TETRA TECH EC, INC.

August 17, 2010

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Region III
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SUBJECT: FINAL RCRA CORRECTIVE ACTION SITE VISIT REPORT
USACE CONTRACT NO. W912DQ-08-D-0019
TASK ORDER NO. 005A

Please find enclosed one paper copy and one electronic copy on CD Rom of the Final RCRA Site Visit Report for the following facility:

Genovique Specialties Corporation Facility
EPA ID No. MDD 001 890 060
10380 Worton Road
Chestertown, Maryland 21620

Please contact me at (215) 702-4003 with any questions or concerns.

Sincerely,

Roxanne Clarke

Roxanne Clarke
TtEC Project Manager

Enclosures

cc: Mr. Ed Hammerberg (MDE)
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United States Environmental Protection Agency, Region III
Corrective Action Program

Final RCRA Site Visit Report

Genovique Specialties Corporation Facility
EPA ID No. MDD 001 890 060
10380 Worton Road
Chestertown, Maryland 21620

Prepared for:

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August 17, 2010

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8/17/10
Date

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RCRA SITE VISIT REPORT
Genovique Specialties Corporation
EPA ID # MDD 001 890 060
10380 Worton Road
Chestertown, Maryland 21620

1.0 PURPOSE

The purpose of this RCRA Site Visit Report is to consolidate relevant information for the Genovique Specialties Corporation (Genovique) facility associated with United States Environmental Protection Agency (USEPA) ID Number MDD 001 890 060. This information will be used to augment the existing facility information.

2.0 DOCUMENTATION REVIEW

Mr. Jonathan Dziekan and Mr. Brad Baillargeon of Tetra Tech EC, Inc. (TtEC) reviewed documents at the Maryland Department of the Environment (MDE) Office in Baltimore, Maryland on February 22, 23, and 24, and March 16, 17 and 18, 2010. A similar file review was conducted by Mr. Dziekan and Mr. Baillargeon at the USEPA Region III, Philadelphia Office on January 27 and 28, 2010. The purpose of these reviews was to identify known Areas of Concern (AOCs) and Solid Waste Management Units (SWMUs) at the Genovique facility prior to conducting a site visit.

3.0 SITE VISIT

An on site meeting and a site visit were conducted on June 3, 2010 to discuss the Genovique facility located at 10380 Worton Road, in Kent County, Chestertown, Maryland. A list of attendees at that site visit is as follows:

Name	Company/Agency	Telephone Number	E-mail Address
Jonathan Dziekan	TtEC	215-702-4023	Jonathan.Dziekan@tetratech.com
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4.0 MEETING SUMMARY

The meeting began at 11:00AM EST on June 3, 2010 at the Genovique facility. Mr. Denis Zielinski, USEPA Region III RCRA Project Manager, opened the meeting by reviewing the purpose and anticipated outcomes of the visit and the Resource Conservation and Recovery Act (RCRA) Corrective Action Program. Mr. Zielinski presented the facility with information regarding USEPA Region III's Corrective Action process, the Environmental Indicator Assessment Program, 20/20 Vision, the Facility Lead Program, and the policy driving this program.

Under this investigation, USEPA Region III is focusing on two interim Environmental Indicators to evaluate whether any unacceptable risk to human health and the environment is ongoing at the facility. The two indicators are determining if human exposures are controlled and if groundwater releases are controlled.

The Facility Lead Program, as described by Mr. Zielinski, allows facilities under RCRA Corrective Action to proactively implement measures that resolve Corrective Action Items without a Corrective Action Order or Permit. The Facility Lead Program eliminates administrative burdens and expedites the resolution of Corrective Action Items.

Ms. Joanne Szymanski of Genovique provided a brief description of facility activities and corrective actions, and then led a tour of the facility during which she answered questions regarding specific facility features. Photographs of the AOCs and SWMUs identified at the facility during the site visit were taken by TtEC and are included as Appendix A of this report.

5.0 LOCATION, SUMMARY OF OPERATIONAL AND MANAGEMENT HISTORY, AND DESCRIPTION OF WASTES GENERATED AT THE FACILITY

The Genovique facility is located at 10380 Worton Road, in Chestertown, Kent County, Maryland. Figure 1 found in Appendix B of this report provides the Site Location Map and Figure 2 found in Appendix B of this report provides the Site Layout Map. The facility is located in a mostly residential and agricultural area with some other commercial properties in the surrounding area.

The site began operations in 1959 by the Lehigh Chemical Company. In 1966, Tenneco Chemicals, Inc. purchased this site including all assets. In 1982, this plant, as well as the rest of Tenneco Chemicals, Inc. was purchased by the managers of Tenneco Chemicals and became known as Nuodex, Inc. In 1985, Nuodex, Inc. was acquired by and became an operating division of Hüls-America, Inc. In 1988, Nuodex merged with Hüls-America, Inc. On December 17, 1994, Velsicol Chemical Corporation acquired the manufacturing facility from Hüls-America, Inc. (now Evonik). In 2005, Arsenal Capital Partners purchased the site but retained the same name. In 2008, the name of the facility changed from Velsicol Chemical Corporation to Genovique Specialties Corporation. The site became a fully owned subsidiary of Eastman Chemical Corporation on April 30, 2010.

