries building leaked an unknown quantity of chromic acid into the ground water on or before June 13, 1979. Within 24 days following Novaco Industries' detection of the leak, chromium was discovered in Novaco's 20-foot well, as well as the VFW Post's well which was screened in both the shallow and deep aquifer. A year later, chromium was detected in a residential well west of the VFW Post.

An extraction wellfield, a treatment plant consisting of electrochemical reduction, precipitation, filtration, and ion exchange polishing units, and a pipeline to convey treated ground water to Indian Creek will be constructed onsite and on the adjoining properties in order to implement the selected remedial alternative. Approximately 36 million gallons of contaminated ground water will be extracted from the sand/gravel aquifer over a 4-year period. The extracted ground water will be treated onsite to remove trivalent and hexavalent chromium and will then be discharged into Indian Creek,

(See Attached Sheet)

| 17. KEY WORDS AND DOCUMENT ANALYSIS | | |
|---|---|---|
| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
| Record of Decision<br>Novaco Industries, MI<br>Contaminated Media: gw<br>Key contaminants: chromium | | |
| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS *(This Report)*<br>None<br>20. SECURITY CLASS *(This page)*<br>None | 21. NO. OF PAGES<br>20<br>22 PRICE |

16. ABSTRACT (continued)

applying the milestone approach. Total capital cost for the selected remedial action is estimated to be $560,000 with total O&M costs approximately $419,000 for a 6-year period.

## TECHNICAL REPORT DATA
*(Please read Instructions on the reverse before completing)*

| 1. REPORT NO. | 2. | 3 RECIPIENT'S ACCESSION NO |
|---|---|---|
| EPA/ROD/R05-86/038 | | |

| 4. TITLE AND SUBTITLE | 5 REPORT DATE |
|---|---|
| ENFORCEMENT DECISION DOCUMENT<br>Reilly Tar & Chemical, MN<br>(Second Remedial Action) | May 30, 1986<br>6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | 10. PROGRAM ELEMENT NO<br>11 CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report<br>14. SPONSORING AGENCY CODE<br>800/00 |

15. SUPPLEMENTARY NOTES

16. ABSTRACT

The Reilly Tar and Chemical Corporation (RTCC) site occupies 80 acres in St. Louis Park, Minnesota. The Republic Creosote Works, which operated the site between 1917 and 1972, fractionalized coal tar into various oils and produced creosote. The wastes resulting from this process polluted the land surface of the site and the underlying aquifers. The primary contaminants of concern include: PAHs and phenols.

The Remedial Action Plan (RAP) attached to the Consent Decree prescribes the following remedial actions, remedial investigations and feasibility studies to be completed over the next five years: Restoration of drinking water supply and water quality by construction of a Granular Activated Carbon (GAC) system at St. Louis Park Wells (SLP 15/10). This task has been completed by the RTCC and is in the start-up process; monitoring and contingency treatment of the Mt. Simon/Hinckley aquifer; monitoring, pumping and treatment of the Ironton/Galesville aquifer; monitoring, pumping and treatment of the Prairie du Chien/Jordan aquifer until drinking water quality is uniformly established within the area of gradient control; monitoring and contingent action for the maintenance of drinking water quality in the St. Peter aquifer; monitoring, pumping and treatment of the Drift and Platteville aquifers; monitoring, pumping and treatment of the source material in the Glacial Drift aquifer and in well WZ3 in the Praire du Chien/Jordan aquifer; capping and tilling of exposed hazardous
(See Attached Sheet)

17. KEY WORDS AND DOCUMENT ANALYSIS

| a. DESCRIPTORS | b IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field.Group |
|---|---|---|
| Enforcement Decision Document<br>Reilly Tar & Chemical, MN<br>(Second Remedial Action)<br>Contaminated Media: soils, sw, gw<br>wetlands<br>Key contaminants: VOCs, PAHs, phenols | | |

| 18. DISTRIBUTION STATEMENT | 19 SECURITY CLASS (This Report)<br>None | 21 NO OF PAGES<br>34 |
|---|---|---|
| | 20. SECURITY CLASS (This page)<br>None | 22 PRICE |

EPA/ROD/R05-86/038
Reilly Tar & Chemical, MN
(Second Remedial Action)

16. ABSTRACT (continued)

wastes in the vicinity of the bog, south of the site; discharge of hazardous wastes to a sanitary sewer for any contaminated material excavated and dewatered; further subsequent investigation in the vicinity of the site to implement deed restrictions for current and future land use in the areas of contamination; further RI/FS's to determine the areal extent of, and remedy for the contamination in the Northern area of the Glacial Drift aquifer adjacent to the site; further RI/FS's in the St. Peter aquifer as necessary to implement the remedial action presented to protect drinking water quality. Cost estimates for these actions have not yet been fully developed.

| TECHNICAL REPORT DATA<br>*(Please read Instructions on the reverse before completing)* | | |
|---|---|---|
| 1. REPORT NO.<br>EPA/ROD/R05-86/046 | 2. | 3. RECIPIENT'S ACCESSION NO. |
| 4. TITLE AND SUBTITLE<br>SUPERFUND RECORD OF DECISION<br>Seymour, IN | | 5 REPORT DATE<br>September 30, 1986<br>6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | | 10. PROGRAM ELEMENT NO<br>11 CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report<br>14. SPONSORING AGENCY CODE<br>800/00 |
| 15. SUPPLEMENTARY NOTES | | |

16. ABSTRACT

The Seymour Recycling Corporation (SRC) site, encompassing a fourteen-acre area, is approximately two miles southwest of Seymour, IN. Approximately one hundred homes are located within a one-mile radius of the site in a predominately agricultural area. From about 1970 until early 1980 SRC operated a processing center for waste chemicals. Over the years toxic and hazardous wastes, including solvents, metal finishing wastes and other materials, accumulated on the site in 55-gallon drums, bulk tanks and other containers. Wastes leaked and spilled from the drums creating fire and odor problems. A Consent Decree, reached in the fall of 1982 after a May 1980 suit filed by the United States against the owners and site operators, resulted in the removal of approximately the upper one foot of contaminated soil from about 75 percent of the site's surface. Contaminated soil remains, however, and extends throughout the shallow and deep aquifer. The site is fenced and partially covered with a temporary soil cap. Homes surrounding the site have recently been connected to the city water distribution system due to the threat of ground water contamination. The primary contaminants of concern include: VOCs, organics, TCE, DCE, benzene, toluene, and heavy metals.

The selected remedial alternative for the site is the implementation of a plume stabilization system which will extract, treat, and discharge approximately 101,690,000 gallons of contaminated ground water to the Seymour Wastewater Treatment Plant. The estimated capital cost for this remedy is $300,000. O&M costs are estimated to be

17. KEY WORDS AND DOCUMENT ANALYSIS (See Attached Sheet)

| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
|---|---|---|
| Record of Decision<br>Seymour, IN<br>Contaminated Media: soils, gw<br>Key contaminants: VOCs, organics, TCE, DCE, toluene, benzene, heavy metals | | |

| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS *(This Report)*<br>None | 21. NO. OF PAGES<br>52 |
|---|---|---|
| | 20. SECURITY CLASS *(This page)*<br>None | 22. PRICE |

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EPA/ROD/R05-86/046
Seymour, IN

16. ABSTRACT (continued)

either $100,000 per year or $250,000 total costs for the 2.5 year period required to implement a final remedial action.

| TECHNICAL REPORT DATA (Please read Instructions on the reverse before completing) | | |
|---|---|---|
| 1. REPORT NO. EPA/ROD/R05-86/039 | 2. | 3. RECIPIENT'S ACCESSION NO. |
| 4. TITLE AND SUBTITLE SUPERFUND RECORD OF DECISION Spiegelberg Landfill, MI | | 5. REPORT DATE September 30, 1986<br>6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | | 10. PROGRAM ELEMENT NO.<br>11 CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS U.S. Environmental Protection Agency 401 M Street, S.W. Washington, D.C. 20460 | | 13. TYPE OF REPORT AND PERIOD COVERED Final ROD Report<br>14. SPONSORING AGENCY CODE 800/00 |
| 15. SUPPLEMENTARY NOTES | | |

