UNITED STATES

ENVIRONMENTAL PROTECTION AGENCY

REGION III

STATEMENT OF BASIS

BRADFORD ELECTRONICS, INC.
BRADFORD, PENNSYLVANIA 16701

EPA ID NO. PAD046762258

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I. Introduction

The United States Environmental Protection Agency ("EPA") is issuing this Statement of Basis ("SB") to solicit public comment on EPA's determination that Bradford Electronics, Inc. ("Bradford Electronics" or "Facility") located at 550 High Street, Bradford, McKean County, Pennsylvania, has attained Corrective Action Complete with Controls. The Facility is subject to the requirement of performing corrective action activities because it is subject to the provisions of Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976 ("RCRA") and the Hazardous and Solid Waste Amendment of 1984 ("HSWA"), 42 U.S.C. §§ 6901 - 6992. Section 3013 of RCRA, 42 U.S.C. § 6934, requires facilities such as Bradford Electronics to investigate and clean up releases of hazardous wastes or hazardous constituents that have occurred at their facility. This SB explains EPA's preliminary determination that Bradford Electronics has fully investigated and properly cleaned up the Facility pursuant to the authority of the Commonwealth of Pennsylvania's Land Recycling and Environmental Remediation Standards Act ("Act 2").

The proposed controls, which are also required as part of the PADEP's approval of Bradford Electronics' post remedial plan activities, require that Bradford Electronics implement institutional measures to prohibit the use of shallow groundwater for potable purposes by a deed restriction and file a deed notice for the non-residential site-wide soils. This proposal to designate the Facility as Corrective Action Complete with Controls is consistent with current EPA guidance entitled "Final Guidance on Completion of Corrective Action at RCRA Facilities (February 25, 2003)."

II. Facility Background

The Bradford Electronics, Inc. facility is a 21.5-acre parcel of land at 550 High Street, Bradford, McKean County, Pennsylvania. Before the mid 1950s, the site was originally undeveloped land owned by the Bradford Industrial Development Corp. Corning Glass purchased the site in 1958 and constructed the existing building. In 1987, the facility was sold to Vishay Intertechnology, Inc. of Malvern, Pennsylvania. Vishay Intertechnology, Inc. was the parent company of Bradford Electronics, Inc. A portion of the facility was sold to the Bradford Economic Development Corporation (year unknown). The Pepperell Braiding Company currently occupies the building that was sold. Bradford Electronics operated the facility until 2002 when the facility was decommissioned. The site remained vacant until Bradford Electronics sold the property in 2006 to Bob Cummins Construction Company. The property is currently used by Cummins Company for non-residential use. Attachment 2 presents the layout of the Facility.

The depth to groundwater beneath the property ranges from 4 to 14 feet below ground surface. The water-bearing zone consists of approximately 10 feet of silt and clay underlain by a sand and gravel unit. Approximately 19,400 people are served potable water from the Bradford City Water Authority via three surface water reservoirs. The Kenmer Acres Water Association services approximately 230 people from 3 public wells located 3 miles north of the Facility. The Valley Water Company serves 75 people within Custer City from a series of springs located approximately one mile south of the Facility. The remaining 1,200 people within the study area are assumed to be supplied potable water from private domestic wells. The nearest well is located approximately 0.4 miles northeast of the Facility.

Between 1958 and 2002, the Facility owners manufactured electronic resistors and metal film resistors. In the manufacturing process, various solvents were used and stored, including: toluene, isopropanol, xylene, butylacetate, ethylacetate, amylacetate, Freon TF, methyl ethyl ketone (MEK), and 1,1,1-trichloroethane (1,1,1-TCA). Other raw materials formerly stored and used at the facility included trichloroethylene (TCE), hydraulic and lubricating oils, paint, No.2 fuel oil, and gasoline. TCE was used in an onsite degreaser between 1958 and 1973 and later replaced with 1,1,1- TCA. During the last stages of operation of the facility, Bradford Electronics was registered as a small quantity generator of hazardous waste. The hazardous wastes were generated in small quantities and stored at the facility for less than 90 days. When the site was decommissioned during 2001- 2002, all hazardous wastes were disposed of at a licensed disposal facility.