Hüls-America, Inc. (Hüls) manufactured monomeric and polymeric plasticizers used in colorants and coatings. In addition, Hüls manufactured synthetic lubricating oils and greases. Some liquid residues from the manufacturing operations were classified as liquid hazardous waste due to ignitability characteristic (RCRA waste). These hazardous wastes were also referred to as waste light ends (WLE). This material was burned in any one of three hot oil units and one steam boiler. WLE was transferred from the manufacturing operations to a storage tank area that subsequently fed the three hot oil units and a steam boiler. The tank area consisted of a horizontal 16,000-gallon aboveground storage tank (AST) (Tank #339) a vertical 12,000-gallon AST (Tank #324) and a 6,000-gallon emergency AST (Tank #321).

The facility also manufactured synthetic lubricants until 1998 when Velsicol Chemical Corporation sold that part of the business. Genovique manufactures specialty esters which are used as plasticizers. The operating facility consists of approximately 30 acres, including two small properties across the street, and employs approximately 43 people for 24/7 operations. The facility consists of an esterification plant, a wastewater treatment system (WWTS), boiler house and tank farms.

During the June 3, 2010 Site Visit, the facility representatives indicated that the nearby town of Worton supplies water to most residents, but there are some nearby residential drinking wells in the shallow aquifer. The facility provides bottled drinking water to its employees due to lead connections in the pipes.

In January 2001, USEPA Region III requested a Part B hazardous waste management permit application be submitted by Velsicol Chemical Corporation for their Boiler Industrial Furnace (BIF) units. The facility did not pursue the Part B permit but instead, chose to perform final closure of the BIF units as an operating interim status facility. The units would then continue to operate using the comparable fuels exclusion or No. 6 fuel oil after closure as an interim status facility.

In 2001, USEPA Region III approved Velsicol's Closure Plan for the hazardous waste burning operations (BIF) at the Chestertown Plant which had been operating under interim status. December 20, 2002 documentation from Velsicol certifies closure of the hazardous BIF units. The facility continued to operate the three hot oil units and steam boiler using comparable fuel as described in Code of Maryland Regulations (COMAR) 26.13.02 or #6 Fuel Oil. The comparable fuels include SMF (self-manufactured fuel) and WCF (waste combustible fuel).

The facility operates as a synthetic minor source under state operating permit No. 029-00001.

The facility operates under a National Pollutant Discharge Elimination System (NPDES) permit that covers two outfalls; the treated water from the WWTS and the stormwater, both of which are discharged to the receiving pond across the street. Surface impoundments used as part of the WWTS were taken out of service between 1987 and 1995. Remediation activities are documented in the Closure Reports submitted by Degussa (formerly Hüls) to the MDE. Closure activities included the removal of impacted soil from these surface impoundments by Degussa between 2001 and 2004.

Surface impoundments used for secondary settling of biosolids and storage of dilution water were removed from service in 2008 and 2009.

In 2008, the facility entered into a Consent Decree with MDE that sets forth activities to be conducted at the facility to assure its operation continues to be protective of human health and the environment.

Numerous minor releases have occurred on-site, but were cleaned immediately. Some of these are mentioned in the sections below.

5.1 Area Geology and Hydrogeology

The facility lies within the Atlantic Coastal Plain physiographic province. This province is underlain by unconsolidated clastic sediments of Lower Cretaceous to recent age, which thicken to the southeast so that they appear wedge-shaped. These sediments crop out in a concentric band that lies parallel to the Fall Line, which marks the western boundary of the Coastal Plain. The facility wells pump water from the Monmouth Formation, which is a confined Coastal Plain aquifer. At this location, the Monmouth is a confined aquifer with the top of the aquifer approximately 30 feet below sea level and bottom approximately 105 feet below sea level. The Monmouth aquifer is fine to medium grained glauconitic quartz sand with clayey layers and calcareous beds. The sandy intervals are light olive-gray, and the clayey layers are medium to dark greenish gray.

5.2 Wastes Generated at the Facility

Documentation from August 11, 1980 indicates that Tenneco Chemicals generated U190 Commercial Chemical Hazardous Waste and Corrosive D002 Non-Listed Hazardous Waste.

As of 1986 six types of waste were generated, including raw wastewater, waste organics, biological sludge, API separator sludge, non-hazardous filter cake, and hazardous filter cake.

According to facility representatives during the June 3, 2010 RCRA Site Visit, wastes generated currently include the following hazardous wastes:

- Spent solvents from the lab (D001, F003, F005)
- Self-manufactured fuel from Building 11 (D001, F003, F005)
- Toluene waste (D001)
- Phthalic anhydride (U190) from storage tank sublimation box and cleaning
- Phthalate ester filter cake (MD01) and API separator sludge (MD01)

Nonhazardous wastes generated by the facility include filter cake and process water that cannot be treated in the WWTS.

