PRELIMINARY ASSESSMENT/ VISUAL SITE INSPECTION REPORT

Wheeling Pittsburgh Steel Corporation
Martins Ferry Plant

OHD010448231

1001 Main Street
Martins Ferry, Ohio

September 2008

Prepared for

U.S. Environmental Protection Agency
Region 5
77 West Jackson Boulevard, DE-9J
Chicago, IL 60604-3507

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Acronyms and Abbreviations

AOC	Area of Concern
AST	Aboveground Storage Tank
BUSTR	Bureau of Underground Storage Tank Regulations
CEI	Compliance Evaluation Inspection
°F	Degrees Fahrenheit
EPA	U.S. Environmental Protection Agency
GCN	Generic Cleanup Number
GE	General Electric
LUST	Leaking Underground Storage Tank
MFMWA	Martins Ferry Municipal Water Authority
mg/kg	Milligrams per Kilogram
NFA	No Further Action
NOV	Notice of Violation
NPDES	National Pollutant Discharge Elimination System
OEPA	Ohio Environmental Protection Agency
PA	Preliminary Assessment
PCBs	Polychlorinated Biphenyls
POC	Point of Contact
ppm	Parts Per Million
RCRA	Resource Conservation Recovery Act
REPA	RCRA Enforcement Permitting Assistance
SWMU	Solid Waste Management Unit
SWPPP	Stormwater Pollution Prevention Plan
TCLP	Toxicity Characteristic Leaching Procedure
TOCOR	Task Order Contract Officer Representative
TOM	Task Order Manager
TSI	Thermal System Insulation
Ud	Udorthents-Urban Land Complex
UST	Underground Storage Tank
VSI	Visual Site Inspection
WPSC	Wheeling Pittsburgh Steel Corporation
WWTP	Wastewater Treatment Plant

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Mr. Allen Wojtas
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Subject: EPA Contract No. EP-W-07-073, Task Order 5001, Corrective Action Support for NIPSCO and Wheeling Pittsburgh Steel Corporation (WPSC) Facilities, Task 02. Preliminary Assessment/Visual Site Inspection Report, WPSC, Martins Ferry Plant, Martins Ferry, Ohio.

Dear Mr. Wojtas:

In response to Task Order 5001 under EPA Contract No. EP-W-07-073, Task 02, Booz Allen Hamilton (Booz Allen) has completed a Preliminary Assessment/Visual Site Inspection (PA/VSI) Report for the WPSC Martins Ferry Plant in Martins Ferry, Ohio. This PA/VSI Report incorporates EPA's comments received via e-mail on September 23, 2008.

If you have any questions regarding this deliverable, please contact me at (312) 578-4757 or Amy Brezin at (617) 428-4450.

Sincerely,

Frances B. Hodge

BOOZ ALLEN HAMILTON

Frances B. Hodge
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Attachment 2: Visual Site Inspection Field Notes Dated March 31 - April 1, 2008
Attachment 3: Solid Wastes Generated at the WPSC Martins Ferry Plant
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1.0 INTRODUCTION

In February 2007, Booz Allen Hamilton (Booz Allen) was contracted by the U.S. Environmental Protection Agency (EPA) Region 5 under the Resource Conservation and Recovery Act (RCRA) Enforcement, Permitting, and Assistance (REPA3) contract to complete Preliminary Assessment (PA) and Visual Site Inspection (VSI) activities at four Wheeling Pittsburgh Steel Corporation (WPSC) facilities in eastern Ohio. Specifically, this effort focused on the WPSC plants in Martins Ferry, Mingo Junction (Steubenville South), Steubenville North, and Yorkville, Ohio.

In preparation for the on-site VSIs, Booz Allen reviewed available file materials for the four facilities at the EPA Region 5 office in Chicago, Illinois, and the Ohio Environmental Protection Agency (OEPA) Southeast District office in Logan, Ohio. These materials were used to develop a preliminary list of solid waste management units (SWMUs) and areas of concern (AOCs) for each facility, as well as a list of additional information needed to complete the PAs and conduct the VSIs. On April 20, 2007, EPA Region 5 provided the PA/VSI Information Needs Requests to the WPSC Environmental Coordinator, and the VSI site visits were scheduled between April 23 and May 4, 2007. However, due to legal concerns regarding EPA's statutory authority to conduct the inspections, WPSC denied the EPA and Booz Allen field team access to the sites. Consequently, the VSIs could not be completed as planned. Nevertheless, on May 14, 2007, WPSC provided written responses to a limited number of items noted in the PA/VSI Information Needs Request letters.

In November 2007, Booz Allen was contracted by EPA Region 5 under the REPA4 contract to perform a VSI at the same four WPSC facilities. Due to previous access issues at the WPSC Martins Ferry Plant, EPA obtained an Administrative Warrant for Entry, Inspection, and Sampling under Section 3007(a) of RCRA for the WPSC Martins Ferry Plant on March 25, 2008. Booz Allen personnel, accompanied by a Deputy U.S. Marshall, the EPA Region 5 Task Order Contracting Officer Representative (TOCOR), and OEPA representatives, performed a VSI at the Martins Ferry facility from March 31, 2008, to April 1, 2008. Table 1 includes a complete list of VSI participants by name and affiliation. The primary objectives of the VSI were to: (1) gather updated site information regarding SWMUs and AOCs previously identified at the Martins Ferry facility, and (2) to identify new SWMUs and AOCs based on a facility inspection. This VSI Report identifies the list of SWMUs and AOCs for the WPSC facility in Martins Ferry, Ohio (see Table 2); outlines available information on each unit or area; and provides recommendations. This report also includes: a Site Location Map (Figure 1); a Site Vicinity Map (Figure 2); a SWMU/AOC Map (Figure 3); an Outfall Location Map (Figure 4); a photographic log of the identified SWMUs and AOCs (Attachment 1); copies of field logbook notes taken during the VSI (Attachment 2); tables outlining solid wastes generated at the WPSC Martins Ferry Plant (Attachment 3) and spill history at the WPSC Martins Ferry Plant (Attachment 4), as provided by WPSC in Reference 68.

2.0 PRELIMINARY ASSESSMENT/VISUAL SITE INSPECTION PROCESS

2.1 Purpose of the Preliminary Assessment and Visual Site Inspection

EPA has not yet determined which specific statutory authorities will be used to compel any necessary investigation or cleanup efforts at the Martins Ferry Plant. PAs compile information on environmental conditions at a given facility, including information on actual or potential releases from any SWMU or any other area where wastes have been managed at the facility. A SWMU is defined as any discernable waste management unit from which hazardous constituents might migrate, irrespective of whether the unit was intended for the management of solid and/or hazardous waste. This definition includes containers, tanks, surface impoundments, waste piles, land treatment units, landfills, incinerators, underground injection wells, recycling units, wastewater treatment units, and areas contaminated by "routine and systematic discharges" from process areas. In addition to identifying and evaluating the potential for releases from SWMUs at the facility, the PA also investigates AOCs, which may include areas with evidence of spills and/or other releases resulting from waste management activities that may not fit the definition of a SWMU release.

It should be noted that inclusion of particular waste management units or areas of the facility on the SWMU and AOC list in this VSI Report does not mean that environmental contamination actually exists at that location, nor that cleanup is warranted. Instead, the information and recommendations provided for each SWMU and AOC are meant to aid in evaluating whether further investigation is warranted at any of these units or areas.

Under REPA3 Work Assignment R05802, EPA requested that Booz Allen conduct a PA for the WPSC Martins Ferry, Ohio facility. Under REPA4 Task Order R05001, EPA requested that Booz Allen conduct the follow-on VSI for the Martins Ferry, Ohio facility.

2.2 General Procedures Used for Gathering Information

During the PA, Booz Allen reviewed available file materials on the Martins Ferry facility at the EPA Region 5 office in Chicago, Illinois, and the OEPA Southeast District office in Logan, Ohio. Booz Allen staff also participated in a conference call with EPA Region 5 and OEPA representatives to obtain background information on each facility. In response to an Information Needs Request letter from EPA (Ref. 54), WPSC environmental staff provided a limited amount of additional file material on facility operations, waste streams, and waste management practices. Several site maps and aerial photographs were also provided. Although the facility's response was incomplete, Booz Allen used the information obtained through these avenues to support preliminary release determinations and identify potential SWMUs and AOCs at the Martins Ferry WPSC facility.

During the VSI, two points of contact (POCs) from WPSC accompanied the EPA Region 5, OEPA, and Booz Allen field team around the facility and answered questions to the best of their ability (see Table 1 for a complete list of participants). WPSC provided seven manifests for

hazardous waste shipments from the Martins Ferry facility. EPA conducted soil sampling at one location during the VSI, as described under AOC 1, Plant 1 Electrical Substation Transformers.

Following the VSI, EPA submitted a Request for Information dated May 29, 2008, to WPSC (Ref. 67). WPSC provided responses to the information request in a letter dated July 3, 2008, and included supporting data and information in attachments to the letter (Ref. 68).

3.0 FACILITY BACKGROUND

WPSC produces a variety of steel products for the construction, container, appliance, converter/processor, steel service center, automotive, and other markets. WPSC is headquartered in Wheeling, West Virginia, and owns and operates six major manufacturing facilities in eastern Ohio, West Virginia, and Pennsylvania. Specifically, these plants are located in Martins Ferry, Steubenville, Mingo Junction, and Yorkville, Ohio; Follansbee, West Virginia; and Allenport, Pennsylvania. As stated previously, this VSI Report is limited to an assessment of environmental conditions and identified SWMUs and AOCs at the facility in Martins Ferry, Ohio. According to the RCRAInfo database and WPSC's July 3, 2008, response to EPA's May 29, 2008, RCRA Section 3007 Request for Information (Refs. 50 and 68), the Martins Ferry plant is currently identified as a large quantity generator of hazardous waste operating under EPA ID No. OHD010448231.

3.1 Geographical Setting

The subject WPSC facility is a steel galvanizing facility located at 1001 Main Street in Martins Ferry, Belmont County, Ohio. A site location map is provided in Figure 1. The facility occupies approximately 54 acres of land along the border between eastern Ohio and northern West Virginia. As shown on the site vicinity map in Figure 2, the WPSC Martins Ferry plant is bordered to the east by North First Street (also shown on various maps as Ohio Valley Pike) and the Ohio River, to the northwest by Dewey Street and Main Street, and to the southwest by Avondale Avenue. Commercial properties are situated west and south of the Martins Ferry plant. These properties include a plating facility, several automotive service facilities, a blacktop company, and the Martins Ferry Water Treatment Plant (Ref. 60). A major highway through the area, Ohio State Route 7, is also located close to the Martins Ferry WPSC facility, one block beyond Dewey Street.

According to information supplied by WPSC (Ref. 56), no schools, hospitals, or natural preserves are situated near the facility. However, Figure 1 shows North Elementary School less than one half mile west-southwest of and across Highway Route 7 from the facility, and Mackey Elementary School less than one half mile from the facility's northern property line. Carmichael Field, which serves as the Martins Ferry High School athletic stadium (Ref. 63), is also located approximately one half mile southwest of the facility. Finally, East Ohio Regional Hospital is located less than three quarters of a mile southwest of the WPSC Martins Ferry plant.

3.2 Site Layout

The Martins Ferry WPSC facility historically consisted of two plants for production of galvanized steel sheets and coils. Plant No. 1 was situated at the northeast end of the property and served as the ware galvanizing area. Prior to 1996, manufacturing operations were discontinued in this building, and the area was converted to storage (Refs. 26 and 30). In a letter dated March 12, 2004 (Ref. 50), WPSC indicated that the Plant No. 1 complex would be

demolished. Recent aerial photography shown in Figure 2 confirms that some demolition has been completed, but no associated detail was found in the available file material.

As shown in Figure 3, Plant No. 2 occupies the bulk of the Martins Ferry WPSC property southwest of the former Plant No. 1 footprint. Processes conducted within Plant No. 2 include three continuous galvanizing lines (36-, 48-, and 60-inch) for application of a zinc coating on steel sheet via hot dip technology. This manufacturing complex also includes a temper mill, a corrugating line, and two process boilers. Numerous materials and waste storage areas, including several tanks, are present throughout the Plant No. 2 area.

Figure 3 also shows the locations of site features not directly associated with manufacturing. The facility's main office and site hospital are located at the intersection of Main Street and Sherman Avenue. An industrial wastewater treatment plant (WWTP) is also present on the southeastern portion of the property, immediately south of North First Street. The WWTP receives process wastewater and some stormwater from the Martins Ferry plant. Because these waters are primarily acidic in nature, they are neutralized with lime and aerated to form a precipitate which, after solidification, is removed from the WWTP for disposal as a nonhazardous sludge.

3.3 Environmental Setting

3.3.1 Location

Belmont County is located in the southeastern part of Ohio, along the western bank of the Ohio River. Martins Ferry is one of the largest cities in Belmont County, and metals fabricating is one of the main industries in the area. The town is built on two plateaus situated between a hill and the Ohio River. The lower of the plateaus, along the river, is dominated by a large industrial park, the Martins Ferry Football Stadium, and by Ohio Route 7, a four-lane traffic artery that runs from north to south across eastern Ohio. The higher plateau, which is the larger of the two, is predominantly residential and commercial, and is home to most of the city's residents. It gradually rises to a rather steep hillside in the west that forms a natural wall. Directly across the river lies the city of Wheeling, West Virginia, and just 11 miles to the east is the Pennsylvania state line. The city of Columbus, Ohio is 125 miles to the west, and Pittsburgh, Pennsylvania is 38 miles northeast of the city. St. Clairsville, the Belmont County seat, is situated approximately 12 miles west of the WPSC Martins Ferry facility.

Belmont County is part of the unglaciated Allegheny Plateau Region. The eastern part of the county, where the Martins Ferry facility is located, is steep and rugged, with narrow ridgetops and valleys. The area is extensively dissected by drainageways leading to the Ohio River. The three main tributaries are the Wheeling Creek (which drains the northeastern portion of the county where the Martins Ferry WPSC facility is located), McMahon Creek, and Captain Creek. Some small streams also drain directly into the Ohio River (Ref. 1).

As shown on the map in Figure 1, topography across the Martins Ferry plant is relatively flat, but slopes gently eastward toward the Ohio River. The northwestern edge of the WPSC property is situated at an elevation approximately 700 feet above mean sea level. Close to the Ohio River on the east side of the property, the elevation dips to approximately 635 to 640 feet above mean sea level, corresponding to the general ponding elevation of the river. Conversely, on the opposite side of State Route 7, surface elevation rises quite sharply across the city, reaching a peak of roughly 1,100 feet above mean sea level approximately one half mile beyond the city limits and one mile northwest of the plant.

3.3.2 Climate and Meteorology

Belmont County has a continental climate with wide annual and daily ranges in temperature. Winters are cold, snowy, and cloudy. Summers are fairly warm and humid, with occasional very hot days. Average daily temperatures range from 18 degrees Fahrenheit (°F) to 28°F in winter, and from 68°F to 81°F in summer. The highest and lowest temperatures on record for Belmont County are documented at 102°F and -25°F, respectively (Ref. 1).

Precipitation in the Martins Ferry area averages approximately 37 to 45 inches per year (Ref. 59). Rainfall is well distributed throughout the year, but fall is the driest season. Approximately 60 percent of the total annual precipitation falls between April and September. Thunderstorms occur on about 40 days each year, mostly typically during the summer months. Heavy rains, which can occur at any time of year, sometimes cause flash flooding, particularly in the narrow valleys of Belmont County. In the winter, precipitation commonly occurs as snow (Ref. 1).

3.3.3 Stormwater and Surface Water

Given its location on the west bank of the Ohio River, the WPSC Martins Ferry facility is occasionally subject to flooding. Surface water runoff on the property is collected in a stormwater management system and discharged to the Ohio River in accordance with a National Pollutant Discharge Elimination System (NPDES) permit issued by OEPA on June 28, 2004. The permit includes provisions for several outfalls, including:

- Outfall 001 for discharges of stormwater runoff from most heavily industrial portions of the plant, effluent from the on-site WWTP, process water, boiler blowdown, steam condensate, and non-contact cooling water.

- Outfalls 002 through 005 for discharges of stormwater only. Outfall 002 was also previously used for discharge of well water treatment effluent from groundwater remediation activities involving separation of gasoline and water prior to carbon adsorption with carbon filters.

According to WPSC's response to EPA's May 29, 2008, RCRA Section 3007 Request for Information (Ref. 68), several of the NPDES-permitted outfalls at the facility are not in active use at this time. Specifically, sewers associated with outfalls 003 and 004 were abandoned and

plugged in 2004. Outfall 002 is plugged with sediment as a result of Hurricanes Ivan and Francis in 2004 and annual flooding, and no longer discharges stormwater to the Ohio River. Finally, the outfall 005 sewer system no longer handles stormwater from the Martins Ferry plant because the lateral sewers connected to the outfall 005 system were plugged in 2004. The NPDES permit requires WPSC to monitor effluent quality at the five listed outfalls; no information was available during development of this report to indicate the current status of the monitoring program, given the changes noted above (particularly with regard to outfall 005). A map of the general WPSC Martins Ferry outfall locations is provided as Figure 4.

3.3.4 Soils and Geology

The bedrock in Belmont County is sedimentary rock. The Dunkard Group of the Permian System is the most extensively exposed bedrock in the eastern half of the county, where the Martins Ferry WPSC facility is located. Rock in this formation includes shale, sandstone, siltstone, limestone, and coal.

Nine different soil associations are present within Belmont County, the majority of which are well drained to moderately well drained with a silt loam surface over clay loam subsoils. According to the Belmont County soil survey (Refs. 1 and 59), the immediate site vicinity is mapped as exclusively containing Udorthents-Urban Land Complex (Ud) soils. This map unit consists mostly of areas that have been cut and filled during the construction of highways. Paved areas (i.e., concrete or asphalt over subgrade material) are classified as urban land, and Udorthents soil is present mainly in the cut and fill areas. Typically, the upper 60 inches of Udorthents is a mixture of rock fragments and silty clay loam, silt loam, loam, channery loam, and shaly silty clay loam from natural soils. Permeability in Udorthents is highly variable, ranging from very slow to rapid. The available water capacity is low or very low, and organic matter content is also very low.

No cross-sectional data specific to the WPSC facility is currently available.

3.3.5 Hydrogeology

The principal source of water supply for much of the unglaciated upland area of southeastern Ohio, including Belmont County, is from shaly sandstone or thin limestone aquifers. These strata are dominated by low-yielding shales and shaly sandstones that include numerous coal-bearing strata. In some places, small water supplies are available from fractured coal beds. Vertical permeability is greatly restricted, and yields in upland areas are meager. Water-bearing zones in the region typically are less than 100 feet thick. Large-diameter, gravel-packed wells are commonly constructed in this low-yield material. The reservoir space within the well itself is available to collect water, which generally flows at less than one gallon per minute from the aquifer. Locally, the aquifers may be affected by concentrations of 500 to 1,000 parts per million (ppm) of chloride. In some coal-producing areas of the county, acidic groundwater (pH of less than 7.0) may occur. Some groundwater may contain substantial amounts of iron and aluminum (Refs. 57 and 58).

The only large-source aquifers in the area, and the county's primary groundwater sources, are sand and gravel deposits found in the floodplains along the Ohio River on the eastern side of Belmont County. These aquifers contain thick, permeable sand and gravel deposits, which can yield substantial quantities of water. This valley fill material ranges from 60 to 85 feet in thickness, and is hydraulically connected to the Ohio River. The yield potential decreases drastically once outside of the Ohio River floodplain because the county is underlain by interbedded sandstone, shale, and limestone formations. Most of the wells found in the interior of the county produce groundwater at rates of less than two gallons per minute (Refs. 57 and 58).

4.0 FACILITY AND PROCESS DESCRIPTION

4.1 Plant Operations and Process Descriptions

The Martins Ferry plant currently produces galvanized steel marketed under the SofTite brand. Three continuous hot-dip zinc galvanizing lines (i.e., the 36-inch [36"], 48-inch [48"], and 60-inch [60"] lines) are present within the Plant No. 2 complex. These processes apply a thin layer of zinc to the steel surface by passing the sheets through a bath of molten zinc. The purpose of this application is to prevent corrosion of the steel product. Each galvanizing line also includes an alkaline cleaning bath, a hydrochloric acid bath, an ammonium chloride flux tank, and a flux dryer to clean and prepare the steel for zinc coating. Each line also includes an oil coating unit and an ink labeling unit. Once the steel is processed, it is sent to the corrugating line or shipped off site as finished product. The temper mill is used to improve the steel finish and texture, or to develop the required final mechanical properties prior to product shipment.

4.2 Waste Management History

The Martins Ferry facility is currently permitted to discharge treated industrial wastewater, noncontact cooling water, and stormwater to the Ohio River through five outfalls on the south side of Ohio Valley Pike. These outfalls were permitted on June 28, 2004 under the NPDES program identification number OH0011339. This permit is currently scheduled to expire on January 31, 2009. However, as noted in Section 3.3.3 above, three of the outfalls (003, 004, and 005) have been plugged to prevent stormwater discharges from the WPSC site to the Ohio River. Furthermore, accumulation of sediment currently prevents discharges to the river via Outfall 002. Thus, only Outfall 001 appears to be in active use at present.

Hazardous wastes historically generated at the facility include D007 chromium treatment ("Chem Treat") wastes, alkali and acid wastes, K062 spent pickle liquor and pickle rinsewater from steel finishing operations (hazardous due to corrosivity, and lead and chromium content), used Inhibisol rags (exhibiting the D029 and D040 hazardous waste characteristics), chromate wastes, paint wastes, and used parts washer solvents. All polychlorinated biphenyls (PCBs), presumably contained in oil from transformers, were removed from the facility in the early 1990s. Other wastes generated at the facility have included WWTP sludge, baghouse dust, precipitator dust, coal ash, and acid-soaked pads (Ref. 10).

According to WPSC's July 3, 2008, response to EPA's May 29, 2008, RCRA Section 3007 Request for Information (Ref. 68), the following hazardous wastes were generated at the Martins Ferry facility in 2007:

- 1,700 pounds of D001 (sludge from ink solvent recovery)
- 13,819 gallons of D002 (used oil emulsion contaminated with acid)
- 14,760 pounds of D007 (chromium cleanup waste from surface treatment of steel).

See Attachment 3 of this report, which is a table of hazardous and non-hazardous solid wastes currently produced at the facility that was included in WPSC's response to EPA's May 29, 2008, RCRA Section 3007 Request for Information (Ref. 68). Also in response to EPA's May 29, 2008, RCRA Section 3007 Request for Information, WPSC provided a table listing incidents in which a material (not necessarily a hazardous waste) was accidentally spilled and a summary of the facility response (Ref. 68). This table is provided as Attachment 4 to this PA/VSI report.

5.0 IDENTIFIED SWMUs AND AOCs

A total of 35 SWMUs and six AOCs were identified during the PA/VSI for the Martins Ferry WPSC facility. For each of these locations, this section of the VSI Report provides: a description of the unit or area; a summary of the release controls, response actions, and environmental data (if available); remaining data gaps (i.e., additional information needs and/or recommendations for further investigation); and the recommended priority level (low, medium, or high) for further investigation or action. Table 2 lists all identified SWMUs and AOCs and the recommended priority level for further investigation or action.

The information in the SWMU and AOC summaries was obtained from various documents reviewed during the PA file search; limited material provided by WPSC in response to an EPA Information Request dated April 20, 2007 (Ref. 56); visual observations and information provided by WPSC during the VSI; and information provided by WPSC in response to an EPA Information Request dated May 29, 2008 (Ref. 68). Known location details are presented in the sections below, and Figure 4 presents a map of most of the SWMUs and AOCs identified in the report (exceptions noted in text).

5.1 SWMUs Identified During the PA/VSI

5.1.1 SWMU 1 – Waste Containers for Baghouse Dust

Description: This SWMU is located in the northwestern portion of the facility near the baghouse, which draws solvent fumes off the galvanizing line from the interior of the plant. This SWMU consists of a 30-foot metal roll-off container located immediately north of Building 203 and two smaller metal totes (identified as temporary storage) located northeast of the roll-off. Two metal roll-off containers lined with plastic bags (see SWMU 9, Baghouse for Galvanizing Lines) are placed underneath the exterior baghouse hoppers to receive the baghouse dust, which is then transferred to the roll-off container. At the time of the VSI, the roll-off container and one of the totes contained baghouse dust in large plastic bags, but all three containers were open. The baghouse has been operating since the early 1990s and began producing the associated dust wastestream at that time. WPSC disposes of approximately three roll-off containers of this waste per week through Allied Waste, a contractor who takes the waste to North Fork Landfill.

