Last updated: March 2007

IBM Corporation – Kingston

EPA ID Number: NYD001359694

Other (Former) Names of Site
None

Site Description

The facility is located at Neighborhood Road in Kingston, New York. The TechCity Properties, Inc. became a property owner in February 1998. IBM has retained a presence at the site as the primary responsible party for past releases of contamination and as operator of the corrective measures programs.

The site was first developed in the 1950s and principal activities have included the development, manufacture, and testing of computers and related systems, and the manufacture of electric typewriters. The site used certain hazardous chemicals and historic releases to the subsurface environment (subsurface soil and groundwater) occurred. These releases to the subsurface are believed to be related to the original industrial waste sewer system and underground storage tanks. The use of these systems was discontinued in the early-to-mid 1980s.

The site consists of approximately 138 acres. The buildings are presently either unoccupied or leased for warehousing, office space, and other business activities. No regulated hazardous waste management activities are currently ongoing at the site.

Groundwater contamination is largely limited to the released industrial solvents such as trichloroethane, trichloethylene and perchlorethylene along with related compounds that are produced as the solvents naturally degrade in the environment over time. The contamination is confined to a shallow water table aquifer and is impeded from downward movement by a thick layer of clay under most of the site. Additional groundwater investigations conducted at the Former Industrial Waste Sludge Lagoon (Arsenic and VOC Plume Source Investigation) and the Deep Bedrock Aquifer, completed in January 2002, and verified that these areas have not been impacted. A groundwater interceptor system is in place to contain and collect contaminated groundwater within the shallow aquifer for areas east of Enterprise Drive. This groundwater is treated on-site in an air stripper and the treated effluent is discharged to an on-site sewer system.

Minor levels of contaminants have been detected in groundwater west of Enterprise Drive near IBM=s Former Industrial Waste Treatment Facility and a Former Settling Lagoon (pond). Accumulated sludge was periodically removed from the lagoon and disposed off-site. The low level groundwater contamination at this area of the site does

not have any known off-site impact, which indicates that the groundwater contamination is not migrating.

Site Responsibility and Legal Instrument

NYCRR Part 373 Post-Closure Permit for the closed Hazardous Waste Management Lagoon issued by NYSDEC. This permit includes Corrective Action for releases of hazardous constituents from other areas of the site.

Permit Status

The Post-Closure Permit issued by NYSDEC in October 1996 and expired in October 2001, is still in force today. On September 26, 2006, a petition to modify site boundaries in order to develop and sell a portion of the facility was denied by NYSDEC. The Post-Closure Permit requires maintenance and monitoring of the former settling lagoon area during the post-closure period, and also requires the implementation of a Corrective Action program to evaluate and remediate releases from all former waste management units at the Site.

Potential Threats and Contaminants

Contaminants and Sources

Chlorinated solvents (VOCs) have been identified in the subsurface soil and groundwater at the site through extensive investigations and testing conducted by IBM over a period of more than 20 years. Groundwater contaminants including tetrachloroethene, trichloroethene and perchloroethene are present at concentrations in excess of NYS groundwater standards. The contamination is limited to subsurface soils and shallow groundwater, which is consistent with the historical releases occurring from subsurface waste management sewer systems. Sampling of surficial soils has not indicated any significant releases to the land surface. In addition, investigations aimed at identifying areas of residual subsurface contamination that might be remediated to accelerate the cleanup of site groundwater have been completed.

A groundwater interception system has been installed to contain the contaminated groundwater within the site boundaries. This system is designed to keep contaminants on-site, however, it will require continuous operation, maintenance and monitoring for an indefinite period, during which the on-site groundwater quality should continue to slowly improve.