6.0 DESCRIPTION OF AOCs AND SWMUs

Solid Waste Management Units (SWMUs) and Areas of Concern (AOCs)

6.1 SWMU No. 1 – Former Sludge Drying Area in Southeast Corner

This area was located near the southeastern corner of the property. The unit consisted of 3 beds, and was removed from service in 2004. The dried biosolids from the 3 beds were removed and disposed off-site between 2004 and 2008.

Photograph 1 shows the condition of SWMU No. 1 at the time of the June 3, 2010 Site Visit.

6.2 SWMU No. 2 – Former Sludge Drying Area in Southwest Corner, formerly Impoundments 317 and 317A

This area was located on the southwestern corner of the property. The area was originally impoundment 317A and 317 for the WWTS, but was closed and remediated in 2001 and 2002. Impoundment 317 was used as a wastewater equalization basin prior to biological treatment in Impoundments 308, 309, and 310. Between October and December 2001, approximately 1,100 cubic yards (approximately 1,547 tons) of soil and sediment were removed for disposal from Impoundment 317A. Between August and November 2002, approximately 1,907 tons of impacted sediment/soil was removed from Impoundment 317. The remediation activities and post-excavation sampling results were documented in the *Final Closure Report For Impoundment* 317A, by URS, dated June 28, 2002 and the *Closure Report, Impoundment 317*, by URS, dated March 25, 2003. After approval from MDE, the area was used for sludge drying operations between 2004 and 2008. The use of this area for placement of biosolids for drying purposes was discontinued on October 31, 2008, in accordance with the requirements of the Consent Decree. The biosolids from this area were removed for disposal in August 2009.

Photograph 2 shows the condition of SWMU No. 2 at the time of the June 3, 2010 Site Visit.

6.3 SWMU No. 3 – Sludge Roll-off

This 30 yard roll-off container stores nonhazardous sludge, which is taken off-site approximately twice per week. This unit has been in place since June 2009. When in use the unit is normally spotted at the WWTS centrifuge.

A release from this unit is detailed in AOC No. 2. The release occurred in another area, north of T-326, while a driver was trying to load the roll-off onto a truck for removal from plant grounds.

Photograph 3 shows the condition of SWMU No. 3 at the time of the June 3, 2010 Site Visit.

6.4 SWMU No. 4 – Filter Cake Roll-offs

The Filter Cake Roll-offs are located on a containment pad south of Building 10. Historically, phthalate ester filter cake and nonhazardous filter cake were combined. The two types of filter cakes are now separated into these two 30-yard roll-offs.

Photograph 4 shows the condition of SWMU No. 4 at the time of the June 3, 2010 Site Visit.

No evidence of a spill or release was found during the RCRA Site Visit or in files reviewed at MDE or USEPA Region III offices. Site representatives are unaware of any spills or releases from this unit and had no information regarding any spills or releases in their files.

6.5 SWMU No. 5 – Hazardous Waste Storage Area

This area, also known as Pad 25, is used for 90-day storage of hazardous waste stored in drums, totes, and 5-gallon buckets. The area consists of an outdoor contained concrete area with a drain that can be either opened to release surface water or diverted to the WWTS. The Hazardous Waste Storage Area is located approximately 100 feet south of the main process building, north of Building 25.

In September 2009, a one time release of less than one gallon of 6534 toluene strippings from a tote was reported, but it was contained and immediately cleaned up.

Photograph 5 shows the condition of SWMU No. 5 at the time of the June 3, 2010 Site Visit.

6.6 SWMU No. 6 – Satellite Accumulation Areas

Four satellite accumulation areas are located throughout the site. These are located in building 11, near the 200-series truck loading area, in the process area lab, and in the Quality Assurance Lab (QA Lab).

Photograph 6 shows the condition of SWMU No. 6 at the time of the June 3, 2010 Site Visit.

No evidence of a spill or release was found during the RCRA Site Visit or in files reviewed at MDE or USEPA Region III offices. Site representatives are unaware of any spills or releases from this unit and had no information regarding any spills or releases in their files.

6.7 SWMU No. 7 – Safety-Kleen Parts Cleaners

The facility operates 2 parts cleaners; one in Building 3 and one in Building 11. The units are serviced by Safety-Kleen when necessary.

Photograph 7 shows the condition of SWMU No. 7 at the time of the June 3, 2010 Site Visit.

No evidence of a spill or release was found during the RCRA Site Visit or in files reviewed at MDE or USEPA Region III offices. Site representatives are unaware of any spills or releases from this unit and had no information regarding any spills or releases in their files.

6.8 SWMU No. 8 – Trash Compactor

This hydraulic trash compacting unit stores nonhazardous plant refuse, paper, and garbage. The Trash Compactor is located south of building 10.

Photograph 8 shows the condition of SWMU No. 8 at the time of the June 3, 2010 Site Visit.

No evidence of a spill or release was found during the RCRA Site Visit or in files reviewed at MDE or USEPA Region III offices. Site representatives are unaware of any spills or releases from this unit and had no information regarding any spills or releases in their files.

6.9 SWMU No. 9 – Universal Waste Areas

These units are located in the QA Lab, maintenance storage area, and Operations Support office area. Used batteries and light bulbs are stored in cardboard boxes before being shipped off-site for recycling.