Release Controls, Response Actions, and Environmental Data: The concrete beneath the roll-off containers is in poor condition. There are two storm drains (see SWMU 2) in the area of the unit that receive spills and convey them to the WWTP (SWMU 22). At the time of the VSI, dust was noted on the concrete between the roll-off container and the storm drain. No further information is available on this SWMU.

Recommendations: **Medium priority** for further investigation or action. WPSC should ensure that the baghouse dust containers are sufficiently secured (i.e., tarped or covered) and that good housekeeping procedures are employed to prevent releases to the concrete and conveyance to the

storm drain. WPSC should provide specific RCRA waste characterization details for the baghouse dust, including toxicity characterization leaching procedure (TCLP) results if available.

5.1.2 SWMU 2 – Facility Underground Piping Lines

Description: This SWMU consists of the underground wastewater and other piping that connects the plant's process areas to the WWTP (SWMU 22). No map location is available for this unit. The wastewater piping is contained in an underground trench that also contains an acid pipe, an air pipe for service areas, and an abandoned well water line. The trench is approximately 10 feet deep and 4 feet across, and is constructed of concrete. The material used in the piping is unknown, as is the current condition of the piping. The dates of operation are unknown but information obtained during the VSI indicated that the drainage system was installed when the Plant 2 buildings were constructed (date unknown but likely the early 1950s).

Release Controls, Response Actions, and Environmental Data: No further information is available on this SWMU.

Recommendations: **Medium priority** for further investigation or action. WPSC should provide information on the types of piping materials used for the various piping lines (e.g., wastewater, acid, air); dates of operation of this unit; and any significant upgrades. WPSC should also confirm that no releases to the environment have occurred and ensure that the integrity of the piping is intact (i.e., no cracks or breaks are present). A video survey of the piping may be employed for further investigation of this SWMU.

5.1.3 SWMU 3 – Historic Carbon Filter for Electric Room

Description: This SWMU is located near the untreated coils at the 48" coil area. It consists of a carbon filter for the Building 203 electric room that was in service from 1990 to 1995. This filter is contained in an approximately 20-foot by 10-foot box unit and was used to filter air coming out of the electric room. The WPSC POCs did not know what compound(s) the filter was targeting. Once this filter was taken out of service, no filtration was provided for the electric control room.

Release Controls, Response Actions, and Environmental Data: No further information is available on this SWMU.

Recommendations: **Medium priority** for further investigation or action. WPSC should determine which compound(s) the filter was targeting and the status of any used filters remaining in storage or in the unit itself. Furthermore, WPSC should characterize these waste filters and dispose of them accordingly.

5.1.4 SWMU 4 – Concrete Pits and Utility Trench Beneath 48" Galvanizing Line

Description: This SWMU consists of concrete pits located underneath the 48" galvanizing line inside Building 203 and associated utility trenches. The concrete pits collect hydraulic oil coming off the equipment, prior to the oil being pumped into a 300-gallon tote and taken to SWMU 17, Used Oil Storage Area, for storage. The SWMU 4 concrete pits contained oil at the time of the VSI.

A Closure Plan for the Utility Trench Beneath 48-Inch Galvanizing Line (Utility Trench Closure Plan) dated October 30, 2007, and revised March 20, 2008 (Ref. 65), was reviewed subsequent to the VSI. Based on a description of this unit, the backfilled utility trench that is described in this Closure Plan was not identified during the VSI, but appears to be located in close proximity to the concrete pits that were observed during the VSI. It is unknown how the pits and trenches relate to each other. See Figure 5, Diagram of Utility Trench Beneath 48" Galvanizing Line, for a diagram of the utility trench from the Utility Trench Closure Plan (Ref. 65).

Release Controls, Response Actions, and Environmental Data: According to the Utility Trench Closure Plan (Ref. 65), OEPA observed brown liquid in the utility trench in 2006. A liquid sample collected by OEPA on January 3, 2007, contained chromium at a concentration greater than 7,500 milligrams per liter (mg/L). Upon further inspection of the trench on February 8, 2007, it was discovered that the trench has an additional 6-foot long section at a right angle to the 10-foot section located beneath the 48" galvanizing line. OEPA requested that the liquids in both sections of the trench be removed as soon as possible.

Between February and May 2007, WPSC removed liquids and sludge/solids from the utility trench and attempted to clean the trench four times; however, the rinse water exhibited a yellow/green color at the end of each cleaning attempt, suggesting the continued presence of elevated levels of chromium at the SWMU. As a result, the rinse water was removed using absorbents and disposed as D007 hazardous waste. WPSC backfilled the trench with concrete on May 30, 2007, after noting two thin cracks (approximately 12-18 inches and 6 inches long, respectively) in the concrete floor of the trench (Ref. 65).

According to the Closure Plan (Ref. 65), two soil borings will be advanced through the concrete backfill and floor of the trench. Boring SS1 will be advanced to 4 feet below the concrete and four soil samples will be collected at 1-foot intervals. Boring SS2 will be advanced to 8 feet below the concrete and four soil samples will be collected at 2-foot intervals. All samples will be analyzed for total and hexavalent chromium.

Recommendations: **High priority** for further investigation or action. WPSC should confirm the integrity of the concrete pits that manage wastes similar to those found in the utility trench, provide the dates of operation of this unit, confirm that the only waste collected is used hydraulic oil, and indicate how often the pits are pumped out. If the concrete pits are also determined to be in poor condition, WPCS should expand the investigation of underlying soil at this SWMU.

5.1.5 SWMU 5 – Alkali Tank and Catch Basin on the 48" Galvanizing Line

Description: This SWMU is located along the 48" galvanizing line, which was not in service during the VSI. After the metal coils are welded and shaped, they are inserted into an alkali dip tank to remove the oils and grease so that the sheet is easier to galvanize. The dip tank uses sodium hydroxide in a solution of approximately 4% alkali and 96% water. The metal tank is approximately 1,000 gallons and 25 feet by 8 feet by 3.5 feet. Solution is added to the tank as necessary to compensate as the tank loses volume. The catch basin (presumably concrete, but this was not verified during the VSI) beneath the tank captures alkali solution and loops back into the tank. If the catch basin overflows, the spilled material flows to a trench (part of SWMU 2) south of the tank and is then pumped to the WWTP for further management. Solids from the tank are removed as needed to maintain tank capacity and disposed of depending on the pH. According to Mr. Schell, the pH of this waste is generally between 7 to 9, which allows the solids to be disposed of in a roll-off pack at a non-hazardous waste landfill.

Release Controls, Response Actions, and Environmental Data: During the VSI, the floor (appeared to be metal plates) around the catch basin was observed to be stained. No further information is available on this SWMU.

Recommendations: **High priority** for further investigation or action. WPSC should provide information on the dates of operation and integrity of the tank and catch basin, as well as any significant upgrades or documented spills. WPSC should also verify the integrity of the floor area surrounding the catch basin and employ controls to prevent overflows of the catch basin that result in releases to the floor.

5.1.6 SWMU 6 – Acid Tank and Trench on the 48" Galvanizing Line

Description: This SWMU is located along the 48" galvanizing line, which was not in service during the VSI. After the alkali bath, alkali rinse tank, and water rinse tank, the coils are run through a metal hydrochloric acid wash tank. This acid wash removes the iron from the coils. The pH of the acid solution is unknown. Acid solution is continuously added to the tank as needed, and the tank solution is not replaced unless it is contaminated. When the solution is replaced, the acid is placed into a hold system in the basement and metered into the WWTP (it is unknown how the acid is transported to the basement). If there is an overflow in the acid wash tank, it flows into an adjacent trench (construction material unknown) which leads or is pumped to the WWTP through the piping of SWMU 2. A photograph of this trench is not available, and no information is available concerning the condition of the trench and surrounding floor area.

Release Controls, Response Actions, and Environmental Data: No further information is available on this SWMU.

Recommendations: **Medium priority** for further investigation or action. WPSC should provide information on the dates of operation and integrity of the acid wash tank and trench, as well as any significant upgrades or documented spills. WPSC should also verify the integrity of the

floor area surrounding the trench and employ controls to prevent overflows of the tank that result in releases to the trench and/or floor.

5.1.7 SWMU 7 – Vent Exhaust Fan on the 48" Galvanizing Line

Description: This SWMU is located to the south of the 48" galvanizing line, which was not in service during the VSI. After the alkali bath, the coils run through 1) an alkali rinse tank, 2) a water rinse tank, and 3) a hydrochloric acid tank. This SWMU consists of four exhaust vents coming off the top of the tanks (i.e., one exhaust vent for each of these four components). The four individual vents are fed into one main vent and then into the fume exhaust fan. The purpose of the vents is to remove steam and fumes from the process line. The fumes exiting through the exhaust fan are vented to the outdoor air without treatment or air emissions controls.

Release Controls, Response Actions, and Environmental Data: No further information is available on this SWMU.

Recommendations: **Medium priority** for further investigation or action. WPSC should provide information on the integrity of the vapor ducts and indicate the specific air quality testing or monitoring methods used to confirm that this unit is functioning properly. The frequency of such testing should also be provided, along with the most recent set of air sampling results (indoor and outdoor) for this unit.

5.1.8 SWMU 8 – Zinc Chloride Tank (Including Secondary Containment) Located Near Baghouse

Description: This SWMU is located on the exterior of the northwest portion of Plant No. 2, just east of the baghouse. This SWMU addresses a 12,000-gallon tank used to hold zinc ammonium chloride flux, and a secondary containment basin approximately 30 feet by 20 feet by 3 feet located underneath the tank. Flux from this tank is piped to processing areas as needed (Ref. 26). At the time of the VSI, the basin contained water from rain events, which is manually pumped to the WWTP as necessary. The basin is concrete and appears to be in good condition, although the bottom of the basin could not be viewed during the VSI because it was covered with water.

Release Controls, Response Actions, and Environmental Data: The Stormwater Pollution Prevention Plan (SWPPP) indicates that at least one significant spill has occurred from this tank (Ref. 26). No detail was found in the available file material with regard to the date, extent, or response to this spill. Additionally, yellow droplets were noted in the basin and on the sidewalk surrounding the tank/basin structure. According to the facility's response to EPA's May 29, 2008, RCRA Section 3007 Request for Information (Ref. 68), WPSC believes that this material is a non-hazardous waste identified as "Galvanizing Baghouse Cleanout." WPSC indicated that the baghouse modules are cleaned out on a regular basis; this process generates a material similar to the yellow material observed by EPA during the VSI. WPSC stated that they inspected the location of the material described above and have removed the material for appropriate disposal (Ref. 68).

Recommendations: **High priority** for further investigation or action. WPSC should provide information on the dates of operation of the tank; confirm the integrity of the tank, secondary containment, and the pipelines that deliver flux to the process areas and rainwater to the WWTP; and details on any historical releases from the tank and/or secondary containment. Furthermore, WPSC should provide waste characterization details for the "Galvanizing Baghouse Cleanout" waste, describe how the yellow "material" observed by EPA during the VSI was managed and disposed, and ensure that appropriate controls are implemented to prevent future releases to the environment.

5.1.9 SWMU 9 – Baghouse for Galvanizing Lines

Description: This SWMU is located outside the baghouse in the north-central portion of the facility. The baghouse is approximately 100 feet by 40 feet. Hoods over the three zinc galvanizing lines (36", 48", 60") pull fumes, dirt, and dust off the line and into the baghouse, where the particulates are drawn through 376 bags. The resultant waste dust is collected in four small metal roll-off containers lined with plastic bags. These roll-off containers are wheeled to SWMU 1, Waste Containers for Baghouse Dust, where the baghouse dust is stored prior to off-site disposal as non-hazardous waste. The bags from the baghouse are removed once a year, unless they mechanically break down before that. The bags are disposed of at the same landfill as the dust (i.e., North Fork Landfill).

Release Controls, Response Actions, and Environmental Data: The condition of the concrete beneath the roll-off containers could not be verified, but baghouse dust was observed on the concrete surrounding the roll-off containers. No further information is available on this SWMU.

Recommendations: **Medium priority** for further investigation or action. WPSC should ensure that the baghouse dust roll-off containers are sufficiently secured and that good housekeeping procedures are employed to prevent releases to the concrete. WPSC should provide specific RCRA waste characterization details for the baghouse dust, including TCLP results if available.

5.1.10 SWMU 10 – Chem Treat Waste Tote Along the 48" Galvanizing Line

Description: This SWMU is located around the middle of the 48" galvanizing line and consists of a small vinyl weave hazardous waste tote for D007 waste. The tote is used to hold wastes such as solids, chromic acid filters, or flow absorbent wastes generated in association with the chromic acid ("Chem Treat") treatment process for steel coils that will not be surface painted. Once full, the tote then is moved to the less-than-90-day storage area (SWMU 14) and is manifested for disposal by Max Environmental. The tote was properly labeled at the time of the VSI.

Release Controls, Response Actions, and Environmental Data: WPSC identified the Chem Treat solution used on the 48" galvanizing line as Okemcoat F-1, manufactured by Chemetall Oakite. According to the Material Safety Data Sheet (MSDS) that WPSC provided during the VSI, this

product contains the following compounds by weight: chromium (III) phosphate (10-20%), phosphoric acid (10-20%), and chromic (VI) acid (10-20%). No further information is available on this SWMU.

Recommendations: **Low priority** for further investigation or action. At the time of the VSI, no spills or staining were observed at this unit.

5.1.11 SWMU 11 – Waste Paint Accumulation Area Along the 48" Galvanizing Line

Description: This SWMU is located immediately south of the end of the 48" galvanizing line and contains paint-related waste from the stenciling process such as waste paint, ink, thinner, and sorbent pads. This SWMU boundary is outlined in yellow paint. At the time of the VSI, one 55-gallon drum and two paint cans were present. According to Mr. Schell, the contents of the paint cans are dumped into the drum and left to dry. Containers from this area are taken to the hazardous waste less-than-90-day storage area (SWMU 14) prior to removal and off-site management by Safety-Kleen.

Release Controls, Response Actions, and Environmental Data: No further information is available on this SWMU.

Recommendations: **Low priority** for further investigation or action. At the time of the VSI, no spills or staining were observed at this unit.

5.1.12 SWMU 12 – Historic Chem Treat Accumulation Area Located in Plant 1 Area

Description: This SWMU is located north of the main shipping and storage locations in the Plant No. 1 area. The unit consisted of a 30-foot roll-off container for Chem Treat hazardous waste accumulation (less than 90 days) and a concrete pad that was noted to be in good condition (i.e., no cracks or staining observed) during the VSI. The roll-off was taken out of service in 2007, and totes are now used for Chem Treat waste at accumulation points along the galvanizing lines (see SWMUs 10 and 29). No photograph is available for this SWMU.

Release Controls, Response Actions, and Environmental Data: No further information is available on this SWMU.

Recommendations: **Low priority** for further investigation or action. WPSC should provide the dates of operation for this roll-off container, any evidence of releases, associated spill responses (if any), and details regarding disposition of the roll-off.

5.1.13 SWMU 13 – Former Plant No. 1 Units

Description: See Figure 3 for the location of Plant No. 1. There are several locations within the former Plant No. 1 complex from which hazardous constituents may have been released, including five pickle rinse tanks in the ware galvanizing area, wastewater sewer lines, the underground covered lift station, overhead piping leading to the Plant No. 2 sewer system, and the Plant No. 1 less-than-90-day hazardous waste storage area. Hazardous wastes were historically accumulated both inside and outside of a locked, caged area in Plant No. 1 (Ref. 12). Based on the lack of facility process diagrams of the Plant No. 1 complex, the specific locations of these physical units and structures are unknown.

Operations at Plant No. 1 were discontinued prior to 1996, and the area was converted to storage. The former Plant No. 1 structure was demolished in 2003, but no details are available regarding any decontamination that may have been conducted and disposition of the demolished structures. The available file material also does not indicate whether any areas of staining were observed on the underlying concrete or soil surfaces. No photograph is available for this SWMU.

Release Controls, Response Actions, and Environmental Data: Although releases in this area are likely to have been cleaned up in a timely fashion while the complex was being used for active manufacturing operations, subsequent releases from the storage areas may not have been expeditiously discovered and addressed. No further information is available on this SWMU.

Recommendations: **Medium priority** for further investigation or action. WPSC should provide information on the demolition activities and any underlying evidence of contamination. WPSC should also discuss the extent of demolition in this area and identify any subsurface structures (e.g., tanks, vaults, trenches, pits, basements) that were left in place. The former usage of and decontamination/closure process for these structures should be specified to allow for an assessment of the potential for past or future impacts to the environment. If potential contaminant sources remain in place, evaluation of soil and/or groundwater quality may be necessary for this SWMU.

5.1.14 SWMU 14 – Hazardous Waste Less-Than-90-Day Storage Area Located in Building 115

Description: This SWMU is located on the Plant No. 1 property, immediately east of Plant No. 2. Building 115 was historically used to make garbage cans but has served as the facility's less-than-90-day storage area since 2008. Chem Treat totes from accumulation areas around the plant are moved to this building when full and are placed on individual pallets pending off-site disposal. No staining or cracks were noted on the concrete floor. Part of the roof is missing, although not in the vicinity of the Chem Treat tote storage, and no standing water was noted during the VSI. No berms were present in this unit.

Building 115 is also used for storage of old equipment. During the VSI, 15 small, old General Electric (GE) capacitors were observed on pallets on the floor. They were marked by the

manufacturer with the words "Contain liquid dielectric III" and "No PCBs." According to WPSC's response to EPA's May 29, 2008, RCRA Section 3007 Request for Information (Ref. 68), these capacitors have not been tested for PCB content, and WPSC indicated that they determined that the transformers contain no PCBs based on information from the manufacturer. WPSC also indicated that these capacitors are unused spares and remain usable (Ref. 68).

Release Controls, Response Actions, and Environmental Data: No further information is available on this SWMU.

Recommendations: **Medium priority** for further investigation or action. At the time of the VSI, no spills or staining were observed at this unit. However, WPSC should repair the roof to minimize the potential for contact between infiltrating precipitation and the hazardous waste containers stored in this building and any hazardous wastes that may be spilled from those containers. In addition, the building should be properly labeled as a less-than-90-day hazardous waste storage area under RCRA.

5.1.15 SWMU 15 – Multiple Interior Solid Waste Containers

Description: This SWMU includes multiple interior roll-offs (total number is unknown) that are used to store routine solid waste generated during operations. Solid waste is disposed at the North Fork Landfill, although the frequency of collection and the transporter are also unknown. This SWMU is not identified on Figure 3, SWMU and AOC Map, because there are multiple locations and not all locations are known.

Release Controls, Response Actions, and Environmental Data: No further information is available on this SWMU.

Recommendations: **Low priority** for further investigation or action. At the time of the VSI, no hazardous wastes were being stored in the observed containers, and no evidence of a potential release was observed.

5.1.16 SWMU 16 – Former ARCO Scrubber Unit Located in Scrap Yard North of Plant No. 1

Description: This SWMU is located in the far north corner of the facility. According to the June 1996 Compliance Evaluation Inspection (CEI) Checklist, a variety of unidentified wastes were found in this area north of Plant No. 1. These wastes included a 5,000-gallon tank with yellow sludge at the bottom, a pile of greasy debris and waste (reportedly roof repair material that had not yet been used), approximately three cubic feet of white granular material in fiberglass ductwork, two open-top tanks with light green crystalline residue inside, and an applicator system and recirculation tank with a black residue (Ref. 31). In an August 26, 1999, letter (Ref. 33), OEPA noted that the yellow sludge had been washed from the tank bottom and entered a nearby storm drain.

Release Controls, Response Actions, and Environmental Data: The white granular material in the scrap yard was determined to come from a section of the ARCO scrubber system, tested positive for lead, and was disposed as hazardous waste in late 1999 (Refs. 34 and 37). The yellow sludge was determined to be associated with accumulated ambient dust and debris (Ref. 34). In their June 30, 2000, inspection results letter (Ref. 37), OEPA noted that the hazardous white granular material had been released to the pavement at this SWMU. OEPA further stated that placement of these wastes on land, and failure to remove it in a timely manner, constituted disposal. Consequently, OEPA required formal RCRA closure of the area (Ref. 37). In a letter dated April 20, 2001 (Ref. 41), WPSC indicated that cleanup had been completed. Although WPSC references a closure completion letter dated November 30, 2000, this document was not found in the available file material.

Additional ARCO system ductwork (approximately 4,000 pounds) was later found in the northern portion of the scrap yard. This waste was placed in a roll-off box and disposed on July 2, 2001, but because it had been stored illegally since the ARCO system was taken out of service in 1989 or 1990, OEPA again required formal RCRA closure for this SWMU (Ref. 44). They also indicated that residuals coating the ductwork had been carried to the nearby stormwater drain following precipitation events. In a letter dated April 19, 2002 (Ref. 45), WPSC contested OEPA's interpretation of illegal waste disposal, as equipment removed from the ARCO system had been held on site pending potential future usage elsewhere. Nevertheless, WPSC confirmed that the equipment had been removed from the scrap yard, and generator closure was in progress (Ref. 44).

According to the Closure Plan for the ARCO Scrubber Ductwork Laydown Area (ARCO Scrubber Unit Closure Plan) dated October 30, 2007, and revised March 20, 2008 (Ref. 65), seven soil borings will be advanced to 8 feet below ground surface (bgs) at locations with the greatest potential to be impacted by runoff from the ductwork laydown areas. Soil samples will be analyzed for lead and compared to the OEPA Direct Contact Generic Cleanup Number (GCN) value of 245 milligrams per kilogram (mg/kg). At each of the seven boring locations, soil samples will be collected at successive 1-foot intervals, and the samples will be analyzed in order until lead concentrations are found to be below the GCN in two consecutive sample intervals. In the ARCO Scrubber Unit Closure Plan, WPSC states that, "an investigation of groundwater is not believed to be warranted at this location for the following reasons. First, lead contained in the ductwork residue is not mobile in the soil column and is not expected to have migrated to the groundwater table. Second, groundwater will be assessed on a site-wide basis" (Ref. 64).

According to information provided by OEPA representatives during the VSI, OEPA had commented on the revised Closure Plan and planned to approve it soon. It was estimated that closure could begin by late spring or early summer, but updated information on closure status is not available for inclusion in this PA/VSI report. During the VSI, it was noted that the asphalt paving in this unit is cracked and in poor condition.

Recommendations: **High priority** for further investigation or action. WPSC should continue to work with OEPA on completing generator closure at this SWMU. Per the Closure Plan, WPSC

should install a groundwater monitoring network to evaluate site-wide groundwater quality. However, based on the depth and areal extent of lead contamination in soil, focused groundwater sampling may be appropriate given the relatively remote location of this SWMU.

5.1.17 SWMU 17 – 30-Foot Roll-Off Container for Asbestos Storage

Description: This SWMU is located adjacent to the Former Acid and Alkali Waste Storage Area (SWMU 18). It consists of one 30-foot roll-off container for thermal system insulation (TSI) asbestos abatement wastes (e.g., pipes, insulation) generated during maintenance activity inside the plant buildings. It is unknown whether the roll-off contained asbestos waste during the VSI. The roll-off container is covered with plastic and located on gravel and soil. The asbestos waste is taken to the North Fork Landfill for disposal.

Release Controls, Response Actions, and Environmental Data: No further information is available on this SWMU.

Recommendations: **Low priority** for further investigation or action. At the time of the VSI, no hazardous wastes were being stored at this unit, and no evidence of a potential release was observed. However, WPSC should confirm that North Fork Landfill is permitted to receive asbestos waste, and indicate how often the contents of this container are disposed.

5.1.18 SWMU 18 – Former Acid and Alkali Waste Storage Area

Description: This SWMU is located to the east of the Current Acid and Alkali Waste Storage Area (SWMU 21) and was used for storage of acid and alkali wastes from the late 1980s to the mid-1990s. According to Mr. Schell, acid and alkali solids were temporarily stored in two roll-off boxes (one for acid and one for alkali wastes) located adjacent to the retaining wall in this area. A vacuum truck would back up to the top of the retaining wall to clean out the tanks.