16. ABSTRACT

The Spiegelberg site is a waste disposal pit located in Green Oak Township, Livingston County, MI. Currently, the Spiegelberg property is being mined for sand, gravel, and peat deposits. From 1966 to 1977 the site was used for the disposal of domestic waste, with the main disposal area located in an abandoned sand and gravel pit in the northern third of the site. From 1967 to 1978 paint sludge was dumped near the surface water portion of the gravel pit. The paint sludge area is approximately one-half acre in size and is reportedly thirty feet deep in several places. There are two layers of hardened paint sludge: at a depth of three to six feet; and at a depth of thirteen feet. Five-gallon paint buckets were also buried at a depth of approximately ten feet and paint mixed with sand is present at various depths. Only private, domestic wastes have been disposed of at the site since the end of 1978. Organic contaminants have been detected in onsite and downgradient monitoring wells indicating the migration of these contaminants from the site into the ground water. The primary contaminants of concern include: VOCS, organics, inorganics, base/neutral compounds, TCE, toluene, xylene, metals.

The selected remedial action for the site includes: excavation of 15,000 cubic yards of waste material which will be separated into liquid and solid sludges and paint residue with garbage intermixed; offsite incineration of approximately 5,000 cubic yards (See Attached Sheet)

17. KEY WORDS AND DOCUMENT ANALYSIS

| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
|---|---|---|
| ~~Record of Decision~~<br>Spiegelberg Landfill, MI<br>Contaminated Media: gw, soils<br>Key contaminants: VOCs, organics, base-neutral compounds, inorganics, metals | | |

| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS (This Report) None | 21. NO. OF PAGES 38 |
|---|---|---|
| | 20. SECURITY CLASS (This page) None | 22 PRICE |

16. ABSTRACT (continued)

of the excavated waste material; and disposal of the remaining 10,000 cubic yards of waste into a RCRA landfill. The capital cost of this alternative is estimated at $15,771,000 to $18,395,000 depending on the offsite disposal location. No O&M will be required.

# REGION VI

## TECHNICAL REPORT DATA

*(Please read Instructions on the reverse before completing)*

| 1. REPORT NO. | 2. | 3. RECIPIENT'S ACCESSION NO. |
|---|---|---|
| EPA/ROD/R06-86/009 | | |

| 4. TITLE AND SUBTITLE | 5. REPORT DATE |
|---|---|
| SUPERFUND RECORD OF DECISION<br>Cecil Lindsey, AR | April 23, 1985 |
| | 6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | 10. PROGRAM ELEMENT NO. |
| | 11 CONTRACT/GRANT NO. |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report |
| | 14. SPONSORING AGENCY CODE<br>800/00 |

15. SUPPLEMENTARY NOTES

16. ABSTRACT

The Cecil Lindsey site consists of 5.2 acres, located in rural northeastern Arkansas, approximately 3.5 miles northeast of the city of Newport. Cecil Lindsey accepted waste for salvage and/or disposal from the early 1970s until 1980. The site was first used as a salvage operation, where machinery, automobiles, culvert pipe, and other scrap metal were collected. The southern portion of the site was formerly used to raise pigs and contains a fenced area, an open shed, and a sandpoint well. Later, the northern part of the site was used as a municipal dump by the community of Diaz, located approximately 2 miles to the west. The Cecil Lindsey site was also reportedly used for the disposal of industrial waste. Several local companies may have used the site, but the type and extent of industrial waste disposal is not well documented. The results of the field investigation indicate the presence of very limited onsite soil and ground water contamination and offsite surface water and sediment contamination. Onsite soil samples showed low inorganic concentrations which exceeded background levels scattered throughout the site and also isolated volatile organic contamination. In addition, onsite ground water samples consistently exceeded background concentrations for inorganics, but the onsite volatile organic contamination is limited.

The results of the field investigations have indicated that the low levels of contamination at the Cecil Lindsey site do not create a significant danger to present

(See Attached Sheet)

17. KEY WORDS AND DOCUMENT ANALYSIS

| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
|---|---|---|
| Record of Decision<br>Cecil Lindsey, AR<br>Contaminated Media: gw, sediments, soil, sw<br>Key contaminants: inorganics, VOCs | | |

| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS *(This Report)* | 21. NO. OF PAGES |
|---|---|---|
| | None | 57 |
| | 20. SECURITY CLASS *(This page)* | 22. PRICE |
| | None | |

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16. ABSTRACT (continued)

or future public health or the environment. The selected remedial action for this site consists of a no action alternative, with: imposition of site access restrictions; installation of 2 monitoring wells; one year of ground water monitoring and removal and disposal of site drums that contain hazardous substances. Total capital cost for these actions is estimated to be $61,000 with O&M costs approximately $10,000 for one year of ground water monitoring.

## TECHNICAL REPORT DATA
*(Please read Instructions on the reverse before completing)*

| 1. REPORT NO. | 2. | 3. RECIPIENT'S ACCESSION NO. |
|---|---|---|
| EPA/ROD/R06-86/012 | | |

| 4. TITLE AND SUBTITLE | 5. REPORT DATE |
|---|---|
| SUPERFUND RECORD OF DECISION<br>Geneva Industries, TX | September 18, 1986<br>6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | 10. PROGRAM ELEMENT NO<br>11. CONTRACT/GRANT NO. |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report<br>14. SPONSORING AGENCY CODE<br>800/00 |

15. SUPPLEMENTARY NOTES

16. ABSTRACT

The Geneva Industries site is a 13.5-acre tract located in Houston, TX, immediately adjacent to the corporate limits of the City of South Houston. Approximately 35,000 people live within one mile of Geneva. The closest residences are located less than 50 feet from the east and southwest site boundaries, and two businesses are located 300 feet west of the site. The site is currently located in the 100-year flood plain and is drained by the adjacent flood control channel. Geneva Industries is an abandoned refinery which manufactured a variety of organic compounds and fuel oils from 1967 through 1978. Surface and subsurface onsite soils have been contaminated as a result of operational spills, leaking drums, tanks, and lagoons, and landfill/land farming operations. Shallow ground water is contaminated onsite and some offsite migration has occurred east of the site. A planned removal was performed by EPA between October 1983 and February 1984 to close out three onsite lagoons, remove all drummed waste on the surface, remove all offsite soils containing greater than 50 ppm PCBs, install a cap over onsite soils containing greater than 50 ppm PCBs, and improve site drainage. Other removal actions to plug abandoned wells onsite and remove storage tank materials were performed in May and September 1984 respectively. Further studies were conducted to determine an appropriate permanent site remedy. The primary contaminants of concern include: VOCs, PAHs, TCE, PCBs, phenols and fuel oils.
(See Attached Sheet)

17. KEY WORDS AND DOCUMENT ANALYSIS

| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
|---|---|---|
| Record of Decision<br>Geneva Inustries, TX<br>Contaminated Media: sw, gw, soils, sediments<br>Key contaminants: VOCs, PAHs, TCE, PCBs,<br>phenols, oils, aromatics | | |

| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS *(This Report)*<br>None | 21. NO. OF PAGES<br>90 |
|---|---|---|
| | 20. SECURITY CLASS *(This page)*<br>None | 22. PRICE |

16. ABSTRACT (continued)

The selected remedial action includes: removal and disposal of surface structures in an offsite hazardous waste landfill; excavation of contaminated soils with greater than 100 ppm of PCBs and all buried drums onsite; disposal of excavated soils and drums at an EPA-approved offsite disposal facility; construction of a multi-layer surface cap over the site and a slurry wall tied into the clay below the 30-foot sand around the perimeter of the site; recovery of TCE contaminated ground water from the 30- and 100-foot sand, treatment onsite by carbon adsorption, and discharge into the adjacent flood control channel. The estimated capital cost for this remedy is $14,990,000 with O&M for years one and two of $532,000/year and $483,000 for years three through thirty.