Bradford Electronics closed several areas (sometimes called Solid Waste Management Units or SWMUs) and conducted a series of remedial investigations in accordance with the Pennsylvania Department of Environmental Protection (PADEP) approved workplans. This work took place within Pennsylvania's Land Recycling and Environmental Remediation Standards Act (Act 2) program. The objectives of the remedial investigation activities were to evaluate environmental conditions at the Facility, to demonstrate attainment of Remediation Standards under Act 2, to support a petition for a Release of Liability from PADEP, and to achieve site closure and receive a No Further Action designation from EPA.

Bradford Electronics removed approximately 1,858 tons of soil from the waste pile area in 2004 to address the source of Volatile Organic Compounds (VOCs) to soil at the waste pile area and the underlying groundwater.

In September 2005, Bradford Electronics submitted a report to PADEP summarizing all previous investigations or inspections conducted at the property dating back to the late 1980s. The report also included a scope of work that was based on Act 2 to conduct supplemental characterization of the site.

In November 2005, Bradford Electronics provided PADEP a Notice of Intent (NIR) to remediate site-wide soil and site-wide groundwater to Act 2 statewide health standard. Field activities including monitoring well installation and soil and groundwater sampling were proposed to complete the site-wide soil and site characterization.

From November 2005 to February 2006, Bradford Electronics performed site characterization and soil remedial actions.

In May 2006, Bradford Electronics submitted a revised NIR to the PADEP to include site specific standards for shallow groundwater and to demonstrate attainment of soil and groundwater in the deep zone using state-wide health standards.

In August 21, 2006, Bradford Electronics submitted the "Remedial Investigation and Final Report" for the property to PADEP for approval. The Report described the area of the property characterized, contaminants identified, remediation performed, and the Act 2 standards attained.

By letter dated October 18, 2006, PADEP approved the August 21, 2006 Final Report submitted on behalf of Bradford Electronics pursuant to Act 2. In the October letter, PADEP indicated groundwater in the deep aquifer achieved a residential statewide health standard, which means that the water meets level established for drinking water. The site also attained a non-residential statewide health standard for site-wide soils and a site-specific standard for the shallow aquifer. In addition, PADEP required Bradford Electronics implement institutional measure to prohibit use of shallow groundwater for potable purposes by a deed restriction and file a deed notice for the non-residential site-wide soils.

III. Summary of all Solid Waste Management Units (SWMUs) and/or Areas of Concern (AOCs) aw well as description of Known and/or potential releases.

Solid Waste Management Units

Hazardous Waste Storage Area - Located within the main building on the northwest corner, was a less than 90 day hazardous waste storage area. In this area, hazardous waste was stored for less than 90 days and shipped off site using a licensed hazardous waste transporter. At the time of an EPA inspection (August 26, 1999), there were multiple 55-gallon drums stored in the area. The storage area had proper secondary containment in the event of a spill or release. The floor had been finished with a floor sealant.

Anderson Unit - The Anderson Unit was used during the ultra-pure glass manufacturing process. The unit was used for the removal of antimony and tin from the glass tank. The antimony and tin were removed as solids that were disposed of at Model City Landfill in New York. The system also produced approximately 3,000 gallons of liquid waste with a pH less than 2.0. Hazardous waste hauler (Clean Harbor in 1999) removed the liquid waste from the facility. The glass manufacturing process occurs once per year for a period of about two weeks, therefore, the Anderson Unit only operated during that period of time.

Dumpster - Hazardous waste contained in a dumpster spilled onto the ground when the dumpster overfilled with rainwater in June 1995. The spill area was covered with lime. The Complaint Tracking System Detail Report did not specify the type of material spilled, except to state antimony and tin compounds. No other details are available.

Storage Shed - A concrete block structure approximately 12' x 12' that was previously used to store solvents and oils by Corning. The structure is still present and is only utilized for the storage of oils. The storage shed has a floor drain that was plugged in 1973. The storage shed has a garage type door and has no secondary containment. According to the "Preliminary Assessment of Corning Glass - Bradford Electronics Site, PADER, May 17, 1989, 'The use of trichloroethylene (TCE) was stopped in 1973. Previously, TCE was thought to have leaked out of the storage shed into floor drain, and into the ground. The floor drain has since been plugged to alleviate further incidents of this type."