According to WPSC's response to EPA's May 29, 2008, RCRA Section 3007 Request for Information (Ref. 68), WPSC believes that, prior to 2000, acid and alkali wastes were managed as hazardous wastes at this location and placed into roll-off boxes. However, WPSC could not locate any records pertaining to determinations for acid and alkali wastes at this location and has not identified any spills associated with historical waste management at this location (Ref. 68). The area is currently overgrown with vegetation and has a rock and gravel base.

Release Controls, Response Actions, and Environmental Data: No further information is available on this SWMU.

Recommendations: **Low priority** for further investigation or action. At the time of the VSI, no hazardous wastes were being stored at this unit, and no evidence of a historical release was observed.

5.1.19 SWMU 19 – Used Oil Storage Area

Description: This SWMU is located north of the WWTP near the center of the Plant No. 2 property. Since around 2003, used oil generated throughout the facility has been stored in containers in this area. The used oil is stored on a concrete pad under a covered lean-to structure with three sides of corrugated steel and an open front. At the time of the VSI, the following empty containers of used oil were being stored at this unit: approximately nine 300-gallon steel totes, ten 500-gallon steel totes, and one 300-gallon plastic tote. One 300-gallon plastic tote of used flux was also being stored at this unit. Staining was observed on the concrete floor and the floor was covered with absorbent material in places. The concrete floor was also noted to be cracked in several places. One used oil tote was open, with oil spilled across the top of the container. According to Mr. Schell, GEM Environmental vacuums the used oil into a truck for off-site disposal after the accumulated volume of used oil in this unit reaches approximately 4,000 to 4,500 gallons.

There are no storm drains in the immediate vicinity, but the concrete-covered area slopes down to a single railroad track lined with gravel and soil. During the VSI, the field team noted that stormwater could wash spilled oil down to this railroad track, allowing it to enter the soil at the edge of the concrete apron. Liquid was observed on the concrete extending from the used oil storage area to the railroad track.

Release Controls, Response Actions, and Environmental Data: During the November 2001 compliance inspection (Ref. 44), OEPA representatives observed used oil on the pavement around the Used Oil Storage Area. This contamination was believed to be associated with minor spills from waste oil containers awaiting off-site transport. Vehicles were also observed tracking the used oil across the pavement, and some soil staining was evident adjacent to the paving (Ref. 44).

OEPA directed WPSC to clean up the area and submit photographs of this area following the cleanup effort to demonstrate compliance (Ref. 44). In a letter dated April 19, 2002 (Ref. 45), WPSC stated that the area had been remediated. According to WPSC's response to EPA's May 29, 2008, RCRA Section 3007 Request for Information (Ref. 68), the stained surface area and soil were cleaned up shortly after observation. WPSC stated that "this staining was believed to have resulted from rain runoff [picking up] oil that had adhered to the outside of the empty totes" (Ref. 68).

Recommendations: **High priority** for further investigation or action. The nature and extent of implemented cleanup actions should be specified by WPSC. If not already completed, soil sampling should be conducted to confirm the adequacy of cleanup, particularly in the stained soil locations noted by OEPA. WPSC should also evaluate whether cracks observed in the concrete pad extend through the entire pad thickness and provide a pathway for contamination of underlying soil. If so, the underlying soil will also require sampling and analysis to determine potential environmental impacts. Finally, if necessary based on soil sampling results, focused groundwater sampling may also be appropriate for this area.

In addition, additional action is warranted to prevent future releases to the environment from this SWMU. Because WPSC indicated that a historical release was most likely due to contact between infiltrating precipitation and the used oil storage containers, this storage area should be completely enclosed with walls on all four sides. Furthermore, retrofitting the area with secondary containment is strongly recommended to prevent migration of spills and/or oil-impacted stormwater runoff to the surrounding environment. Alternatively, the used oil storage area may be relocated to an existing enclosure that would be more capable of containing spills and minimizing environmental releases. Regardless of location, WPSC should implement better housekeeping practices for management and transfer of used oil; spills and drippage observed on the outside of containers and floor in this area should be promptly addressed with absorbent materials to prevent future releases.

5.1.20 SWMU 20 – Multiple Exterior Solid Waste Containers

Description: This SWMU includes multiple exterior roll-offs (total number is unknown) that hold routine solid waste that is generated during operations. Solid waste is disposed at the North Fork Landfill, although the frequency of collection and the transporter are also unknown. This SWMU is not identified on Figure 3, SWMU and AOC Map, because there are multiple locations and not all locations are known.

Release Controls, Response Actions, and Environmental Data: A white substance was observed on the concrete near a small metal bin adjacent to a 30-foot roll-off container for solid waste located adjacent to an abandoned coal silo. However, it could not be determined whether the substance leaked from the bin. Zinc waste was observed in the bin, and Mr. Schell stated that the zinc waste will be recycled once the solid waste is removed by the contractor, Horsehead Industries. It is unknown whether Horsehead Industries recycles the zinc waste or if WPSC contracts with another company for recycling once the solid waste has been removed.

Recommendations: **Medium priority** for further investigation or action. At the time of the VSI, no hazardous wastes were being stored in the observed containers. However, WPSC should investigate the source of, sample, and characterize the white substance observed on the concrete near the coal silo; clean up the release appropriately based on investigation and analytical results; and employ good housekeeping practices in this area to prevent future releases.

5.1.21 SWMU 21 – Current Acid and Alkali Waste Storage Area Located East of the WWTP

Description: This SWMU is located to the east of the WWTP and contains four E-Tanks, three of which have approximate dimensions of 6 feet by 8 feet by 20 feet, and one of which has approximate dimensions of 6 feet by 8 feet by 45 feet. The entire SWMU area is approximately 100 feet by 100 feet. All of the tanks are currently used to contain spent acid and alkali waste from the galvanization process. It is unknown how the wastes are transported to the E-Tanks, or how often the area is accessed. Mr. Schell indicated that wastes stored at this SWMU typically

have a pH between 5 and 7 and are considered non-hazardous. He also indicated during the VSI that the E-Tank company will vacuum these tanks out as necessary for disposal (unknown location). This unit has been in use for approximately two years, and the ground surface is crushed gravel and soil.

Release Controls, Response Actions, and Environmental Data: During the VSI, several puddles of green liquid were observed on the ground surrounding the tanks; some of the puddles were contained inside tire tracks. Mr. Schell suspected that the liquid was antifreeze leaking from one of the trucks used to empty the tanks. A WPSC employee tested the pH of the green liquid and reported it as 10.9.

According to WPSC's response to EPA's May 29, 2008, RCRA Section 3007 Request for Information (Ref. 68), WPSC believes that the green liquid observed on the ground near the E-Tanks during the VSI resulted from an antifreeze leak from a contractor vehicle. WPSC removed the green liquid to a visually clean state and placed it in a container for non-hazardous wastes based on facility knowledge of the material (Ref. 68).

Recommendations: **Low priority** for further investigation or action. The color, pH, and location of the observed green liquid are suggestive of an antifreeze leak, and the release area was promptly addressed by WPSC. Furthermore, there is no evidence of a release from the active acid and alkali tanks at this SWMU. This is an active area and any new leakage would be expected to be identified and addressed in a timely manner. Consequently, the likelihood of significant environmental impacts associated with this SWMU appears to be low.

5.1.22 SWMU 22 – Waste Water Treatment Plant

Description: This SWMU consists of the Martins Ferry WWTP and is located in the southeastern corner of the Plant No. 2 complex. According to WPSC's response to EPA's May 29, 2008, RCRA Section 3007 Request for Information (Ref. 68), the WWTP facility became operational prior to 1985. An equalization tank was installed in 2008 and was undergoing testing prior to its planned start-up in mid-July (Ref. 68). Wastewater from plant processes enters the 28,500-gallon waste treatment sump via piping at a flow rate of approximately 350 gallons per minute, and the pH is initially tested in the sump. The wastewater then enters a series of three mixing tanks for pH adjustments using lime. Polymer flocculant (KRF1420) is added in the third tank to assist with settling of solids. The wastewater then moves on to the 300,000-gallon clarifier for solids separation. After the clarifier, the wastewater is tested for compliance with NPDES permit conditions and discharged to the Ohio River through one of the NPDES-permitted outfalls. Sludge bottoms from the clarifier are removed approximately once per week in slurry form and pumped to a filter press for dewatering. The dewatered sludge is loaded onto a conveyer belt and dropped onto a concrete pad outside the WWTP building. From here, the sludge is loaded into 30-foot roll-off containers for off-site disposal at the North Fork Landfill as non-hazardous waste. A large blue 200,000-gallon tank also present in this area receives stormwater from exterior storm drains, which can also be treated in the WWTP if necessary to achieve NPDES permit conditions prior to outfall discharge.

Release Controls, Response Actions, and Environmental Data: The concrete sludge storage pad was empty at the time of the VSI and appeared to be in good condition. No further information is available on this SWMU.

Recommendations: **Medium priority** for further investigation or action. WPSC should provide specific RCRA waste characterization details for the WWTP sludge, including TCLP results if available. WPSC should provide information on the integrity of the concrete sludge storage pad and any past incidents of sludge migration from the pad into the surrounding area prior to loading for off-site disposal, so that the potential for releases may be assessed. Additionally, WPSC should consider transfer of the dewatered sludge from the conveyer belt directly into a waiting roll-off container, rather than creating an unenclosed waste pile outside the WWTP building (regardless of how temporarily the pile may be there) and creating the potential for wastes to be carried or tracked away from the concrete pad.

5.1.23 SWMU 23 – Hydrochloric Acid Storage Area

Description: This SWMU is located outside and directly adjacent to the Forklift Repair Shop. The SWMU specifically addresses two 8,000-gallon hydrochloric acid tanks identified in various documents as storage tanks ST-1 and ST-2 or material tanks M-7. The raw hydrochloric acid is gravity-fed into process areas of the Plant No. 2 complex. Secondary containment consisting of a concrete basin (approximately 5 feet by 30 feet by 30 feet) is present below the elevated tanks. The only means of drainage from the secondary containment structure is manual pumping, and at the time of the VSI, the basin contained approximately one foot of water. The elevated tank structure is deteriorating, and the Engineering Department is planning to contract out for replacement of these tanks and associated structures in 2008.

Release Controls, Response Actions, and Environmental Data: No significant spills have been documented from this area.

Recommendations: **Medium priority** for further investigation or action. Although the potential for releases from this SWMU appears to be low based on secondary containment construction and the lack of documented spills, integrity of the concrete basin should be confirmed during tank replacement. WPSC should submit a report on the tank replacement project to EPA for review to ensure that deteriorating structures have been replaced and the potential for releases has been minimized.

5.1.24 SWMU 24 – Historic Used Oil Location

Description: This SWMU is located south of SWMU 23, Hydrochloric Acid Storage Area, and formerly housed a used oil tank of approximately 3,000 gallons. According to WPSC's response to EPA's May 29, 2008, RCRA Section 3007 Request for Information (Ref. 68), this tank was a steel, open-topped tank that was removed from service in 1999. WPSC has no record of spills

either from this former used oil tank or in the vicinity of its location. No photograph is available for this unit.

Release Controls, Response Actions, and Environmental Data: No further information is available on this SWMU.

Recommendations: **Low priority** for further investigation or action. At the time of the VSI, no hazardous wastes were being stored at this location, and no evidence of a potential release was observed.

5.1.25 SWMU 25 – Waste Acid and Alkali Tank Located in the Basement Underneath the 60" Galvanizing Line

Description: This SWMU is located in the basement of Building 254, and is not marked on Figure 3, SWMU and AOC Map due to its underground location. It consists of a tank estimated to be between 6,000 and 8,000 gallons that stored acid and alkali wastes from all three galvanizing lines. The liquid from this tank flows into a holding tank (SWMU 27, Waste Acid and Alkali Holding Tank Located Along the 60" Galvanizing Line) prior to entering the WWTP. The floor beneath the SWMU 25 tank consists of concrete, pea gravel, and river gravel. During the VSI, the floor was observed to be wet and contain multiple puddles; however, it was unclear whether the tank was leaking. The tank has reportedly been in service since the early 1970s. There is no secondary containment or concrete pad underneath the tank. All water and leakage flows to a sump in the basement (SWMU 26, Sump Located in the Basement Underneath the 60" Galvanizing Line).

Release Controls, Response Actions, and Environmental Data: No further information is available on this SWMU.

Recommendations: **High priority** for further investigation or action. Given the age of the tank and the condition of the floor, WPSC should verify the integrity of the tank and ancillary equipment and determine whether releases have occurred or are occurring to the ground surrounding the tank. Depending on this assessment, soil and/or groundwater sampling may be required for this SWMU. WPSC should also employ better work practices in this area to prevent future overflows or leaks from this tank.

5.1.26 SWMU 26 – Trench and Sump Located in the Basement Underneath the 60" Galvanizing Line

Description: This SWMU is located in the basement of Building 254 underneath the 60" galvanizing line, and is not marked on Figure 3, SWMU and AOC Map due to its underground location. The sump is approximately 3 feet by 3 feet by 3 feet. Spilled liquids from the 60" galvanizing line (e.g., overflow from the Waste Acid and Alkali Tank in SWMU 25) are captured in a small trench that runs the length of the basement floor area. This trench leads to the SWMU 26 sump where the accumulating liquids are held prior to being pumped up to the

Waste Acid and Alkali Holding Tank (SWMU 27). At the time of the VSI, the trench was full of an unknown liquid.

According to WPSC's response to EPA's May 29, 2008, RCRA Section 3007 Request for Information (Ref. 68), this sump is part of the plant's wastewater treatment system. WPSC is not aware that any structural assessment is required or has been performed on the sump, which is contained by the concrete basement. Furthermore, WPSC has no record of spills or leaks from this sump (Ref. 68).

Release Controls, Response Actions, and Environmental Data: No further information is available on this SWMU.

Recommendations: **Medium priority** for further investigation or action. WPSC should confirm the dates of operation of this unit, document the frequency with which the sump is pumped out, and evaluate the integrity of both the sump and the trench. WPSC should also provide information on any significant upgrades to the trench or sump.

5.1.27 SWMU 27 – Waste Acid and Alkali Holding Tank Located Along the 60" Galvanizing Line

Description: This SWMU is located along the 60" galvanizing line and receives mixed acid and alkali wastes from SWMUs 25 and 26, located in the basement. This wastewater is then metered into the WWTP for treatment. The holding tank has an estimated capacity of between 6,000 and 8,000 gallons, and the concrete floor on which it rests was observed to be in good condition. The tank was placed into service in the same timeframe as SWMU 25 (i.e., the early 1970s).

According to WPSC's response to EPA's May 29, 2008, RCRA Section 3007 Request for Information (Ref. 68), this tank is part of the plant's wastewater treatment system. WPSC is not aware that any structural assessment is required or has been performed on the tank or its support structure, which is contained by the concrete basement. Furthermore, WPSC has no record of spills or leaks from this tank or its appurtenances (Ref. 68).

Release Controls, Response Actions, and Environmental Data: No further information is available on this SWMU.

Recommendations: **Medium priority** for further investigation or action. Given the age of the tank, WPSC should confirm the integrity of the tank and the pipelines that deliver waste from SWMUs 25 and 26 and to the WWTP.

5.1.28 SWMU 28 – Cooling Water Tank Catch Basin Along the 60" Galvanizing Line

Description: This SWMU is located approximately midway down the 60" galvanizing line in Building No. 254. Following an acid rinse step, the steel coils enter a tank for a cooling water

rinse to prepare the steel for zinc galvanization. This concrete catch basin receives the process cooling water and drains it via piping into the WWTP. The catch basin is approximately 3 feet by 1 foot by 50 feet in an L configuration. The condition of the concrete basin could not be verified during the VSI.

Release Controls, Response Actions, and Environmental Data: No further information is available on this SWMU.

Recommendations: **Medium priority** for further investigation or action. WPSC should confirm the integrity of the concrete catch basin and provide the dates of operation of this unit.

5.1.29 SWMU 29 – Chem Treat Waste Tote Along the 60" Galvanizing Line

Description: This SWMU is located approximately two-thirds of the way down the length of the 60" galvanizing line and consists of a small vinyl weave hazardous waste tote for D007 waste. The tote is used to hold wastes such as solids, chromic acid filters, or flow absorbent generated during the chromic acid ("Chem Treat") treatment process for steel coils that will not be surface painted. The waste is then moved to the hazardous waste less-than-90-day storage area (SWMU 14) and is manifested for disposal by Max Environmental. The tote is properly labeled.

Release Controls, Response Actions, and Environmental Data: WPSC identified the Chem Treat solution used on the 60" galvanizing line as Oakite Okemcoat F-2, manufactured by Chemetall Oakite. According to the MSDS that WPSC provided during the VSI, this product contains the following compounds by weight: chromium (III) phosphate (1-5%), chromium (VI) trioxide (1-10%), chromium (III) nitrate (1-10%), and hypophosphoric acid (1-5%). No further information is available on this SWMU.

Recommendations: **Low priority** for further investigation or action. At the time of the VSI, no spills or staining were observed at this unit.

5.1.30 SWMU 30 – Waste Paint Accumulation Area Along the 60" Galvanizing Line

Description: This SWMU is located immediately south of the end of the 60" galvanizing line and contains paint-related waste from the stenciling process such as waste paint, ink, thinner, and sorbent pads. This SWMU boundary is outlined in yellow paint. At the time of the VSI, two 55-gallon drums were present in the unit, and four empty used ink containers were sitting on the floor near SWMU 30 to dry out. Containers from this area are taken to the hazardous waste less-than-90-day storage area (SWMU 14) prior to off-site transport by Safety-Kleen.

Release Controls, Response Actions, and Environmental Data: No further information is available on this SWMU.

Recommendations: **Low priority** for further investigation or action. At the time of the VSI, no spills or staining were observed at this unit.

5.1.31 SWMU 31 – Chromic Acid Sludge from the 36" Galvanizing Line

Description: This SWMU is located partway down the 36" galvanizing line in the Chem Treat tank (approximately 8 feet by 6 feet by 4 feet). At the time of the VSI, the 36" galvanizing line was inactive; however, at the time of the VSI, this tank contained a chromic acid sludge resulting from the previous application of Chem Treat to the steel coils when the line was operational. Mr. Schell indicated that WPSC will dispose of the waste if the facility decides to permanently close the 36" galvanizing line.

Release Controls, Response Actions, and Environmental Data: According to WPSC's response to EPA's May 29, 2008, RCRA Section 3007 Request for Information (Ref. 68), the facility has not yet decided whether or not to permanently close the 36" galvanizing line. However, the residues beneath the Chem Treat section of the 36" galvanizing line were removed in May 2008 and manifested as D007 waste for off-site disposal.

Recommendations: **Low priority** for further investigation or action. Based on WPSC's response to EPA's May 29, 2008, RCRA Section 3007 Request for Information (Ref. 68), the facility has appropriately disposed of the chromic acid sludge wastes while the 36" galvanizing line remains inactive.

5.1.32 SWMU 32 – Parts Washers

Description: This SWMU addresses six parts washers present at the following locations: machine shop, hydraulic repair shop, electric shop, boiler house, roof shop, and forklift repair shop. Based on similar operation and management of the units, and the good management practices being employed, it was deemed unnecessary to view all six parts washers. Thus, all but two of these parts washers (hydraulic repair shop and roof shop) were visited during the VSI and are shown on Figure 3, SWMU and AOC Map. The parts washers are approximately 4 feet by 3 feet by 3 feet and use Safety Kleen solvent. Safety Kleen periodically removes and reclaims the spent solvent off site.

Release Controls, Response Actions, and Environmental Data: No further information is available on this SWMU.

Recommendations: **Low priority** for further investigation or action. These units appeared to be in good condition at the time of the VSI, and no spills or staining were observed in association with these units. Because Safety-Kleen reclaims solvents from these units for future use, they have a monetary interest in ensuring that they are well maintained.

5.1.33 SWMU 33 – Roll Grinding Waste

Description: This SWMU is located in the Machine Shop in the center of Plant No. 2. Rubber dust is created from the grinding of rubber rolls. There is a vacuum attached to one large lathe where rolls are repaired or stripped. The vacuum is equipped with a cyclone for removal of airborne particulates, which are then placed into four bags in a 3-foot by 3-foot by 3-foot open topped box. Residuals from this process and the bags of particulates are placed in bags and loaded into a 30-foot roll-off container for disposal at North Fork Landfill.

According to WPSC's response to EPA's May 29, 2008, RCRA Section 3007 Request for Information (Ref. 68), the roll grinder for the rubber Chem Treat rolls typically operates four hours per week to process a total of four rolls. Mr. Schell indicated that non-hazardous dust is disposed with regular solid waste in roll-off containers, while any rolls with Chem Treat residuals go into a separate tote by the Chem Treat station (the specific galvanizing line was not identified). However, WPSC's response also indicates that solids from the Chem Treat roll grinding operation have been analyzed and determined to be non-hazardous (Ref. 68). WPSC provided an analytical report showing the sample results (analyzed for TCLP metals), and all metals were non-detect except for lead at 4.3 mg/L (Ref. 68). As a result, WPSC discards this waste with plant trash and has not determined the volume of this waste stream.

Release Controls, Response Actions, and Environmental Data: No further information is available on this SWMU.

Recommendations: **Low priority** for further investigation or action. At the time of the VSI, no hazardous wastes were being stored at this unit, and no evidence of a potential release was observed.

5.1.34 SWMU 34 – Universal Waste Storage Area

Description: This SWMU is located at the end of a hallway adjacent to the Electric Shop in the center of Plant No. 2 and covers an area approximately 8 feet by 20 feet by 10 feet. This SWMU has been used for storage of RCRA universal wastes such as light ballasts, mercury switches, and batteries since 2001. At the time of the VSI, the wastes were being stored in closed yellow plastic containers, which would contain any leakage (e.g., from batteries) and minimize the potential for breakage of bulbs and switches. Safety Kleen routinely picks up these wastes for proper off-site management and disposal.

Release Controls, Response Actions, and Environmental Data: No further information is available on this SWMU.

Recommendations: **Low priority** for further investigation or action. The potential for significant environmental impacts associated with this SWMU appears to be low as long as good housekeeping practices are maintained.

5.1.35 SWMU 35 – NPDES Permitted Outfalls

Description: This SWMU addresses potential discharges of contaminated wastewater to the Ohio River through NPDES-permitted outfalls 001 through 005. A photograph is not available for this unit, because it was not visited during the VSI. This SWMU is not identified on Figure 3, SWMU and AOC Map, because not all of the outfall locations are shown on this site map. See Figure 4, Outfall Location Map, for the locations of these outfalls in relation to the Martins Ferry plant.

Release Controls, Response Actions, and Environmental Data: Effluent from Outfall 001 has repeatedly been found to contain NPDES permit exceedances of zinc, chromium, oil, and grease (Refs. 29, 38, and 39). Discharges from Outfall 001 were also shown to be acutely toxic to aquatic life in 65 percent and 100 percent bioassays; repeated bioassays show acute toxicity at Outfalls 001, 002, 003, and 005 (Ref. 29).

Recommendations: **Medium priority** for further investigation or action. WPSC should provide documentation to demonstrate current compliance with applicable NPDES permit requirements. WPSC should also conduct a thorough trends analysis to determine if any patterns exist with regard to exceedance of permit conditions at each outfall. Where patterns exist, WPSC should implement additional controls (e.g., flocculation and/or pH adjustment basins, filters, skimmers) upstream of the outfall discharges to reduce, and perhaps eliminate, exceedances of applicable permit limits. WPSC should also review any available surface water and sediment, or collect such data, as part of an in-depth evaluation of environmental quality in the Ohio River. WPSC should collect and compare surface water and sediment data upstream of, adjacent to, and downstream of the property to quantify those impacts specifically attributable to WPSC discharges.

5.2 AOCs Identified During the PA

5.2.1 AOC 1 – Plant 1 Electrical Substation Transformers

Description: This AOC is located on the former Plant No. 1 property, immediately north of and adjacent to Plant No. 2. The AOC consists of a substation containing six transformers raised on concrete blocks in two rows – three large transformers in front (TF-7A, TF-7B, and TF-7C) and three small transformers behind them (TF-14A, TF-14B, and TF-14C). Three additional out-of-service transformers were located to the side. The small in-service transformers are marked with a metal stamp stating "No PCBs," presumably placed on the equipment by the manufacturer. The ground is gravel and rock over surface soil.