## TECHNICAL REPORT DATA
*(Please read Instructions on the reverse before completing)*

| 1. REPORT NO. | 2. | 3. RECIPIENT'S ACCESSION NO. |
|---|---|---|
| EPA/ROD/R06-86/010 | | |

| 4. TITLE AND SUBTITLE | 5. REPORT DATE |
|---|---|
| SUPERFUND RECORD OF DECISION<br>Odessa Chromium I, TX | September 8, 1986 |
| | 6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | 10. PROGRAM ELEMENT NO |
| | 11 CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report |
| | 14. SPONSORING AGENCY CODE<br>800/00 |

15. SUPPLEMENTARY NOTES

16. ABSTRACT

The Odessa Chromium I site consists of a series of chromium contaminated wells within 300 acres of residential, commercial and industrial properties and facilities just outside the northwestern city limits of Odessa, Ector County, TX. Nearly every residence or commercial facility is served by one or more water wells completed in the Trinity aquifer which offers the only source of potable ground water. Two potential sources of ground water contamination at the site have been identified: the 4318 Brazos property, and Nipco at 2104 West 42nd Street. Between 1972 and 1977 several chrome plating operations functioned at the 4318 Brazos property. Waste water from the plating operations and heavy metal contaminants are believed to have been dumped directly onto the ground on the northern side of the building and/or piped into storage tanks/drums which frequently were allowed to overflow. An abandoned well on the site is suspected of providing a direct pathway to the aquifer during periods of substantial disposal or heavy rain. Nipco, also on the Odessa Chromium I site, is presently operating a metal plating facility. In November 1983, the Texas Department of Water Resources (TDWR) requested the EPA conduct a planned removal action to extend the city water lines to the affected area. However, in June 1984, the TDWR notified EPA that the plan was not feasible due to an Odessa city ordinance prohibiting the supply of water to customers

(See Attached Sheet)

17. KEY WORDS AND DOCUMENT ANALYSIS

| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
|---|---|---|
| Record of Decision<br>Odessa Chromium I, TX<br>Contaminated Media: gw<br>Key contaminants: chromium, heavy metals | | |

| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS (This Report)<br>None | 21. NO. OF PAGES<br>41 |
|---|---|---|
| | 20. SECURITY CLASS (This page)<br>None | 22. PRICE |

16. ABSTRACT (continued)

outside the city limits. The primary contaminants of concern include chromium and other heavy metals.

The selected remedial action includes negotiating agreements with the city and consumers to extend the city water system, and construction of a water distribution system. The estimated capital cost for this action is $247,920 with annual O&M costs of $14,350.

| TECHNICAL REPORT DATA<br>*(Please read Instructions on the reverse before completing)* | | |
|---|---|---|
| 1. REPORT NO.<br>EPA/ROD/R06-86/011 | 2. | 3. RECIPIENT'S ACCESSION NO. |
| 4. TITLE AND SUBTITLE<br>SUPERFUND RECORD OF DECISION<br>Odessa Chromium II, TX | | 5. REPORT DATE<br>September 8, 1986<br>6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | | 10. PROGRAM ELEMENT NO.<br>11. CONTRACT/GRANT NO. |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report<br>14. SPONSORING AGENCY CODE<br>800/00 |
| 15. SUPPLEMENTARY NOTES | | |

16. ABSTRACT

The Odessa Chromium II site consists of a series of chromium contaminated wells within 200 acres of urban area located just outside the northwestern city limits of Odessa, Ector County, TX. The site area is composed of a mixture of residential, commercial and industrial facilities. Nearly every residence or commercial facility is served by one or more water wells completed in the Trinity aquifer which offers the only source of potable ground water. Two potential sources of ground water contamination at the site have been identified; 5329 Andrews Highway, and Wooley Tool and Manufacturing at 57th Street and Andrews Highway. Between 1950 and 1965, the 5329 Andrews Highway site was occupied by Continental Products of TX, a producer of a chromium containing cooling water additive. Basin Radiator and Supply, commencing operations at this site sometime between 1965 and 1969, was investigated by the local Health Department in 1970 in response to a complaint of contaminated well water on the property to the south of the company. Wastewater analysis, at that time, did not indicate the presence of chromium, but in 1978, a partially buried steel tank leaked a cleaning vat solution containing 2.8 mg/l chromium. Wooley Tool and Manufacturing, operating since about 1950 utilized chromates in their cooling water system until about 1976. This system, tied into one of the plant's water wells, could have inadvertently back flushed into the well during occasional slow downs due to the absence of a check
(See Attached Sheet)

| 17. KEY WORDS AND DOCUMENT ANALYSIS | | |
|---|---|---|
| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
| Record of Decision<br>Odessa Chromium II, TX<br>Contaminated Media: gw<br>Key contaminants: chromium | | |
| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS *(This Report)*<br>None | 21. NO. OF PAGES<br>39 |
| | 20. SECURITY CLASS *(This page)*<br>None | 22. PRICE |

16. ABSTRACT (continued)

valve. Until about 1970, the plant also disposed of chromate contaminated wastewater in an unlined pit. The primary contaminant of concern is chromium.

The selected remedial action includes: extension of municipal water service to the affected area of the site. This involves negotiations with the city and local residents. The capital cost for this action is $476,570 with annual O&M costs of $51,575 to be spent over a 15-year period.

## TECHNICAL REPORT DATA
*(Please read Instructions on the reverse before completing)*

| 1. REPORT NO. | 2. | 3. RECIPIENT'S ACCESSION NO. |
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| EPA/ROD/R06-86/013 | | |

| 4. TITLE AND SUBTITLE | 5. REPORT DATE |
|---|---|
| SUPERFUND RECORD OF DECISION<br>Sikes Disposal Pits, TX | September 18, 1986<br>6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | 10. PROGRAM ELEMENT NO.<br>11. CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report<br>14. SPONSORING AGENCY CODE<br>800/00 |

15. SUPPLEMENTARY NOTES

16 ABSTRACT

The Sikes Disposal Pits site is located on a 185-acre site, approximately 2 miles southwest of Crosby, TX. It is bordered by the San Jacinto River on the west, Jackson Bayou on the north, and U.S. Highway 90 on the south. The site lies in the 100-year flood plain of the river while portions lie within the 10-year and 50-year flood plain. The site has been flooded four times since 1969. The area immediately surrounding the site is largely underdeveloped with numerous active and abandoned sandpits and low lying swamp areas. The area plays host to sport fishermen as well as water sport enthusiasts on the nearby river and bayou. One family lives onsite. The only residential development in close proximity is 500 feet southwest. Between the early 1960s and 1967, Sikes Disposal Pits operated as a waste depository. Chemical wastes from area petrochemical industries and numerous drums were deposited onsite in several old sand pits. A preliminary sampling at the site in 1982 indicated the presence of phenolic compounds and other organics. In June 1983 a removal action performed at the site by the EPA removed approximately 440 cubic yards of phenolic tars from a partially buried pit. Subsequent studies at the site indicated the need for a total remedial site plan. Onsite soils and surface water from the sludge areas as well as Tank Lake were found to be contaminated. Ground water in the shallow aquifer below the site has been heavily contaminated; no residential wells are currently affected. Neither surface
(See Attached Sheet)

17. KEY WORDS AND DOCUMENT ANALYSIS

| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
|---|---|---|
| Record of Decision<br>Sikes Disposal Pits<br>Contaminated Media: gw, sw, soils, sediments<br>Key contaminants: phenols, sludges, toluene, organics | | |

| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS *(This Report)* | 21. NO. OF PAGES |
|---|---|---|
| | None | 56 |
| | 20. SECURITY CLASS *(This page)* | 22. PRICE |
| | None | |

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16. ABSTRACT (continued)

water or groundwater contamination has migrated beyond the site boundaries. The primary contaminants of concern include: organics, toluene, creosote, benzene, xylene, phenolic compounds, halides, dichloroethane, vinyl chloride.