Photographs 9 and 10 show the condition of SWMU No. 9 at the time of the June 3, 2010 Site Visit.

No evidence of a spill or release was found during the RCRA Site Visit or in files reviewed at MDE or USEPA Region III offices. Site representatives are unaware of any spills or releases from this unit and had no information regarding any spills or releases in their files.

6.10 SWMU No. 10 – Former Wastewater Treatment Lagoons and Impoundments, Settling Ponds 313/315, and Dilution Water Pond 316

Former Wastewater Treatment Impoundments

The former wastewater treatment impoundments, also known as areas 308, 309, 310 and 314, were part of the WWTS and were located in the northwest area of the plant. Impoundments 308, 309, and 310 were part of the aerated biological treatment system. Impoundment 314 was used as a wastewater equalization basin prior to biological treatment in Impoundments 308, 309, and 310. In 1990, a groundwater recovery and treatment system (GWTS) was installed as part of the Impoundment 314 closure activities. This water was then pumped to the on-site biological wastewater treatment system. In 2003 the GWTS was removed to initiate closure of Impoundments 308 and 314, since the treatment system was located in an area to be excavated during the impoundment closure activities. Between July 2003 and August 2004, remediation activities were implemented within the Impoundment 308 and 314 areas, which included the excavation of approximately 2,739 tons of impacted material to a total depth of approximately 9 to 10 feet below ground surface (bgs) and up to 3 to 4 feet below the groundwater table in Impoundments 308 and 314. Remediation activities were documented in the *Closure Report, Impoundments 308, 309, 310 & 314*, by GZA, dated January 15, 2007 submitted to the MDE on

January 18, 2007. The primary objective of these remediation activities was to remove potential source material to groundwater.

Settling Ponds 313/315

Impoundments 313/315 were unlined basins historically used as part of the Chestertown facility's wastewater treatment system for secondary settling of biosolids. From 1991 to April 2008, these basins were used for the storage of treated wastewater requiring additional solids settling whenever total suspended solids (TSS) exceeded internal set points as measured with an on-line TSS meter. In August 2007, accumulated solids were removed from Impoundment 315.

Dilution Water Pond 316

Pond 316 was used for storage of dilution water. Dilution water is used to reduce the biological oxygen demand (BOD) in the bioreactor influent. Dilution water is generated by the on-site production water wells, water from Impoundment 313 and storm water run-off from the biosolids plots, backwash from water softeners and sand filters, boiler, heat sink and cooling tower water blow-down, condensate from fire unit fuel heaters, and deaerator pressure safety valves. Storage of dilution water in Pond 316 was terminated in June 2009.

This unit is located adjacent to Secondary WWTS, northwest area of the plant.

Photograph 11 shows the condition of SWMU No. 10 at the time of the June 3, 2010 Site Visit.

6.11 SWMU No. 11 – Wastewater Treatment System

This system has been used to treat process wastewater since the late 1960s. The effluent from the system is discharged to the pond across the street.

Photograph 12 shows the condition of SWMU No. 11 at the time of the June 3, 2010 Site Visit.

6.12 SWMU No. 12 – Former Separation Pond, Fire Pond 307

This area was formerly used as the separation pond for the WWTS. It was converted to a storage reservoir for the plant's fire protection system in 1968. It is currently replenished, as needed, with well water.

Historically, groundwater monitoring results have identified benzene, toluene, and Bis 2-Ethylhexyl phthalate (BEHP) as the primary contaminants of concern (COCs) within this area. Although the groundwater has been minimally impacted, Evonik evaluated several groundwater remediation alternatives including groundwater recovery and treatment and in situ bioremediation. In accordance with the *Groundwater Remedial Action Plan (RAP)*, by GZA GeoEnvironmental, Inc. (GZA), dated April 25, 2005 which was submitted to the MDE, Evonik proposed injection of an oxygen releasing compound (i.e., Regenesis ORC®-Advanced) along two barriers to support aerobic biodegradation of the COCs.

In accordance with the *Groundwater Remedial Action Plan (RAP)*, by GZA, dated April 25, 2005, Evonik performed a baseline groundwater assessment on April 21, 2005. Between

November 14 and November 16, 2005, a total of 31 injection points were installed along two barriers, allowing a relatively uniform dispersion of 1,050 pounds of ORC into the shallow aquifer (approximately 33 pounds per ORC injection point). Remediation activities were documented in the *Fire Pond Area Groundwater Remedial Action Report (RAR)*, by GZA, dated January 16, 2007 and submitted to the MDE on January 18, 2007.

Quarterly groundwater sampling and closure of groundwater impacts within the Fire Pond area were documented in the *Fire Pond Area Closure Report*, prepared by URS, dated October 2, 2007 and submitted to the MDE on October 8, 2007.

Photograph 13 shows the condition of SWMU No. 12 at the time of the June 3, 2010 Site Visit.

6.13 AOC No. 1 – Groundwater Contamination

The source of this contamination was determined to be Impoundment 314. Source material has been removed and soil has been remediated to below the groundwater table. Groundwater samples collected from MW-12 and MW-19 contain detected concentrations of benzene, toluene, and BEHP exceeding Maximum Contaminant Levels (MCLs); however sample results from nearby monitoring wells indicate that these groundwater impacts are localized.