Release Controls, Response Actions, and Environmental Data: During the VSI, staining was noted on the concrete transformer foundations and extending to the ground, indicating that leaks have likely occurred. OEPA representatives indicated that, during an inspection in 2005 or 2006, TF-7C was observed to be leaking and out of service. OEPA recommended that WPSC drain the oil. WPSC complied with OEPA's recommendation and, consequently, large transformer TF-7C

is not currently in service. During the VSI, OEPA also indicated that there were historic releases of insulating oil, but WPSC never reported or confirmed the PCB content. According to WPSC's response to EPA's May 29, 2008, RCRA Section 3007 Request for Information (Ref. 68), none of these transformers have ever contained PCBs to the facility's knowledge.

During the VSI on April 1, 2008, EPA collected two soil samples from the stained soil area underneath the transformers and sent them to the EPA Region 5 Central Regional Laboratory for PCB analysis. The sampling results indicated that PCBs were not detected in the sample at a reporting limit of 0.5 micrograms per gram (μg/g), which was elevated due to matrix interferences from unspecified hydrocarbons (Ref. 66).

Recommendations: **High priority** for further investigation or action. According to WPSC's response to EPA's May 29, 2008, RCRA Section 3007 Request for Information (Ref. 68), further investigation of soils inside the fenced substation area is not feasible until this substation is de-energized, and WPSC has no schedule for such activities at this time. It is recommended that the stained soil be removed, characterized, and properly disposed the next time the substation is de-energized (i.e., for routine maintenance). Furthermore, the transformers should be inspected for evidence of active leaks as soon as possible and repaired as necessary.

5.2.2 AOC 2 – 4,000-Gallon Gasoline Underground Storage Tank Located in the Plant 1 Area

Description: This AOC is located east of AOC 1 on the former Plant No. 1 property. The AOC consists of an in-service 4,000-gallon gasoline underground storage tank (UST), identified as tank MF-26 by a sign, and an associated fuel pump. The tank was installed around 1990. According to Mr. Schell, the UST will be closed because the facility does not use enough fuel (approximately 100 gallons per month) to warrant maintaining the tank and fueling station.

Release Controls, Response Actions, and Environmental Data: A fire extinguisher and drum containing absorbent are located adjacent to the fuel tank. It is unknown whether releases have occurred from this gasoline tank. No further information is available on this AOC.

Recommendations: **Medium priority** for further investigation or action. WPSC should ensure that operation and/or closure of this UST is performed in accordance with the Ohio Department of Commerce, Division of State Fire Marshall, Bureau of Underground Storage Tank Regulations (BUSTR). WPSC should provide EPA with a work plan specifying the means by which the UST and ancillary equipment will be formally closed (e.g., complete removal, decontamination and filling with an inert substance). The work plan should also outline WPSC's proposal for confirmation sampling to document the lack of significant residual petroleum-related constituents in underlying soil and/or groundwater. Until such time as the UST is closed, WPSC should continue required monitoring of the unit to detect any leakage that may occur as expeditiously as possible.

5.2.3 AOC 3 – 6,000-Gallon Diesel Aboveground Storage Tank Located in the Plant 1 Area

Description: This AOC is located southeast of AOC 2 on the former Plant No. 1 property. It consists of an in-service 6,000-gallon diesel aboveground storage tank (AST) that was installed around 1990. According to Mr. Schell, WPSC does not have plans to close this tank. It is unknown which system(s) this AST supplies with fuel.

Release Controls, Response Actions, and Environmental Data: A fire extinguisher and drum containing absorbent are located adjacent to the fuel tank. It is unknown whether releases have occurred from this diesel tank. No further information is available on this AOC.

Recommendations: **Low priority** for further investigation or action. WPSC should ensure that continued operation and monitoring of this AST is performed in accordance with BUSTR.

5.2.4 AOC 4 – Groundwater Contamination Associated with Former Leaking Gasoline UST in the Plant 1 Area

Description: This AOC addresses contaminated groundwater associated with a formerly leaking gasoline UST in the northeastern portion of the Plant No. 1 property. No information is available concerning the UST removal, the more comprehensive leaking underground storage tank (LUST) remediation effort, or the current extent of contamination in groundwater. According to Mr. Schell, groundwater monitoring wells in this area have been sampled quarterly for approximately 15 years, and the cleanup is being overseen by BUSTR. Pump houses for the City of Martins Ferry drinking water intake wells are visible from this AOC, although their proximity to the groundwater plume is unknown, as is the groundwater flow direction.

Release Controls, Response Actions, and Environmental Data: In their response to EPA's May 29, 2008, RCRA Section 3007 Request for Information (Ref. 68), WPSC provided a copy of a No Further Action (NFA) Letter from BUSTR to WPSC dated May 20, 2008. The letter states that BUSTR requires NFA for an UST removal implemented in 1990 (Ref. 68). However, WPSC does not clarify whether this letter relates to the former leaking gasoline UST associated with AOC 4.

Recommendations: **Low priority** for further investigation or action, pending confirmation from WPSC that the NFA letter from BUSTR provided in Reference 68 relates to AOC 4. If such confirmation cannot be provided, the priority level for this AOC may need to be elevated and WPSC should continue to comply with long-term monitoring and closure requirements pursuant to BUSTR.

5.2.5 AOC 5 – Former Product Storage Area

Description: This AOC is a flat area with approximate dimensions of 36 yards by 48 yards located on a hill up a gravel road at the southeastern edge of Plant No. 2, with the Ohio River to the east. It currently contains gravel, soil, rocks, brick, and other inert and demolition debris. A pile of material that appeared to be coal dumped from a hopper and an unknown brown material were observed on the ground in this area during the VSI. This is an active area based on the tire marks observed during the VSI, but its historical or current use is unknown. No vegetation was noted at the time of the VSI.

Release Controls, Response Actions, and Environmental Data: This area was identified by OEPA representatives as formerly containing leaking, unlabeled drums and/or totes. OEPA received a complaint about the area around 1997, inspected it, and issued a Notice of Violation (NOV) to WPSC. WPSC responded that they cleaned up the area, characterized all containers as containing product, and managed the containers accordingly (Ref. 68).

According to WPSC's response to EPA's May 29, 2008, RCRA Section 3007 Request for Information (Ref. 68), the reddish-brown material near the coal pile was sampled, determined to be non-hazardous, and disposed accordingly. WPSC provided an analytical report showing the sample results (analyzed for TCLP metals), and all metals were non-detect except for chromium at 0.11 mg/L (Ref. 68).

Recommendations: **Medium priority** for further investigation or action. WPSC should provide information on dates of operation of this area and the types of products, wastes, or other items historically stored here. WPSC should also provide information on any known historical releases in this area and any cleanup or sampling that has been performed at this AOC.

5.2.6 AOC 6 – Leaking Transformer Adjacent to the No. 1 Fire Station

Description: This AOC is located immediately adjacent to the No. 1 fire station and south of the main facility office. Two large transformers are located behind a fence and the north transformer (reported oil volume of 1,790 gallons) was observed to be leaking to the concrete pad during the VSI on April 1, 2008. A dark substance assumed to be oil was pooling at the base of the pad and flowing to a drain that leads to the WWTP.

Release Controls, Response Actions, and Environmental Data: In their response to EPA's May 29, 2008, RCRA Section 3007 Request for Information (Ref. 68), WPSC identified this transformer as TF-1A, Serial No. 10556. WPSC stated that transformer TF-1A uses mineral oil as its cooling medium, and to the facility's knowledge, PCBs have never been used in this transformer (Ref. 68). Furthermore, the response states that "to WPSC's knowledge, no active leak was observed on April 1, 2008, and no such leak has been observed since." Additionally, WPSC does not believe that the 'weathered' stain below Transformer TF-1A poses a risk to the environment. Still, as a precautionary measure, an outside electrical equipment contractor has

been contacted to assess whether Transformer TF-1A is currently at risk to leak and recommend repairs, if needed" (Ref. 68).

Recommendations: **High priority** for further investigation or action. WPSC should provide a summary of the electrical equipment contractor's findings and recommendations, and any repairs that may be required. In addition, WPSC should provide justification for their claim that PCBs have never been used in Transformer TF-1A.

6.0 PA/VSI SUMMARY AND CONCLUSIONS

During the March 31 to April 1, 2008, VSI, site conditions and the locations of SWMUs and other potential contaminant sources were reviewed to evaluate the potential for releases to the environment. Table 2 presents a summary of SWMUs and AOCs identified during the PA/VSI for the WPSC facility in Martins Ferry, Ohio, and associated priorities for further investigation or action.

Data gaps remain for many of the SWMUs and AOCs described in Section 5. Additionally, historical and current waste management activities suggest that contaminants associated with process and waste handling areas may have been released to the environment. Consequently, many SWMUs and AOCs associated with active and historical process lines are recommended for further evaluation or information at this time.

7.0 REFERENCES

1. Soil Survey of Belmont County, Ohio. Prepared by U.S. Department of Agriculture Soil Conservation Service. Dated July 1981.
2. Hazardous Waste Management Manual. Prepared by Chester Engineers. Dated March 15, 1982.
3. Letter from Michael Moschell, OEPA, to W.R. Samples, WPSC, re: Violations at WWTP Storage Area. Dated February 23, 1983.
4. Letter from Michael Moschell, OEPA, to Nancy Ray, WPSC, re: Sludge Disposal Area Cleanup Sampling. Dated December 9, 1988.
5. Martins Ferry Plant Spill Prevention, Control, and Countermeasures Plan. Prepared by WPSC. Dated March 1989.
6. Letter from Nancy Ray, WPSC, to Michael Moschell, OEPA, re: Soil Sampling Results from Sludge Disposal Area Cleanup. Dated March 13, 1989.
7. Letter from Martin Stephenson, WPSC, to Chief Deputy Shamblin, Ohio County of West Virginia Sheriff's Department, re: Hazardous Waste Disposal Incident. Dated December 13, 1990.
8. Letter from Martin Stephenson, WPSC, to Michael Moschell, OEPA, re: Disposal of D007 Hazardous Waste Solid. Dated January 22, 1991.
9. Letter from Cindy Pelley, OEPA, to Martin Stephenson, WPSC, re: January 31, 1991, CEI. Dated March 7, 1991.
10. Letter from Martin Stephenson, WPSC, to Cindy Pelley, OEPA, re: RCRA CEI Report (January 31, 1991, Inspection). Dated April 10, 1991.
11. Letter from Martin Stephenson, WPSC, to Cindy Pelley, OEPA, re: Hazardous Waste Issues. Dated May 20, 1991.
12. Martins Ferry Plant Spill Prevention, Control, and Countermeasures Plan. Prepared by WPSC. Revised March 1992.
13. Internal USEPA Memorandum from David Barna to Michael Mikulka, Compliance Section, re: Compliance Sampling Inspection at WPSC Martins Ferry Plant. Dated August 28, 1992.
14. Martins Ferry Plant NPDES Permit Application (Stormwater). Prepared by WPSC. Dated September 28, 1992.
15. Letter from Abbot Stevenson, OEPA, to William Samples, WPSC, re: June 23-24, 1994 CSI. Dated September 14, 1994.
16. Letter from Richard Stewart, OEPA, to William Samples, WPSC, re: September 7-8, 1994, CEI. Dated October 14, 1994.
17. Letter from Lori Ann Clark, WPSC, to Richard Stewart, OEPA, re: Response to October 14, 1994 OEPA Letter. Dated November 16, 1994.
18. Letter from Richard Stewart, OEPA, to William Samples, WPSC, re: September 7-8, 1994 CEI. Dated January 11, 1995.
19. Drum Storage Area Generator Closure Plan. Prepared by Groundwater Technology, Inc. Dated July 24, 1995.
20. Letter from Thomas Webster, WPSC, to Richard Stewart, OEPA, re: September 27, 1995, Hazardous Waste Follow Up Inspection. Dated September 29, 1995.

21. Letter from Richard Stewart, OEPA, to William Samples, WPSC, re: September 27, 1995, Follow Up CEI. Dated October 11, 1995.
22. Letter from Abbot Stevenson, OEPA, to William Samples, WPSC, re: May 7, 1996 CSI. Dated June 27, 1996.
23. Letter from William Samples, WPSC, to Lynne Caughell, Ohio Department of Commerce, Division of State Fire Marshall, Bureau of UST Regulations, re: Remediation of UST Release; Second Quarter Report 1996. Dated July 17, 1996.
24. Letter from William Samples, WPSC, to Abbot Stevenson, OEPA, re: Response to June 27, 1996, OEPA Letter. Dated July 22, 1996.
25. Letter from Mary Washko, Fluor Daniel GTI, to Tom Webster, WPSC, re: Closure of Drum Storage Area. Dated August 12, 1996.
26. Martins Ferry Plant Stormwater Pollution Prevention Plan. Prepared by Chester Engineers. Dated September 1996.
27. Letter from Richard Stewart, OEPA, to William Samples, WPSC, re: Container Storage Area. Dated November 17, 1997.
28. Letter from Patrick Smith, WPSC, to Richard Stewart, OEPA, re: October 22, 1997, Inspection Response. Dated December 5, 1997.
29. Letter from Lisa Romito, WPSC, to Abbot Stevenson, OEPA, re: Response to September 4, 1998, CSI Letter. Dated September 25, 1998.
30. Martins Ferry Plant Hazardous Waste Generator Contingency Plan. Prepared by WPSC. Dated May 1999.
31. RCRA Hazardous Waste Generator CEI Checklist. Prepared by OEPA. Dated June 8-11, 1999.
32. Letter from Bud Smith, WPSC, to John Shepler, USEPA, re: Multi-media Information Request Documents (3rd Submittal). Dated July 30, 1999.
33. Letter from Richard Stewart, OEPA, to William Samples, WPSC, re: June 8-11, 1999, Multi-media Compliance Inspection. Dated August 26, 1999.
34. Letter from Lisa Romito, WPSC, to Richard Stewart, OEPA, re: Response to August 26, 1999, Letter. Dated December 7, 1999.
35. OEPA Email Correspondence between Richard Stewart and Jeff Mayhugh, re: WWTP Pit. Dated December 7, 1999.
36. Letter from William Polomik, Jr., WPSC, to Abbot Stevenson, OEPA, re: Response to March 6, 2000 Correspondence. Dated April 4, 2000.
37. Letter from Richard Stewart, OEPA, to Bud Smith, WPSC, re: June 8-11, 1999, Multi-media Compliance Inspection. Dated June 30, 2000.
38. Letter from Todd Koget, WPSC, to Abbot Stevenson, OEPA, re: Wastewater Treatment Plant Exceedances. Dated March 21, 2001.
39. Agenda from Settlement Meeting of Water Issues. Prepared by OEPA. Dated April 3, 2001.
40. Baghouse Dust Illegal Disposal Incident Report. Prepared by National Response Center. Dated April 12, 2001.
41. Letter from Patrick Smith, WPSC, to Richard Stewart, OEPA, re: Response to March 19, 2001, OEPA Letter. Dated April 20, 2001.

42. Letter from John Rochotte, OEPA, to Patrick Smith, WPSC, re: Baghouse Dust Dumping Complaint. Dated May 8, 2001.
43. Letter from Abbot Stevenson, OEPA, to Bud Smith, WPSC, re: July 11, 2001, CEI. Dated August 8, 2001.
44. Letter from Richard Stewart, OEPA, to Bud Smith, WPSC, re: November 7 and 14, 2001, Compliance Inspection. Dated December 12, 2001.
45. Letter from Patrick Smith, WPSC, to Richard Stewart, OEPA, re: Response to December 12, 2001, RCRA Inspection Letter. Dated April 19, 2002.
46. Letter from Richard Stewart, OEPA, to Bud Smith, WPSC, re: November 7 and 14, 2001, Compliance Inspection. Dated September 16, 2002.
47. Letter from Abbot Stevenson, OEPA, to Bud Smith, WPSC, re: April 8, 2003, CEI. Dated April 18, 2003.
48. Letter from Patrick Smith, WPSC, to Richard Stewart, OEPA, re: Response to May 27, 2003, RCRA Inspection Letter. Dated June 27, 2003.
49. Letter from Bud Smith, WPSC, to Abbot Stevenson, OEPA, re: Sewer Manhole Sediment Sampling Results. Dated December 28, 2003.
50. Letter from Patrick Smith, WPSC, to Richard Stewart, OEPA, re: Response to November 6, 2003, RCRA Inspection Letter. Dated March 12, 2004.
51. Letter from Richard Stewart, OEPA, to Bud Smith, WPSC, re: November 7 and 14, 2001, Compliance Inspection. Dated April 6, 2004.
52. Letter from John Rochotte, OEPA, to Pat Smith, WPSC, re: October 25, 2004, Compliance Inspection. Dated November 24, 2004.
53. Sampling Report. Prepared by John Rochotte, OEPA. Dated January 3, 2007.
54. Letter from Tammy Moore, EPA Region 5, to Bud Smith, WPSC, re: Request for Information and Preliminary Assessment/Visual Site Inspection. Dated April 20, 2007.
55. Letter from Bud Smith, WPSC, to Tammy Moore, EPA Region 5, re: Request for RCRA Information; WPSC Yorkville and Martins Ferry Plants. Dated May 4, 2007.
56. Letter from Patrick Smith, WPSC, to Tammy Moore, EPA Region 5, re: Request for RCRA Information; WPSC Martins Ferry Plant. Dated May 14, 2007.
57. Belmont County Water Resources, Ohio State University Extension Fact Sheet AEX-480.07. Accessed at http://ohioline.osu.edu/aex-fact/0480_07.html on June 11, 2007.
58. Belmont County Groundwater Resources, Ohio State University Extension Fact Sheet AEX-490.07. Accessed at http://ohioline.osu.edu/aex-fact/0490_07.html on June 11, 2007.
59. Web Soil Survey. Maintained at http://websoilsurvey.nrcs.usda.gov/app/ by U.S. Department of Agriculture Natural Resources Conservation Service. Accessed on June 13, 2007.
60. Enviromapper Database. Maintained by U.S. EPA. WPSC Martins Ferry information located at http://134.67.99.122/enviro/emef.asp?action=zoomto&yc=40.10295&xc=-80.713035. Accessed on June 15, 2007.
61. Biennial Report Database. Maintained by U.S. EPA at www.epa.gov/epaoswer/hazwaste/data/biennialreport. Accessed on June 18, 2007.

62. RCRAInfo Database. Maintained by U.S. EPA. WPSC Martins Ferry information located at http://oaspub.epa.gov/enviro/rcris_web.report?pgm_sys_id=OHD010448231. Accessed on June 18, 2007.
63. Martins Ferry Athletic Field Dedication Program. Maintained on the Martins Ferry High School Purple Rider Football Web site located at www.goriders.com/mflinks/about.htm. Accessed on June 27, 2007.
64. Letter from Kenneth S. Komoroski, Kirkpatrick & Lockhart Preston Gates Ellis LLP, to David Sholtis, OEPA, re: Comment Response Letter, Closure Plan – ARCO Scrubber Ductwork Laydown Area, Martins Ferry Plant. Dated March 20, 2008.
65. Letter from Kenneth S. Komoroski, Kirkpatrick & Lockhart Preston Gates Ellis LLP, to David Sholtis, OEPA, re: Comment Response Letter, Closure Plan – Utility Trench Beneath 48-inch Galvanizing Line, Martins Ferry Plant. Dated March 20, 2008.
66. Letter from Michael J. Mikulka, EPA Region 5 to Al Schell, WPSC, re: Results for USEPA Samples Obtained April 1, 2008. Dated May 27, 2008.
67. Letter from Margaret M. Guerriero, EPA Region 5 to Lenny Vinci, WPSC, re: Request for Information – WPSC – Martins Ferry Plant, Martins Ferry, Ohio. Dated May 29, 2008.
68. Letter from Bud Smith, WPSC, to Michael Mikulka, EPA Region 5, re: Response to USEPA's RCRA § 3007 Information Request for WPS's Martins Ferry Plant. Dated July 3, 2008.

TABLES

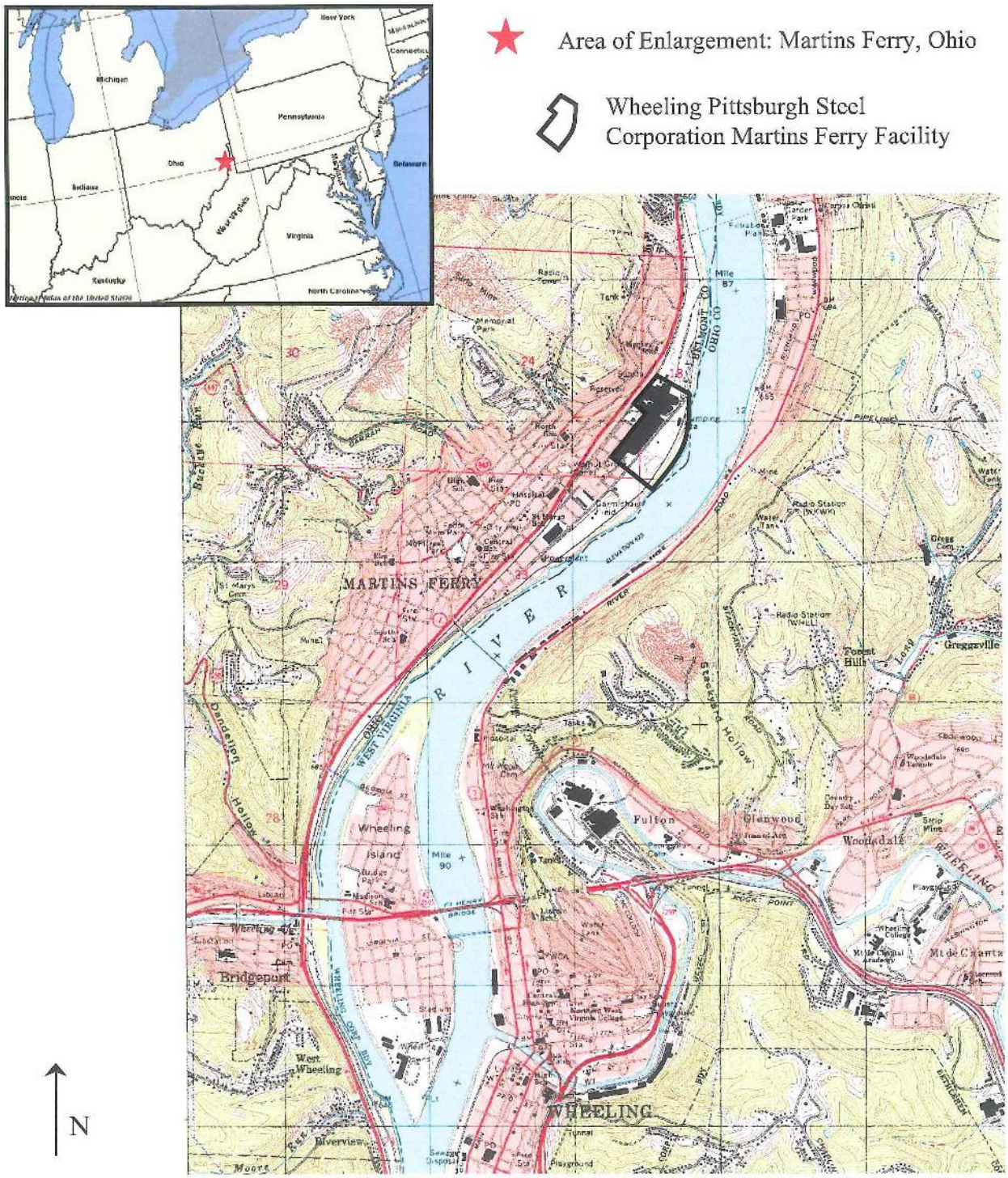
Table 1. VSI Participants and Corporate Affiliations

Name	Corporate Affiliation
Mike Mikulka	U.S. Environmental Protection Agency Region 5
Amy Brezin	Booz Allen Hamilton
Jeremy Hogard	
Rich Stewart	Ohio Environmental Protection Agency
John Rochotte	
Mark Stroh	U.S. Marshals Service, Southern District of Ohio
Al Schell	Wheeling Pittsburgh Steel Corporation
Fred Misenhelder	
Patrick Smith (3/31/08)	
Ken Komoroski (3/31/08) Dave Shelton (4/1/08)	Kirkpatrick & Lockhart Preston Gates Ellis LLP