The selected remedial action includes: onsite incineration of sludges and contaminated soils; onsite disposal of residue ash - use as backfill; ban use of upper aquifer onsite, while naturally attenuating to $10^{-5}$ Human Health Criteria (less than 30 years); discharge contaminated surface water to river, treat as necessary to meet discharge criteria; monitor lower aquifer and ban its use onsite if site degradation occurs. The estimated capital cost for this action is $102,217,000 with annual O&M of $41,000.

| TECHNICAL REPORT DATA<br>*(Please read Instructions on the reverse before completing)* | | |
|---|---|---|
| 1. REPORT NO.<br>EPA/ROD/R06-86/014 | 2. | 3. RECIPIENT'S ACCESSION NO |
| 4. TITLE AND SUBTITLE<br>SUPERFUND RECORD OF DECISION<br>United Creosoting Site, TX | | 5. REPORT DATE<br>September 30, 1986<br>6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | | 10. PROGRAM ELEMENT NO<br>11. CONTRACT/GRANT NO. |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report<br>14. SPONSORING AGENCY CODE<br>800/00 |
| 15. SUPPLEMENTARY NOTES | | |

16. ABSTRACT

The United Creosoting site is a 100-acre tract of land located in the City of Conroe, Montgomery County, Texas. The site is an abandoned wood preserving facility over which two new businesses and a residential subdivision have been built. The site operated from 1946 to 1972, treating wood with creosote and pentachlorophenol (PCP). Prior to salvage and removal operations in 1972, the site contained a coal-tar distillation still, a processing building, tanks and pressure cylinders, two waste ponds, and several areas where treated lumber was stored. The only remaining evidence of the operation are remnants of the waste ponds, an office building and a garage structure. During the summer of 1980, Montgomery County obtained soils from the United Creosoting site to be used in improving local roads in a nearby subdivision. Soil material consisted of surface soils and pond backfill from the Clark Distributing Company property. Citizens living on one of the "improved" streets complained of headaches, burns, respiratory problems and damage to vegetation. Samples indicated that soils were contaminated with PCP in concentrations up to 20.3 mg/l. Montgomery County officials removed the contaminated soils from the affected roadways and disposed of them by landfarming. In early December 1983, EPA initiated an Immediate Response Action at United Creosoting, taking over 25 soil samples. Samples indicated the presence of PCP, chlorinated dioxins (no tetrachlorinated dioxins), and dibenzofurans. EPA ordered Clark Distributing to
(See Attached Sheet)

| 17. KEY WORDS AND DOCUMENT ANALYSIS | | |
|---|---|---|
| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
| Record of Decision<br>United Creosoting Site, TX<br>Contaminated Media: soil, ground water<br>Key contaminants: PCP, PAHs, creosote | | |
| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS *(This Report)*<br>None | 21 NO OF PAGES<br>68 |
| | 20. SECURITY CLASS *(This page)*<br>None | 22 PRICE |

16. ABSTRACT (continued)

undertake an Immediate Response Action within the area of the former waste ponds. Work began in November 1983 and consisted of regrading exposed contaminated soils to divert surface water drainage away from the subdivision, capping contaminated soils with a synthetic membrane cap and 6 inches of compacted clay, fencing the capped area, and constructing drainage ditches to channel cap area runoff to the south of the Clark property (vacant land). Work on this activity was completed in April 1984, and the RI/FS for the whole site area was begun in December of 1984.

The selected remedial action for the site includes: purchase and demolish six homes located directly above and adjacent to the former pond area; conduct permanent relocations of the persons currently residing in these homes; consolidate surface soils contaminated with greater than 100 ppm of polynuclear aromatic hydrocarbons (PAHs) and surface soils which are visibly contaminated onto the former waste pond area; construct a temporary cap over consolidated soils; periodically evaluate the availability of offsite disposal facilities and emerging alternative technologies; excavate and dispose of the soils contaminated with greater than 100 ppm of PAHs in the former pond area and in the former storage tank area when an appropriate facility or innovative technology becomes available; backfill excavated areas and restore ground surface with an appropriate cover; and allow ground water attenuation through natural processes of dilution and adsorption. The estimated capital costs of the remedy range from $4.5 million for future offsite land disposal to $140 million for offsite incineration. Factors such as site preparation, material and energy requirements, and disposal requirements must be evaluated before a cost estimate can be developed. Annual O&M costs are expected to be $43,000 during the interim closure period.

# REGION VII

| TECHNICAL REPORT DATA<br>*(Please read Instructions on the reverse before completing)* | | |
|---|---|---|
| 1. REPORT NO.<br>EPA/ROD/R07-86/005 | 2. | 3. RECIPIENT'S ACCESSION NO. |
| 4. TITLE AND SUBTITLE<br>SUPERFUND RECORD OF DECISION<br>Des Moines TCE, IA | | 5. REPORT DATE<br>July 21, 1986<br>6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | | 10. PROGRAM ELEMENT NO<br>11. CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report<br>14. SPONSORING AGENCY CODE<br>800/00 |
| 15. SUPPLEMENTARY NOTES | | |

16. ABSTRACT

The Des Moines TCE site, in the flood plain of the Raccoon River, is located just southwest of downtown Des Moines, Polk County, Iowa, near where Fleur Drive crosses the Raccoon River. The area has industrial/commercial use and recreational parkland use. A major feature of the site is the underground infiltration gallery used by the Des Moines Water Works (DMWW) as a source of the public water supply. The site was discovered in 1984 after trichloroethylene (TCE) was detected in the city's public water supply. The Dico Company, operating since at least 1961, disposed of an unknown quantity of oily waste sludge containing TCE onto their parking lot for dust control and into a drainage ditch on their property. Two other businesses that used TCE have operated on the site area in the past, one an aircraft parts manufacturer and the other a printing company. However, the major source of ground water contamination is the soil at the Dico Property. Most of the area east of the Raccoon River has been filled to raise the land above flood level. Contaminants may have been disposed in those areas along with fill material. Migration has caused contaminated ground water to flow into the underground infiltration gallery system. The primary contaminants of concern include: TCE, PCE, 1,2-dichloroethene, vinyl chloride.

The selected remedial action for this site includes: construction of extraction wells to collect the contaminated ground water; isolation of the northern-most section
(See Attached Sheet)

| 17. KEY WORDS AND DOCUMENT ANALYSIS | | |
|---|---|---|
| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
| Record of Decision<br>Des Moines TCE, IA<br>*Contaminated Media: gw, soil*<br>Key contaminants: VOCs, TCEs, sludges | | |
| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS *(This Report)*<br>None | 21. NO. OF PAGES<br>52 |
| | 20. SECURITY CLASS *(This page)*<br>None | 22. PRICE |

16. ABSTRACT (continued)

of the north gallery; treatment of the ground water through air stripping to remove 96 percent of the TCE; discharge of the treated water to the Raccoon River; operation of the west extraction wells until established effluent levels are achieved for four consecutive months. The capital cost for the selected remedial alternative is estimated to be $1,196,000. The estimated annual cost of O&M is $63,000. Since this is an operable unit, the duration of operation of this response action will be dependent on the final response action selected.

# REGION VIII

## TECHNICAL REPORT DATA
*(Please read Instructions on the reverse before completing)*

| 1. REPORT NO. | 2. | 3 RECIPIENT'S ACCESSION NO. |
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| EPA/ROD/R08-86/004 | | |

| 4. TITLE AND SUBTITLE | 5 REPORT DATE |
|---|---|
| SUPERFUND RECORD OF DECISION<br>Denver Radium Site Streets, CO | March 24, 1986<br>6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | 8 PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | 10. PROGRAM ELEMENT NO<br>11 CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report<br>14. SPONSORING AGENCY CODE<br>800/00 |

15. SUPPLEMENTARY NOTES

16. ABSTRACT

Denver Radium Site Streets is located in Denver, Colorado. This operable unit is comprised of eight street segments in the Cheesman Park area and one segment in the upper downtown area. The nine contaminated street segments are owned by the City and County of Denver and extend approximately 4.5 miles through largely residential areas. The Denver Radium Site Streets contain a 4- to 6-inch layer of radium contaminated asphalt. The contaminated layer is underlain by compacted gravel road base and is usually overlain by 4 to 12 inches of uncontaminated asphalt pavement. There is an estimated 38,500 cubic yards of contaminated material covering approximately 832,000 square feet. Radioactive contamination does not extend beyond the paved right-of-way of the streets and generally does not appear to have migrated into the soils below the contaminated asphalt. Radium concentrations at representative locations on the streets range from 4 to 79 picocuries per gram. Surface gamma radiation readings generally fall below 20 microroentgens per hour above background.

