

**De Rewal Chemical Company (II-119)
Frenchtown, New Jersey
30 June 1985**

Location and Nature of Site

De Rewal Chemical Company is situated on a 1.4 acre lot in an industrial section of undeveloped rural land adjacent to the Delaware River. From 1973 to 1976 De Rewal received wastes containing chromium and copper for disposal at the site. The chromium wastes were moved by the owner from the original disposal areas and dumped at nearby previously uncontaminated locations, including a railroad bed. Materials at these locations are leaching into groundwater and entering the Delaware River as surface water runoff. The groundwater is a source of potable water for the area. The site is now a private residence.

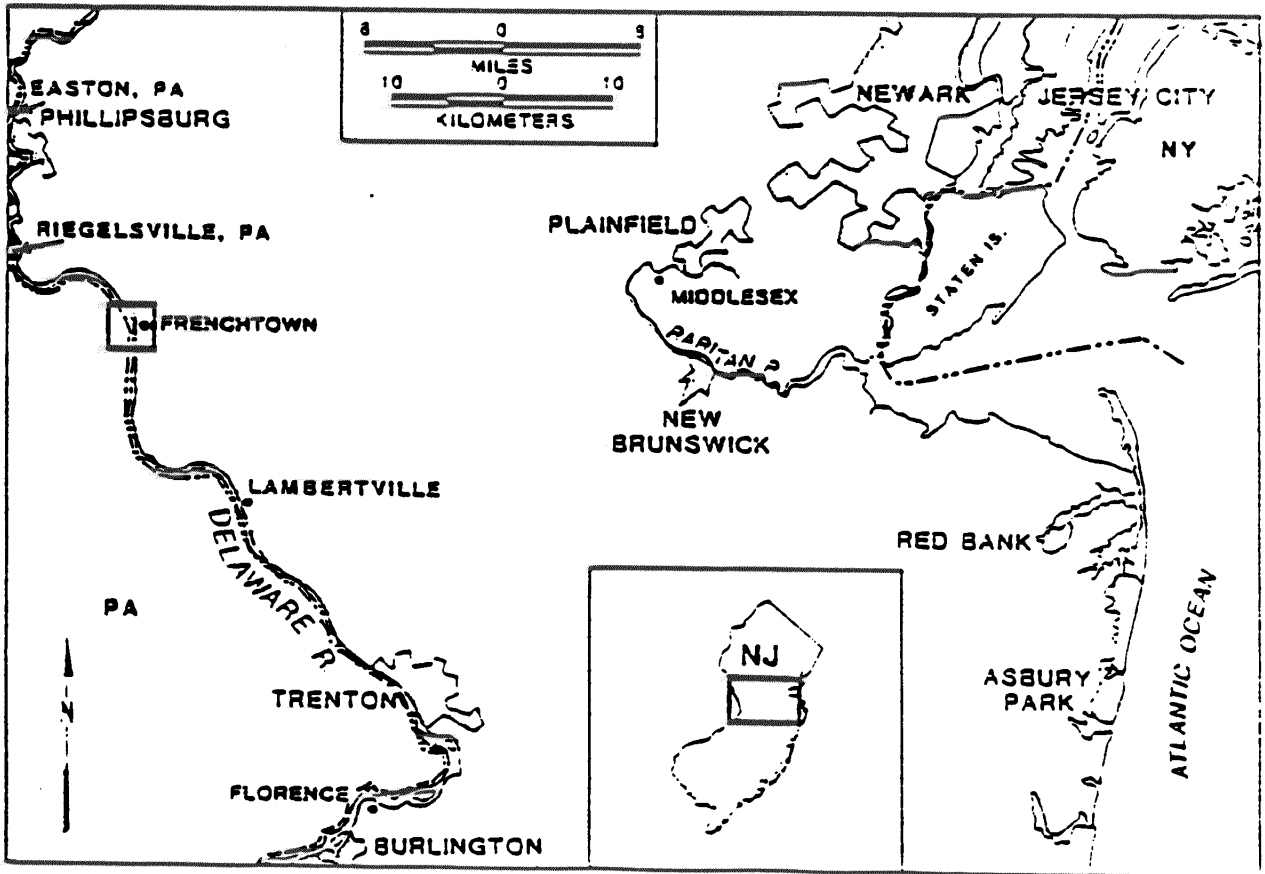
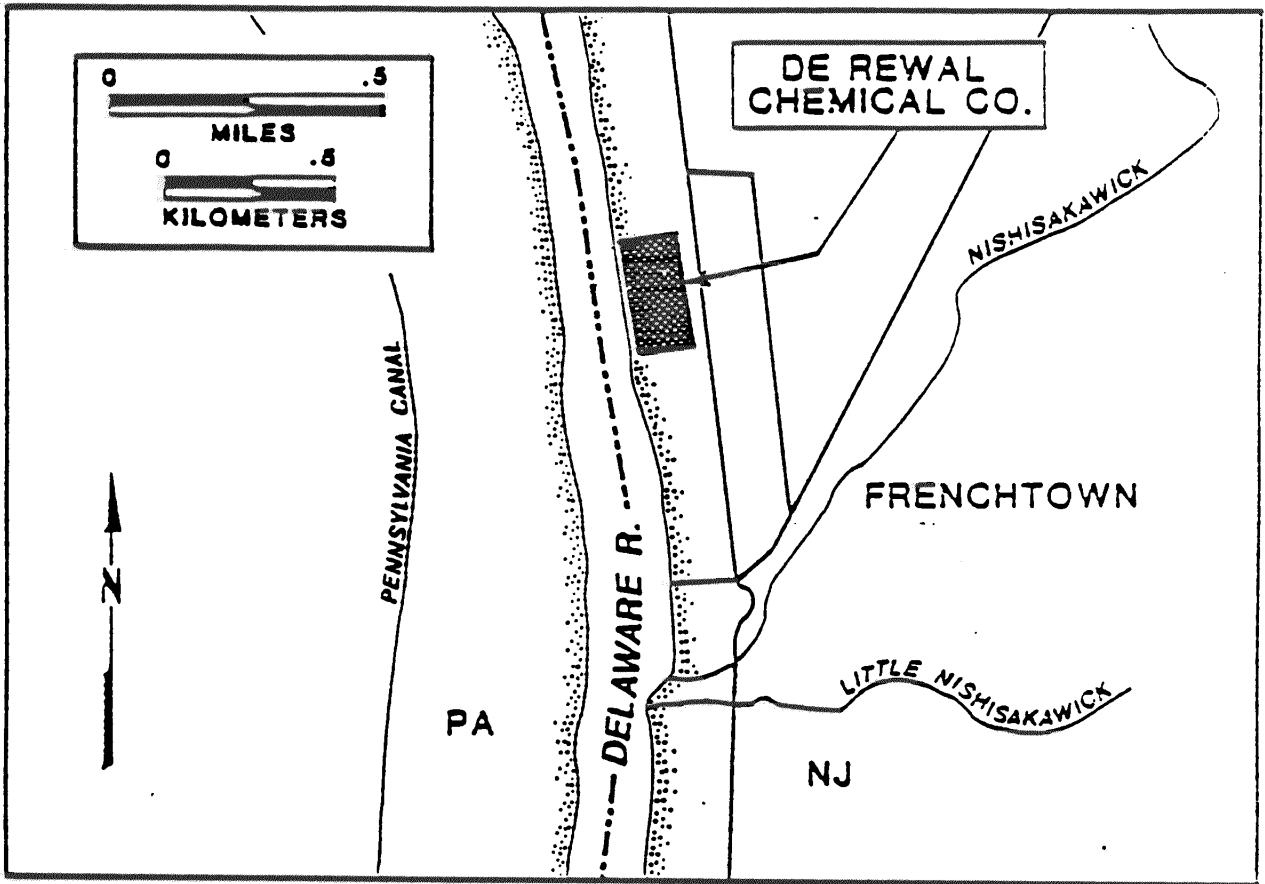
Chemical Hazards

