UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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OSWER/OSRTI State, Tribal, and Site Identification Branch Washington, DC 20460

COMMERCE STREET PLUME
Williston, Vermont

The Commerce Street Plume is located at an industrial park in Williston, Chittenden County, Vermont. The property formerly leased by Mitec Systems Corp. (Mitec), one of the known plume contributors, occupies one acre at 96 Commerce Street and currently includes one 6,000 square foot building. Various manufacturing and electroplating operations occurred on the property since 1960. The two primary sources of contamination on the property are an unlined lagoon and a leach field, which were both created to dispose of liquid waste. Plating rinsewater and sludge wastes containing heavy metals and solvents were disposed of into the unlined lagoon and the leach field intermittently through 1984. Volatile organic compounds (VOCs) tetrachloroethylene (PCE), trichloroethylene (TCE), dichloroethylene (DCE), and metals including chromium, cadmium, and nickel have been detected in soil and ground water throughout the property and TCE and PCE have been detected in nearby drinking water wells above health-based standards. In addition, elevated levels of contaminants linked to the property have migrated to nearby streams and wetlands via ground water to surface water recharge.

From 1979 to 1986, Mitec leased the property for manufacturing of electronic and microwave components. Between 1979 and 1984, Mitec discharged an undetermined quantity of rinse waters and sludge wastes containing chromium, cadmium, cyanide, nickel, and industrial solvents associated with electroplating operations into the unlined lagoon. After a Mitec employee expressed concern to the Vermont Agency of Environmental Conservation (VT AEC) in March 1982, the State found the company in violation of hazardous waste regulations for the disposal of chromium contaminated wastes. In 1984, VT AEC filed suit against Mitec for alleged contamination and submitted a 6610a Administrative Order to Mitec issuing a formal notice of violation, charging Mitec with illegal disposal of hazardous waste. Manufacturing operations on the property ceased in 1986.

In 1984, monitoring wells detected chromium in ground water downgradient of the lagoon. In July 1985, sampling by Vermont Department of Health (VT DOH) showed six residential private drinking water wells downgradient of the lagoon and leach field to be contaminated with TCE up to 190 parts per billion (ppb) and PCE up to 12 ppb, concentrations above federal Maximum Contaminant Levels (MCLs). In addition, indoor air samples collected in residences down gradient from the property showed VOCs at levels posing unacceptable risk to humans. The drinking water wells were subsequently closed, and residents were provided with an alternate drinking water supply.

Numerous ground water, surface water, sediment, residential indoor air, and soil sampling events occurred between 1984 and 2002. In 1987 and 1988, concentrations of TCE and PCE were detected in ground water up to 3,300 ppb and 660 ppb, respectively. In 1996, soil samples collected by Vermont Agency for Natural Resources (VT ANR) indicated TCE concentrations up to 1,790 ppb directly downgradient of the leach field. Additional studies detected DCE up to 180 ppb, chromium at 3.4 ppb, TCE at 170 ppb, and vinyl chloride at 11 ppb in wetlands and the nearby unnamed stream, which flows into Muddy Brook and ultimately the Winooski River. In 1999, ground water samples taken by the VT ANR found TCE in ground water at levels as high as 90,000 ppb downgradient of the former Mitec facility. In 2002, EPA detected elevated levels of 11 VOCs and 13 total metals in monitoring wells located throughout the industrial park and surrounding residential area.

The unnamed stream is a habitat for two State-designated threatened species and is a State-designated area for protection and maintenance of aquatic life under the Clean Water Act. The Winooski River downstream of the property is a known fishery. Ground water contamination continues to be detected directly downgradient of the property and has the potential to migrate to private and public water supplies serving approximately 1,575 people within 4 miles of the property.

[The description of the site (release) is based on information available at the time the site was evaluated with the HRS. The description may change as additional information is gathered on the sources and extent of contamination. See 56 FR 5600, February 11, 1991, or subsequent FR notices.]

For more information about the hazardous substances identified in this narrative summary, including general information regarding the effects of exposure to these substances on human health, please see the Agency for Toxic Substances and Disease Registry (ATSDR) ToxFAQs. ATSDR ToxFAQs can be found on the Internet at http://www.atsdr.cdc.gov/toxfaq.html or by telephone at 1-888-42-ATSDR or 1-888-422-8737.