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RESPONSE JUSTIFICATION DOCUMENT
CBS VANPORT/VANPORT TOWNSHIP MUNICIPAL AUTHORITY SITE
VANPORT TOWNSHIP
BEAVER COUNTY
SOUTHWEST REGION

DEP APPROVAL

Based on the facts and findings outlined in this Response Justification Document, further investigation or response action is deemed appropriate, pursuant to Section 501(a) of the Hazardous Sites Cleanup Act.

Kevin Halloran
Regional Manager
Environmental Cleanup Program

10/25/16
Date

SUMMARY OF FACTS

The Vanport Township Municipal Authority (VTMA) owns and operates a water supply system that services the municipalities of Vanport Township and Brighton Township in Beaver County, Pennsylvania. VTMA services a total population of approximately 10,000. The maximum daily consumption from the VTMA water supply system is approximately 2.2 million gallons per day (mgd); average daily consumption is 1.55 mgd.

The VTMA well field consists of six (6) production wells. These wells are located on 8.9 acres owned by the VTMA, which is situated approximately 300 feet from the north bank of the Ohio River (See Figure 1).

In January, 1988, analytical results of samples obtained from various points in the VTMA water supply system indicated the presence of trichloroethylene (TCE) at concentrations less than 100 ug/l (ppb). Since that time, sample results from the system have consistently showed TCE levels above 100 ug/l. Under the Land Recycling and Environmental Remediation Standards Act, 35 P.S. 6026.101-6026.090, (Act 2), the Medium-Specific Concentration standard for TCE in used aquifers is 5.0 ug/l.

The Department believes that one possible source of the TCE is a former Westinghouse electronics manufacturing facility in Beaver. The facility is located approximately 1,500 feet north of the Ohio River at Vanport. (See Figure 1.) The facility is bordered to the northwest by the bedrock wall of the Ohio River Valley and to the south by Georgetown Lane, the Beaver Cemetery, and an abandoned sand and gravel quarry. A park and athletic field lie to the west, and Tuscarawas Road, several businesses, and Beaver High School are east of the site. Twomile Run flows northeast of the site and along the southern border of the facility; it then flows southwest, to where it eventually discharges to the Ohio River.

The facility was originally operated by Curtiss Wright during World War II to manufacture airplane propellers. Westinghouse began operating the facility in 1947 to manufacture power distribution equipment, after which it manufactured circuit breakers until the plant closed. CBS Corporation merged with Westinghouse in 1995. Since 1994, Eaton Corporation has owned and operated the facility to manufacture electronic switchgear and switchboard apparatus.

Westinghouse used TCE at the facility for degreasing metal parts and components through 1987. In 1988, Westinghouse discovered TCE contamination in facility soil and groundwater.

Nearby businesses Jack and Jill One-Hour Cleaners and Crivelli Chevrolet are other possible sources of the TCE. Jack and Jill is now defunct, but during its operations the cleaner's wastes were handled by Safety-Kleen, a licensed hazardous waste transporter. Crivelli is an ongoing business. Crivelli connected with the sanitary sewer treatment system of Vanport in the summer of 1988.

Another potential source of TCE contamination is an abandoned sand and gravel quarry, known as Beaver Sand Company. The quarry is located approximately 1,000 feet north of the VTMA well field (see Figure 1). The quarry is about 1,300 feet long and 600 feet wide, with a depth that does not appear to exceed 100 feet. Quarry operations ceased between 1965-1966. The quarry is now abandoned and overgrown with vegetation. There are currently at least eight different owners of the various parcels that make up the quarry.

A former quarry employee has alleged to the Department that industrial wastes were disposed of in the quarry while it was in operation. Also, apparently, small amounts of household waste and scrap were dumped in the quarry in the late 1980's. During a 1992 investigation of the quarry conducted on behalf of Westinghouse by contractor Rizzo & Associates excavated test pits, drilled borings, and collected soil samples. TCE was found in one test pit soil sample at a depth of 4 to 6 feet, at levels well under the TCE soil standard under Act 2.

In 1988, the Department conducted a hydrogeologic investigation to investigate the source of the TCE contamination of the VTMA well field. During its investigation, the Department installed ten groundwater monitoring wells between the Westinghouse facility and the VTMA well field. At the same time, Westinghouse conducted an investigation of the TCE contamination at its facility. Westinghouse installed groundwater monitoring wells within and around the facility and between the facility and the VTMA well field.

Nine out of eleven groundwater samples collected during the Department hydrogeologic investigation in 1988 exceeded the 5.0 ug/l Act 2 TCE standard for used aquifers, with sample results ranging from 14.8 ug/l to 1,100.0 ug/l TCE.