Proximity to Marine Waters

Storm water runoff from the chromium waste at the site flows (as a green-colored liquid waste) into the Delaware River, which lies about 46 meters to the west. The site is also located on a flood plain of the river. Contaminated shallow groundwater may be reaching the river.

Contaminants and Concentrations

The groundwater and some of the soil at the De Rewal Chemical site are contaminated with copper and chromium. The levels of contamination have not been documented. The State of New Jersey conducted a sampling program in April 1985 to determine the level of contamination on site, with some limited study of the river. Results are pending completion of the sample analysis by EPA.



Physical Extent of Contamination

The soils on the site are generally contaminated, with higher concentrations around old buildings and the loading areas. The owner extended the area of contamination by filling areas along the railroad bed, and possibly other areas, with contaminated soils. The extent of contamination off the site in the Delaware River and its habitats is not known.

Duration of Contaminant Release

Initial State of New Jersey investigations noted contamination and discharge from the facility into the Delaware River since at least 1974. Storm water runoff from the chromium waste at the site regularly flows into the Delaware River.

Marine Resources

Resources at Risk

The site is located approximately 50 kilometers upstream of the inland-most extent of tidal influence at Trenton, New Jersey. American shad ascend the Delaware River to the first major dam on the East Branch of the Delaware River in New York. Shad spawn predominantly in tributaries from Easton, Pennsylvania to the East Branch dam in New York. Occasionally, shad eggs and fry are found at Point Pleasant, Pennsylvania, about 20 kilometers upstream of Frenchtown. Young-of-the-year shad are found during the spring from the East Branch dam to Trenton.

The Delaware River Fish and Wildlife Management Council is implementing a management plan for American shad. A goal of 500,000 adult shad spawners annually running in the river was achieved in 1984 and 1985. Future runs are expected to exceed 1,000,000 adults. The Delaware Bay shad fishery depends in part on recruitment of stocks from downstream migrations of post-spawning adults and from juvenile shad. Restoration of shad migration to tributaries is now in progress.

Spawning has been successfully established in the Lehigh River, upstream of Frenchtown, through introduction of adult fish. Installation of passage devices is planned at two dams to re-establish spawning runs. Restoration efforts are currently in progress on the Schuylkill River at Philadelphia downstream of Trenton.

