STOUGHTON CITY LANDFILL SITE STOUGHTON, WISCONSIN



I. Introduction

This Preliminary Close Out Report documents that the U.S. Environmental Protection Agency (U.S. EPA) completed all construction activities for the Stoughton City Landfill Site in accordance with Procedures for Completion and Deletion on National Priorities List Sites and Update (OSWER Directive 9320.2-3C). U.S. EPA and the Wisconsin Department of Natural Resources (WDNR) conducted a pre-final inspection on December 3, 1998, and determined that the remedy was constructed in accordance with the Remedial Design (RD) plans and specifications. Because all work was satisfactorily completed this became the final inspection.

II. Summary and Conditions

Background

The Stoughton City Landfill Site is located in the northeast portion of Stoughton approximately 13 miles southeast of Madison, in Dane County, Wisconsin. The property containing the landfill Site encompasses approximately 27 acres, but landfilling has occurred on only about 15 acres of the property.

A wetland area that existed in the southeast portion of the current property boundary was the initial area of waste disposal. Wetlands occur adjacent to the southeast portion of the Site, in the north portion of the Site, and west of the Site along the Yahara River. The Yahara River is located to the west of the Site and comes within approximately 400 feet of the Site at its closest point. A residential area has been constructed directly south of the Site. There is no developed land to the west, north or east of the Site.

The City of Stoughton purchased the original 40-acre Site in July 1952, and annexed it in September 1952, when landfill operations began. Between 1952 and 1969, the Site was operated as an uncontrolled dump site. During this time, refuse was usually burned or covered by dirt. In 1969, the Site began operation as a State-licensed landfill. In 1977, the WDNR required that the Site be closed in accordance with State regulations. Closure activities included placement of cover material borrowed from the northwest portion of the Site and from local agricultural areas, application of topsoil also borrowed from a local agricultural area, and seeding. From 1978 to 1982 only brick, rubble, and similar construction materials were accepted at the Site while closure work was performed. The landfill was officially closed in 1982.

Common municipal waste and both dry and liquid wastes were disposed at the Stoughton City Landfill. Dry waste included sludge materials, empty rejected metal spray containers and used appliances. Some sludge materials containing 2-butanone, acetone, tetrahydrofuran, toluene, and xylene mixtures, were disposed at the Site from 1954 until 1962. During this period, the liquid

wastes were commonly poured down holes drilled to test auger drilling equipment in the west-central portion of the landfill.

U.S. EPA proposed the Site for the National Priorities List (NPL) on October 15, 1984, (47FR58476) and added it to the final list on June 10, 1986 (48FR40674). In March 1988, Uniroyal Plastics, Inc. and the City of Stoughton (the Potentially Responsible Parties or PRP's) entered into an Administrative Order of Consent (AOC) with U.S. EPA and WDNR for the conduct of a Remedial Investigation and Feasibility Study (RI/FS).

RI field activities began in March 1989. The first round of groundwater monitoring occurred in May and June 1989. Routine analyses were run for Target Compound List (TCL) inorganics and organics as well as for non-standard volatile organics, tetrahydrofuran (THF), trichloroflouromethane and dichlorodiflouromethane which were the primary contaminants of concern at the Site. A second round of groundwater sampling occurred in May and June 1990. At the time, background surface water and sediment samples were taken from the wetlands east of the Site and from the area between the Yahara River and western edge of the Site.

Feasibility Study (FS) activities began in November 1989 with the submittal of the Alternatives Array Document. A draft FS was submitted on January 17, 1991. The Final FS was submitted to U.S. EPA and WDNR in June 1991.

Remedial Construction Activities

The components of the remedy as specified in the Record Of Decision (ROD) dated September 30, 1991 and Explanations of Significant Differences dated February 27, 1996 are:

- 1. Site security measures including the placement of a fence around the entire Site perimeter;
- 2. Placement of a solid waste disposal facility cap (NR 504 cap) over the Site;
- 3. Extraction and treatment of contaminated groundwater, unless additional monitoring indicates that groundwater extraction is not required to achieve compliance with the State's Ch. NR 140, Wis. Adm. Code, groundwater quality standards, and subsequent discharge to the Yahara River of the treated groundwater in compliance with Wisconsin Pollution Discharge Elimination System (WPDES) effluent limitations;
- 4. Excavation of 5000 cubic yds of waste in contact with groundwater in the southeastern and northeastern sections of the Site, and consolidation of these wastes under the cap;
- 5. Land use restrictions to prevent the installations of a well within 1200 feet of the property boundary and to prevent residential development of the Site;
- 6. Long-term groundwater monitoring to confirm the effectiveness of the other components of the selected remedial action.

U.S. EPA received funding from the Superfund to complete the Remedial Design (RD). The Remedial Action began in April 1998. U.S. EPA and the WDNR conducted RA activities as planned. A new area of waste was discovered outside of the known landfill boundary and about 8000 cu. yds. of waste was excavated and placed on top of the current landfill. This material was placed under the cap. U.S. EPA and the WDNR conducted a final inspection on December 3, 1998, which concluded that construction activities were complete. U.S. EPA determined that the following RA activities were completed according to the ROD design specifications:

- 1. A solid waste cap (NR 504 cap) was placed on the Site.
- 2. Because monitoring indicated that the groundwater plume was dissipating, groundwater treatment was not implemented at this time in accordance with the contingency in the ROD. Now that the cap is in place the groundwater will be monitored to determine if the contaminant plume continues to dissipate. At the five year review a final decision will be made regarding the need for groundwater treatment.
- 3. About 25,000 cu. yds of waste was excavated from the north, east and south edges of the landfill and placed under the cap.
- 4. Land use restrictions are being filed to prevent well installation or residential development of the Site.
- 5. Long term groundwater monitoring will be conducted.
- 6. A perimeter fence was constructed around the Site.

The selected remedy eliminates the principal threat posed by the Site by preventing direct contact with contaminated materials, venting landfill gases and greatly reducing water flow thru the waste.

III. Demonstrations of Cleanup Activity-Quality Assurance and Quality Control

Activities at the site were consistent with the ROD, and all work plans are issued to contractors for design and construction of the RA, including a Quality Assurance Project Plan, incorporated all U.S. EPA quality assurance and quality control (QA/QC) procedures and protocol. U.S. EPA analytical results are accurate to the degree needed to assure satisfactory execution of the RA and are consistent with the ROD and the RD plans and specifications.

IV. Activities and Schedule For Site Completion

The following activities will be completed according to the following schedule:

TASK	Estimated Completion	Responsible Organization
Approve RA Report	3-31-98	U.S. EPA
Approve Final Close Out Report	Indefinite	U.S. EPA

V. Five-Year Review

Hazardous substances will remain at the site above health-based levels after the completion of the remedial action. Pursuant to CERCLA Section 121 C and as provided in OSWER Directive 9355.7-02, Structure and Components of Five-Year Review Guidance, July 26, 1994, U.S. EPA must conduct a statutory five-year review. A Five-Year Review Report will be initiated prior to July 2002.

William E. Muno, Director

Superfund Division

15/98

Date