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SUPERFUND PROGRAM FACT SHEET

Davis Liquid Waste Site
Smithfield, Rhode Island
December 1986

The U.S. Environmental Protection Agency (EPA) recently released the final remedial investigation (RI) report for the Davis Liquid Waste Superfund site in Smithfield, Rhode Island. Preliminary results of the RI were presented at a June 1986 public meeting in Smithfield. The purpose of the RI was to identify and measure the types and amounts of contamination at the site as a first step toward cleaning it up.

Now that the RI portion of the Superfund process is complete, EPA is beginning the feasibility study (FS) portion of the process. The FS identifies several alternatives for cleaning the site based on the findings of the RI. During the FS, these alternatives are evaluated on the basis of cost and effectiveness in protecting the public health, welfare, and the environment. EPA will use the findings of the FS to choose a cleanup method for the Davis Liquid Waste site that is both environmentally sound and cost-effective.

This fact sheet briefly presents the findings of the RI report and the major tasks involved in the FS. Information is also provided on the water line EPA will install for residences in the site area with potentially contaminated water. A glossary is provided your reference.

FINDINGS OF THE REMEDIAL INVESTIGATION

The recently completed RI was designed to collect and analyze the data necessary to define the types of contamination at the site and the extent of that contamination. In addition, as part of the RI, a study was conducted to evaluate the current and potential risks to public health and the environment which could result from exposure to contaminants. This type of study is called a risk assessment, or public health evaluation.

Major sources of contamination at the site result from wastes at and around the disposal pits and wastes buried beneath the tire pile. These wastes release chemicals into the soil, ground water, surface water, and air. The major findings of the RI and the risk assessment are outlined in Exhibit 1.

The RI report and the risk assessment found that off-site ground water and some residential drinking water wells are contaminated. To address all routes of exposure to contaminated ground water, EPA will install a waterline as an alternate water source for residences whose wells are contaminated and to protect other residences that may be affected in the future.

EPA has begun preliminary design tasks to provide this alternate water source to affected residences, completed activities include:

- o preliminary identification of affected and potentially affected residences;

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Smithfield, Rhode Island
December 1986

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- o preliminary estimation of the water supply demand;
- o defining potential sources of water supply; and
- o conducting a detailed analysis of potentially appropriate sources of water supply.

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EPA is currently awaiting funds (to be appropriated from U.S. EPA Headquarters in Washington, DC before the design and construction of the waterline can begin. It is expected that the waterline will take one year to install once actual construction work begins.

FEASIBILITY STUDY REPORT

Based on the results of the RI, a broad range of remedial alternatives, or cleanup options, for the site have been identified and are currently being evaluated in the FS. These alternatives will be screened and analyzed on the basis of effectiveness in protecting public health, welfare, and the environment.

The evaluation of remedial alternatives will include the following steps:

- o Identification of remedial alternatives. Remedial alternatives appropriate to the Davis Liquid Waste site will be identified from available information.
- o Screening of these identified remedial alternatives. This screening will eliminate from further consideration alternatives that are not technically proven; that may have adverse impacts on public health or the environment; that provide inadequate protection of public health and the environment; or that have high costs, relative to other alternatives, without significantly greater benefits. In addition, EPA usually eliminates any alternative that does not meet the requirements of applicable environmental laws.
- o Analysis of remedial alternatives. EPA will analyze in detail the set of remedial alternatives that remain after screening. Each remaining alternative will be assessed in terms of its reliability, safety and ease of implementation, and impacts on public health and the environment. In addition, EPA will consider what Federal, State, and local requirements must be met in order to implement each remedial alternative under consideration. Finally, EPA will estimate the total costs, in present value terms, of each of the remedial alternatives.
- o Comparison of acceptable alternatives. EPA will compare each of the alternatives analyzed to determine which is the most cost-effective solution. (Cost-effectiveness is a measure of a remedial alternative's ability to provide an adequate level of protection of public health, welfare, and the environment at no significantly greater costs than other alternatives providing the same level of protection.)

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EPA will prepare an FS report that documents and evaluates the remedial alternatives. EPA expects that the FS report will be available for public review in Spring 1987. When it is released the public will be encouraged to send EPA written comments on the report. EPA will also hold a public meeting to describe the results of the FS. A public hearing will be held two to three weeks later to provide interested persons and organizations with an opportunity to comment further on the report. The FS report will be revised, taking into account public comments, and EPA will then choose a remedial alternative for cleaning up the Davis Liquid Waste site.

