United States Environmental Protection Agency
Office of Enforcement and Compliance Assurance
Office of Criminal Enforcement, Forensics and Training

National Enforcement Investigations Center

NEIC

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NEIC CIVIL INVESTIGATION REPORT

MAX Environmental Technologies, Inc.
233 MAX Lane
Yukon, Pennsylvania 15698

Investigation Dates:
March 20 - 24, 2023

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CONTENTS

INVESTIGATION OVERVIEW 4
PROJECT OBJECTIVE 4
FACILITY CONTACT INFORMATION 4
FACILITY OVERVIEW 5
RCRA Overview 5
CWA Overview 6
FACILITY OPERATIONS SUMMARY 8
RCRA Treatment Operations 8
Active and Historic Disposal Units 10
Wastewater Management and Treatment 11
FIELD ACTIVITIES SUMMARY 16
Measurement and Sampling Activities 17
LABORATORY ACTIVITIES SUMMARY 19
ANALYTICAL RESULTS 20
INVESTIGATION OBSERVATIONS 23

TABLES

Table 1. PROJECT TEAM MEMBERS 4
Table 2. FACILITY CONTACT INFORMATION 4
Table 3. APPLICABLE NAICS/SIC CODES 5
Table 4. NPDES PERMIT NO. PA0027715 – OUTFALLS/IMPs 7
Table 5. PUMP STATIONS/WASTEWATER 12
Table 6. RECYCLE WATER (6 PACK) TANKS 13
Table 7. FIELD MEASUREMENT AND FIELD SAMPLING ACTIVITIES 18
Table 8. ANALYTICAL OBJECTIVE, TECHNIQUE, AND METHOD; ANALYST; AND DATE PERFORMED 19
Table 9. LABORATORY OBSERVATIONS AND SAMPLE PHYSICAL DESCRIPTIONS 21
Table 10. TCLP ELEMENTAL RESULTS AND 40 CFR §§ 268.40 AND 268.48 LDR AND UNIVERSAL TREATMENT STANDARDS FOR NONWASTEWATER SAMPLES 22

APPENDICES (*NEIC-created)

RCRA A RCRA Photographs* (35 pages)
RCRA B RCRA Videos*
RCRA C Chain of Custody Record* (1 page)
RCRA D Waste Treatment Records and Manifests for Samples Collected on March 21, 2023 (15 pages)
RCRA E Waste Treatment Record for Samples Collected on March 23, 2023 (1 page)
RCRA F Laboratory Photographs* (36 pages)
RCRA G MAX Waste Profiles for Treated Wastes Sampled by NEIC (9 pages)
RCRA H February 14, 2005, Hazardous Waste Permit No. PAD004835146 (40 pages)
RCRA I Containment and Processing Building Management Plan (10 pages)
RCRA J August 18, 1992, Preamble to the Final Rule for Hazardous Waste Containment Buildings (8 pages)
RCRA K Inspection Plan (54 pages)
RCRA L March 13, 2023, MAX Weekly Facility Inspection Report (4 pages)

RCRA M March 7, 2023, Hazardous Waste Accumulation Time Extension Request (1 page)
RCRA N Follow-up Photographs of Leaking F039 Container Submitted by MAX (1 page)
RCRA O Container Storage Area Management Plan (43 pages)
RCRA P March 5, 2004, Waste Analysis and Classification Plan (78 pages)
RCRA Q MAX SOP Treated Waste Sampling Procedure (2 pages)

CWA A MAX NPDES Permit PA0027715 (43 pages)
CWA B CWA Effluent Exceedances January 2022 – March 2023* (1 page)
CWA C MAX Plant Process Flow Diagram (1 page)
CWA D Six Pack Tanks (1 page)
CWA E Industrial WWTP Process Flow Diagram (1 page)
CWA F Sanitary WWTP Process Flow Diagram (1 page)
CWA G Outfall 009 Storm Water Site Diagram (1 page)
CWA H CWA Photographs* (20 pages)
CWA I Fact Sheet for NPDES Permit PA0027715 (88 pages)
CWA J MAX Process Control Internal Grab Samples Outfall 001 (4 pages)
CWA K MAX PPC Plan Revised March 2023 (39 pages)

This Contents page shows all the sections contained in this report and provides a clear indication of the end of this report.