Above Ground Storage Tank (ASTs) - 22,000 gallon above ground storage tank formally located at the southwestern corner of the facility building was used for storage of #2 fuel oil. In 1985 the use of the oil tank was discontinued due to the availability of natural gas and the

remaining oil was removed. The tank, retaining dike, and associated piping were removed in 1993. Topsoil was replaced and the area was seeded. There is no documentation available to support clean closure.

On June 1, 1979, leakage was noted from the tank. Subsequent investigation revealed a leak in the piping system and a loss of approximately 8,000 gallons oil. PADEP and the National Oil Spill Response Center were notified and cleanup began. On June 2, 1979, a visible sheen was noted at the outfall entering the Tunungwant Creek. Again the appropriate agencies were notified and cleanup initiated. The loss of oil entering the creek was determined to be approximately one (1) gallon. Cleanup was completed by WITCO Chemical Corp and the Atlantic Recovery Company. The underground lines were removed overhead for ongoing visual inspection and a contingency plan was developed to prevent a recurrence of the spill. The U.S. Coast Guard determined the extent of violation and assessed a $100.00 civil penalty to close the case.

Underground Storage Tank (UST) - A 1000-gallon gasoline UST was removed by Walters &Son on May 25, 1988. There are no formal closure document for the tank removal.

Underground Storage Tank (UST) - A 10,000 gallon #2 fuel oil UST was removed by Walters & Son Company on May 26, 1988. There are no formal closure document for the tank removal.

Areas of Concern

NPDES Permitted Outfall - The Facility had a NPDES permit for the discharge of storm water and non-contact cooling water to the East Branch of Tunungwant Creek. As stated above, on June 2, 1979 a visible sheen was noted at the outfall entering the Creek due to the leaking 22,000-gallon AST.

According to Bradford Electronics Act 2 Final Report of August 20, 2006, a waste pile was located at the west portion of the property approximately 70 feet northwest of the outside storage shed. Reportedly, the materials included soil mixed with wood timbers, brick, metal and pieces of pipe. The waste pile was ultimately remediated in January 2004.

IV. Description of exposure pathways for all releases or potential releases.

Air: There are residential homes surrounding the Facility. However, exposure to any Facility related activities is an unlikely scenario.

Groundwater: Residents within the study area rely on groundwater and surface water sources for their drinking water supply. A portion of the population within the area receives water from groundwater sources by public water supply agencies. There are also approximately 1,200 people in the area with private wells. Groundwater could be affected by a spill or release.

Surface Water: Residents within the study area rely on groundwater and surface water for their drinking water supply. The majority of the population within the area receives water from surface water sources. There is storm drain and non-contact cooling water permitted outfall located on the

west side of the property that discharges into the East Branch of Tunungwant Creek. Surface water could be affected by a spill or release.

Soil: The Facility is easy accessible from the main gate as well as the B&O railroad line that runs through a portion of the property. Therefore, it is possible that trespassers and workers could be exposed to any contaminated soil.

V. Sample Results

During November 2005 to May 2006, Bradford Electronics conducted investigative and remedial actions to fulfil the site characterization requirements of Act 2. The results of the soil and groundwater monitoring activities revealed that certain chemicals of concern in soil and shallow groundwater were present at concentrations above Act 2 Statewide Health Standards medium-specific concentrations (MSCs). In summary, the chemicals of concern identified in soil included perchloroethene (PCE) and vinyl chloride. TCE, vinyl chloride and arsenic were detected in shallow groundwater. No chemicals of concern were detected in the deep groundwater zone above MSCs.

One soil sample collected at the small outside solvent and oil storage shed detected PCE and vinyl chloride above soil to groundwater MSCs. The shed was razed and approximately 88 tons of soil and building debris were excavated and disposed of at a licensed landfill. Eight verification soil samples were collected from the sidewalls and base of the excavation. No chemicals were detected at concentrations above applicable MSCs. No further action is warranted for this area and attainment has been demonstrated.