Table 2. SWMUs and AOCs Identified During the PA/VSI

Unit	Description	Recommendation
SWMU 1	Waste Containers for Baghouse Dust	**Medium Priority**
SWMU 2	Facility Underground Piping Lines	**Medium Priority**
SWMU 3	Historic Carbon Filter for Electric Room	**Medium Priority**
SWMU 4	Concrete Pits and Utility Trench Beneath 48" Galvanizing Line	**High Priority**
SWMU 5	Alkali Tank and Catch Basin on the 48" Galvanizing Line	**High Priority**
SWMU 6	Acid Tank and Trench on the 48" Galvanizing Line	**Medium Priority**
SWMU 7	Vent Exhaust Fan on the 48" Galvanizing Line	**Medium Priority**
SWMU 8	Zinc Chloride Tank (Including Secondary Containment) Located Near Baghouse	**High Priority**
SWMU 9	Baghouse for Galvanizing Lines	**Medium Priority**
SWMU 10	Chem Treat Waste Tote Along the 48" Galvanizing Line	**Low Priority**
SWMU 11	Waste Paint Accumulation Area Along the 48" Galvanizing Line	**Low Priority**
SWMU 12	Historic Chem Treat Accumulation Area Located in Plant 1 Area	**Low Priority**
SWMU 13	Former Plant No. 1 Units	**Medium Priority**
SWMU 14	Hazardous Waste Less-Than-90-Day Storage Area Located in Building 115	**Medium Priority**
SWMU 15	Multiple Interior Solid Waste Containers	**Low Priority**
SWMU 16	Former ARCO Scrubber Unit Located in Scrap Yard North of Plant No. 1	**High Priority**
SWMU 17	30-Foot Roll-Off Container for Asbestos Storage	**Low Priority**
SWMU 18	Former Acid and Alkali Waste Storage Area	**Low Priority**
SWMU 19	Used Oil Storage Area	**High Priority**
SWMU 20	Multiple Exterior Solid Waste Containers	**Medium Priority**
SWMU 21	Current Acid and Alkali Waste Storage Area Located East of the WWTP	**Low Priority**
SWMU 22	Waste Water Treatment Plant	**Medium Priority**
SWMU 23	Hydrochloric Acid Storage Area	**Medium Priority**
SWMU 24	Historic Used Oil Location	**Low Priority**
SWMU 25	Waste Acid and Alkali Tank Located in the Basement Underneath the 60" Galvanizing Line	**High Priority**
SWMU 26	Trench and Sump Located in the Basement Underneath the 60" Galvanizing Line	**Medium Priority**
SWMU 27	Waste Acid and Alkali Holding Tank Located Along the 60" Galvanizing Line	**Medium Priority**
SWMU 28	Cooling Water Tank Catch Basin Along the 60" Galvanizing Line	**Medium Priority**
SWMU 29	Chem Treat Waste Tote Along the 60" Galvanizing Line	**Low Priority**
SWMU 30	Waste Paint Accumulation Area Along the 60" Galvanizing Line	**Low Priority**
SWMU 31	Chromic Acid Sludge from the 36" Galvanizing Line	**Low Priority**
SWMU 32	Parts Washers	**Low Priority**
SWMU 33	Roll Grinding Waste	**Low Priority**
SWMU 34	Universal Waste Storage Area	**Low Priority**
SWMU 35	NPDES Permitted Outfalls	**Medium Priority**
AOC 1	Plant 1 Electrical Substation Transformers	**High Priority**
AOC 2	4,000-Gallon Gasoline UST Located in the Plant 1 Area	**Medium Priority**
AOC 3	6,000-Gallon Diesel AST Located in the Plant 1 Area	**Low Priority**
AOC 4	Former Leaking UST Located in the Plant 1 Area	**Low Priority**
AOC 5	Former Product Storage Area	**Medium Priority**
AOC 6	Leaking Transformer Adjacent to the No. 1 Fire Station	**High Priority**

FIGURES



Preliminary Assessment/
Visual Site Inspection Report
Wheeling Pittsburgh Steel Corporation
Martins Ferry, Ohio Facility

Prepared for EPA Region 5

September 2008

Figure 1, Site Location Map

Base Map Sources:
www.nationalatlas.gov (6/27/07)
www.topozone.com (6/27/07)
NPDES Permit Application (9/28/92)

Plant No. 2
Complex

Former
Plant No. 1
Location

Onsite
Wastewater
Treatment
Plant

Wheeling Pittsburgh Steel
Corporation Facility
1001 Main Street
Martins Ferry, Ohio 43935
OHD010448231

N

Preliminary Assessment/
Visual Site Inspection Report
Wheeling Pittsburgh Steel Corporation
Martins Ferry, Ohio Facility

Prepared for EPA Region 5

September 2008

Figure 2, Site Vicinity Map

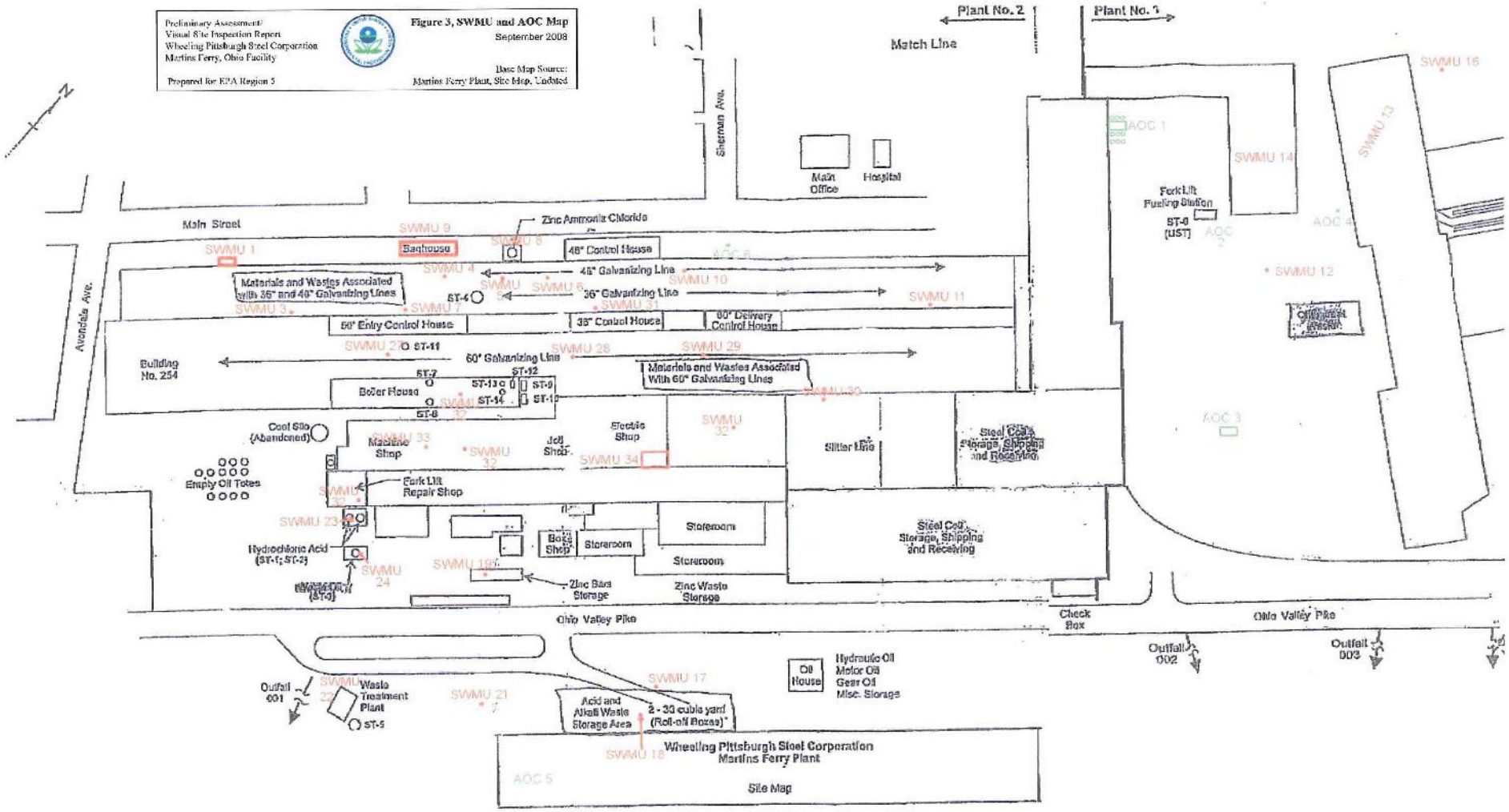
Base Map Source:
Google Earth (6/27/07)

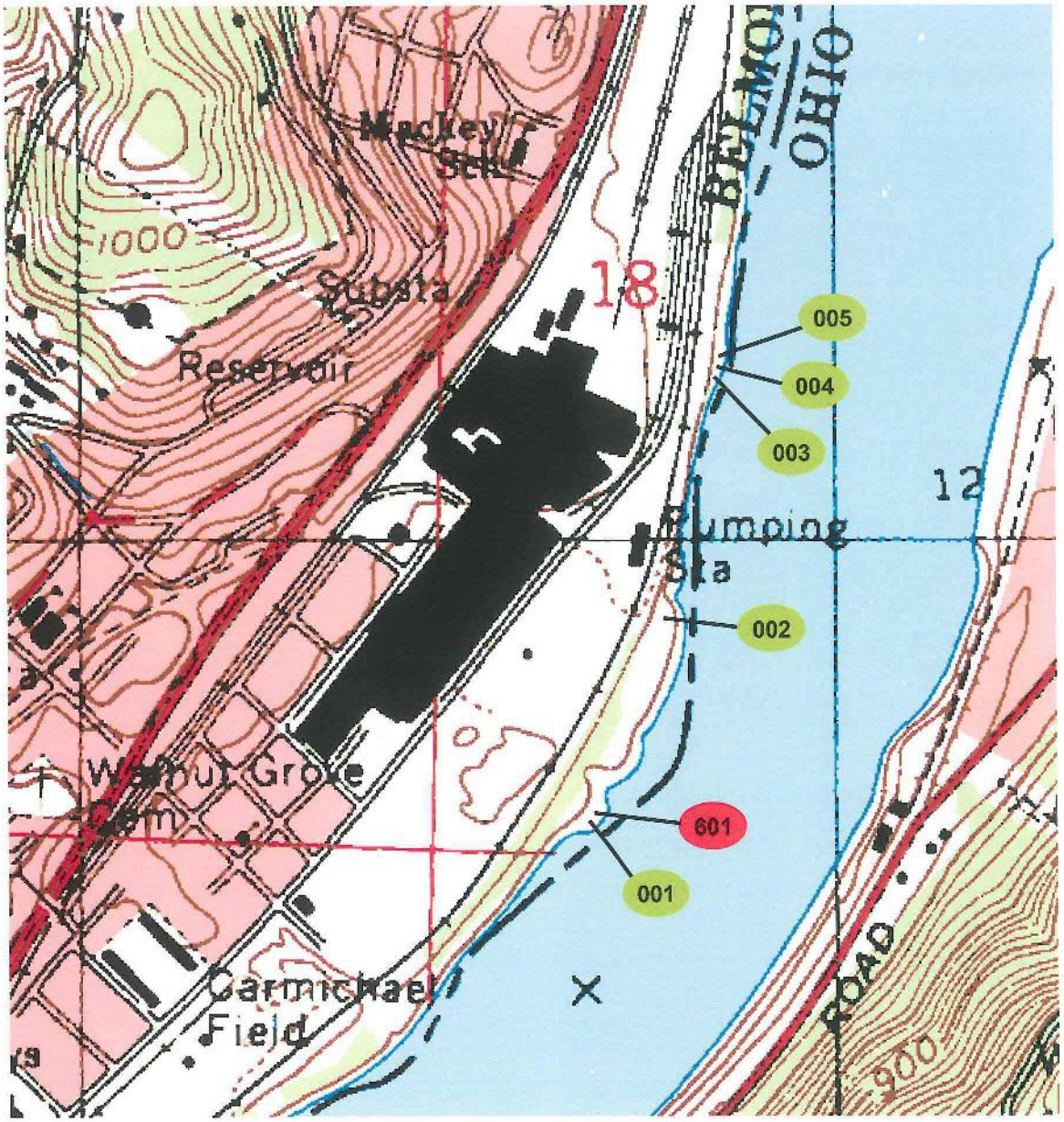
Preliminary Assessment/
Visual Site Inspection Report
Wheeling Pittsburgh Steel Corporation
Martins Ferry, Ohio Facility

Prepared for EPA Region 5

Figure 3, SWMU and AOC Map
September 2008

Base Map Source:
Martins Ferry Plant, Site Map, Undated





001 Active NPDES Outfalls

601 Inactive Outfalls – Note: Location of inactive Outfall 602 is unknown

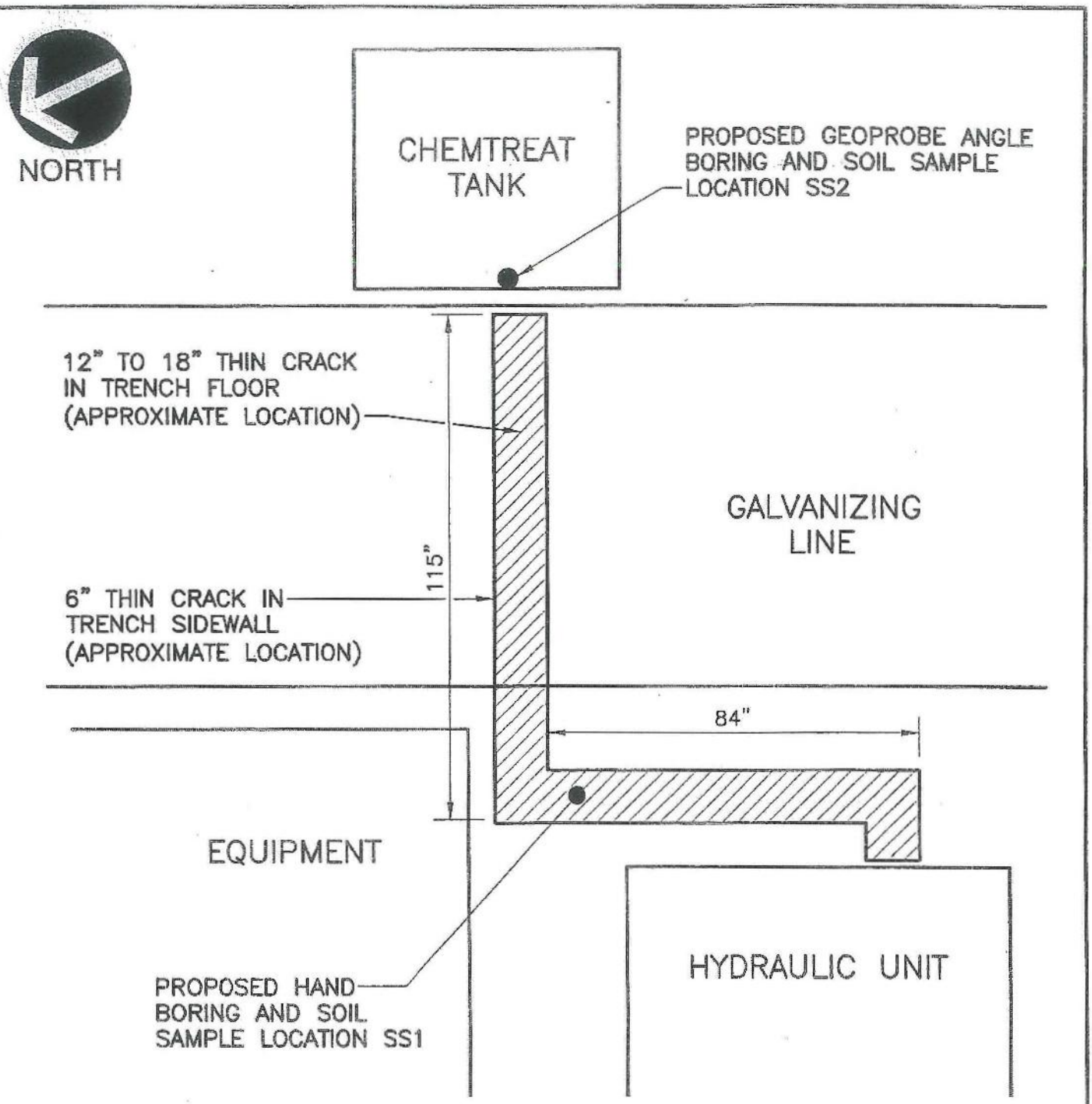
Preliminary Assessment/
Visual Site Inspection Report
Wheeling Pittsburgh Steel Corporation
Martins Ferry, Ohio Facility

Prepared for EPA Region 5

September 2008

Figure 4, Outfall Location Map

Base Map Source:
NPDES Permit Renewal
Application (2003)



LEGEND

FORMER UTILITY TRENCH BACKFILLED WITH CONCRETE

Figure 5, Diagram of Utility Trench Beneath 48" Galvanizing Line

Pittsburgh, PA
Cincinnati, OH
Columbus, OH
Indianapolis, IN

Civil & Environmental Consultants, Inc.
Four Triangle Lane, Suite 200, Export, PA 15632-9522
(724) 327-5200 · (800) 899-3610

Nashville, TN
Chicago, IL
St. Louis, MO
Detroit, MI

FORMER UTILITY TRENCH LAYOUT
MARTINS FERRY PLANT
WHEELING-PITTSBURGH STEEL CORPORATION

QUALITY MANAGER APPROVAL:			PROJECT NO:	071795.003	FIGURE NO:
DRAWN BY: JHG	CHKD BY:	DWG SCALE: 3/8"=1'-0"	LAST EDIT DATE:	03/12/08	2

G:\PROJECTS\2007\071795\DWG\071795A1.DWG (CFLEMING) - MAR 12, 2008 - 9:32a

ATTACHMENT 1

PHOTOGRAPHIC LOG

Photograph Number: 1 **Photographer:** Amy Brezin

Direction: Northwest **Date:** 03/31/2008 **Time:** 12:29

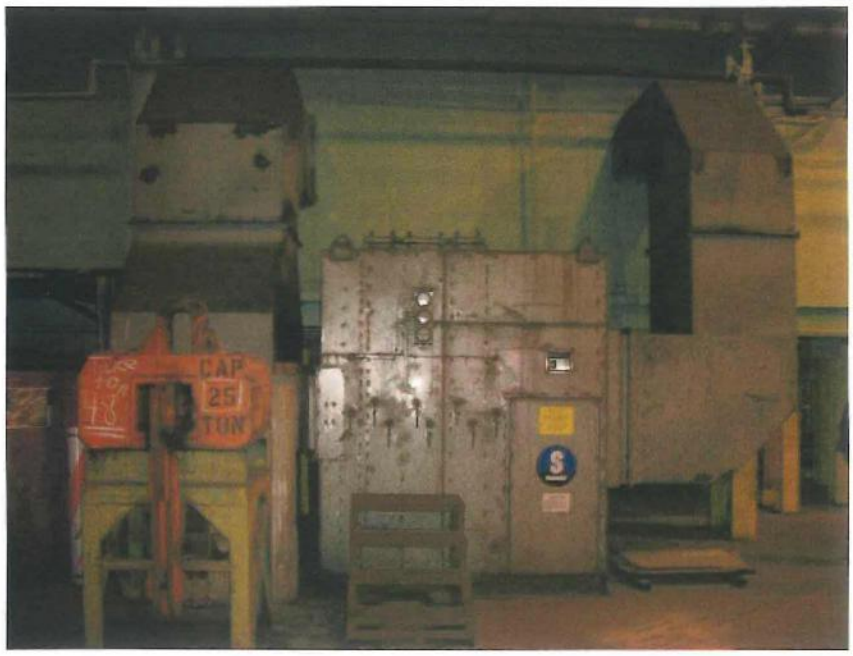
Description: Two metal totes containing plastic bags of baghouse dust (SWMU 1)

Photograph Number: 2 **Photographer:** Amy Brezin

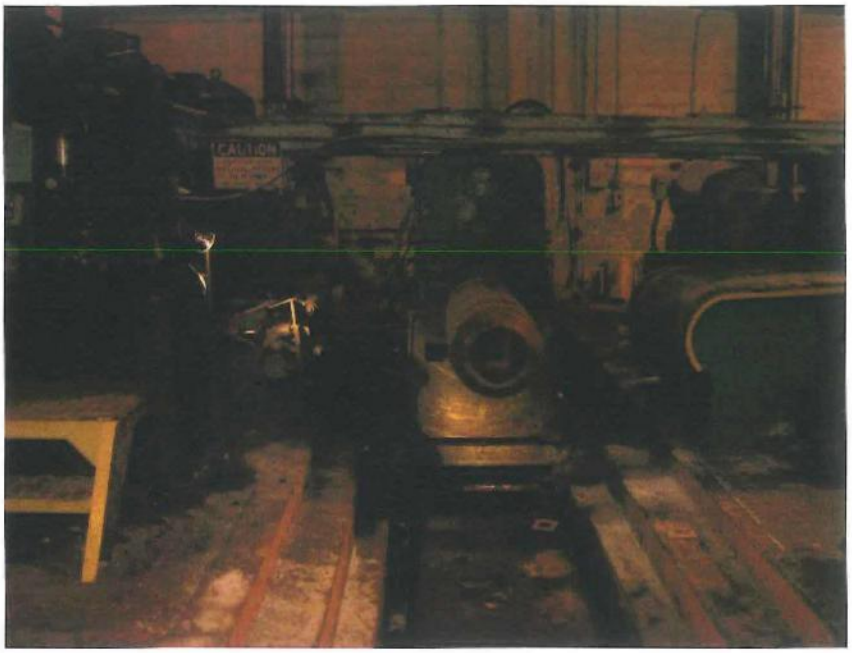
Direction: South **Date:** 03/31/2008 **Time:** 12:39

Description: Roll-off container of baghouse dust (SWMU 1) and adjacent storm drain. Note: Dust was observed on the concrete between the roll-off container and the storm drain.

Photograph Number: 3 **Photographer:** Amy Brezin
Direction: Downward **Date:** 04/01/2008 **Time:** 09:45
Description: View under a sewer grate showing Facility Underground Piping Lines (SWMU 2)



Photograph Number: 4 **Photographer:** Amy Brezin
Direction: East **Date:** 03/31/2008 **Time:** 12:56
Description: Historic Carbon Filter for Electric Room (SWMU 3)



Photograph Number: 5 **Photographer:** Amy Brezin

Direction: N/A **Date:** 03/31/2008 **Time:** 13:10

Description: Concrete Pits Beneath 48" Galvanizing Line (SWMU 4). Note: Photograph shows oil in pit.