Both alewife and blueback herring are known to spawn in the non-tidal reaches of the Delaware River up to Riegelsville, Pennsylvania, upstream of Frenchtown. Spawning does occur in the vicinity of Frenchtown near the site.

As a result of environmental water quality management efforts, the area of the Delaware River ranging from above Philadelphia to the New York State border has showed a marked improvement in fish habitat. A multi-million dollar sportfishery is based the population centers of Philadelphia, Trenton, and other local communities along the river. The exact number of fishermen using the river is unknown.

Sportfishing is popular in the Delaware River in the vicinity of the Frenchtown site. In addition to striped bass, catfish and walleye are taken. One commercial fishing enterprise operates at Lambertville, New Jersey, 30 kilometers downstream of Frenchtown. The catch is comprised 95% of American shad, 5% of both blueback herring and alewife, and occasional shortnose sturgeon. Striped bass spawn in the vicinity of Trenton, but only adult fish are observed from Trenton to Riegelsville, Pennsylvania. Adults are taken by sport fishermen in this section of the river.

Discharge from the site may pose a small threat to the early life stages of the marine resources found in the Delaware River near Frenchtown. The region of most concern probably will not extend more than 1.6 kilometers downstream from the point of discharge due to mixing and dilution. The threat to the fishery resource will be highest during periods of low river flow.

The threat to shad eggs is of no concern since hatching occurs many kilometers above the site. Blueback herring and alewife eggs laid on the Frenchtown side of the river are threatened by the site. Juveniles of shad, alewife, and blueback herring using the section of the river from Frenchtown to Lambertville may be threatened by discharges of copper and chromium.

Ability to Document Injury or Loss

To date, there has been no documentation of any adverse effects upon the indigenous fish and wildlife populations of the area as a result of toxic discharges originating from the site.

The sample values for chromium and copper taken at Trenton may be slightly above historic, natural ambient levels. The U.S. Geological Survey has sampled chromium and copper since 1979. Insufficient evidence exists for determining ambient levels for the Delaware River at Trenton. The possibility exists that the source of chromium and copper found in the samples originated from De Rewal.

Feasibility of Habitat or Resource Restoration

Soil contaminants (chromium, copper) are leaching into the Delaware River with surface water runoff. Groundwater within the site is contaminated. The total extent of contamination has not been evaluated. To will establish the extent of chromium and copper in the Delaware River

attributable to the De Rewal site water samples should be taken upstream of the discharge point, a downstream transect along the New Jersey side of the river, and a cross-river transect about 500 meters downstream of the discharge. Samples should be made during a five-year rainfall event and also during a period of low flow.

Site-Related Actions

Summary of EPA/State Response Actions

EPA has signed a cooperative agreement with the State of New Jersey for carrying out remedial actions. Execution of this agreement is anticipated in summer 1985. No removal or remedial actions have occurred to date.

Present Stage of EPA Action at the Site

The New Jersey Division of Geological Survey has recommended that a soil and groundwater sampling program be conducted to assess the present impact of this site on land and water resources. The work plan for the site was scheduled for completion in late May 1985. The RI/FS and RAMP will follow. The New Jersey Division of Geological Survey has also recommended that groundwater monitoring wells be installed.

The De Rewal site is ranked by New Jersey as 78th in priority of sites on the NPL.

Responsible Parties with Adequate Means Identified

The Potentially Responsible Parties (PRP's) have been identified, and EPA expects to use Superfund Enforcement funds for action against the parent company.

Interest of Co-Trustees in Damage Assessment Investigations

The U.S. Department of Interior has not yet evaluated the threat posed by this site to trustee resources. The Site Manager for the State of New Jersey knows of no efforts by his department to seek compensation for natural resources damages resulting from chemical contamination from this site.

Site Chronology

- 1972 New Jersey Department of Environmental Protection (DEP) Water Resources conducted soil sampling showing high levels of copper, nickel, cyanide, and hexavalent chromium.

- March 1973 De Rewal notified by New Jersey DEP that permits would be required to continue operations.
- 1973 Series of correspondence from Kingwood Environmental Commission, a Township Committee, reporting to New Jersey DEP problems with De Rewal dumping activities.
- Jan. 1973 New Jersey DEP signs a consent order with De Rewal agreeing to soil and groundwater sampling.
- Dec. 1975 New Jersey DEP conducts sampling of mud and pooled water. High levels of chromium detected.
- June 1978 Malford De Rewal convicted of improper dumping of hazardous waste in Pennsylvania and sentenced to six months by State of Pennsylvania.
- 1978 Mr. Soums buys the property from De Rewal. Report of 20 drums on roof labeled "acrylic acid".
- 1983 New Jersey DEP test of potable water in site well. Level of chromium measured at 5 ppb (drinking water standard is 50 ppb).
- July 1983 Mr. Soums removes 30 tons of soil from the site. Soil taken to the Frenchtown Roller Rink.
- April 1984 New Jersey DEP conducts site visit and proposes soil testing plan.
- March 1985 New Jersey DEP proposes sampling plan.
- April 1985 New Jersey DEP accomplishes sampling plan.

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