During remediation activities, the excavation proceeded to several feet below the groundwater table; thus, bottom samples were not collected. Results from this remedial action are documented in the *Closure Report, Impoundments 308, 309, 310 & 314*, prepared by GZA, dated January 15, 2007 and submitted to the MDE.

The asset sales agreement between Velsicol (now Genovique) and Hüls-America (now Evonik) required Hüls-America to retain the environmental liability for impacted soils and groundwater identified at the site during the 1994 Baseline Environmental Investigation.

Photograph 14 shows the condition of AOC No. 1 at the time of the June 3, 2010 Site Visit.

6.14 AOC No. 2 – Sludge Roll-off Spill

In May 2010, SWMU No. 4 was tipped over during transportation. The non-hazardous sludge spill was cleaned up immediately. This area is located immediately west of Building 11. Facility representatives indicated that there was no hazardous waste released to the environment.

Photograph 15 shows the condition of AOC No. 2 at the time of the June 3, 2010 Site Visit.

6.15 AOC No. 3 – Heat Transfer Fluid Spill

In April 2010, approximately 10 gallons of heat transfer fluid was released due to an overflow event. The spill was cleaned up immediately, but staining was visible during the June 3, 2010 RCRA Site Visit. This area is located outside, north of Building 11. Facility representatives indicated that there was no hazardous waste released to the environment.

Photograph 16 shows the condition of AOC No. 3 at the time of the June 3, 2010 Site Visit.

6.16 AOC No. 4 – Benzoic Acid Release

In July 2008, while transferring molten Benzoic Acid from a storage tank (T-25) located in the contained tank farm, material overflowed from the second series Benzoic Acid (BA) tank (T-25B). An estimated 600 gallons of BA spilled to the concrete containment pad while 500 gallons was released to the ground (railroad spur swale). Since BA requires a temperature of >250°F to remain in the molten state and thereby a fluid, this resulted in a limited surface area release.

The spill was mostly contained in the containment area of Pad 4 and some was spilled to the railcar siding area north of Pad 4. Facility representatives indicated that there was no hazardous waste released to the environment.

Photograph 17 shows the condition of AOC No. 4 at the time of the June 3, 2010 Site Visit.

6.17 AOC No. 5 – Hydrogen Peroxide Tank Leak

A spill of 35% hydrogen peroxide solution occurred from a storage tank (T-36) in April 2006. The cause of the spill was failure of a plug at the bottom of the storage tank that caused a leakage from the tank. The total amount of 35% hydrogen peroxide that leaked from the tank was approximately 8,360 pounds or 2,926 pounds 100% hydrogen peroxide. Hydrogen peroxide is not on the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) list of hazardous materials and spill remediation consists of dilution with water. Facility representatives indicated that there was no hazardous waste released to the environment.

Photograph 18 shows the condition of AOC No. 5 at the time of the June 3, 2010 Site Visit.

7.0 DESCRIPTION OF EXPOSURE PATHWAYS FOR ALL RELEASES OR POTENTIAL RELEASES

7.1 Air

The facility is located in a mostly residential and agricultural area with some other commercial properties in the surrounding area. No documented air releases were found in files reviewed.

7.2 Surface Water

The nearest surface water body to the facility is a receiving pond across the street from the main entrance to the plant. The receiving pond receives treated water from the WWTS and stormwater.

7.3 Groundwater

Groundwater contamination exists on site due to the use of Impoundment 314. Source material has been removed and soil has been remediated to below the groundwater table. Groundwater samples collected from MW-12 and MW-19 contain detected concentrations of benzene, toluene, and BEHP exceeding MCLs, however sample results from nearby monitoring wells indicate that these groundwater impacts are localized.

During remediation activities, the excavation proceeded to several feet below the groundwater table; thus, bottom samples were not collected. Results from this remedial action are documented in the *Closure Report, Impoundments 308, 309, 310 & 314*, prepared by GZA, dated January 15, 2007 and submitted to the MDE.

The asset sales agreement between Velsicol (now Genovique) and Hüls-America (now Evonik) required Hüls-America, Inc. to retain the environmental liability for impacted soils and groundwater identified at the site during the 1994 Baseline Environmental Investigation.

7.4 Soil

The site is mostly paved with asphalt or concrete. Wastes are handled on these paved areas.

8.0 EXPOSURE PATHWAY CONTROLS AND RELEASE CONTROLS INSTITUTED AT THE FACILITY

8.1 Site Access

A fence surrounds the entire facility, with a gate to control access. Additionally, a security camera is in use.

8.2 Air

No exposure pathways or controls for air media exist. Air is vented from tanks properly. The facility is a synthetic minor source, operating under State Permit-to-Operate 029-00001.

8.3 Surface Water

The facility operates under a NPDES permit that covers two outfalls; the treated water from the WWTS and the stormwater, both of which are discharged to the receiving pond across the street.

