

JOHN DEERE WATERLOO

(Waterloo, Iowa)

GENERAL DESCRIPTION

The 290-acre site is located in Sections 22 and 23, T89N, R13W, Black Hawk County, Iowa, near the center of Waterloo, Iowa. Black Hawk Creek bisects the site. The site is owned by Deere & Company and was entered on the Registry in November 1990.

SITE CLASSIFICATION

The site is classified "b" in accordance with 455B.427.3. Hazardous substances have been disposed of at the site, posing a significant threat to the environment.

TYPE AND QUANTITY OF HAZARDOUS WASTE

Manufacturing and disposal operations have been conducted on site since 1909. On-site waste disposal has occurred through landfilling, land treatment processes, drum burial. The amount of waste disposal is unknown. The types of hazardous wastes include paint sludge, electroplating wastes, baghouse dust, caustic paint stripper, solvents, cyanide and chromium plating sludge wastes, and petroleum products.

In July 1991, the EPA issued the facility a RCRA hazardous waste operating permit for the treatment and storage of hazardous wastes on the east side of the facility. As a condition of the permit, John Deere was required to conduct a RCRA Facility Investigation (RFI) of the potential impact of past and present solid waste management areas.

Groundwater monitoring has shown contamination in areas on both sides of Black Hawk Creek. The contaminants included several chlorinated solvents, petroleum hydrocarbon, PCBs, and dioxin. The PCBs (660 ug/L) and dioxin (0.036 ug/L) were found in one well on the east side of Black Hawk Creek near the Cedar River. This well also had floating free product, as motor oil that contained 670 ppm of PCBs. The highest concentrations of chlorinated solvents were found on the west side of the site. This included chloroethane (900 ug/L), 1,1-dichloroethane (840 ug/L), 1,2-dichloroethylene (420 ug/L), 1,1,1-trichloroethane (190 ug/L), and lesser amounts of trichloroethylene and tetrachloroethylene.

SUMMARY OF PUBLIC HEALTH AND ENVIRONMENTAL CONCERNS

- **The primary public health concern for this site is potential contamination of surface water and public drinking water.**

The John Deere Waterloo site is located near the center of Waterloo, Iowa. The site is bordered on the north by the Cedar River and is bisected by Black Hawk Creek. Both of these surface water bodies are used for fishing and recreational purposes. There are two city parks located just north and south of the site. The city of Waterloo has five municipal well fields located within two miles of the site. The Cedar Bend wells are located in the alluvial aquifer. The other four well fields are completed in bedrock.

SUMMARY OF ASSESSMENT, MONITORING OR REMEDIAL ACTIONS

The EPA is the lead agency for this site, which is being regulated under the federal RCRA program. As a condition of the hazardous waste operating permit issued in 1991, the facility was required to conduct a RCRA Facility Assessment (RFA). The purpose of the RFA was to identify past disposal activities that may require corrective action. As a result of the RFA a RCRA Facility Investigation (RFI) was initiated in June 1992 and completed in June 1994. A supplemental Corrective Measures Study (CMS) was completed in 1998 and the environmental measures identified in the study are being implemented. A Supplemental RCRA Facility Investigation (RFI) report was submitted in 2001.

2003: The U.S. Environmental Protection Agency (USEPA) is currently finalizing its review of all on site environmental data collected by the facility to date, relative to the RCRA solid waste management units (SWMUs) that have been identified at the facility. The purpose of this review is to determine whether the environmental assessments performed at the facility have characterized the nature and extent of contamination in soil and groundwater sufficiently to provide adequate information for the assessment of both human and ecological risk, and to determine the need for corrective action.

2004: The EPA completed review of all available on-site environmental data and then submitted written comments summarizing this review to John Deere representatives. Currently, John Deere is drafting a comprehensive response summary to EPA's comments. Once this response summary has been completed and submitted to the EPA, the EPA and John Deere will begin working to develop a work plan to guide data collection to complete the environmental assessment at the facility. A corrective action remedy for the facility will be determined from this assessment.

2005: John Deere - Waterloo Works (Deere) responded to the comprehensive review of existing environmental data performed by the EPA by submitting a written response summary to the EPA. While the EPA was in the process of reviewing these responses, Deere elected to proceed with redevelopment of portions of the site for Deere's own use, and also with an environmental assessment for a portion of the site for which Deere plans to transfer ownership. The EPA has been working with Deere to ensure that adequate environmental assessment has been achieved in these areas of the site slated for reuse and redevelopment. Once this has been completed, Deere and the EPA will develop a work plan to fully complete environmental contamination assessment across the remainder of the site property.

2007: Approximately 40 acres of the John Deere Waterloo site was transferred to Cedar Valley TechWorks, Inc. for redevelopment as a biotechnology education and research center.

2008: A joint EPA site visit conducted in October. An easement request was approved by IDNR and EPA for construction of service roads that did not affect the solid waste management units.

2009: In early 2010 the EPA will begin discussions with representatives of John Deere Waterloo Works which will lead to a remedy decision for the John Deere Waterloo Works site. Once a proposed remedy for the site has been developed, it will be offered for review and comment by the public before a final remedy decision is made by the EPA.