Two soil samples collected from the excavation detected chloroform at concentrations below the MSC but above the EPA-PA Indoor Air Default value. The excavation area was located approximately 80 feet from an inhabited building which is within 100-foot indoor air criteria; therefore, the indoor air intrusion exposure pathway was evaluated using the Johnson and Ettinger numerical model. The model demonstrated that the largest risk of chloroform in soil is less than 1 x 10-5 and this chemical does not pose an indoor air intrusion risk at the site.

TCE, vinyl chloride, and arsenic were detected in several shallow monitoring wells and an exposure pathway analysis was performed to evaluate both onsite and offsite human and ecological exposure pathways associated with shallow zone groundwater. In general, the Facility obtains its potable water from the municipal water supply and the depth to groundwater at the source area is approximately 14 feet below ground surface (bgs). The exposure pathway analysis confirmed the facility workers or trespassers will not be exposed to affected groundwater through ingestion, inhalation, or dermal contact. The affected groundwater is more than 100 feet from an inhabited building and no indoor air intrusion pathway exists.

The fate and transport of chemicals detected in groundwater exceeding MSCs was evaluated to determine the potential mass loading of chemicals in groundwater to the surface water of Tunungwant Creek. The modeling indicated that chemicals of concern would not migrate offsite at concentrations exceeding MSCs or impact the quality of the creek. Therefore, potential risks of exposure to human and ecological receptors at the property are within an acceptable range and no significant exposure points were identified onsite or offsite under current and exposed future site conditions.

In conclusion, the site attained a non-residential statewide health standard for soils. Groundwater in the deep aquifer achieved a residential statewide health standard. Attainment of site-wide shallow groundwater has been demonstrated using site-specific standards by pathway elimination. Bradford Electronics is required by PADEP to implement an institutional measure to prohibit use of shallow groundwater for potable purposes by a deed restriction and to file a deed notice for the non-residential site-wide soils.

VI. Environmental Indicators

EPA has established two environmental indicators that are designated to measure the human health and groundwater impacts of RCRA facilities. These two indicators use environmental data and apply a decision matrix to determine that human health impacts are "under control" and that groundwater contamination is "under control". Bradford met these indicators at the Facility in September 27, 2000. EPA believes that these environmental indicators provide additional evidence that the action proposed has been effective and will protect human health and the groundwater at the Facility in the long-term.

VII. Public Participation

EPA is requesting comments from the public on its determination that the Facility is Corrective Action Complete with Controls. On April 23, 2007, EPA placed an announcement in the local newspaper, Bradford Era , to notify the public of the availability of this Statement of Basis, its supporting Administrative Record, and the public's opportunity to request a public meeting on EPA's proposed corrective action for the Facility. The public comment period will last thirty (30) calender days from the date that this matter is publicly noticed in a local paper. Comments should be sent to EPA in writing to the address listed below, and all cementers will receive a copy of the final decision and a copy of the response to comments.

A public meeting will be held upon request. Requests for a public meeting should be made to Mr. Hon Lee of the EPA Regional Office at the address listed below or at 215-814-3419.

The Administrative Record contains all information considered by EPA when making this determination. The Administrative Record is available for review during business hours at the following location:

U.S. Environmental Protection Agency Region III (3WC22)
1650 Arch Street
Philadelphia, PA 19103
Contact: Hon Lee
Phone: 215-814-3419
Fax: 215-814-3113
E-mail:lee.hon@epa.gov

Following the thirty (30) day public comment period, EPA will prepare a Final Decision and Response to Comments in which it will identify the selected remedy for the Facility. The Response to Comments will address all significant written comments and any significant oral comments generated at a public meeting, if such a meeting is held. The Final Decision and Response to Comments will be made available to the public. If, on the basis of such comments or

other relevant information, significant changes are proposed to be made to the remedy for the Facility as proposed by EPA in this Statement of Basis, EPA will seek additional public comments on any proposed revised remedy.