The selected remedial action for this site includes: leaving the contaminated material in place; improving institutional controls; and removing any contaminated material excavated during routine maintenance, repair, or construction activities in the affected streets to a facility approved for storage or disposal of contaminated material. The estimated initial cost of the remedy is $30,000. This includes the cost of studying and (See Attached Sheet)

17. KEY WORDS AND DOCUMENT ANALYSIS

| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
|---|---|---|
| Record of Decision<br>Denver Radium Site Streets, CO<br>Contaminated Media: asphalt<br>Key contaminants: radium | | |

| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS *(This Report)* | 21. NO. OF PAGES |
|---|---|---|
| | None | 66 |
| | 20. SECURITY CLASS *(This page)* | 22. PRICE |
| | None | |

16. ABSTRACT (continued)

then establishing the institutional controls which would monitor all construction and utility work for the affected streets. The annual operation and maintenance cost will vary depending upon the amount of material excavated during any particular year.

## TECHNICAL REPORT DATA
*(Please read Instructions on the reverse before completing)*

| 1. REPORT NO. | 2. | 3. RECIPIENT'S ACCESSION NO. |
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| EPA/ROD/R08-86/009 | | |

| 4. TITLE AND SUBTITLE | 5. REPORT DATE |
|---|---|
| SUPERFUND RECORD OF DECISION<br>Denver/ROBCO, CO<br>(Second Remedial Action) | September 30, 1986<br>6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | 10. PROGRAM ELEMENT NO.<br>11. CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report<br>14. SPONSORING AGENCY CODE<br>800/00 |

15. SUPPLEMENTARY NOTES

16. ABSTRACT

The Denver Radium/ROBCO site encompasses both the Robinson Brick Company facility (ROBCO) and the Denver and Rio Grande Western Railroad (DRGWR) right-of-way in Denver, CO. The ROBCO property is located on the site of the former National Radium Institute (NRI) facility, a private corporation operating between 1914 and 1920 which produced radium under an agreement with the U.S. Bureau of Mines. In 1979 the EPA discovered a reference to the NRI in a 1916 U.S. Bureau of Mines report. Subsequent research revealed the ROBCO property as one of thirty-one radioactive sites in the Denver metropolitan area. There are seventeen buildings and sheds on site. Two of the buildings, the laboratory and office, are original NRI structures. There is no serious public health risk at present from the radon gas and its decay products found onsite. However, since radium has a half-life of 1600 years, there is a long-term potential for increased public health risk if the radium-contaminated materials were misused or inadvertantly spread.

The EPA preferred alternative, full removal and permanent offsite disposal, entails: removal of approximately 6400 cubic yards of radium-contaminated soil from the ROBCO property and approximately 600 cubic yards of radium contaminated soil from the DRGWR right of way; removal of approximately 200 cubic yards of debris from the demolition of the radioactively contaminated laboratory and office buildings on the ROBCO property; (See attached sheet)

17. KEY WORDS AND DOCUMENT ANALYSIS

| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
|---|---|---|
| Superfund Record of Decision<br>Denver/ROBCO, CO<br>(Second Remedial Action)<br>Contaminated Media: soils, debris<br>Key contaminants: radium | | |

| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS *(This Report)* | 21. NO. OF PAGES |
|---|---|---|
| | None | 35 |
| | 20. SECURITY CLASS *(This page)* | 22. PRICE |
| | None | |

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EPA/ROD/R08-86/009
Denver/ROBCO, CO
(Second Remedial Action)

16. ABSTRACT (continued)

and disposal of the contaminated soil and debris at a facility suitable for the permanent disposal of low-level radioactive waste. Until a cost-effective site suitable for permanent disposal is selected and, if necessary, acquired and developed, this remedy cannot be implemented. Therefore, the EPA is actively pursuing a temporary offsite storage remedy. If a temporary offsite facility does not become available within a reasonable period of time, implementation of a temporary onsite response action will be thoroughly evaluated. The estimated deferred capital cost for the full removal and permanent offsite disposal is $1,417,700 with no annual O&M. The estimated capital costs for the temporary remedies are $2,019,900 for offsite storage and $1,912,400 for onsite storage. These costs include future transport costs of the waste material to a permanent storage facility. For either temporary remedy, there will be an estimated annual O&M cost of $6,000 which will be incurred for three to seven years depending upon the time needed to identify a permanent storage facility.

## TECHNICAL REPORT DATA
*(Please read Instructions on the reverse before completing)*

| 1. REPORT NO. | 2. | 3. RECIPIENT'S ACCESSION NO. |
|---|---|---|
| EPA/ROD/R08-86/006 | | |

| 4. TITLE AND SUBTITLE | 5. REPORT DATE |
|---|---|
| SUPERFUND RECORD OF DECISION<br>Libby Ground Water, MT | September 26, 1986<br>6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | 10. PROGRAM ELEMENT NO<br>11. CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report<br>14. SPONSORING AGENCY CODE<br>800/00 |
| 15. SUPPLEMENTARY NOTES | |

16. ABSTRACT

The Libby Ground Water Contamination site, in the northwest corner of Montana, consists of Champion International Corporation's active lumber and plywood mill, the City of Libby, and surrounding developed but unincorporated areas. The Champion lumber and plywood mill was owned and operated by the J. Nells Lumber Company from 1946-1957, and by St. Regis Company from 1957-1985. Abandoned wood treating operations on the mill property are the source of ground water contamination. Between 1946 and 1969, wood treating fluids were disposed of and spilled at several different mill locations; waste water, formed as vapor in the retorts, was placed in onsite waste pits; and tank bottom sludges from wood treating fluid tanks were periodically removed and hauled to the waste pits. In addition, spills of treating fluid occurred onsite. In 1979, shortly after installation of private wells, some homeowners detected the presence of a creosote odor, and EPA monitoring in 1981 confirmed ground water contamination. Based on 1984 well sample results, Champion implemented the Buy Water Plan. Under this program, individuals with contaminated ground water wells agree to cease using their well and use water from the public water system operated by the City of Libby. Champion, providing monetary compensation to the wellowners to pay for this metered water, also caps and locks the previously operating wells. The program, indefinite in term, would be terminated upon the elimination of the threat of contamination, if the well owner
(See Attached Sheet)

17. KEY WORDS AND DOCUMENT ANALYSIS

| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
|---|---|---|
| Record of Decision<br>Libby Ground Water, MT<br>Contaminated Media: sw, soil<br>Key contaminants: VOCs, organics,<br>PAHs | | |

| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS *(This Report)* | 21. NO. OF PAGES |
|---|---|---|
| | 20. SECURITY CLASS *(This page)* None | 22 PRICE 81 |

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EPA/ROD/R08-86/006
Libby Ground Water, MT

16. ABSTRACT (continued)

provides a written termination notice, or if other alternatives become available. The primary contaminants of concern include: VOCs; PAHs, PCP, organics, inorganics, heavy metals, and creosote.

The selected remedial action for this first operable unit includes the continuation and expansion of the Buy Water Plan sponsored by Champion and the enactment of an ordinance which prohibits installation of new wells for human consumption and irrigation, but would allow well installation for use in closed systems. The estimated capital cost for this remedy is $152,000 with annual O&M costs of $64,000, both to be paid by Champion. Federal funds will be required for oversight of Champion's actions at an estimated annual cost of $20,000.