Photograph Number: 6 **Photographer:** Amy Brezin

Direction: N/A **Date:** 03/31/2008 **Time:** 13:28

Description: Alkali Tank and Catch Basin on the 48" Galvanizing Line (SWMU 5)

Photograph Number: 7 **Photographer:** Amy Brezin
Direction: East-Northeast **Date:** 03/31/2008 **Time:** 13:46
Description: Vent Exhaust Fan on the 48" Galvanizing Line (SWMU 7)

Photograph Number: 8 **Photographer:** Amy Brezin
Direction: East **Date:** 03/31/2008 **Time:** 14:10
Description: Secondary containment below zinc chloride tank (SWMU 8)

Photograph Number: 9 **Photographer:** Amy Brezin

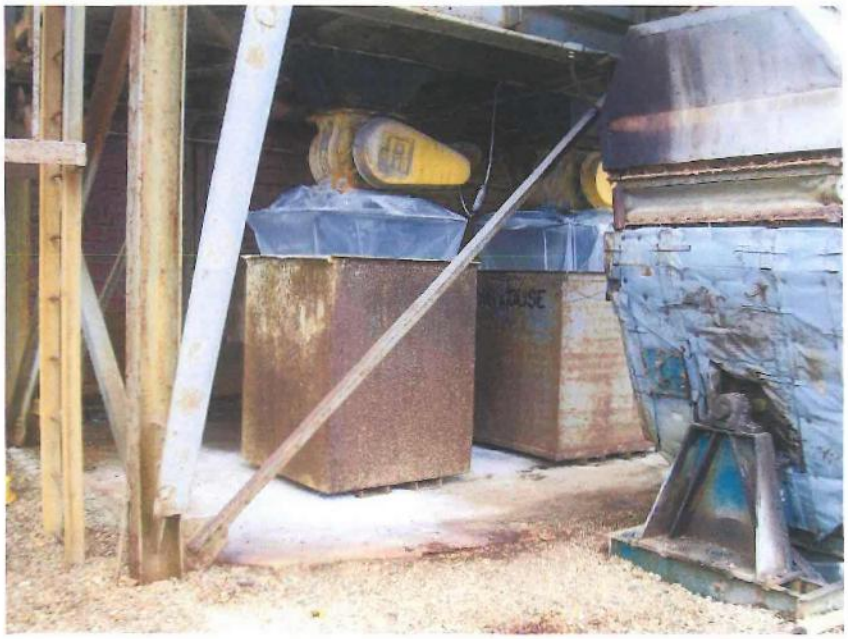
Direction: Northeast **Date:** 03/31/2008 **Time:** 14:04

Description: Yellow residuals observed on sidewalk near SWMU 8, leading toward drain to Waste Water Treatment Plant (WWTP)

Photograph Number: 10 **Photographer:** Amy Brezin

Direction: East **Date:** 03/31/2008 **Time:** 14:16

Description: Baghouse for Galvanizing Lines (SWMU 9)



Photograph Number: 11 **Photographer:** Amy Brezin

Direction: East-Southeast **Date:** 03/31/2008 **Time:** 14:11

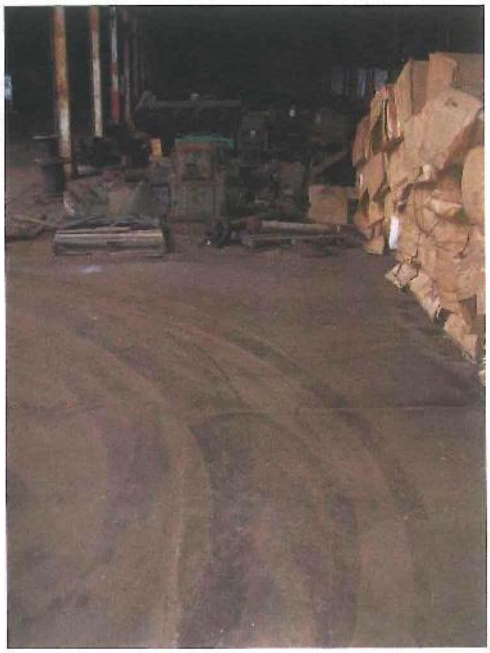
Description: Small roll-off containers that collect baghouse dust from SWMU 9 (Baghouse). Note: Baghouse dust is present on the ground surrounding the roll-off containers.

Photograph Number: 12 **Photographer:** Amy Brezin

Direction: North **Date:** 03/31/2008 **Time:** 14:36

Description: Chem Treat Waste Tote Along the 48" Galvanizing Line (SWMU 10)

Photograph Number: 13 **Photographer:** Amy Brezin
Direction: East **Date:** 03/31/2008 **Time:** 14:48
Description: Waste Paint Accumulation Area Along the 48" Galvanizing Line (SWMU 11)



Photograph Number: 14 **Photographer:** Amy Brezin
Direction: West **Date:** 03/31/2008 **Time:** 16:27
Description: Hazardous Waste Less-Than-90-Day Storage Area Located in Building 115 (SWMU 14)

Photograph Number: 15 **Photographer:** Amy Brezin

Direction: Southwest **Date:** 03/31/2008 **Time:** 13:16

Description: One of several small roll-off containers within SWMU 15, Multiple Interior Solid Waste Containers. Note: This container holds scrap metal from new coils located in Building 203.

Photograph Number: 16 **Photographer:** Amy Brezin

Direction: North **Date:** 03/31/2008 **Time:** 16:40

Description: Area where Former ARCO Scrubber Unit was located in Scrap Yard North of Plant No. 1 (SWMU 16)

Photograph Number: 17 **Photographer:** Amy Brezin
Direction: South **Date:** 03/31/2008 **Time:** 17:07
Description: 30-Foot Roll-Off Container for Asbestos Storage (SWMU 17)

Photograph Number: 18 **Photographer:** Amy Brezin
Direction: North **Date:** 03/31/2008 **Time:** 17:12
Description: Former Acid and Alkali Waste Storage Area (SWMU 18)

Photograph Number: 19 **Photographer:** Amy Brezin
Direction: East **Date:** 03/31/2008 **Time:** 00:00
Description: Used Oil Storage Area (SWMU 19)

Photograph Number: 20 **Photographer:** Amy Brezin
Direction: East-Northeast **Date:** 03/31/2008 **Time:** 17:28
Description: Additional used oil containers at SWMU 19, Used Oil Storage Area. Note: Used oil spillage and absorbent surrounding used oil containers.

Photograph Number: 21 **Photographer:** Amy Brezin

Direction: East **Date:** 03/31/2008 **Time:** 17:28

Description: Detailed view of container within SWMU 19, Used Oil Storage Area. Note: Used oil present on outside of open container, reportedly related to improper transfer operations.

Photograph Number: 22 **Photographer:** Amy Brezin

Direction: South **Date:** 03/31/2008 **Time:** 17:31

Description: View of the slope from SWMU 19, Used Oil Storage Area, toward the railroad tracks

Photograph Number: 23 **Photographer:** Amy Brezin

Direction: West **Date:** 04/01/2008 **Time:** 09:27

Description: Roll-off container located south of Building 254 that is part of SWMU 20, Multiple Exterior Solid Waste Containers. Note: Skiff to the right of the roll-off is from the 60" galvanizing line. White substance on the ground is of unknown composition.

Photograph Number: 24 **Photographer:** Amy Brezin

Direction: Southwest **Date:** 04/01/2008 **Time:** 08:25

Description: Current Acid and Alkali Waste Storage Area Located East of the WWTP (SWMU 21). Note: SWMU 21 includes four "E-Tanks" similar to the one shown here.

Photograph Number: 25 **Photographer:** Amy Brezin

Direction: North **Date:** 04/01/2008 **Time:** 08:22

Description: Greenish pooled liquid observed within SWMU 21.

Photograph Number: 26 **Photographer:** Amy Brezin

Direction: Southeast **Date:** 04/01/2008 **Time:** 09:09

Description: Concrete pad where dewatered solids from the WWTP (SMWU 22) are stored temporarily pending off-site disposal

Photograph Number: 27 **Photographer:** Amy Brezin
Direction: West **Date:** 04/01/2008 **Time:** 09:11
Description: Roll-off container for solids from the WWTP (SWMU 22)

Photograph Number: 28 **Photographer:** Amy Brezin
Direction: West **Date:** 04/01/2008 **Time:** 09:16
Description: Hydrochloric Acid Storage Area (SWMU 23)

Photograph Number: 29 **Photographer:** Amy Brezin

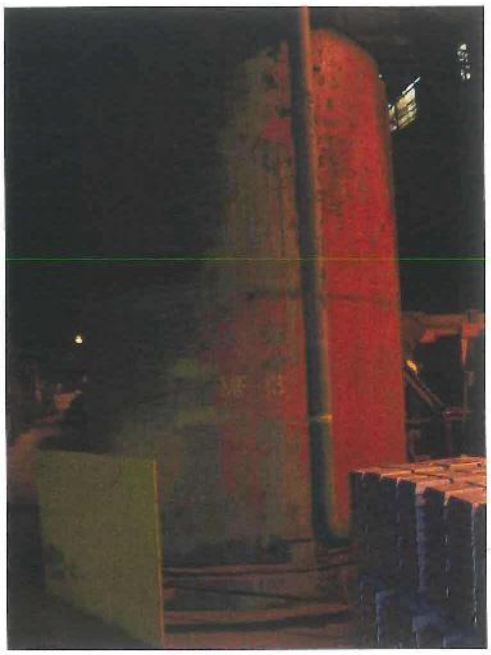
Direction: N/A **Date:** 04/01/2008 **Time:** 09:59

Description: Waste Acid and Alkali Tank Located in the Basement Underneath the 60" Galvanizing Line (SWMU 25) and surrounding area

Photograph Number: 30 **Photographer:** Amy Brezin

Direction: Downward **Date:** 04/01/2008 **Time:** 10:08

Description: Sump Located in the Basement Underneath the 60" Galvanizing Line (SWMU 26)



Photograph Number: 31 **Photographer:** Amy Brezin

Direction: North-Northeast **Date:** 04/01/2008 **Time:** 10:12

Description: Waste Acid and Alkali Holding Tank Located Along the 60" Galvanizing Line (SWMU 27)

Photograph Number: 32 **Photographer:** Amy Brezin

Direction: North **Date:** 04/01/2008 **Time:** 10:45

Description: View of water pipe exiting the cooling water tank into the Cooling Water Tank Catch Basin Along the 60" Galvanizing Line (SWMU 28)

Photograph Number: 33 **Photographer:** Amy Brezin

Direction: N/A **Date:** 04/01/2008 **Time:** 10:56

Description: Chem Treat Waste Tote Along the 60" Galvanizing Line (SWMU 29)

Photograph Number: 34 **Photographer:** Amy Brezin

Direction: East **Date:** 04/01/2008 **Time:** 10:59

Description: Waste Paint Accumulation Area Located Along the 60" Galvanizing Line (SWMU 30)

Photograph Number: 35 **Photographer:** Amy Brezin
Direction: South **Date:** 04/01/2008 **Time:** 11:26
Description: Chromic Acid Sludge from the 36" Galvanizing Line (SWMU 31)

Photograph Number: 36 **Photographer:** Amy Brezin
Direction: North **Date:** 04/01/2008 **Time:** 13:22
Description: Parts washer located in forklift repair shop (part of SWMU 32, Parts Washers)

Photograph Number: 37 **Photographer:** Amy Brezin
Direction: South **Date:** 4/01/2008 **Time:** 13:33
Description: Bags of Roll Grinding Waste (SWMU 33) over bin

Photograph Number: 38 **Photographer:** Amy Brezin
Direction: West **Date:** 04/01/2008 **Time:** 13:46
Description: Universal Waste Storage Area (SWMU 34)

Photograph Number: 39 **Photographer:** Amy Brezin

Direction: West **Date:** 03/31/2008 **Time:** 15:40

Description: Three large transformers within AOC 1 (Plant 1 Electrical Substation Transformers)

Photograph Number: 40 **Photographer:** Amy Brezin

Direction: South **Date:** 03/31/2008 **Time:** 15:43

Description: Three smaller transformers located within AOC 1, behind the transformers shown in Photograph Number 39.

Photograph Number: 41 **Photographer:** Amy Brezin

Direction: West **Date:** 03/31/2008 **Time:** 15:53

Description: Equipment Associated with the 4,000-Gallon Gasoline UST Located in the Plant 1 Area (AOC 2)

Photograph Number: 42 **Photographer:** Amy Brezin

Direction: West **Date:** 03/31/2008 **Time:** 16:01

Description: 6,000-Gallon Diesel AST Located in the Plant 1 Area (AOC 3)

Photograph Number: 43 **Photographer:** Amy Brezin

Direction: West **Date:** 03/31/2008 **Time:** 16:07

Description: Area of Groundwater Contamination Associated with Former Leaking Gasoline UST in the Plant 1 Area (AOC 4). Note: The fire hydrant indicates the approximate location of the former leaking UST.

Photograph Number: 44 **Photographer:** Amy Brezin

Direction: East **Date:** 04/01/2008 **Time:** 08:42

Description: Former Product Storage Area (AOC 5)

Photograph Number: 45 **Photographer:** Amy Brezin

Direction: South **Date:** 04/01/2008 **Time:** 08:41

Description: Coal that was apparently dumped out of a hopper onto ground within the Former Product Storage Area (AOC 5).

Photograph Number: 46 **Photographer:** Amy Brezin

Direction: East **Date:** 04/01/2008 **Time:** 14:22

Description: Leaking Transformer Adjacent to the No. 1 Fire Station (AOC 6)

Photograph Number: 47 **Photographer:** Amy Brezin

Direction: East **Date:** 04/01/2008 **Time:** 14:21

Description: Detailed view of Leaking Transformer Adjacent to the No. 1 Fire Station (AOC 6)

END OF PHOTOGRAPHIC DOCUMENTATION

ATTACHMENT 2

VISUAL SITE INSPECTION FIELD NOTES DATED MARCH 31 - APRIL 1, 2008

CONTENTS

PAGE	REFERENCE	DATE

"Rite in the Rain"®
ALL-WEATHER WRITING PAPER

ALL-WEATHER
FIELD BOOK

Name Amy Brezin
Booz Allen Hamilton
Address Wheeling Pittsburgh Steel Corp.
Martins Ferry, OH
Phone
Project 3/31/08 - 4/1/08

This book is printed on "Rite in the Rain" All-Weather Writing Paper - A unique paper created to shed water and enhance the written image. It is widely used throughout the world for recording critical field data in all kinds of weather. For best results, use a pencil or an all-weather pen.

Specifications for this book:

Page Pattern		Cover Options	
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3/31/08

11:17 AM Met up with Mike Mikulka USEPA, Mark Strohn, U.S. Marshall, John Rochotte, Ohio EPA, at Martins Ferry McDonalds. Exchanged introductions + got food.

12:00 PM Headed across the road to facility after putting on safety gear in parking lot.

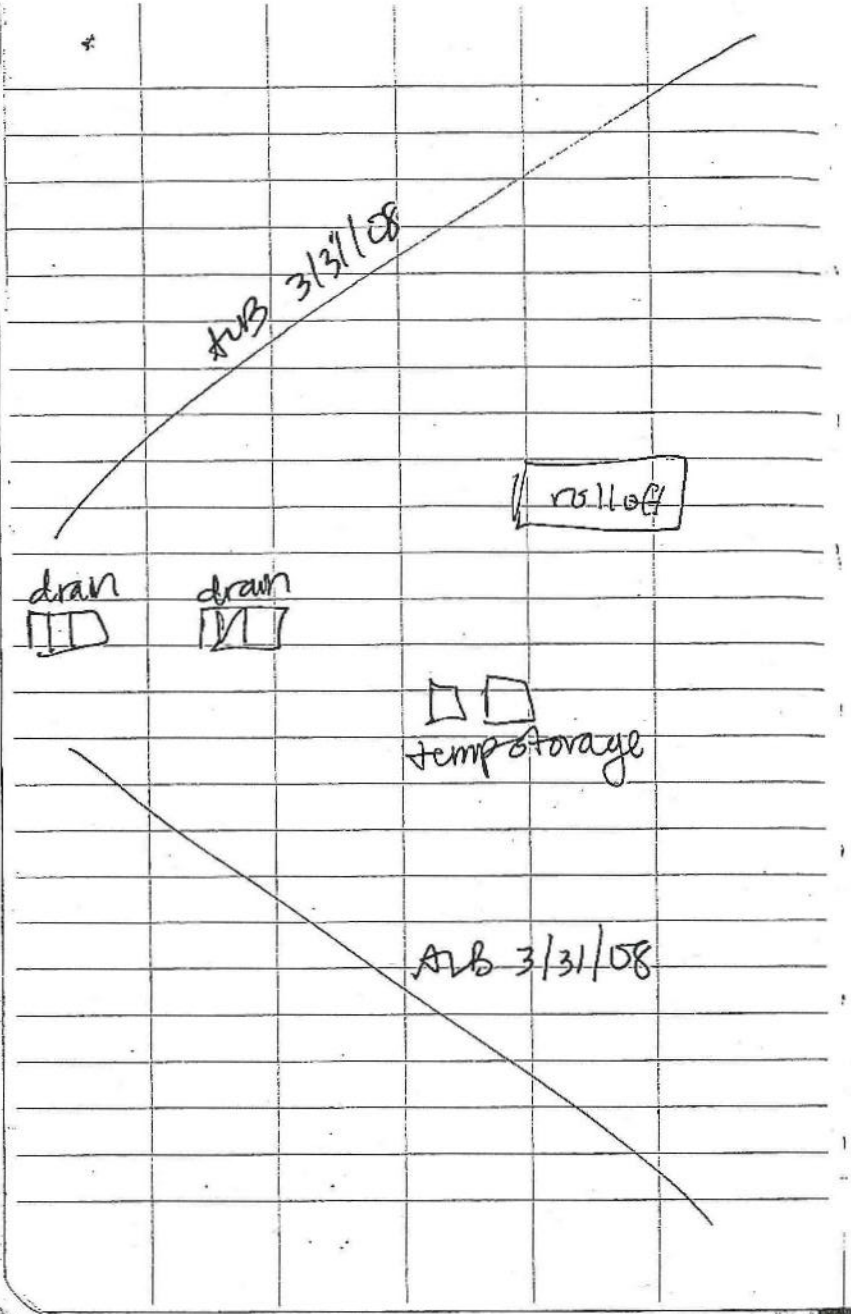
12:07 PM Arrived in parking lot. Lennon Vincent Mark served the warrant to the plant manager, he notified the environmental manager + is having the head of maintenance meet us. (Al Schell) (Bud Smith coming down from Yorkville Ken Komoroski on his way over too) area manager, ops-maint, galvanizing

Baghouse draws solvents out of galvanizing plant (fumes)

two boxes put underneath hoppers w/plastic bag + baghouse dust inside bags placed in rolloff container

AJB 3/31/08

AJB 3/31/08



rolloff container sent to
ALB ~~Norfolk~~ Landfill (non-haz waste)
via Allied Waste

photo #1 12:29 Northwest
two boxes containing plastic bags of baghouse dust

photo #2 12:30 southeast
rolloff container of baghouse dust

photo #3 12:30 SE
dust on ground adjacent to rolloff container

* request manifests, TCLP data

process has been in place since baghouse in operation (early 90s)

old AOC 4
new SWMU 1

photo #4 12:39 South
rolloff container + adjacent storm drain

drains go to WWTP (old SWMU 3)

ALB 3/31/08

All drains go to WWTP
drainage system to WWPP (new SWMU 2)
*get detailed maps from OEPA

test basins cleaned + vacuumed every yr
not inside plant, original piping

photo #5 new SWMU 2, drain from coilfield 12:47 PM north/NE

coils arrive from Yorkville after being pickled + tempered. stored inside large warehouse.

photo #6 12:48 PM south view of coils (48')
photo #7 12:48 PM S/SW another view of coils (48')

maintenance area barrels of grease located to left of entrance

new SWMU 3 historic carbon filter for electric room, put in service ~90, out of service ~95

AVB 3/31/08

AVB 3/31/08

3/31/08 ALB

not sure what

put in for filtration of control room
no filtration once taken out of service

8 ALB
photo # 8 12:56 PM east
view of carbon filtration unit
photo # 89 same
ALB

put in in 1955
48 inch coil galvanizing area
continuous processor, put on line,
shear end off, welded to each other
one after the other. 48" line is down
this week but 60" line running

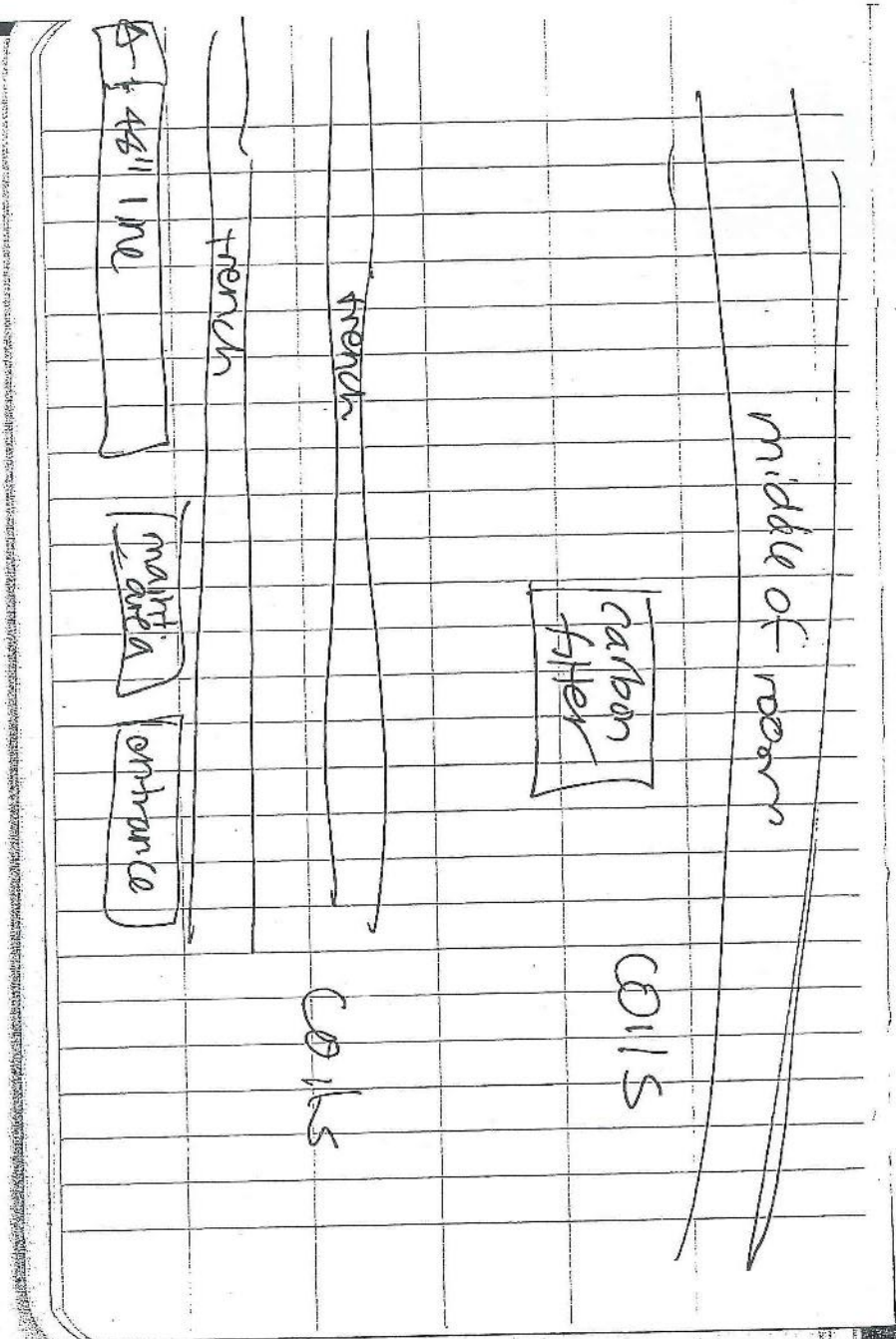
Product goes to Wheeling Corrugated to
make siding, etc. located in
Beach Bottom, WV

10 ALB
photo # 9 start of continuous 48"
line, 1:02 PM, west/SW

11 ALB
photo # 10 ~~hydraulic oil~~ virgin hydraulic oil &
containers, 4:02 PM, west/SW gear oil

new
SWMU 4, pits under 48" galvanizing
line

ALB 3/31/08



Joined by Ken Komoroski, Bud Smith (WP), Fred Mizenheider (Safety Dept)

environmental

1:10 PM Photo #11, pit in pit (SWMU 4)

several boxes alongside line for solid waste (metal bands off coils, misc. plastic, etc.)