Date: 6/12/07

Abraham Ferdas, Director
Waste and Chemicals Management Division
US EPA, Region III

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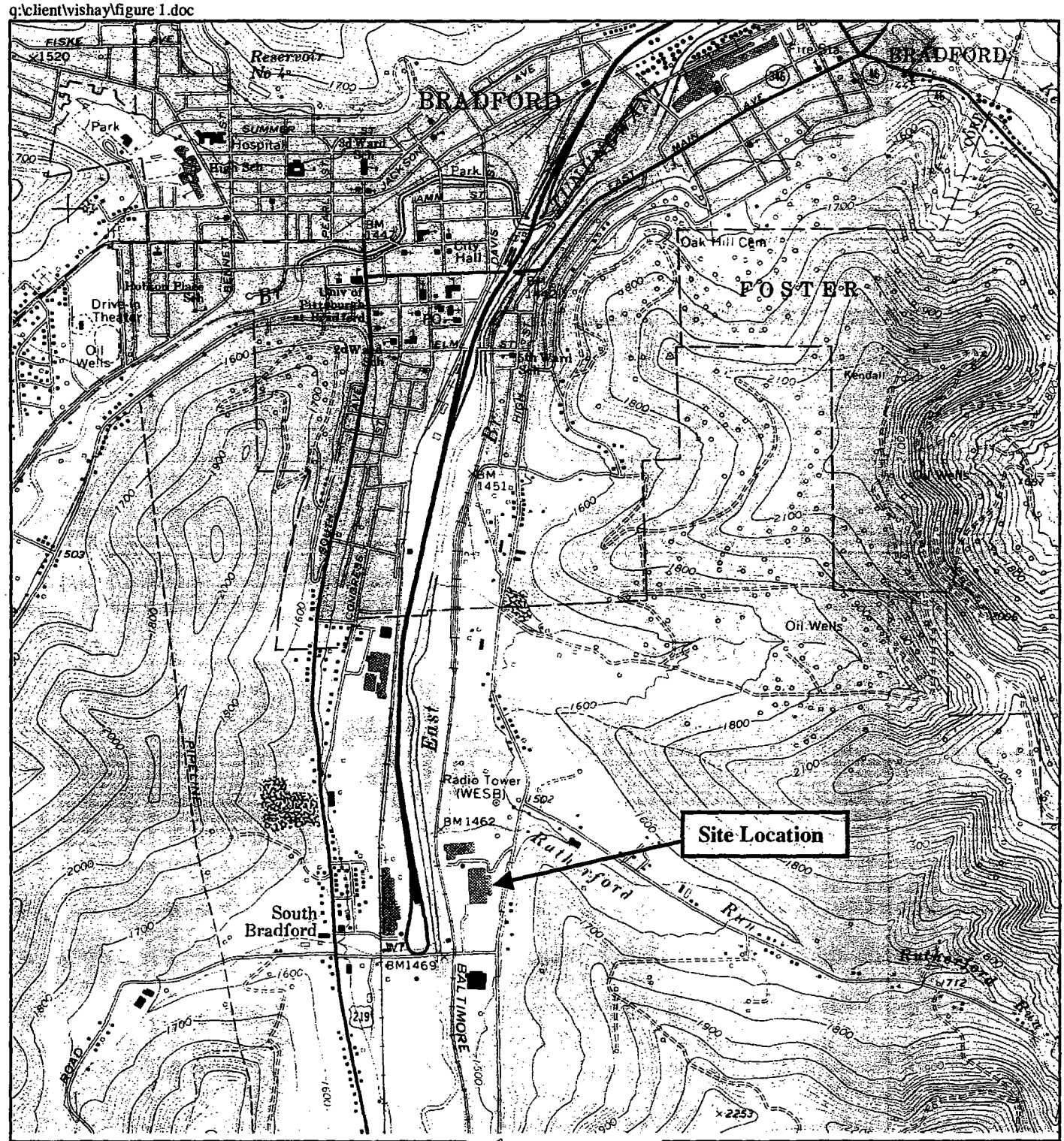


Reference
7.5 Minute Series Topographic Quadrangle
Bradford, Pennsylvania
Photoinspected 1983 Scale 1:24,000