In a March 1989 sampling event, the Department's investigation found that TCE in the groundwater exceeded the Act 2 TCE standard in eight out of ten Department monitoring wells, with sample results ranging from 21.0 ug/l to 1,200.0 ug/l TCE. Samples collected from two Westinghouse wells from the same sampling event also exceeded the 5.0 ug/l Act 2 standard, at 44,000.0 ug/l and 800.0 ug/l TCE.

The Department and Westinghouse investigations determined that the aquifer under the Westinghouse facility is the same aquifer as that used by the VTMA pumping wells. The VTMA pumping wells are hydraulically downgradient from the Westinghouse facility. Groundwater flow from the Westinghouse facility is generally from the southwest, in the direction of the VTMA pumping wells and the Ohio River.

On June 23, 1989, Westinghouse entered into a Consent Order and Agreement (CO&A) with the Department. Westinghouse agreed to construct and install an air stripping tower system at the VTMA pumping wells to reduce the concentration of TCE in the effluent. In addition, Westinghouse agreed to pay VTMA for the operation and maintenance costs of the tower system. The CO&A required Westinghouse to continue these payments

until, for fifteen (15) sampling periods, the influent to the Tower showed TCE at less than 5.0 ug/l. Under the CO&A, Westinghouse would thereafter reinstate its payments if the Department determined that the TCE in the influent was 5.0 ug/l or greater. The CO&A required Westinghouse to conduct representative sampling at the influent to the Tower and other groundwater monitoring well locations and submit monthly progress reports to the Department.

Following the CO&A, Westinghouse constructed the air stripping tower system at the VTMA and also conducted a remedial design investigation at its facility. The investigation was documented in a June 1990 report. This report identified the presence of TCE and other volatile organic compounds (VOCs) in the shallow groundwater at the Westinghouse facility, in an area south of the facility where some tanks had leaked, and in the northeastern area of the facility. Evaluation of later groundwater data indicates that there is also deep groundwater VOC contamination in the south tank area of the facility. The Westinghouse groundwater monitoring well sample results for TCE ranged from 8.0 ug/l to over 10,000 ug/l, well exceeding the 5 ug/l Act 2 TCE standard. Westinghouse installed two pumping wells for a pump and treat system at the faclity.

In 1995, CBS Corporation merged with Westinghouse and assumed all liability for its environmental legacies. CBS has continued to conduct the required sampling and analysis of groundwater. CBS continued its payment for the Tower system at the VTMA pumping wells until June 2016. In June 2016, CBS advised the Department that it had met the stipulations set forth in the CO&A with respect to meeting the TCE limits and that it was stopping its payments for the operation and maintenance costs of the VTMA Tower system. CBS has indicated it plans to continue the sampling and analysis of groundwater at select wells until sometime in June 2017. Review of the July 2016 groundwater data indicates that sixteen of the monitored groundwater wells exceed the Act 2 TCE standard of 5.0 ug/l, with sample results ranging from 11.0 ug/l to 45,000.0 ug/l.

POTENTIALLY RESPONSIBLE PERSONS

The following "person"(s), as defined by Section 103 of HSCA, has been identified at this time as being a potentially responsible person, pursuant to Section 701 of HSCA. Each potentially responsible person, identified below is entitled to legal notice under Section 501(a) of HSCA.

1. CBS Corporation, as successor to Westinghouse
2. Eaton Corporation
3. Nick Crivelli Chevrolet
4. Curtiss Wright

FINDINGS AND AUTHORITY TO ACT

The Department has determined that TCE and other VOCs have been released at the former Westinghouse Site and are causing or contributing to the contamination of the VTMA drinking water supply well field. TCE is a hazardous substance as defined by the

Hazardous Sites Cleanup Act. Further, this hazardous substance has been released at the Site at a concentration that exceeds the statewide health standards under Act 2. Based on these findings the Department has determined that further investigation or response is appropriate.

REFERENCES

DER Letter to U.S. Environmental Protection Agency, by James R. Shack, dated August 30, 1988

DER Technical Memo, Vanport Township Municipal Authority Water Supply Groundwater Assessment Investigation by Eric T. Manges and Mark L. Johnson, dated September 7, 1988

Westinghouse Letter to DER by Linda L. LeGoullon, dated February 2, 1989

Summary of VOC Analytical Results, March 13-14, 1989 Sampling Event, Vanport Township, Beaver County, Pennsylvania Department of Environmental Resources