Potential Threats from Contaminated Groundwater

Groundwater monitoring data collected at this site indicate that the migration of contaminated groundwater within the shallow aquifer east of Enterprise Drive is controlled. The site control perimeter consists of a groundwater collection trench system, a barrier wall, and the storm sewer systems. The IBM sewer systems and its bedding material play a role in groundwater contaminant transport because these

sewers are below the water table and therefore, intercept contaminated groundwater. Migration of the low concentration plume west of Enterprise Drive is contained on-site by an interception system. While a more extensive bedrock investigation needs to be completed, there is little likelihood that there is an uncontrolled plume in the bedrock due to the nature of the geology in the area. There is no evidence of DNAPL (dense non-aqueous phase liquid, i.e., compound that does not readily dissolve in water and is heavier than water) accumulation zones in the shallow aquifer and there is a low potential for contaminated groundwater to migrate through the tens of feet of clay underlying the manufacturing portion of the site. Groundwater quality data from existing bedrock monitoring wells at the site do not indicate any significant contamination.

Potential Threats from Contaminated Soil

Chlorinated solvents (VOCs) were identified in the subsurface soils on site at the sewer system and near the surface impoundment, and as a result extensive investigations and soils removals were conducted by IBM over a period of more than 23 years. Contaminants in the subsurface soils included Tetrachloroethene, Trichloroethene, and Perchloroethene and their daughter products are present at concentrations in excess of NYS groundwater standards. Sampling of residual surficial soils has not indicated any significant contamination in the land surface. IBM has performed more than 13 soil investigations and excavations and Comparison of all available surface soil (less than 2 feet below ground surface) data from the site and met NYSDEC recommended soil cleanup objectives in ATAGM 4046 - Determination of Soils Cleanup Objectives and Cleanup Levels.@ Other known releases at this site were primarily from subsurface structures (e.g., piping and tanks) typically at a burial depth of greater than two (2) feet, which were addressed promptly by IBM.

Potential Threats From Air Contamination

A risk assessment, based on contaminant concentrations existing in the soil beneath site buildings, was recently conducted by a qualified risk assessor. This assessment was conducted using conservative assumptions under a worst-case scenario. Based on the risk modeling results it was concluded that there were no unacceptable risks to human health from exposure to indoor air vapors intruding into Building 003. There are no groundwater plumes beneath the rest of the buildings on-site. Building 003 is currently vacant.

Cleanup Approach and Progress

All former waste management areas and units at the site have been closed and release potential evaluated in accordance with NYSDEC requirements. However, it has been determined that hazardous waste constituents have been released to the subsurface soil and groundwater beneath the facility. The resulting groundwater contamination is in excess of state groundwater standards for several hazardous constituents. IBM has characterized releases to the groundwater from the site and has implemented a remedial program to capture and treat contaminated groundwater in the shallow aquifer east of Enterprise Drive. The low level groundwater contamination existing west of

Enterprise Drive does not have a measurable or significant effect on the surface water where it discharges. Additional studies to better identify the sources were completed in January 2002 and determined that the suspected areas have not been impacted by groundwater contamination. Groundwater monitoring continues at the site for the purpose of evaluating the effectiveness of the remedial program and to monitor changes in the groundwater quality. There is no longer a subsurface soil contamination at the site since all impacted areas were excavated and re-filled to the satisfaction of NYSDEC.

Government Performance and Results Act (GPRA) Status

In 1993, Congress passed the Government Performance and Results Act (GPRA), which mandated that all Federal agencies develop strategic plans, establish annual performance plans (which set objective, quantifiable and measurable annual targets and goals), and produce annual program performance reports that compare actual performance to the annual goals.

The goals, as far as RCRA facilities are concerned, are that by 2005, the States and EPA will verify and document that 95 percent of the 1715 high priority RCRA facilities (of which this is one) will have Acurrent human exposures under control,@ and 70 percent of these facilities will have Amigration of contaminated groundwater under control.@

A success determination was made for both environmental indicators, Human Exposures Controlled (CA725) and Migration of Contaminated Groundwater Controlled (CA750) in 1999.

Environmental Indicator Status or Projection

- CA 725 - Current Human Exposure Under Control[1] was achieved in 1999.
- CA 750 - Migration of Contaminated Groundwater Under Control[1] was achieved in 1999.

_____

[1] Applies to units subject to RCRA permitting and/or corrective action.

Site Repository

Copies of supporting technical documents and correspondence cited in this site fact sheet are available for public review at:

NYSDEC
Division of Solid and Hazardous Materials
Bureau of Radiation and Hazardous Site Management
Room 460
50 Wolf Road
Albany, NY 12233-7252