Copies of the RI study are available for public review at the locations listed below.

East Smithfield Public Library
50 Esmond Street
Esmond, RI 02917
401-231-5150

Hours: Monday & Friday 1 pm - 5 pm, 7 pm - 9 pm
Tuesday & Thursday 10 am - noon, 1 pm - 5 pm, 7 pm - 9 pm
Wednesday 1 pm - 5 pm
Saturday 10 am - 3 pm

Contact: Elodie Blackmore

Greenville Public Library
Putnam Pike
Greenville, RI 02828
401-949-3630

Hours: Tuesday, Wednesday & Thursday 10 am - 9 pm
Friday 10 am - 7 pm
Saturday 10 am - 5 pm

Contact: Chris LaRoux

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GLOSSARY

- Extractable Organic Compound Organic compounds that remain intact in soil and water and do not evaporate into the air.
- Ground Water The water beneath the earth's surface that flows through soil pores and rock openings and often serves as a principal source of drinking water.
- Inorganic Compounds Chemical compounds composed of mineral materials, including salts and metals such as arsenic, lead, nickel, zinc, iron, and mercury.
- Organic Compounds Chemical compounds composed of carbon and hydrogen; including materials such as oils, pesticides, and solvents.
- Remedial Alternatives Possible methods for cleaning up a site.
- Surface Water Streams, lakes, ponds, rivers, or any other body of water above the ground.
- Volatile Organic Compounds Organic chemicals that vaporize easily.

For more information on the Davis Liquid Waste site, please contact:

Patty D'Andrea
 Superfund Community Relations Coordinator
 U.S. Environmental Protection Agency, Region I
 J.F. Kennedy Federal Building
 Boston, MA 02203
 617-565-3425

Rosina Toscano
 Regional Project Manager
 U.S. Environmental Protection Agency, Region I
 J.F. Kennedy Federal Building
 Boston, MA 02203
 617-565-3654

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EXHIBIT 2

MAJOR FINDINGS OF THE REMEDIAL INVESTIGATION AND THE RISK ASSESSMENT

Soil

- o High levels of contamination exist on the site in soils. Six specific on-site areas require treatment or disposal of soils; four areas are in the Southern Disposal Pit, one area is in the Northern Disposal Pit, and one area is in the tire pile. The types of contaminants vary from area to area, however, high levels of volatile organic compounds and extractable organic compounds are present in soil.

Groundwater

- o High levels of contaminants exist in on-site groundwater. These contaminants include volatile organic compounds, extractable organic compounds, and inorganic compounds. Groundwater will most likely require treatment.
- o Off-site ground water and residential wells are also contaminated. Low levels of chemical contaminants have been found in twenty-three residential drinking water wells near the site. People using this water may be exposed to contaminants through ingestion of drinking water, inhalation of evaporated organic compounds, and dermal contact with contaminants. At present, several homes have contaminant levels which are above EPA's health advisory criteria for drinking water. ~~Upon EPA's request, the site is currently supplying these homes with bottled water.~~

Leave out in order not to worry is added in site Rhode Island Department of Environmental Management

Surface Water

- o Surface water in Latham Brook is contaminated, both on-site and off-site, with volatile organic, extractable organic, and inorganic compounds.

Air

- o People working on the site may be exposed to low levels of volatile compounds and inorganic compounds, through the inhalation of soil dusts and the inadvertent ingestion of surface soils.

Natural Resources

- o Freshwater aquatic life in Latham Brook and surrounding on- and off-site wetland areas may be threatened by lead and nickel concentrations which exceed Federal guidelines for the protection of aquatic life.

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Mailing List Additions

Anyone wishing to be placed on the Davis Liquid Waste site mailing list please fill out and mail this form to:

Patty D'Andrea
U.S. EPA, Region I
Office of Public Affairs, RPA-2203
JFK Federal Building
Boston, MA 02203

Name: _____

Address: _____

Affiliation: _____

Phone Number: _____

United States
Environmental Protection
Agency

Region I
Office of Public Affairs — 2203
John F. Kennedy Federal Building
Boston, MA 02203

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