## TECHNICAL REPORT DATA
*(Please read Instructions on the reverse before completing)*

| 1. REPORT NO. | 2. | 3. RECIPIENT'S ACCESSION NO |
|---|---|---|
| EPA/ROD/R08-86/008 | | |

| 4. TITLE AND SUBTITLE | 5. REPORT DATE |
|---|---|
| SUPERFUND RECORD OF DECISION<br>Marshall Landfill, CO | September 26, 1986<br>6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | 10. PROGRAM ELEMENT NO<br>11 CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report<br>14. SPONSORING AGENCY CODE<br>800/00 |
| 15. SUPPLEMENTARY NOTES | |

16. ABSTRACT

The Marshall Landfill, located three miles southeast of Boulder, Boulder County, CO, consists of two parcels: an 80-acre active County landfill and an 80-acre inactive landfill due north. Between 1965 and 1974, the inactive landfill accepted unstabilized sewage sludge and many unidentified and potentially hazardous wastes. Septic wastes and possibly liquid industrial wastes were also disposed offsite in two, now closed, septic ponds. Since 1974, the active landfill has accepted sewage sludge and municipal waste. (Industrial waste may have been accepted during the early years of operation.) Since 1975 the active landfill has been operated by Landfill Inc. (LI), a wholly-owned subsidiary of Browning-Ferris Industries (BFI). Prior to 1978, County inspectors observed landfill leachate seepage into Community Ditch, a conveyor of potable water from nearby Marshall Lake to the City of Louisville and irrigation water for the Farmers Reservoir and Irrigation Co. Two remediation actions have been taken subsequent to the July 1982 EPA proposal for inclusion on the NPL: a mid-1983 Cooperative Agreement to which LI agreed to install a pipeline to convey water from Marshall Lake across the inactive landfill and conduct an RI/FS; and an October 1983 order by EPA to LI to install the above mentioned pipeline, and to submit to EPA data and reports prepared pursuant to the Cooperative Agreement. The primary contaminants of concern include: VOCs including TCE, PCE, DCE, and benzene, and heavy metals including cadmium and lead. (See Attached Sheet)

17. KEY WORDS AND DOCUMENT ANALYSIS

| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
|---|---|---|
| Record of Decision<br>Marshall Landfill, CO<br>Contaminated Media: gw, sw<br>Key contaminants: VOCs, TCE, PCE, DCE,<br>lead, cadmium, heavy metals | | |

| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS *(This Report)*<br>None | 21. NO. OF PAGES<br>54 |
|---|---|---|
| | 20. SECURITY CLASS *(This page)*<br>None | 22 PRICE |

16. ABSTRACT (continued)

The selected remedial action includes: installation of a subsurface collection system using natural ground water gradients to collect all contaminated ground water leaving the Marshall Landfill site; treatment of contaminated ground water by sedimentation, air stripping, and off-gas carbon adsorption; landfill improvements, including regrading, revegetation, perimeter ditches, and fences, to minimize future environmental and public health impacts from the site; and ground and surface water monitoring. The estimated capital cost for this remedy is $1,819,000 with annual O&M costs of $1,152,000.

**TECHNICAL REPORT DATA**
*(Please read Instructions on the reverse before completing)*

| 1. REPORT NO. | 2. | 3. RECIPIENT'S ACCESSION NO |
|---|---|---|
| EPA/ROD/R08-86/007 | | |

| 4. TITLE AND SUBTITLE | 5. REPORT DATE |
|---|---|
| SUPERFUND RECORD OF DECISION<br>North Dakota Arsenic Trioxide, ND | September 26, 1986<br>6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | 10. PROGRAM ELEMENT NO<br>11 CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>*U.S. Environmental Protection Agency*<br>401 M Street, S.W.<br>Washington, D.C. 20460 | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report<br>14. SPONSORING AGENCY CODE<br>800/00 |
| 15. SUPPLEMENTARY NOTES | |

16. ABSTRACT

The North Dakota Arsenic Trioxide site consists of twenty townships in the Richland, Ransom, and Sargent counties in southeastern North Dakota. About 4,500 people live in this sparsely populated farmland area. Ground water use includes residential consumption, irrigation, and livestock watering. The contamination, limited to ground water, appears to have two sources: naturally occurring arsenic contained in shales native to the area; and an estimated 330,000 pounds of arsenic-laced bait used to control grasshopper infestations in the 1930s and 1940s. In 1979, during quality monitoring of the municipal water supplies, the Water Supply and Pollution Control division of the North Dakota State Department of Health detected elevated levels of arsenic in the towns of Lidgerwood and Wyndmere. Additional monitoring found widespread and highly variable occurrences of arsenic in rural areas. In the late 1970s, approximately 278 homes in Lidgenwood, which use private well systems, were considered to be at a health risk due to arsenic exposure. An emergency response action, to be instituted by the EPA and scheduled for implementation in 1986, will consist of installing point-of-use treatment units for affected households, and provide for further study of a former arsenic-bait mixing site at Wyndmere. The primary contaminant of concern is arsenic trioxide.

(See Attached Sheet)

17. KEY WORDS AND DOCUMENT ANALYSIS

| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
|---|---|---|
| Record of Decision<br>North Dakota Arsenic Trioxide, ND<br>Contaminated Media: gw<br>Key contaminants: arsenic trioxide | | |

| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS *(This Report)* | 21. NO. OF PAGES |
|---|---|---|
| | 20. SECURITY CLASS *(This page)* None | 22. PRICE 86 |

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16. ABSTRACT (continued)

The selected remedial action for this site includes: expansion and hookup of homes to the existing Richland Rural Water System; construction and hookup of homes to a new rural water treatment and distribution system; and evaluation of institutional controls. The estimated capital cost for this selected remedy is $2,212,600 with annual O&M of $57,400.

## TECHNICAL REPORT DATA
*(Please read Instructions on the reverse before completing)*

| 1. REPORT NO. | 2. | 3 RECIPIENT'S ACCESSION NO. |
|---|---|---|
| EPA/ROD/R08-86/005 | | |

| 4. TITLE AND SUBTITLE | 5. REPORT DATE |
|---|---|
| ENFORCEMENT DECISION DOCUMENT<br>Smuggler Mountain, CO | September 26, 1986<br>6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | 10. PROGRAM ELEMENT NO<br>11 CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report<br>14. SPONSORING AGENCY CODE<br>800/00 |

15. SUPPLEMENTARY NOTES

16. ABSTRACT

The Smuggler Mountain site is located immediately northeast of the City of Aspen in Pitkin County, CO. It comprises 110 acres of waste rock, tailings, and slag containing high levels of lead and cadmium. The site is in close proximity of Aspen, CO which has a year-round population of 4,500. In many cases, development in the Aspen area has taken place directly over waste piles, or waste piles have been moved to the sides of developed areas and remain as berms or mounds of contaminated soil. Portions of contaminated soil have also been used for fill in some areas. The City of Aspen obtains drinking water from surface waters in the area. The Roaring Forke River passes the site approximately 1,000 feet downgradient to the southwest, and is the nearest surface water. The mining wastes which characterize the site are the result of years of extensive mining, milling and smelting operations. As a result, wastes are highly dispersed, and little is known about their disposition. Soil is the primary contaminated medium; however, contaminants have been detected in some ground and surface waters.