8.4 Groundwater

During the June 3, 2010 RCRA Site Visit, facility representatives indicated that the nearby town of Worton supplies water to most residents, but there are some nearby residential drinking wells

in the shallow aquifer. The facility provides bottled drinking water to its employees due to lead connections in the pipes.

Several monitoring wells are in place to monitor activities associated with AOC 1.

8.5 Soil

The site is mostly paved with asphalt or concrete. Wastes are handled on these paved areas.

9.0 FOLLOW-UP ACTION ITEMS

The USEPA Region III and the MDE will decide if additional information or sampling at the facility is required to determine whether the environmental indicators have been met or if corrective action is required at the facility.

APPENDIX A

SITE VISIT PHOTOGRAPHS

Photo 1: SWMU No. 1 – Former Sludge Drying Area in Southeast Corner

Photo 2: SWMU No. 2 – Former Sludge Drying Area in Southwest Corner, formerly Impoundments 317 and 317A

Photo 3: SWMU No. 3 – Sludge Roll-off

Photo 4: SWMU No. 4 – Filter Cake Roll-offs

Photo 5: SWMU No. 5 – Hazardous Waste Storage Area

Photo 6: SWMU No. 6 – Satellite Accumulation Areas

Photo 7: SWMU No. 7 – Safety-Kleen Parts Cleaners

Photo 8: SWMU No. 8 – Trash Compactor

Photo 9: SWMU No. 9 – Universal Waste Areas

Photo 10: SWMU No. 9 – Universal Waste Areas

Photo 11: SWMU No. 10 – Former Wastewater Treatment Lagoons and Impoundments, Settling Ponds 313/315, and Dilution Water Pond 316

Photo 12: SWMU No. 11 – Wastewater Treatment System

Photo 13: SWMU No. 12 – Former Separation Pond, Fire Pond 307

Photo 14: AOC No. 1 – Groundwater Contamination

Photo 15: AOC No. 2 – Sludge Roll-off Spill

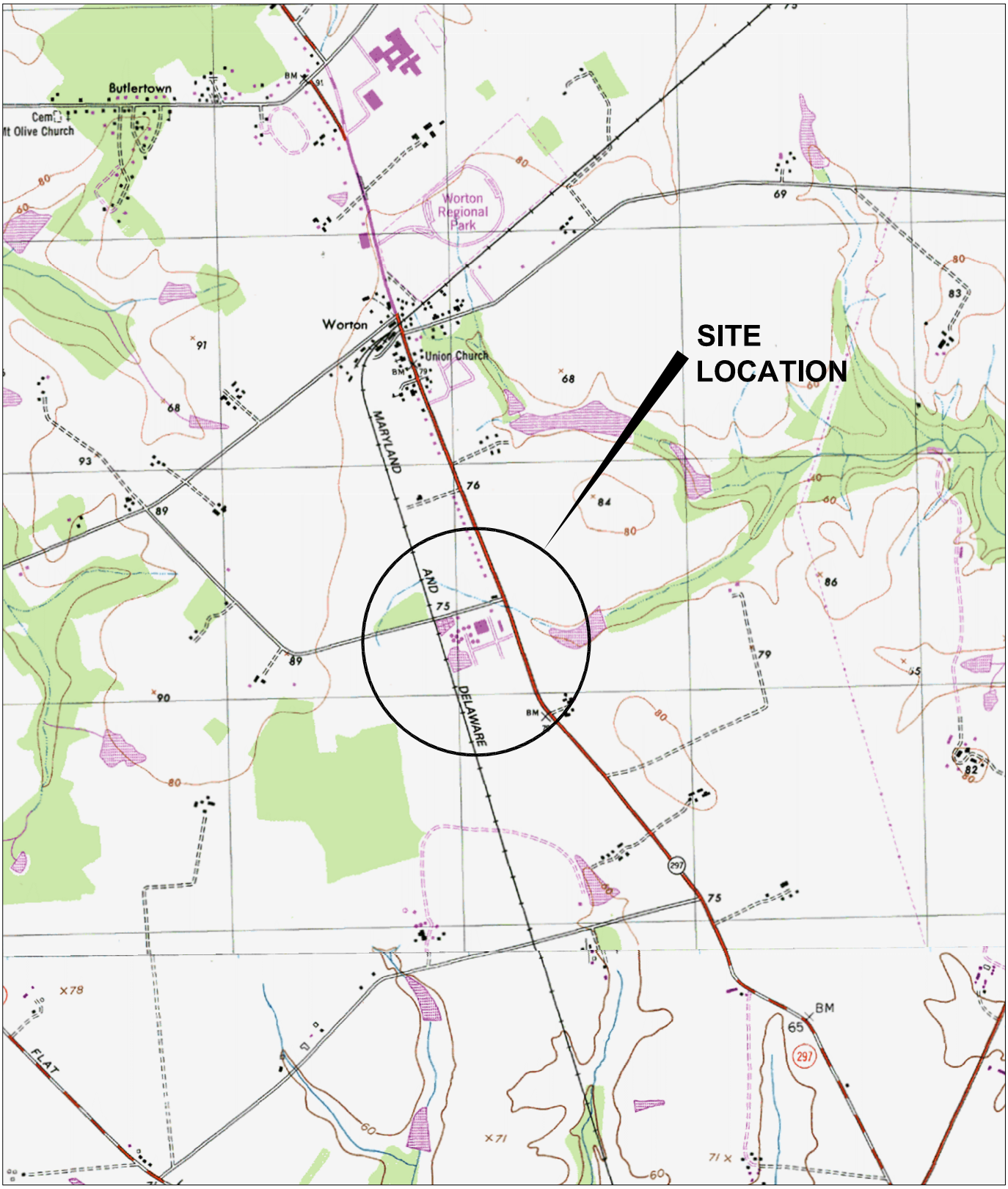
Photo 16: AOC No. 3 – Heat Transfer Fluid Spill