Photo #12 (NE), 13 (SW), 14 (SW), 15 (E), 16 (AUB) 1:16 PM

SWMU 5 solid waste units AUB small roll offs containing scrap metal

Scrap metal goes to Mingo Plant

feed part of line coil into pit, goes back up

alkali dip tank takes off oils + greases w/ fume exhaust system so its easier to galvanize

sodium hydroxide tank ~1,000 gals 3-4 % solution w/ water

AUB 3/31/08

3/31/08

~10 ft long (~~28~~) catch basin
~~overflow tray~~ for alkali solution
pulled back into tank, if that overflows
it goes to WWTP

photo # ~~16~~ 17, ~~17~~ 18 ALB, 1:28 PM
picture of catch basin + trench
in front of it

SWMU #6, alkali catch basin + trench
trench ties into sewer

clean out tank solids occasionally,
bring in a rolloff pack, truck hauls it
off site to a LF (depends on pH)
☆ Al will get us LF info/manifests
for alkali tank + HCl tank
generally pH of 7-9

hit steel w/ brushes after comes
out of alkali tank
2 off alkali, 2 off acid
4 tube exhausts coming off line
(alkali processing), goes into trench
closest to line → hydrochloric acid
exhausted for steam purposes
↓ fume exhaust

ALB 3/31/08

ALB 3/31/08

photo #18 19 ALB, North, 1:43 PM
fume exhaust coming off acid wash portion of line

no air permit for this ??, ☆

pH of acid wash ?? ☆

photo #19 20 ALB, E/NE, 1:46 PM
SWMU 7 vent exhaust fan

keep adding more acid, not replaced unless it's contaminated, would go into hold system + metered into WWTP ↳ in basement
don't clean vent lines

if leak in acid wash, overflows into trench. comes out + is ready for cold water to remove acid before galvanizing

steel goes up + drops down into zinc bath (860°)

ALB 3/31/08

hoods over zinc line pulls air, dirt, dust off + into baghouse, drawn through bags in baghouse just dust remains + is disposed in SWMU 1.

photo #~~20~~ 21, AMB NW, zinc line + air duct to baghouse, 1:56 PM

1:59 PM moving to baghouse

sidewalk to baghouses ripped out, put drains in that were tied into WWTP, done in 2007

residuals coming out of stack + sticking to sidewalk (orange/yellow)

photo #~~21~~ 22, AMB 2:04 PM, residuals on ground. NE

water below (zinc ammonium chloride tank contains flux) tank is rainwater pumped to WWTP

AMB 3/31/08

AMB 3/31/08

AVB 3/31/08

SWMU 8 rainwater tank, pumped out as needed

photo #~~22~~ 23 AVB SWMU 8, NE, 2:08 PM
photo #~~23~~ 24 AVB SWMU 8, different angle, East, 2:10 PM

photo #~~24~~ 25 AVB, small roll offs containing baghouse dust that are wheelled to SWMU 1, 2:11 PM, East/SE

3 lines, each one has a galvanizing ~~line~~ hood ~~that is~~ from which particulates are transported to baghouse. It has 376 bags.

photo #~~25~~ 26 AVB, view of baghouse 2:16 PM, East

SWMU 9 Baghouse
once a year remove bags, unless they mechanically break down before that, goes to same UF as boxes

48" 60" 36" spare (no bin)

AVB 3/31/08

zinc chloride storage tank 4,000 gallons near door to outside (baghouse) - never used

strip goes thru tension leveller after galvanizing area

Chemtreat area next, apply chromic acid ("chem treat") to non-painted surfaces. If steel will be painted, it skips this process

~250 gallon chemtreat tank

haz waste collection - chromic acid filters, cleaning out equipment one satellite area, floor absorbent (used to have 2 satellite areas for each line, chemtreat + IHC, chem treat would go to roll off container) since mid-2007 now accumulated in waste tote SWMU 10 properly labeled w/ waste code (D007) + accumulation start date (2/28/08)

ALB 3/31/08

ALB 3/31/08

AUB 3/31/08

photo #~~26~~ 27 AUB, SWMU 10, facing north, 2:36 PM

photo #~~27~~ 28 AUB chromic acid tank facing NW, 2:36 PM

SWMU 10, 3'x3'x3'

historic roll off container info ?? ★ N end of plant, covered roll off near Plant 1 ↳ for soaked kitty litter

Max environmental takes tote now

Sheet is dried following chromic acid treatment by a gas-fired blower.

Strip stencler up top generates waste paint (for customer specified stenciling)

SWMU 11

photo #~~28~~ 29 AUB waste paint + thinner, waste ink + sorbent pads satellite accumulation area east, 2:48 PM

AUB 3/31/08

ALB 3/31/08

collected by Safety-Kleen
one waste paint satellite area on
48" line & one on 60" (same w/ ChemTreat)

paint cans in picture were dumped
into drum (contents) and left today

~~ammon~~ ALB 3:05 PM took break and
walked to main plant building

3:31 PM - back outside to look at
some outdoor areas

According to Fred, Martins Ferry
plant employs <200 people

walked around to lumber storage area
no process areas in there for 25 yrs
just flat sheet material sheared to size

one of a few buildings remaining
for Plant 1

transformer substation, stated to be
non-PCB but OEPA never rec'd analytics

3/31/08

3/31/08 ALB

out of service transformers on one side but others still humming

AOC 1 – Transformers raised up on blocks

photo ~~29~~ 32 ALB – 3:40 PM, facing west
AOC 1 – transformers (large)
TF – 14A, TF – 14B, TF – 14C
smaller ones out of service ALB
larger ones
TF – 7A, TF – 7B, TF – 7C
out of service

photo ~~30~~ 33 ALB 3:43 PM, facing south
AOC 1 – transformers (small)
showing leakage onto gravel

TF – 7C had been leaking + out of service during 2004 or 2005 inspection so OSPA recommended they drain the oil + they did

photo ~~31~~ 32 ALB – 3:47 PM, facing W
small transformers showing leakage

ALB 3/31/08

dust suppressant sprayed on gravel, by product from fruit production (looks to be tar-based)

1 UST, 4,000-gallon gasoline tank in service

AOC 2 — in service since ~1990

photo ~~32~~ 33 AVB, 3:52 PM, view of in-service gasoline pump (AOC 2) facing west (photo ~~33~~ 34 AVB, 3:53 PM, left of pump)

Al said they only use ~100 gal/month so they will get rid of it

spill control barrel contains absorbent etc.

diesel fuel AST - 6,000 gallons ~1990 installed

AOC 3

photo ~~#33~~ 35 AVB, 4:00 PM, west, view of AOC 3 (photo ~~#34~~ 36 AVB, 4:01 PM, same)

AVB 3/31/08

AVB 3/31/08

SWMU 12, old Plant 1 - demolished 1-2003

SWMU 12, historic chemtreat rolloff box for chemtreat waste used to be in loading dock of one of the storage buildings adjacent to Plant 1.5 <90 day storage

old UST that leaked, gasoline, monitoring groundwater for last 15 years, quarterly

AOC 4 ★ Pat Smith handles it

photo #~~34~~ 33 ARB, 4:07 PM, west AOC 4, hydrant marks spot of UST (approximate), can see two yellow monitoring wells

★ city water wells located nearby

photo #~~35~~ 38 ARB, 4:10 PM, pumphouses for city production wells, third yellow monitoring well also visible facing N/NE

ARB 3/31/08

3/31/08 ARB

Bldg 115
inside storage warehouse, historically made garbage cans here

currently used to store "whatever" rusting equipment,

SWMU 14
<90 day accumulation area, totes ~~bins~~ AJB of chemtreat
Satellite area chemtreat ~~dumped into these bins~~ AJB totes are stored in here on pallets (one per pallet)

interior, no staining or cracks on floor, but not labelled as HW storage area. Part of roof is missing, but not in vicinity of tote storage
is small, old
capacitors "contain liquid dielectric III" no PCBs (GE product)

photo #~~36~~ 39 AJB, SWMU 14, no tote currently in place, 4:27 PM facing W
~~photo #37~~ 40 AJB, Capacitors, 4:27 PM, facing N

AJB 3/31/08

AJB 3/31/08

SWMU 15, 30 ft rolloff ~~(rusu)~~ (rusting)
photo # ~~38~~ 41, 4:32 PM, facing
W/NW AJB

further north of plant 1, former
laydown yard (former SWMU 20)
WPSC doing RCRA closure for state,
taking soil samples through concrete
ARCO scrubber - lead contaminant sludge

WP will be approved fairly soon, on 2nd
round of DEPA comments, could get
out here late spring/early summer

Old rubber-lined steel + fiberglass
ductworks, had residuals of scrubber
(ARCO) system (pre-baghouse),
disposed out here, dismantled up
2001, 2

photo # ~~38~~ 42 AJB SWMU 16, 4:40 PM,
facing north, location of former
ARCO scrubber unit

AJB 3/31/08

AJB 3/31/08

back in bldg 115, 2 55-gallon drums, non-regulated liquid waste purge water from monitoring wells pumps water into small container (?) and dumps into drum

☆ Pat - waiting on analytical results? in back corner of room

"New" oil storage (product) - currently empty (east of plant across railroad tracks)

empty ALB tanks (for sodium hydroxide) stored elevated slightly sitting outside. New double-walled ones waiting for use. vendor picks up empties for reuse. No ~~product~~ waste used or ever stored out here. ALB

outside new oil storage.
historically "virgin" oil used to heat up + bubble over, some spillage outside, moved containers inside

rolloff box near WWTP stores asbestos

ALB 3/31/08

ALB 3/31/08

SWMU 17, asbestos storage roll off box. From maintenance jobs inside building - pipes, insulation.

photo # ~~39~~ 43, 5 AUB 07 PM, facing S SWMU 17.

goes to North Fork LF.

acid/alkali solids were 2 separate temporarily stored in rolloff boxes by retaining wall. Vac truck would back up to top of retaining wall to clean out tanks. That's how waste was dropped into them as well → in liners

SWMU 18 (former SWMU 11)

photo # ~~40~~ 44, 5:12 AUB PM, facing north view from above of former rolloff box storage

last used ~mid 1990s
idea that didn't work out

AUB 3/31/08

3/31/08 AUB

SWMU ~~20~~ 19 AUB Used oil Storage Area
GEM environmental takes them
hydraulic oil in 19 300-gallon totes and
~~8~~ 10 500-gallon, all full

photo #~~41~~ 45 AUB, facing east, 5:29 PM
used oil storage area (totes 300 gal)
photo #~~42~~ 46 AUB 5:26 PM, E, used oil
storage area (500 gal totes)

photo #~~43~~ 47 AUB 5:28 PM, E/NE,
more used oil containers w/
spillage-soaked kitty litter

photo #~~44~~ 48 AUB 5:28 PM, E, used
oil leaking out of open container

no storm drains in immediate vicinity,
area slopes down to single RR track,
rain would soak into gravel

photo #~~45~~ 49 AUB, 5:31 PM, S, slope from
used oil storage area to RR tracks

AUB 3/31/08

AUB 3/31/08

AJB 3/31/08

(1)

Been using area for past ~5 years
Shed w/ 3 sides corrugated steel

GEM Environmental picks up between 4000-4800 gallons total, about due for pickup, on as-needed basis sucks it into truck.

SWMU 20 solid waste roll off 30 ft to North Fork LF
located to (L) of used oil storage area.

photo # ~~46~~ 50 AJB facing south/SE
5:35 PM, SWMU 20

5:36 PM walked back to cars +
5:46 PM drove off site.

AJB 3/31/08

4/1/08 ALB

8:00 AM pulled into site parking lot. Met up with Rich Stewart, John Rochotte (OEPA), Mike Mikulka (EPA), Mark Stroh (USMS), Al Schell, Fred Misch~~hauer~~ welder (CWP Maintenance + Safety) Dave Shelton (CWP counsel)

Al told us that all the used oil tanks we saw yesterday were actually empty - picked up last Friday.

SWMU 21 Acid + Alkali residual waste

holds spent waste - whatever is cleaned out of the tanks inside 4 E tanks

greenish liquid located in front of empty E tank several puddles in tire marks.

8:22 AM, photo #~~47~~ 51 ALB facing N, greenish liquid pooled in front of E tank. photo #~~48~~ 52 ALB, close up of same.

ALB 4/1/08

ALB 4/1/08

AUB 4/1/08

photo # 49-53 AUB

8:23 AM, facing south, another puddle noted to the side of E tanks.

Al suspects it is an antifreeze leak. Trucks sit there cleaning out the tanks.

photo # 50-54 AUB AUB

8:25 AM, facing ~~WS~~ NW, view of 3 E tanks (SWMU 21)

8:25 AM, photo 55, AUB facing SW, view of 4th E tank (SWMU 21)

As needed, E-Tank company comes out to clean out tanks, not sure on disposal. In use about 2 years. Alkali + acid wastes mixed together, non-haz, pH tested. If pH was <2, it generally 5-7 would be placed somewhere else + manifested as haz waste.

8:26 AM, WP employee took a pH test of puddle, tested 10.9.

AUB 4/1/08

AOC ~~4~~ 5 AUB, Former area of leaking unlabeled totes. OEPA rec'd complaint approx 1997, viewed area + asked WP to clean it up. WP responded that they cleaned up the area, characterized everything as product, + dealt w/ it accordingly. Very little vegetation

photo ~~#52~~ AUB 56 8:41 AM, facing south, coal dumped out of hopper onto ground adjacent to AOC ~~4~~ 5 AUB

photo ~~#53~~ AUB 57, facing ~~SE~~ AUB, 8:42 AM, former "disposal"/product storage area location (AOC ~~4~~ 5) AUB

photo ~~#54~~ AUB 58, ~~West~~ East, 8:43 AM, area with spilled concrete + scrap metal adjacent to AOC ~~4~~ 5 AUB

whole area is elevated topographically onto River to East
gravel road leading up to area still in use, no grass growing

AUB 4/1/08

AUB 4/1/08

AUB 4/1/08

SWMU 22 WWTP

WWTP main line comes in from plant, comes into sump tank.
2 HCl tanks in front of bldg, added to sump to neutralize pH of alkali not used. another unused tank adjacent, sitting on top of grate

Sump tank, tested for pH
8:56 AM, photo # ~~57~~ 61 AUB, facing west
8:54 AM, photo # ~~55~~ 59 AUB, facing east
unused HCl tanks
8:54 AM, photo # ~~56~~ 60 AUB facing north
add'l unused tank (unknown)

(missed some info that Jeremy got)
3 mixing tanks above WWTP to get pH right, influent comes in before heading to clarifier.
Lime added in this step.
3rd tank receives polymer.
Clarifier - solids settle out
photo # ~~57~~ 62 AUB, facing ~~SW~~, 9:02 AM, tank on (C) is stormwater storage tank, right B equalization tank being built

AUB 4/1/08

ALB 4/1/08

clean out solids - depends - once a week, every two weeks. pump out of bottom, sludge goes into filter press conveyer belt takes it outside (takes water out of sludge)
↓ solids go to North Fork LF

Rolloffs outside are ~~wheeled into~~ near place below conveyer belt to receive solids, solids dumped to concrete, scooped into roll off

photo #~~58~~ 63 ALB 52, 9:09 AM, location where WWTP solids are dumped

photo #~~59~~ 64 ALB, 9:11 AM, west, roll offs for WWTP solids

Acid storage area 2 - 8,000 gallons HCl, secondary containment below elevated tanks, no major spills. Structure is rotting + due for replacement - engineering dept put it out for bid,

ALB 4/1/08

65 AUB
photo #~~60~~, 9:16 AM, facing west
view of SWMU 23, acid storage area

acid is gravity fed into lines (reason for elevation).

old coal-fired boilers - coal storage area (coal silo-concrete) - needs to be demolished. To west of WWTP up driveway, in front of bldg 254.

SWMU 24 - 3,000 gallon used oil tank (former)

SWMU 28 - 30 ft rolloff for solid waste (goes to North Fork)

AUB 66 facing west
photo #~~61~~, 9:25 AM, view of skiff, mud + zinc pulled up from 60' process area

no leak from skiff, white substance on concrete must have leaked from something stored there before.

AUB 4/1/08

AUB 4/1/08

ALB 4/1/08

As said zinc waste will be recycled once solid waste is pulled out. PA vendor - Horsehead Industries

photo #67 ALB, 9:27 AM, facing west, view of SWMU 25 w/skiff next not

9:43 opened up sewer grate, bottom one is acid line to WWTP, waste acid line going horizontally to basement (acid storage) top one is sewer line

9:45 AM photo #68 ALB looking down into sewer lines (SWMU 6).

9:45 AM, photo #69 ALB, same, slightly different view

SWMU 26 waste

Basement - acid/alkali tank collects what's coming off line metered to upstairs holding tank undetermined capacity

photo #70 ALB, ? direction, SWMU 26 9:58 AM

photo #71 ALB, area around base of tank, 9:59 AM ALB 4/1/08

concrete underneath base
loose rocks on top of concrete
hard to tell if tank is leaking
or not, basement floor is generally
wet, been here since early 70s

basement sumps pump anything
on floor up to holding tank
(i.e., if acid/alkali waste tank
overflows) small trench runs
alongside floor (currently full of
liquid - either alkali/acid mix
or just water), flows to sump

SUMM 27, photo #~~65~~ 71 AJB, looking
down into sump, 10:08 AM

photo #~~66~~ 72 AJB 10:09 AM, looking
down hallway w/ trench along L

SUMM 28, up stairs waste acid/
alkali tank

photo #~~67~~ 73 AJB, 10:12 AM, looking
N/NE, SUMM 28

AJB 4/1/08

AJB 4/1/08

AJB 4/1/08

travels length of line w/ blowers to cool it, then comes back before entering cold water bath

AJB 4/1/08

photo #68, 76 AJB 10:13 AM looking south, connection b/w 60" line and waste tank

60" line currently in operation

Same basic process as 48" (+ 36")
2 alkali tanks on this line
hot water rinse after alkali treatment, wastewater goes into sewer to MWTP in pipe
then acid treatment to remove iron fines.
then cold water rinse prior to galvanization.
then another cold water rinse after steel traverses ~200 ft, elevated above line.
water goes into trench along floor, to sewer (MWTP).
SWMU 29 - contact cooling water.
photo # 69, 76 AJB 10:45 AM, facing north, water coming off cooling tank chamber

AJB 4/1/08

water coming off line is very hot - steam coming off it in trench + visible in grate-covered trench leading to main sewer line

photo #~~70~~ 72 AMB, 10:48 AM, view of trench + grate South/SW

two ChemTreat tanks on line approx. one dozen product "Off Tanks" behind line. Ozemcoat #2.

photo #~~71~~ 73 AMB, 10:55 AM, product tanks behind line facing E.

SWMU 30 photo #~~72~~ 78, 10:56 AM ChemTreat (D007) satellite accumulation area

SWMU 31 waste ink + sorbent pads satellite accumulation area

photo #~~73~~ 80 AMB, 10:59 AM, facing E, SWMU 31.

AMB 4/1/08

AMB 4/1/08

4 used ink containers sitting on the floor near swill 31 to dry out.

following chemtreat, steel is coiled, tied, + ready to go. (off to be corrugated)

36" line 11:14 AM
single decoiler instead of double same basic process. line is currently idle like 48" one is. late 2007 shut down. no cleaning section on this line b/c steel has been cold finished - comes in clean. no alkali or acid, just flux prior to galvanization.
(chemtreat application is still part of process, but since its been shut down they have pumped out the chromic acid + used it on other lines.)
following galvanization, cold water rinse, then chemtreat.

ALB 4/1/08

ALB 4/1/08

AUB 4/1/08

Still sludge in chromic acid tank, will be disposed appropriately once line is "officially" shut down.

SWMU 32 36" line chromic acid sludge, 8'x6'x3' high (approx). ~~photo # 73~~, 11:26 AM AUB facing south, view into chromic acid tank sludge.

11:30 AM break for lunch.

12:55 pulled back into parking lot. Old SWMU 12 - not sure where that would be, predates Rich as well (sludge disposal area)

former DSA north of plant 1 (old SWMU) - closed by OEPA

1:16 PM Forklift repair shop large garage w/ parts washer

floor drain goes to WWTP

AUB 4/1/08

oil storage (kerosene, used oil) - no secondary containment. Safety Kleen manages parts washers from this repair shop, they also take the waste ink + paint.

(SWMU 33) parts washer in forklift repair shop.

photo # ~~74~~ 82 ALB 1:22 PM, heading north parts washer in corner of forklift repair shop

6 total parts washers across site (old SWMU 28)
(1) Machine shop
(1) Hydraulic repair shop
(1) Electric shop
(1) Boiler house
(1) Roof shop
(1) Forklift repair shop

Machine shop does repairs on any machines that need them
reclaim metal shavings

ALB 4/1/08

ALB 4/1/08

AJB 4/1/08

rubber dust + non HW goes to solid waste, anything w/ chemtreat goes in separate tote by chemtreat station (dust is from roll grinding)

Summ 34, roll grinding waste
no separate bag marked for chemtreat waste

83 AJB (for heavier stuff)
photo # ~~78~~, bags of roll grinding waste over bin, dust (dry) at bottom; (finer) facing S
1:33 PM
residuals go in regular trash (roll offs)

more to boiler house
3 ~~few~~ drums (unlabeled) near entry, Al will ask his engineer what's in them

engineer said ~~they~~ two up front contain minerals to soften water, third one is grease

fuel oil used to power diesel generators, since removed

AJB 4/1/08

universal waste area for light ballasts, mercury, batteries
old SWMU 27 safety klen picks up (wheeling)
new SWMU 35

photo #76 84 AUB, universal waste storage area, looking west 1:46 PM

solvent storage area outside, one drum at a time usually on a pallet. Currently one empty, one in use (on stand), and one extra stored on a pallet in an open shed outside. concrete looks ok, no evidence of spills, one outside shed door.

photo #77 85 AUB, east, solvent storage area, 1:51 PM

Bldg 256
Maintenance/storage area b/w forklift repair shop & shipping floor (also adjacent to end of 60' line)

AUB 4/1/08

AUB 4/1/08

WP corrugated runs WP MARINS
Ferry operation.
corrugating line - sheets are run through & creased then cut to a specific length (approx 10 ft)

Bending shop to the side
specialty roofing materials made here.

Trying to figure out about remaining SWMUs that we aren't sure about the location. SWMU 14 - asbestos waste was formerly stored in wire bins outside plant 1 - but our old SWMU 14 says Plant 2 - possibly the same area? Al says no chemtreat waste stored there to his knowledge.

2:14 PM returned to main plant conf. room.

detoured to look at leaking

AJB 4/1/08

AJB 4/1/08

AJB 4/1/08

F-1 used on 48" line
galvanizing dross - residuals from zinc plating process, sent back to vendor who recovers zinc and gives facility credit.

transformer across from main plant shop.

6 AJB
~~ARC 5~~ - leaking transformer immediately adjacent to #1 fire station, second transformer on right has dark liquid at the bottom. on pooled on concrete + goes right to drain - to WWTP.

85 AJB
photo #~~78~~, close up of leaking transformer, facing east
2:21 PM

86 AJB
photo #~~79~~ view of set of transformers. 2:22 PM, facing east.

2:37 sitting in conference room looking over documentation.
MSDS
chem coat F-1 + F-2
~~NaOH~~ AJB
Galvanizing Flux Solution
Formula 619 WYP (sodium hydroxide)
HCl
galvanizing dross

AJB 4/1/08

Requested utility drawing - sewer system + how it's routed to WWTP from A1. May have to go through Wheeling (request for maps). Requested it by 4/9, or ASAP.

requested
GW monitoring data for wells near former WST - A1 will ask Bud

Requested copies of permits (air, NPDES).

Asked a few clarifying questions from info request letter - # 21, 22, 24.

A1 will ask Bud for info, if it's available (i.e., not in Wheeling) then we may be able to get it later in the week in Yorkville.

purge analytical?
water from monitoring wells - should be managed in haz waste area

Direct formal request to Ken Komoroski (Dave Shelton asked us to do this).

ALB 4/11/08

ALB 4/11/08

ALB 4/1/08

worked out that -
nebulous requests (i.e., for info request #21, 22, 24) we will type up in a formal report.
more routine requests - e.g., manifests, GW monitoring data, AI will get in touch with Bud and try to get the info to us this week if possible.

We want to take soil samples from transformer area, Pat Smith from WPSC will observe. To be analyzed for PCBs.

3:24 moved to parking lot. Mike decided that Jeremy + I should go get ice + cooler so we can ship the samples tonight. Left site 3:27 PM.

Back on parking lot ~ 3:50. Loaded cooler with bags of ice and two sample containers. Mike took cooler to drop off at FedEx for shipment to the EPA Region 5 lab. Discussed logistics for Yorkville with Rich Stewart. Departed site 4:01 PM.

ALB 4/1/08

Received copy of chain-of-custody form for two soil samples from Mike Mikulka upon his return from FedEx at 6:10 PM.

RLB 4/1/08

RLB 4/1/08

CONTENTS

PAGE	REFERENCE	DATE

"Rite in the Rain"®
ALL-WEATHER WRITING PAPER

ALL-WEATHER FIELD BOOK

Name J. Hogard

Address

Phone

Project Martins Ferry, USI

3-31-08

This book is printed on "Rite in the Rain" All-Weather Writing Paper - A unique paper created to shed water and enhance the written image. It is widely used throughout the world for recording critical field data in all kinds of weather. For best results, use a pencil or an all-weather pen.

Specifications for this book:

Page Pattern		Cover Options	
Left Page	Right Page	Polydura Cover	Fabrikoid Cover
Columnar	1/4" Grid	Item No. 350	Item No. 350F

190 employees

3 shifts M-F

40-50 acres

Site has Security

& is fenced

Owner is

Wheeling Pittsburgh Corp.

4-1-06

1

11:19 - Met OEPA + Mike M. (EPA) at Martins Ferry McDonalds.
Also US Marshal
12:07 Arrived at Site
Warrant Served.