The selected remedial action for the site is broken into two distinct operable units. Operable Unit 1 - excavation and permanent onsite disposal of soils with lead above 5,000 ppm, including a RCRA multi-layer cap; soil capping of all areas with lead between 1,000 and 5,000 ppm lead; five-year ground water monitoring; and provision of a
(See Attached Sheet)

17. KEY WORDS AND DOCUMENT ANALYSIS

| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
|---|---|---|
| Enforcement Decision Document<br>Smuggler Mountain, CO<br>Contaminated Media: soil, gw<br>Key contaminants: heavy metals, lead, cadmium, zinc | | |

| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS (This Report)<br>None | 21. NO OF PAGES<br>50 |
|---|---|---|
| | 20 SECURITY CLASS (This page)<br>None | 22 PRICE |

16. ABSTRACT (continued)

permanent alternate water supply for 5-7 residences. Operable Unit 2 - supplemental RI/FS, with possible ground water remediation and mine reclamation activities. Estimated capital cost of the remedy is $1,816,550 with annual O&M costs of $30,900.

| TECHNICAL REPORT DATA<br>*(Please read Instructions on the reverse before completing)* | | |
|---|---|---|
| 1. REPORT NO.<br>EPA/ROD/R08-86/010 | 2. | 3. RECIPIENT'S ACCESSION NO |
| 4. TITLE AND SUBTITLE<br>SUPERFUND RECORD OF DECISION<br>Union Pacific Railroad, WY | | 5. REPORT DATE<br>September 26, 1986<br>6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | | 10. PROGRAM ELEMENT NO<br>11 CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report<br>14. SPONSORING AGENCY CODE<br>800/00 |
| 15. SUPPLEMENTARY NOTES | | |

16. ABSTRACT

The Union Pacific Railroad (UPRR) Tie Treating Plant is located southwest of Laramie, Wyoming to the west of Laramie River. UPRR began operations at the site in 1886 and treated railroad ties and other wood products until 1983. Wood preserving agents used by UPRR or its contractor (the J.H. Baxter Company) in the treatment process included zinc chloride (1886-1931), a creosote oil and asphalt-based petroleum/residuum oil mixture (1928-1983), and PCP (1956-1983). During the first 70 years of operation, process wastes from the plant were disposed of in the Laramie Waste Collection ponds. Contamination outside of the collection ponds was initially discovered in October 1981 as a result of RCRA interim status ground water monitoring requirements. Currently, approximately 140 acres of the 700 acre site are contaminated. The contamination ranges from soil saturated with free oil to ground water containing dissolved contaminants. The primary contaminants of concern include: creosote, PCP, and oils.

The selected interim source control remedy is a Contaminant Isolation System which includes: realignment of the Laramie River channel 150 feet further west from the site; a soil-bentonite slurry barrier wall constructed through the alluvium and bedrock around the contaminated areas; a reverse-gradient ground water draining and pumping system; an activated carbon water treatment plant. The treated water will be discharged

(See Attached Sheet)

| 17. KEY WORDS AND DOCUMENT ANALYSIS | | |
|---|---|---|
| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
| Record of Decision<br>Union Pacific Railroad, WY<br>Contaminated Media: gw, soil<br>Key contaminants: VOCs, organics, metals, PCP, creosote, oils | | |
| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS *(This Report)*<br>None | 21. NO. OF PAGES<br>53 |
| | 20. SECURITY CLASS *(This page)*<br>None | 22. PRICE |

EPA/ROD/R08-86/010
Union Pacific Railroad, WY

16. ABSTRACT (continued)

to the Laramie River under the authority of an NPDES permit issued and administered by the State of Wyoming; and ground water monitoring. The estimated capital costs for this remedy is $7,000,000 with annual O&M costs of $57,000.

# REGION IX

## TECHNICAL REPORT DATA

*(Please read Instructions on the reverse before completing)*

| 1. REPORT NO. | 2. | 3. RECIPIENT'S ACCESSION NO. |
|---|---|---|
| EPA/ROD/R09-86/011 | | |

| 4. TITLE AND SUBTITLE | 5. REPORT DATE |
|---|---|
| SUPERFUND RECORD OF DECISION<br>Iron Mountain, CA | October 3, 1986<br>6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | 10. PROGRAM ELEMENT NO.<br>11 CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report<br>14. SPONSORING AGENCY CODE<br>800/00 |
| 15. SUPPLEMENTARY NOTES | |

16. ABSTRACT

Iron Mountain Mine (IMM) is located in the southeastern foothills of the Klamath Mountains, approximately nine miles northwest of the City of Redding, California. Between the 1860s and 1962, IMM was periodically mined for iron, silver, gold, copper, zinc, and pyrite. The mine area, believed to be one orebody which has been segmented by faulting, is located on 4,400 acres of property that includes underground workings, an open pit mining area, waste rock dumps, and tailings piles. Rainfall, infiltrating into the underground mine workings, mixes with ground water and the ore zone to produce sulfuric acid and high concentrations of zinc, cadmium, and copper. The resulting heavy metal-laden acidic waters, referred to as acid mine drainage (AMD), eventually discharge through mine adits or ground water seepage into the Spring Creek watershed streams, Spring Creek Reservoir, and the Sacramento River. The primary contaminants of concern include: AMD, copper, cadmium, and zinc.

The desired remedial action for this site was not selected due to excessive cost. Instead, a fund balancing waiver to the NCP was invoked, and an alternative that most closely approaches ARARs was selected. The alternative includes: capping selected cracked and carved ground areas using a soil-cement mixture or other suitable material; diverting clean surface water in Upper Spring Creek to Flat Creek, diverting clean surface water in South Fork Spring Creek to Rock Creek, and diverting clean Upper
(See Attached Sheet)

17. KEY WORDS AND DOCUMENT ANALYSIS

| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
|---|---|---|
| Record of Decision<br>Iron Mountain, CA<br>Contaminated Media: sw, sediments<br>Key contaminants: acids, inorganics,<br>heavy metals, cadmium | | |

| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS *(This Report)* | 21. NO. OF PAGES |
|---|---|---|
| | None | 204 |
| | 20. SECURITY CLASS *(This page)* | 22. PRICE |
| | None | |

EPA/ROD/R09-86/011
Iron Mountain, CA

16. ABSTRACT (continued)

Slickrock Creek water around waste rock and tailings piles; enlarging Spring Creek Debris Dam from its present capacity of 5,800 acre feet to 9,000 acre feet; implementing perimeter control as needed to minimize direct contact threat; and performing hydrogeologic study and field-scale pilot demonstration to better define the feasibility of utilizing low-density cellular concrete to eliminate or reduce acid mine drainage formation. The estimated capital costs for the fund-balanced alternative is $68,100,000 with O&M present worth costs of $4,100,000.

# REGION X

## TECHNICAL REPORT DATA
*(Please read Instructions on the reverse before completing)*

| 1. REPORT NO. | 2. | 3. RECIPIENT'S ACCESSION NO. |
|---|---|---|
| EPA/ROD/R10-85/007 | | |

| 4. TITLE AND SUBTITLE | 5 REPORT DATE |
|---|---|
| SUPERFUND ENFORCEMENT DECISION DOCUMENT<br>Queen City Farms, WA (IRM/EDD) | October 24, 1985 |
| | 6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | 8 PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | 10. PROGRAM ELEMENT NO. |
| | 11. CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report |
| | 14. SPONSORING AGENCY CODE<br>800/00 |

15. SUPPLEMENTARY NOTES

16. ABSTRACT

The Queen City Farms (QCF) site is a 320-acre parcel of land located approximately 2.5 miles north of the town of Maple Valley in King County, Washington. The site includes a wooded area, a lake known as Queen City Lake, six industrial waste disposal ponds, an airstrip, several residences, and a gravel pit. The six ponds on the site were used for the disposal of industrial wastes from approximately 1955 to 1964. Because of the time period, few records exist regarding the exact types of wastes taken to the site. However, in 1980 six waste ponds were sampled by EPA contractors. The analyses of water, sludge, and sediment samples identified the presence of 44 priority pollutants. Some of the contaminants found were: chromium, lead, PCBs, acids, volatile organics, toluene and trichloroethylene (TCE).

The recommended Initial Remedial Measure is to be carried out in three phases. Phase 1 will include mobilization onto the site, installation of the initial upgradient water diversion system, and processing of Pond 1 waste. Phase 2 will involve processing of Pond 2 and 3 materials. Phase 3 will include the installation of the final upgradient water diversion system and cap, final grading and revegetation, and demobilization from the site.