Photo 17: AOC No. 4 – Benzoic Acid Release

Photo 18: AOC No. 5 – Hydrogen Peroxide Tank Leak

APPENDIX B

SITE LOCATION AND LAYOUT MAPS



Quadrangle Location Map

0 2000 4000 Feet

SOURCE: U.S.G.S. TOPOGRAPHIC MAP (7.5 Minute)
BETTERTON AND CHESTERTOWN, MD

N

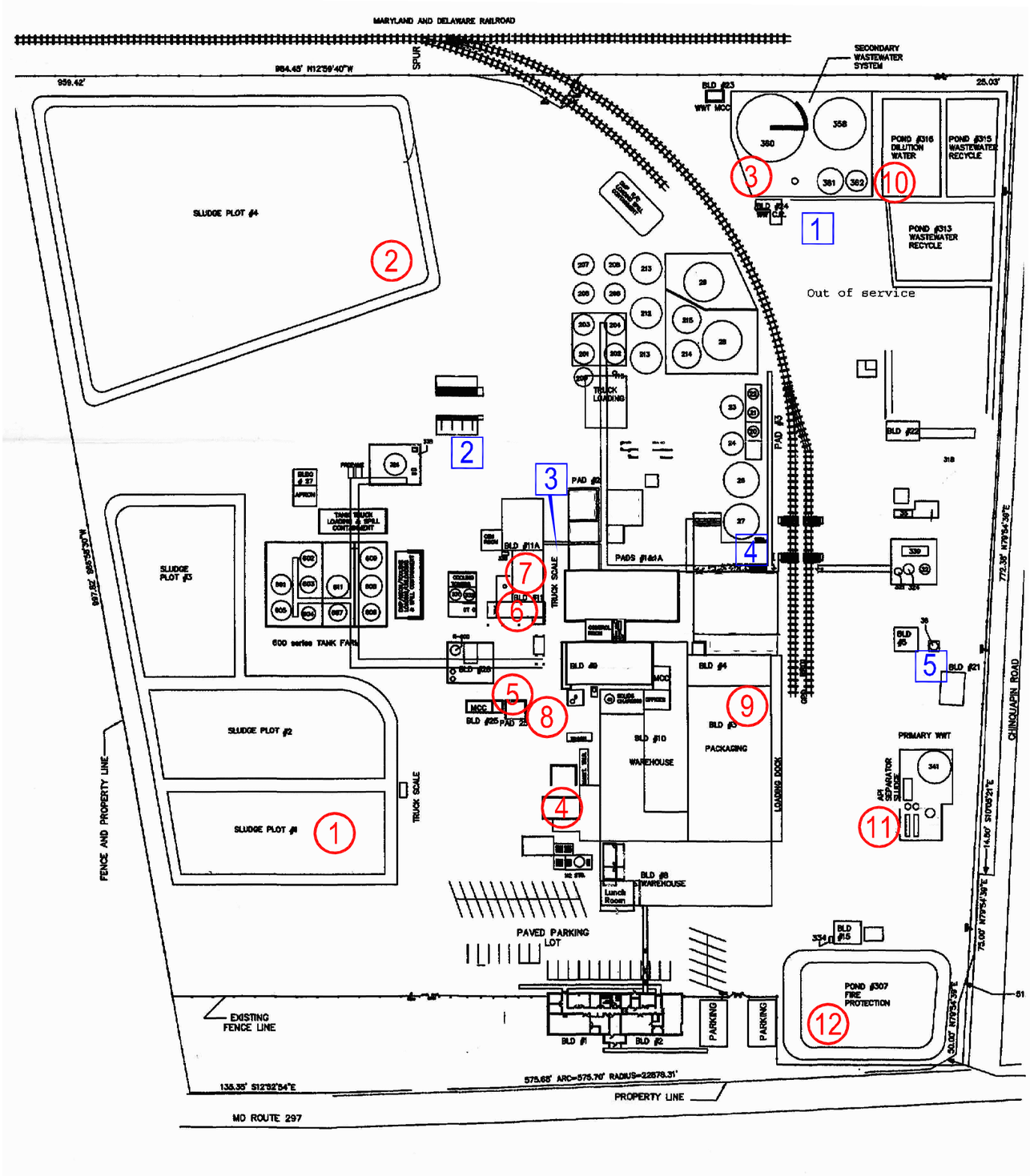
United States Environmental Protection Agency

GENOVIQUE

Chestertown, Maryland

FIGURE 1
SITE LOCATION MAP

TETRA TECH EC, INC.