INVESTIGATION OVERVIEW

PROJECT OBJECTIVE

U.S. Environmental Protection Agency (EPA) Region 3 (Region) requested EPA's National Enforcement Investigations Center (NEIC) to conduct a Resource Conservation and Recovery Act (RCRA) and Clean Water Act (CWA) compliance investigation of the MAX Environmental Technologies, Inc. (MAX) facility located at 233 MAX Lane in Yukon, Pennsylvania. The investigation assessed MAX's compliance with federal environmental statutes and permit requirements.

This report presents NEIC's field observations from the March 20-24, 2023, on-site inspection of MAX, and the results of NEIC laboratory analyses of samples collected during the on-site inspection. The information presented in this report was collected from background documentation, personnel interviews, direct observations, company-provided documentation, and state and federal government databases.

Table 1 lists the project team members.

Table 1. PROJECT TEAM MEMBERS		
Team Member	**Organization**	**Project Role**
Brian Kennedy	NEIC	Project manager (PM)
Lorna Goodnight	NEIC	RCRA Field team member
Laura Kanopkin	NEIC	RCRA Field team member
Mike Lukowich	NEIC	CWA Field team member
Bradley W. Miller	NEIC	Analytical project manager (APM)
Tanner Cheney	NEIC	Laboratory team member
Bryan Locher	NEIC	Laboratory team member
Erick Zacher	NEIC	Laboratory team member
REGIONAL AND OTHER CONTACTS		
Allison Gieda	EPA Region 3	Regional field team member
Eddie Simas	EPA Region 3	Regional field team member
Andrew Van Woert	EPA Region 3	Regional field team member
Pam McQuistian	Pennsylvania Department of Environmental Protection (PADEP)	RCRA inspector
Amanda Schmidt	PADEP	CWA inspector
Jim Stewart	PADEP	CWA inspector

FACILITY CONTACT INFORMATION

Table 2 lists the primary facility contacts.

Table 2. FACILITY CONTACT INFORMATION		
Name, Title	**Phone No.**	**Email Address**
Carl Spadaro, Environmental General Manager	412-445-9789	cspadaro@maxenvironmental.com
Jason Oblack, Director of Operations	412-400-1059	joblack@maxenvironmental.com

Table 2. FACILITY CONTACT INFORMATION		
Robert Conklin, Compliance Tech	724-205-9286	rconklin@maxenvironmental.com
Robert Shawver, President	410-404-5333	bshawver@maxenvironmental.com

FACILITY OVERVIEW

According to the EPA Envirofacts database, MAX has the following North American Industry Classification System (NAICS) and Standard Industrial Classification (SIC) codes (**Table 3**):

Table 3. APPLICABLE NAICS/SIC CODES	
NAICS Code	**Description**
562211 (NAICS)	Hazardous Waste Treatment and Disposal
562 (NAICS)	Waste Management and Remediation Services
56221 (NAICS)	Waste Treatment and Disposal
562212 (NAICS)	Solid Waste Landfill
4953 (SIC)	Refuse Systems

RCRA Overview

MAX (RCRA identification No. PAD004835146) is a permitted hazardous waste treatment and storage facility located approximately 30 miles southeast of Pittsburgh, Pennsylvania. Both hazardous and non-hazardous wastes are treated on site, and the facility currently operates a permitted RCRA Subtitle D (non-hazardous) waste landfill, landfill No. 6, to dispose of treated wastes.