- AL Schell - Operations Maintenance Mgr. for Galvanization Process + Maintenance of facility.

- Lennie Vincent - Plant Mgr.

1953 is when facility began galvanizing operation.

summit - NW of facility. Immediately North of Bldg 203 is a 30' Roll off that contains bag house residue.

AOC-4 on our list. Now units AOC 4 + this unit are summit

- Approx. 3-rolloff of this ash is disposed of per week. Allied waste receives waste + then it goes to North Fork Landfill

☆ Get manifest for waste disposed of.

- Bay House has been operating since 1990's (early) which is when the waste stream began.

☆ TCLP Data for Ash.

- General Area. The concrete beneath the Rolloff is in poor condition. There are 2 storm drains in area of unit that receive any spills. + go to the waste water Treatment plant (old sumu 3)

AUB 4/1/08

4-1-08

2 additional containers that receive the ash residue beneath the bag house. One contains waste. Roll offs are open.

Sw mh 2 - The drainage system beneath facility. Captures all waste inside of plant. This drainage takes all waste to Old sw mh 3 (WWTP). The drainage system is original + put in when building was built.

First area to walk into is the 48" coil area. Containing coils that have not been treated

Sw mh 3 Historic Carbon filter for electric Room.
In Service 1990-95

AUB 4/1/08

Trench has wastewater pipe, acid pipe, air pipe for service areas, an abandoned wellwater line + conduit.
Trench is approx. 10 ft deep + 4 ft across + concrete.

Landfill 4/1/08

Filter was used to filter air coming out of electric room. Screen is a 20 X 10 box unit located inside Bldg. 203.

☆ Need more info.

started 1955

- Started at 4/8" Galv. line. Coils start continous feed. Coils are welded together. After galvanization process the coils go to wheeling corrugated. Beach Bottom to be corrugated (siding, roofing etc.)

4-1-08

All equipment that contains Hydraulic oil is removed by General Environmental Mngt. (GEM) for recyling. The oil is taken to storage area.

The sump/pit beneath this area (as in all areas) are pumped into a 300 (SWMU 4) gallon tote for storage.

SWMU 4 are pits beneath 4/8" process line. The pits are concrete and are under entire process line.

Met New WP representatives.

[signature] 4-1-08

[signature] 4-1-08

Multiple. 3x6x3 boxes
4x4x4 Metal open top box

SWMU 5 is small Roll-offs that contains metal bands from New Coils. Bands are taken to Steubenville Mingo plant & inserted into boiler. All scrap metal ~~boxes~~ boxes are taken to Mingo plant & inserted into boiler.

- New Camera

- Scrap metal also contains finds & cuts (residual metal pieces) from other process areas. Metal is cut w/ blade.

ALB 4/1/08

4-1-08

Metal Coils (sheets) after welding + shaping are inserted into a alkali dip tank. Sodium Hydroxide is the chemical used to remove oils + grease prior to being galvanized. The tank is approx. 1000 gallons. Solution is approx. 4% alkali + 96% water. Tank is 25' X 8 ft X 3.5'. There is a ~~trough~~ trench (part of SWMU 2) South of tank to receive any spills which are then pumped to WWTP. The catch basin SWMU 6

AUB 4/1/08

4-1-08

beneath tank is captured + looped back into tank.

The solution in tank is added to as needed as tank loses volume. The catch basin beneath this tank is looped back into tank. The solids are removed as needed + the solids (depending on pH) are disposed of.

☆ get manifest

~~Tank~~

☆ Request infrastructure drainage map (SewMh2)

ALB 4/1/08

After bath the sheets are scrubbed + sprayed intermittently w/ alkali to continue agitation process.

- The process line after the alkali bath has vent lines to remove steam from process. The lines run all into one main vent + into the fume exhaust fan + then passively vents into air. SUMMA 7

- ~~The~~ ~~After~~ 4 vent lines in to main before entering exhaust fan.

- The acid wash (HCL) removes the iron from the

AUB 4/1/08

AUB 4-1-08

sheet of metal
☆ pH of solution

- This solution is continuously added to as needed

After Acid bath
the sheet goes into receive cold water, to remove acid solution, and then into the fluxing agent which contains Zinc ammoniachloride. Surface is heated to seal the surface before the Zinc bath.

The zinc bath is heated to 850°. At the point where the metal sheet enters the zinc bath a vent is in place to remove the particulate that is created. ~~Pack of the~~ a This is ash seen in SWMU 1

AMB 4/11/08

SWMU 8

The Secondary Storage beneath the Zinc Chloride Tank 21 (contains flux) contains water from rain events. The water is inserted into WWTP as needed.
This unit is approx. 30' x 20' x 3'
The unit appears to be in good condition it is concrete. Dont know what bottom of basin looks like. The air stack immediately west of basin is emitting yellow droplets on ground into basin that is reportedly flux? — Going out to look at Bag house.

SWMU 9

The bag House is used to capture particulate from the 3 galvanization processes. Contains 376 bags.

4-1-08

The bags are annually removed + taken to same landfill as SWMU 9.

The bag house is approx 100' X 40' + contains 4 boxes.

48"	60"	36"	Spare Bag

House

N

- Return from bag house

~~This~~ The sheets are cooled after galvanization and then "straightened + leveled".

The Chromic Acid is applied to surfaces that will not be painted, after being cooled for protection against weather. If a surface is going to be painted it is not treated w/ chromic acid.

ALB 4/1/08

4-1-08

Jmd 4/1/08

phosphoric acid + chromium phosphate (chem treat) SWMU 10

13

At ~~Chromic Acid~~ (SWMU 10) treatment a small waste tote is located to hold any solids or floor dry that comes off the chromic acid treatment process.

⇒ The sump beneath this process ~~has gone~~ is going thru closure w/ OEPA. ~~The~~

The tote goes to temporary storage + then disposal. The tote is vinyl weave + is 3^{13}.

☆ manifest (goes to max environmental)

~~Historic~~ This tote replaced the sat. accu. areas that were in place until recently. Historically the chem treated materials were inserted into a 30' rolloff (SWMU # to be determined) that was located on North of facility. SWMU 12

AUB 4/1/08

After chromic Acid treatment the sheet is dried w/ a gas fire blower & then goes into accumulator. ~~If a~~

- Then, if a client wants the sheet to be stenciled, it is stenciled w/ customer logo or other requested stencil.
- Then the ~~roll~~ sheet is rolled for final shipping.

- SWMU 11 is located immed. South of "accumulator" from 48" line. This SWMU contains paint & ink & solvents from the stenciling process of the 48" line. The SWMU is an outlined area that is the facility concrete floor & painted. At time of inspection there was one 55 gal. drum w/ partial waste in ~~the~~ the drum.

AUB 4/1/08

[illegible] 4-1-08

The drum is taken to the hazardous waste storage area until final disposal.

☆ obtain MSDS for all products used + manifest for all waste shipped.

3:10 Break for 20 min

3:30 back to site inspection

AOC 1 - 9 transformers (substation) are located northeast of Bldg 133. OEPA reported historic releases of insulating oil. Facility never reported or confirmed PCB content.

Ground is pea gravel + rock on surface + soil beneath rock. There is staining ~~&~~ on the concrete foundations that indicates leaks have occurred.

AUB 4/1/08

- Transformers are marked w/ "NoPCB" metal stamps. (6 small).

The 3 large ~~stamps~~ transformers do not have stamps.

AOC 2

1 - 4,000 gallon tank (gas)

Tank installed in 1990. Potential spills to soil? Al Schell informed that tank is going to be closed b/c facility does not use enough fuel to warrant use.

AOC 3

1 - 6,000 gallon tank (diesel)

installed same time as gas tank. Same concern. No plan to close tank.

4-1-06

SWMU 12 - Historic "Chem Treat" Storage area.

Area was ~~at~~ taken out of use for storage in 2007. It was a 30' roll-off that contained same waste as SWMU 10. Concrete ~~floor~~ pad in good shape. Stored waste less than 90 days.

AOC 4 - UST Area

East of facility. Site contains monitor wells that are sampled quarterly.

SWMU 13 - (old SWMU 2)

plant 1. See PA/UST report located east of facility.

Plant 1 was removed in 2003

ALB 4/1/08

4-1-08

4-1-08

Bldg 115. Historical use was to make corrugated products. Now it is used to store parts + mat'rials for use.

SWMU 14

In the bldg. 115, south end, a Hazardous waste storage area (~~located~~ less than 90 days) that is used to store totes (SWMU 10). Concrete ~~pad~~ floor inside bldg 115. Floor is in good condition. One tote per pallet. Area is not listed as Haz. Waste Storage. Area just put into use in 2008.

SWMU 15

30' roll off, South of Bldg 115, that contains cardboard + plastic + metal balls. Stored on open soil + gravel.

AVB 4/1/08

These materials come from the Coils. The materials are taken to North Fork Landfill for disposal.

- SWMU 16. (old SWMU 20)
OEPA is assisting w/ closure of this area. Historically the area stored ductwork that was steel + rubber lined as well as fiberglass + rubber lined. This duct work was used to vent the APCO system + contained lead residual. Duct work was removed in 2001 or 2002. Area is asphalt paving that is cracked + in poor condition

4-1-08

4-1-08

SWMU 17 30' roll-off container that contains TSI contaminated w/ asbestos. Covered w/ plastic + located on gravel + soil. Currently in place S/C of O+M operations. Will go to North Fork Landfill for disposal

SWMU 18 (old SWMU 11)
Late 80's - Early 90's
Currently overgrown w/ vegetation. Rock/gravel base. No info. on when area was last used. ~~One~~ Contained 2 roll-offs. one for alkali waste + one for acid waste.

~~Last~~

- SWMU 19 USED OIL Storage
Stores (currently) 9/300 gal.
+ 10/500 gal. used oil
Steel boxes

AUG 4/1/08

- 1/300 gal plastic tote used oil

- 1/300 gal. plastic tote ~~R~~ used flux.

Concrete pad covered lean to. Front is open. Staining on ground w/ absorbent material. Gradient is N/NW towards RR. RR is large gravel + soil. Concrete is cracked in several places.

Area has been used to store used materials since around 2003. GEM ~~[illegible]~~ picks up waste once site has accumulated 4,000 gal. of oil.

SWMU 20. 30' Roll off that stores employee solid waste. Waste is taken to North fork Landfill for disposal.

AVG 4/1/08

[illegible] 4-1-08

5:50 Left Site

- 4-1-08: Arrived At Martins Ferry for Day 2 US I at 7:58
- Rich Stewart w/ OEPA arrived at Site.
- Dave Shelton, Counsel for WP.
- SWMU 21
  E-Tanks Storage Area.
  - 3 tanks that are 6'x8'x20'
  - 1 tank that is 6'x8'x45'

  All tanks contain spent acid + Alkaline waste from Galvanization process.

As needed, the Company E-Tank will come and vacuum the tanks for disposal.

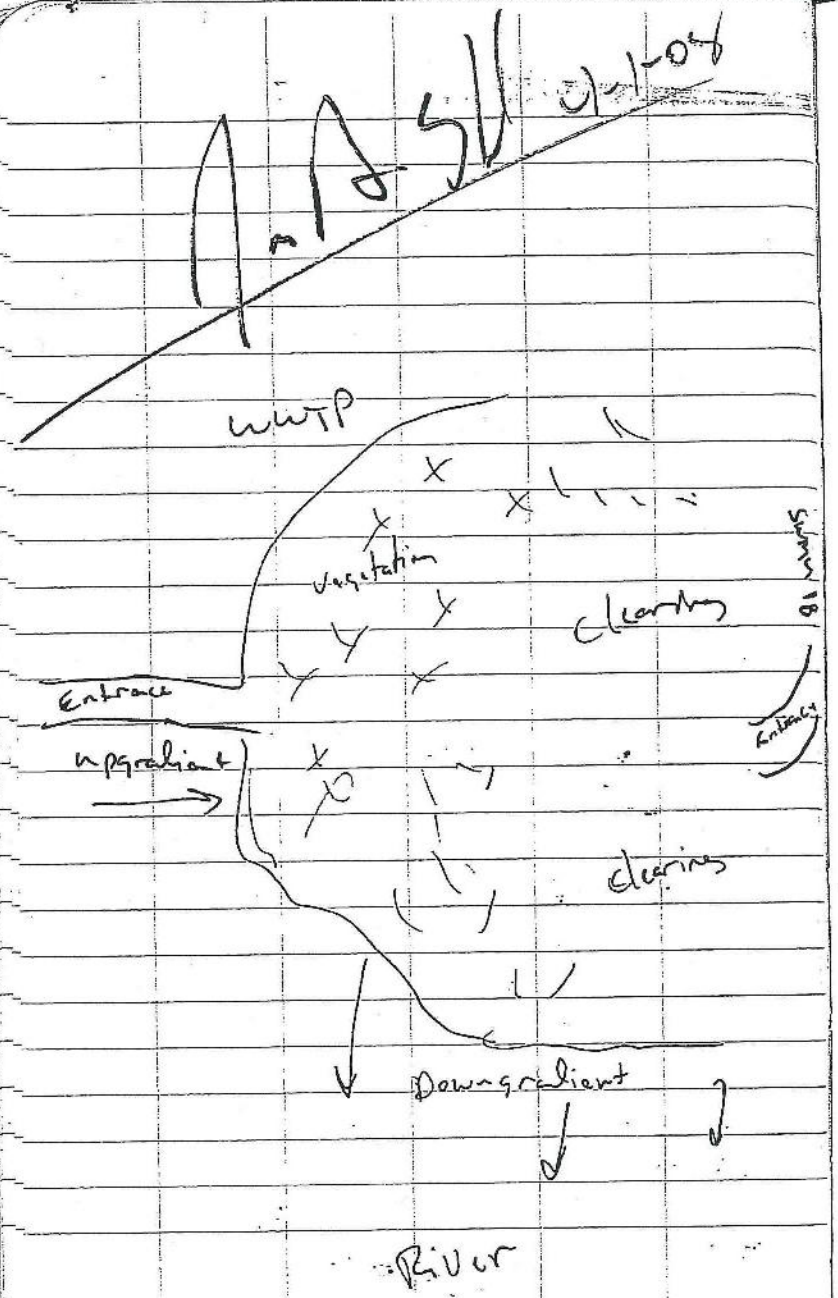
AVB 4/1/08

AVB 4/1/08

- Area has been in use for approx. 2 years.
- The ground surface is g. crushed run gravel and soil.
- ~~This~~ The waste being stored inside of the tanks has a pH of around 5-7 + is reported to be non-hazardous.
- The ground at the time of the inspection, contained several small puddles of green liquid. A WP employee sampled the pH and the result was 10.9
- The entire area is approx. 100' x 100'

AOC 4 - Representative with OEPA reported a drum storage area South of WP facility (close to SWMU 18) in 1997 during a strike. The OEPA sent an NOV to WP + the drums were removed.

MB 4/1/08



- The site is 36 yards X 45 yards

The site currently contains gravel, soil, rocky brick, other inert demolition debris.

- The site is not repurposed to be used for any purpose. The area is a hi-traffic area due to the presence of tire tracks + no vegetation.

SWMU 22 WWTP (NPDES)

Influent comes into plant sump. The pH is tested at the sump. The influent flow is approx. 350 per minute. From the sump the water goes into a series of 3 mixing tanks for pH adjustment (using lime) + then into clarifier. The 3rd tank is where the polymer flocculant is added to assist w/ solids settling.

ALB 4/1/08

polymer is KRF1420

- The solids settle in the clarifier & the water is wasted. The water is tested once more & then is wasted into River. The solids are removed as needed (1 a week) as a slurry & then onto a conveyor to dry as a cake. The cake is disposed of at the Northfork Landfill. The cake drops onto concrete pad and then loaded into 30' rolloff drums.

- There is a large Slurc tank (200,000) that receives stormwater from exterior storm drains to treat in WWTP when needed.

4-1-08

Sumn 23. Secondary Containment Structure 2/8000 gal.

HCl tanks. Concrete wall that is 5' X 30' X 30'. At time of inspection the secondary containment contained approx. 1 ft of water.

- The flux tanks (summer) + HCL tanks (sumn 23) will be replaced in 2008.
- The water is pumped + treated in facility WWTP.

Sumn 24 - Historic used oil location. Approx. tank size was 3,000 gal. Tank was removed in the late 1990's

Sumn 25 - 30' Roll off on South side of property. Contains employee waste, pallets, + solids from various processes (flour dry, zinc, mud, etc.)

AB 4/1/08

- Roll off goes to North Fork Landfill.

SWMU 26 - Waste Acid + Alkali Tank — located in basement 6,000 - 8,000 gallon tank. The waste comes off of all 3 galvanization processes. ~~The fluid is then~~ via gravity. The fluid then goes into another waste holding tank prior to being fed into WWTP. The floor is concrete covered in pea gravel + river gravel. the floor is wet w/ various puddles unable to confirm if tank is leaking? Tank is reported to be in place in the early 1970's

SWMU 28

AUB 4/1/08

All water + leaks flow down gradient to a sump in basement

Sump 27. Basement
Sump is approx. 3'x3'x3'.
It receives any spills in basement + then pumps the fluid to the waste Holding tank (sump 28). Cannot tell condition of concrete in sump.

Sump 28
Waste Acid + Alkali Holding Tank. Receives waste from sump 26 + 27. The waste is then metered into WWTP for treatment. Approx 6,000-10,000 gal. on concrete floor, in good condition. Installed in same time frame as sump 26 (early 1970's)

4-1-06

60" line is same as 48" + 36"

~~[illegible]~~ water

2 alkaline baths in the 60" process. ~~The~~ From baths the steel goes into alkaline spray + scrubbers.

The used process water from the tak bottoms is alkali + acid pumped into WWTP.

From spray + scrub the steel goes into hot water to clean the steel. From Hot water into the HCl bath to remove ~~by~~ remaining dirt or particles. There are 2 HCl baths but only one in use.

Vent lines are in place to capture the vapors ~~of~~ just like in 48" line.

AVG 4/1/08

[illegible] 4-1-08

From HCl bath into cold water rinse. From cold water rinse into direct flux tank & then heat to prepare the steel for zinc galvanization. From galvanization the steel runs 100ft vertical and then 200ft down and back to cool from air and then into a cold water quenching tank.

SWMU 29. Quenching Water Tank process water catch basin receives the ~~con~~ process cooling water & then drains it via pipe into the WWTP. The ~~drain~~ trench is an L configuration that is concrete. Approx 3ft w x 1ft d x 50'L

Cannot tell if concrete is in good condition.

AUB 4/1/08

From quenching water tank the steel is accumulated again before chem treat.

phosphoric acid and chromium phosphate are mixed to seal the steel. After chem treat the steel is rolled and ~~pack~~ stored for shipment.

SWMU 30 is same as SWMU 10. Temp. storage for the waste solids from the chem treat process.

SWMU 31 25' 60" line waste ~~20~~ X 20' Area used to store waste from 60" line (same as SWMU 11) that includes waste ink + waste absorbent pads + Area is outlined in yellow paint on concrete floor in good condition

has not been active since late 2007

36" process line. The steel is put on One decoil roller and accumulated, stretched + then into galvanization process. These rolls come in clean and are ready to be galvanized (no need to clean). Steel goes into flux bath, heated and inserted into zinc bath. Follows same process as 48" + 60".

summer 32 36" line chromic acid sludge

The chem treat bath currently contains sludge from the chromic acid application because it is inactive. Facility will dispose of waste when/if WP decides to permanently close 36" process line.

Approx. 8' x 6' x 4'.

Lunch at 11:30

ALB 4/1/08

ALB 4-1-08

1:00 Back to facility

~~SWMU 38~~ - Arrived at forklift Repair shop. contains kerosene, used oil, hydraulic oil, & other materials associated with repairs.

SWMU 33 - Parts washer in Forklift Repair shop 4'x3'x3'. Safety Klean Solvent is used in Parts washer.

Safety Klean removes the paints ink also from 2 waste storage areas on 48" + 60" lines.

There are 6 total parts washers at the property.

- Machine shop
- Hydraulic Repair shop
- Electric Shop
- Boiler House
- Roof Shop
- Forklift Repair shop.

AUB 4/1/08

- Machine Shop. This is where rolls from machines are repaired, and other machining takes place.

There is a vacuum attached to one large lathe where roller rolls are repaired or stripped. The vacuum has a cyclone to receive the particulate and then into a 3'x3'x3' open top box. This is stream 34
There are 4 bags on system. The bags + residual are bagged and put into a 30" Rolloff for disposal at Northfork Landfill.

- Boiler House
1 large boiler + 3 Package boilers
Propane is used to heat the boilers.

4-1-08

— Electric Shop

There is a 8' x 20' x 10' - sum 35 storage area in the Electric Shop that stores universal waste that includes Batteries, Mercury switches, lamps, ballasts, etc. Safety Kleen receives waste as needed. 2001 - present

Building 256 / Shipping Floor product is packaged + shipped to customers.

Roof House (operated by wheeling Corrugated)

3 Roll Machines + Coil storage. Coils are cut and shaped per customer specifications for roofs + siding.

[signature] 4-1-08

[signature] 4-1-08

Bending Room for Metal fabrication (Shaping & bending).

- North Transformer AOC 5 (TF5) immediately adjacent to No. 1 Fire Station.

The concrete & soil are stained with oil leaking from transformer. Also, the drain in front of X-former (North) is receiving the oil. This drain reportedly flows into WWTP. A sign posted indicates that the capacity is 1790 gallons.

- The solids floating on top of the zinc baths is called dross. This dross is sent back to Horsehead for recycling.

ALB 4/1/08

11-1-06

Exited conference room after discussing documents requested to go sample PCB area

- EPA Requested that Amy & I go buy a cooler & ice for PCB samples.

- 4:00 Leave Martins Ferry

END OF NOTES

[illegible] 1-1-06

[illegible] 1-1-06

ATTACHMENT 3

SOLID WASTES GENERATED AT THE WPSC MARTINS FERRY PLANT

Attachment 3

Wheeling Pittsburgh Steel
Martins Ferry Plant
Solid Wastes Generated

Waste	Generating Process	Location Collected
Hazardous		
Chem-treat Waste	Galvanizing Lines, maintenance and cleaning of chemtreat sections	Each galvanizing line (to 1 CY bags)
Ink Sludge	Recycling of Solvent from Brander Units at 48-in and 60-in Galv lines	48-in and 60-in Brander Sections
Maintenance Painting Wastes	Intermittent painting of plant and equipment	Paint House
Non-hazardous		
Galvanizing Cleanup Sludge	Cleanups of Alkali, Flux, and Rinse sections of Galv Lines	Containers north of WWTP
Galvanizing Baghouse Dust	Galvanizing Lines, zinc pot dust (all three)	Baghouse modules (all four)
Rubber Roll Grindings	Grinding of rubber rolls	Machine Shop
Wastewater Treatment Plant Sludge	Galvanizing Lines, wastewater from strip rinsing	Wastewater Treatment Plant

Att #3

ATTACHMENT 4

SPILL HISTORY AT THE WPSC MARTINS FERRY PLANT

WPS MARTINS FERRY PLANT
SPILL HISTORY

Date	Incident	Comments
7/24/00	MPW vac truck was unloading into the WWTP holding tank and spilled approx. 1000 gallons of soap/oil water from 60" entry cleanup. Had MPW clean up entire area and contaminated soils.	No RQ
1/9/01	Forklift dropped 320 gal tote of Oakite F2 chromic acid product on roadway to oil house. Entire contents spilled onto pavement, and 5 gallons reached soil. Vac truck cleaned up area.	No RQ
4/18/01	OEPA arrived at plant to investigate complaint about baghouse dust on road.	No release
11/14/01	Quaker Chemical tote 1743, LC00157 at SE corner of oil house was dripping liquid onto asphalt	No release
1/14/03	Mercury spill (est. 3 lbs) in Storeroom, believed related to Dec 2002 fire. No release to the environment. Cleaned up by Weavertown on 1/16.	No release
3/21/05	Spill of Tectyl SG liquid to public road between WWTP and main plant. No release to environment. Cleaned up with floor dry for disposal.	No release
9/19/07	Diesel fuel was spilled to the dust suppressed soil near the truck scale when a non-WPSC truck drove off the scale and punctured his fuel tank on a support. Est. 35 gallons was spilled, and cleaned up by plant forces. OEPA was notified, since the Ohio RQ of 25 gallons was exceeded. Belmont county EMA was on-site to observe the incident.	RQ Release

Att #13