LEGEND:

1 SOLID WASTE MANAGEMENT UNIT LOCATION (SWMU)

1 AREA OF CONCERN LOCATION (AOC)

N

SWMUs

SWMU NO. 1 – FORMER SLUDGE DRYING AREA IN SOUTHEAST CORNER
SWMU NO. 2 – FORMER SLUDGE DRYING AREA IN SOUTHWEST CORNER, FORMER IMPOUNDMENTS 317 AND 317A
SWMU NO. 3 – SLUDGE ROLL–OFF
SWMU NO. 4 – FILTER CAKE ROLL–OFFS
SWMU NO. 5 – HAZARDOUS WASTE STORAGE AREA
SWMU NO. 6 – SATELLITE ACCUMULATION AREAS (EXAMPLE)
SWMU NO. 7 – SAFETY–KLEEN PARTS CLEANERS (EXAMPLE)
SWMU NO. 8 – TRASH COMPACTOR
SWMU NO. 9 – UNIVERSAL WASTE AREAS (EXAMPLE)
SWMU NO. 10 – FORMER WASTEWATER TREATMENT LAGOONS AND IMPOUNDMENTS, SETTLING PONDS 313/315, AND DILUTION WATER POND 316
SWMU NO. 11 – WASTEWATER TREATMENT SYSTEM
SWMU NO. 12 – FORMER SEPARATION POND, FIRE POND 307

AOCs

AOC NO. 1 – GROUNDWATER CONTAMINATION
AOC NO. 2 – SLUDGE ROLL–OFF SPILL
AOC NO. 3 – HEAT TRANSFER FLUID SPILL
AOC NO. 4 – BENZOIC ACID RELEASE
AOC NO. 5 – HYDROGEN PEROXIDE TANK RELEASE

NO SCALE AVAILABLE

SOURCE:
LAWGIBB GROUP MEMBER, "SITE AND VICINITY PLAN", FIGURE: 3, PROJECT NO.: 30440–1–0673–02–917, DATE: DECEMBER 2001.

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FIGURE 2
SWMU AND AOC MAP

TETRA TECH EC, INC.

APPENDIX C

INVENTORY OF DOCUMENTATION AND REFERENCE DOCUMENTS

Document List – Genovique

Not Dated	Closure Plan for Boiler Industrial Furnace (BIF) Units
Not Dated	Section 2 – Facility Description and Process Information
August 18, 1980	General Information Form
November 18, 1980	Part A Permit Application for Tenneco Chemical
January 21, 1983	Correspondence Regarding Part A Permit Application
January 26, 1983	General Information Form
February 3, 1983	Correspondence Regarding Change to Conditions of Operations During Interim Status
April 8, 1986	Correspondence Regarding Solid Waste Management Units
October 6, 1988	Correspondence Regarding Merger of Nordex and Huls
August 15, 1991	Hazardous Waste Permit Application Part A
November 4, 1991	Interim Status Questionnaire
June 9, 1994	Compliance Evaluation Inspection Report
August 25, 1994	Correspondence Regarding Variation in Normal Waste Management
December 14, 1994	Correspondence Regarding Velsicol Acquiring Huls
December 5, 1994	Correspondence Regarding Change of Ownership from Huls to Velsicol
March 21, 1995	Correspondence Regarding Omission on Notification of Hazardous Waste Activity Form
August 14, 1995	Trial Burn Observation Report
November 28, 1995	Correspondence Containing Facility Information for Site Visit
April 8, 1996	Correspondence Rejecting Recertification of Compliance
August 28, 1996	Correspondence Containing Site Visit Notes
January 15, 1997	Compliance Evaluation Inspection Report

August 5, 1997	Trip Report
October 16, 1997	Correspondence Regarding Compliance Evaluation Inspection
July 22, 1999	RCRA Compliance Evaluation Inspection Report/LDR Inspection
August 31, 1999	Report of Observations
January 19, 2001	Correspondence Requesting Part B Permit Application
May 1, 2001	Correspondence Regarding Deferral of Deadline for Part B Permit Application
May 24, 2001	Correspondence Regarding Deferral of Deadline for Part B Permit Application
August 19, 2002	Correspondence Regarding Closure Plan for Boiler Industrial Furnace (BIF) Units
October 10, 2002	Correspondence Opposing Closure Plan for Boiler Industrial Furnace (BIF) Units
October 25, 2002	Correspondence Regarding Public Hearing About Closure Plan of Boiler Industrial Furnace (BIF) Units
December 6, 2002	Correspondence Regarding Closure of BIF Units
December 20, 2002	Correspondence Regarding Closure of BIF Units
October 5, 2005	Source Water Assessment Report
September 10, 2007	Correspondence Regarding Permit Comments
August 9, 2007	Construction Permit
November 28, 2007	Velsicol Internal Meeting Minutes
August 5, 2008	Correspondence Regarding Cadmium Monitoring
December 2, 2008	Construction Permit
January 1, 2009	Operating Permit
November 9, 2009	Correspondence Regarding Operating Permit