A truck-mounted phase separator will be located onsite to process the waste. Pond water will be used to charge the separator. Sludge will be pumped to the separator
(See Attached Sheet)

17. KEY WORDS AND DOCUMENT ANALYSIS

| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
|---|---|---|
| Enforcement Decision Document<br>Queen City Farms, WA (IRM/EDD)<br>Contaminated Media: gw, sediments, sludge<br>Key contaminants: acids, carcinogenic compounds, chromium, heavy metals, PCBs, phenols, PCE, TCE, VOCs, toluene | | |

| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS *(This Report)* | 21. NO. OF PAGES |
|---|---|---|
| | None | 24 |
| | 20. SECURITY CLASS *(This page)* | 22. PRICE |
| | None | |

16. ABSTRACT (continued)

using a pond skimmer which will be supplemented with mechanical excavation of sludge. The phase separator will separate the sludge into four components: grit, cake, oils, and water. The liquid portions of the separated phases will be stabilized such that an exothermic reaction occurs and no free liquid is present. Stabilized material and other solid products produced during the phase separation will be treated as hazardous waste and transported to a RCRA-permitted chemical waste landfill. In addition, contaminated soils which surround the ponds will be moved into depressions created by removal of the chemical sludge (prior to capping). Finally, to assess the performance of this source control remedial action, a monitoring system will be installed. Total capital cost for all phases of the selected initial remedial measure is estimated to be $3,439,000. In accordance with the CERCLA Section 106 Consent Order, the PRPs will establish a perpetual trust to assure the continued funding of monitoring and maintenance activities in the area of Ponds 1, 2, and 3, where the Initial Remedial Measures will be conducted.

## TECHNICAL REPORT DATA
*(Please read Instructions on the reverse before completing)*

| 1. REPORT NO. | 2. | 3. RECIPIENT'S ACCESSION NO |
|---|---|---|
| EPA/ROD/R10-86/009 | | |

| 4. TITLE AND SUBTITLE | 5. REPORT DATE |
|---|---|
| SUPERFUND RECORD OF DECISION<br>Toftdahl Drums, WA | September 30, 1986<br>6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | 10. PROGRAM ELEMENT NO<br>11. CONTRACT/GRANT NO |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report<br>14. SPONSORING AGENCY CODE<br>800/00 |

15. SUPPLEMENTARY NOTES

16. ABSTRACT

The Toftdahl Drum site, approximately 15 acres in area is located four miles east-southeast of Battleground, Washington, and contains three main areas where hazardous substance hauling activities may have occurred: a drum cleaning area; an initial burial trench; and a final drum burial area. The surface of the site slopes downward to the northwest to a spring and a small westerly flowing tributary of Morgan Creek (informally referred to as Toftdahl Creek), or about 350 feet to the southeast directly to Morgan Creek. The general land use in the area is rural residential with approximately 14 homes within an approximately 90-acre area. In the early 1970s, Mr. Toftdahl allegedly had 100 to 200 drums containing unknown amounts of industrial waste, possibly from a plywood manufacturer, delivered to his property. His intent was to clean and resell the drums. Unable to resell about 50 uncleaned drums, he constructed a burial trench about 500 feet from the cleaning location, placed crushed drums into the trench, and covered the trench with mounded dirt. The drums were rediscovered in the mid 1970s when the Davis Family, new owners of a portion of the Toftdahl property, attempted to level the mound over the burial trench. In 1978 or 1982, Mr. Toftdahl removed approximately 38 drums and disposed of them in a local landfill, while approximately 12 drums were reburied in the final burial location. In 1982 the Washington Department of Ecology, notified of the possible presence of buried drums at
(See Attached Sheet)

17. KEY WORDS AND DOCUMENT ANALYSIS

| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
|---|---|---|
| Record of Decision<br>Toftdahl Drums, WA<br>Contaminated Media: N/A<br>Key contaminants: N/A | | |

| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS *(This Report)* | 21. NO. OF PAGES |
|---|---|---|
| | None | 31 |
| | 20. SECURITY CLASS *(This page)* | 22. PRICE |
| | None | |

16. ABSTRACT (continued)

the site, conducted an investigation. Approximately six crushed and badly rusted drums were sampled and stored onsite and a fence was placed around the final drum burial area. In November 1983 the Washington Department of Social and Health Services (DSHS) determined, based on the available sampling data from nearby residential wells, there was no immediate public health hazard in the drinking water. However, DSHS was concerned about the potential for future contamination from the high levels of heavy metals and synthetic organic compounds detected in the soil and drum samples. While several priority pollutants were detected in the RI sampling and analysis program, the concentration of such contamination is very small and could reflect a source(s) not related to this particular drum cleaning and disposal operation. In most sampling cases, the concentration levels could not be reliably differentiated from background values or laboratory-introduced variability. No significant or extensive contamination of surface soils, surface water, or ground water is present at the site. Indicator constituents, defined as having been detected at least one time during investigational sampling include: heavy metals, VOCs, base-neutral organic compounds, cyanides, and PCBs.

The remedial action selected for this site includes a no further action response and semi-annual ground water monitoring for five years, followed by ten years of annual monitoring pending continued funding by the Washington State Legislature.

## TECHNICAL REPORT DATA

*(Please read Instructions on the reverse before completing)*

| 1. REPORT NO. | 2. | 3. RECIPIENT'S ACCESSION NO |
|---|---|---|
| EPA/ROD/R10-86/008 | | |

| 4. TITLE AND SUBTITLE | 5. REPORT DATE |
|---|---|
| SUPERFUND RECORD OF DECISION<br>United Chrome, OR | September 12, 1986<br>6. PERFORMING ORGANIZATION CODE |
| 7. AUTHOR(S) | 8. PERFORMING ORGANIZATION REPORT NO |
| 9. PERFORMING ORGANIZATION NAME AND ADDRESS | 10. PROGRAM ELEMENT NO<br>11. CONTRACT/GRANT NO. |
| 12. SPONSORING AGENCY NAME AND ADDRESS<br>U.S. Environmental Protection Agency<br>401 M Street, S.W.<br>Washington, D.C. 20460 | 13. TYPE OF REPORT AND PERIOD COVERED<br>Final ROD Report<br>14. SPONSORING AGENCY CODE<br>800/00 |

15. SUPPLEMENTARY NOTES

16. ABSTRACT

The United Chrome Products (UCP) site is a former industrial hard chrome plating facility located in Corvallis, Oregon. UCP began electroplating operations in 1956. Between 1956 and 1975 an onsite dry well was used to dispose of floor drippings, washings, and product rinsate collected in a sump within the building. The liquids were reportedly neutralized with sodium hydroxide and/or soda ash prior to disposal. Use of the dry well was discontinued in 1975. As a result of the immediate removal action, to stabilize the site, all hazardous substance source materials have been removed with the exception of residual sludges in the bottom of the plating tanks. However, there is considerable chromium contamination in the soil beneath and around the building and in the upper and lower aquifers as a result of leaching from the dry well and plating tanks.

The selected remedial action for this site includes: installation of approximately 15 shallow wells in the upper confined ground water zone; installation of 5 deep wells in the lower confined production aquifer; limited excavation of contaminated soil and offsite disposal; installation of onsite treatment equipment (chemical reduction and precipitation) to remove chromium from extracted ground water; construction of two percolation basins to flush soil; and installation of culverts. Estimated capital cost for the selected remedial alternative is $1,580,000 and the annual O&M costs are approximately $261,000.

17. KEY WORDS AND DOCUMENT ANALYSIS

| a. DESCRIPTORS | b. IDENTIFIERS/OPEN ENDED TERMS | c. COSATI Field/Group |
|---|---|---|
| Record of Decision<br>United Chrome, OR<br>Contaminated Media: gw, soil<br>Key contaminants: chromium | | |

| 18. DISTRIBUTION STATEMENT | 19. SECURITY CLASS (This Report)<br>None | 21. NO. OF PAGES<br>62 |
|---|---|---|
| | 20. SECURITY CLASS (This page)<br>None | 22 PRICE |

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