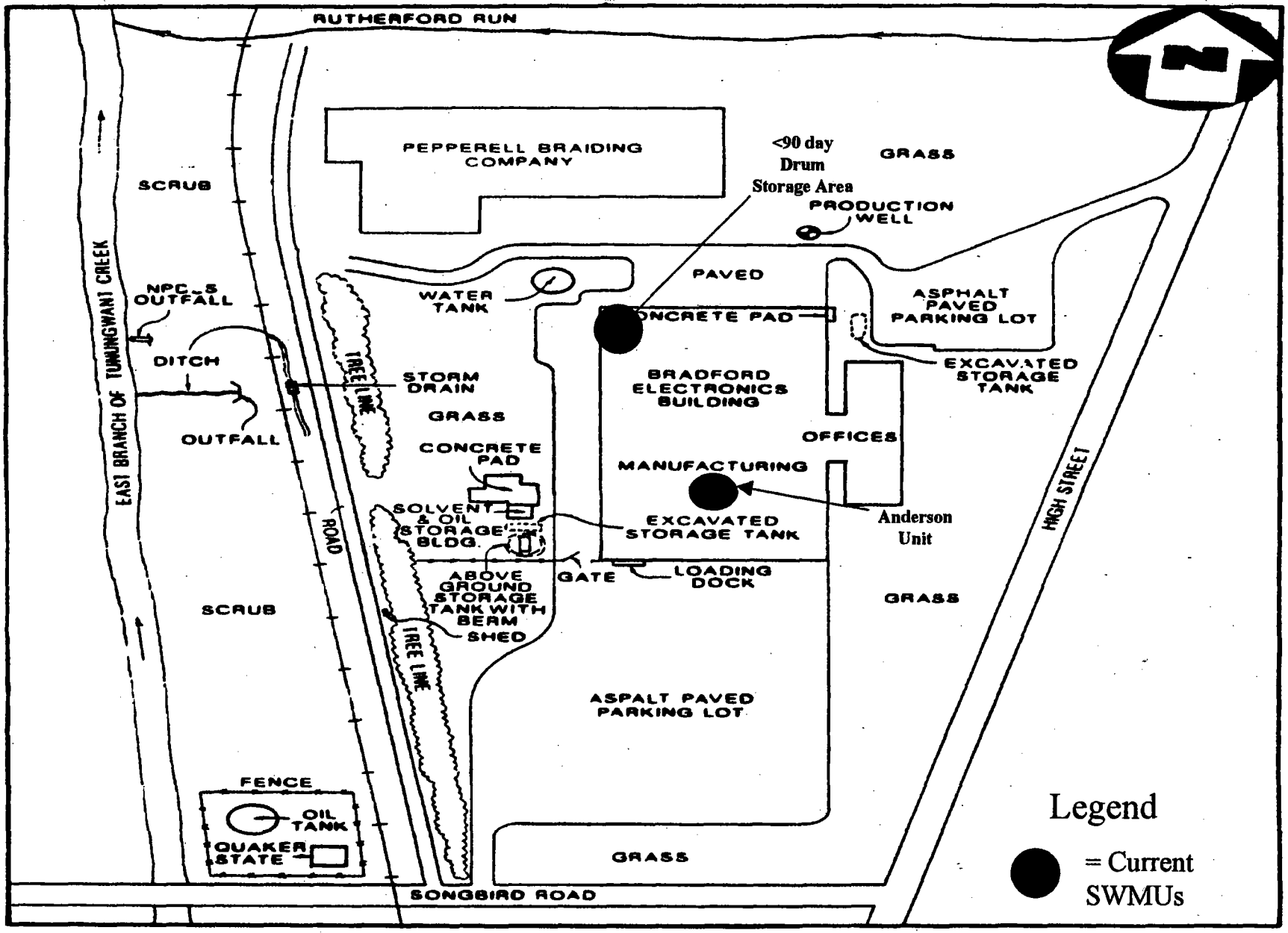
PENNSYLVANIA

Quadrangle Location

ENVIRONMENTAL STRATEGIES CORPORATION
11911 Freedom Drive Suite 900
Reston, Virginia 20190
703-709-6500

Figure 1
Site Location
Bradford Electronics, Inc.
Bradford, Pennsylvania

Attachment 2



SITE SKETCH

FIGURE 2.0

Source: Field Trip of Corning Glass-Bradford Electronics, NUS dated July 15, 1991.

NUS CORPORATION