Westinghouse Letter to DER by Roger E. Wills, Jr., dated April 24, 1989

Westinghouse letter to DER by L.L. LeGoullon, dated June 15, 1989

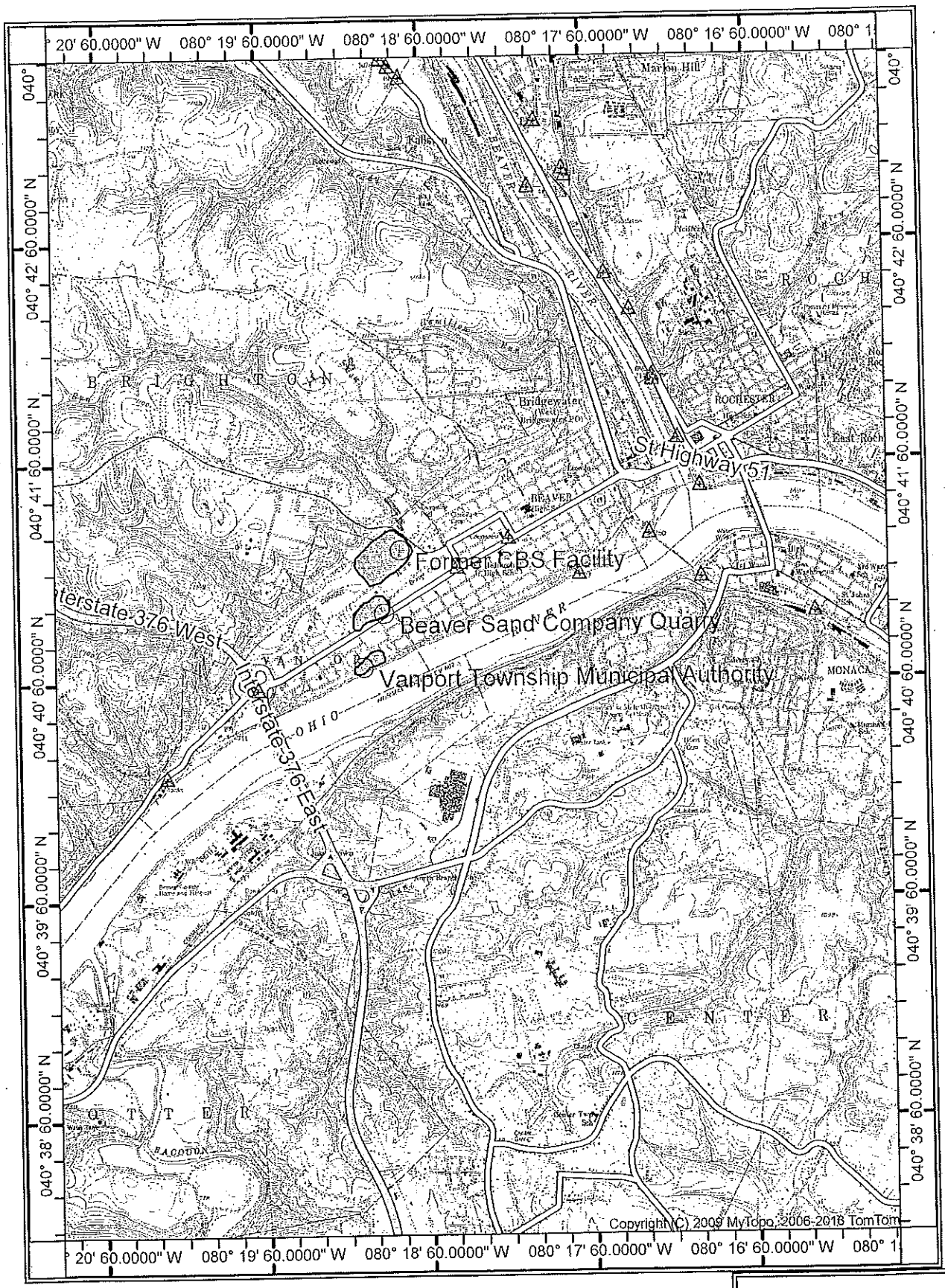
Consent Order and Agreement between Department of Environmental Resources and Westinghouse Electric Corporation, dated June 23, 1989

Westinghouse/Vanport –TCE Contamination Case Hydrogeologic/Groundwater Quality Investigation by Eric T. Manges, dated August 17, 1989

Report Remedial Design Investigation-Westinghouse Facility Beaver, Pennsylvania prepared by Paul C. Rizzo Associates, Inc., dated June 1990

Data Summary Report Vanport, Pennsylvania Westinghouse Electric Corporation, prepared by Paul C. Rizzo Associates, Inc., dated March 4, 1992

Transmittal – July 2016 Groundwater Results Former Westinghouse Corporation Facility, prepared by Woodard & Curran, dated August 4, 2016



USGS Beaver PA Quad

SCALE 1:48000

0 10000

Feet

Figure 1
Former CBS Vanport Facility/ Vanport Township Municipal Authority Site
Vanport Township, Beaver County