MAX specializes in the treatment and disposal of inorganic metal-bearing wastes. MAX currently operates one hazardous waste treatment system on-site, known as the solid waste stabilization and solidification (SWSS) pits. The facility previously operated a second hazardous waste treatment system known as the waste containment and processing (WasteCAP) system. The WasteCAP process, which was primarily used to treat electric arc furnace dust (EPA hazardous waste No. K061), was discontinued in 2013. MAX had previously obtained a delisting for treated electric arc furnace dust (EPA hazardous waste No. K061) from the Pennsylvania Department of Environmental Protection (PADEP) in 2005 to dispose of the treated waste in landfill No. 6. An on-site laboratory performs the required analyses per the facility's waste analysis and characterization plan (WACP), including toxicity characteristic leaching procedure (TCLP) tests, waste treatability studies, and waste treatment verification.

The MAX facility in Yukon originally opened in 1964 as Mill Service, Inc., which treated and disposed of waste from the regional steel industry. In 1999, the name was changed to MAX Environmental Technologies. In 2017, the MAX Environmental company was purchased by Altus Capital Partners. An additional MAX Environmental Technologies facility operates in Bulger, Pennsylvania. MAX has approximately 20 employees working single shifts, five days per week.

MAX has a hazardous waste treatment and storage permit (No. PAD004835146) issued by PADEP. The RCRA permit was last renewed in 2005. MAX submitted a permit renewal

application to PADEP in 2015 and the application remains under review. Until a new permit is issued for the 2015 permit renewal application, the conditions of the 2005 RCRA permit are administratively continued for compliance and enforcement purposes. MAX is permitted to manage wastes with the following hazardous waste numbers: electric arc furnace dust (K061), corrosives (D002), arsenic (D004), barium (D005), cadmium (D006), chromium (D007), lead (D008), selenium (D010), silver (D011), and waste acid/pickle liquor (K062). Metal-bearing hazardous wastes received on-site for treatment often consist of contaminated soils, slags and brick, waste acids, metal processing residues, air pollution control dusts/fly ash, lead abatement/sandblast residues, lead-contaminated debris, and wastewater treatment sludges.

MAX notified as a large quantity generator of hazardous waste in its 2021 RCRA biennial waste report to PADEP. In the 2021 biennial report, MAX reported receiving approximately 58,000 tons of hazardous waste for treatment. MAX also reported generating 32 tons of hazardous waste on-site in the form of wastewater treatment sludge from the treatment of listed landfill leachate (EPA hazardous waste No. F039).

CWA Overview

MAX is authorized to discharge to Sewickley Creek and an unnamed tributary to Sewickley Creek in Watershed 19-D as outlined in National Pollutant Discharge Elimination System (NPDES) permit No. PA0027715 (**Appendix CWA A**). The MAX NPDES permit became effective on January 1, 2022 and expires on December 31, 2026. According to EPA's Enforcement and Compliance History Online (ECHO) website, the MAX facility was last inspected for CWA requirements in May 2022 (listed as a state-conducted inspection/evaluation and audit). According to ECHO, MAX is listed as out of compliance for five of the past twelve quarters (April 2020 – March 2023) for effluent exceedances. A list of the effluent exceedances is contained in **Appendix CWA B**. The effluent exceedances are from January 1, 2022, when the current permit was issued until March 31, 2023.

The permit authorizes Max to treat and discharge industrial stormwater runoff, water collected from blanket drains from the on-site landfills (both closed and active), leachate, groundwater, and other waste streams through outfall 001 to Sewickley Creek. The permit contains effluent monitoring requirements and limits for outfall 001.

Internal monitoring points (IMPs) 101 and 201 are located upstream of outfall 001 and the on-site industrial wastewater treatment plant (WWTP). There are no effluent limitations for IMPs 101 or 201 and all monitoring is "report only."

MAX collects, treats, and discharges sanitary wastewater generated on-site through outfall 007. The NPDES permit established effluent limits and monitoring requirements for the discharge of treated sanitary waste from outfall 007. Outfall 007 discharges to Sewickley Creek.

MAX is also authorized to discharge stormwater from the site through outfalls 008 and 009. There are no effluent limitations associated with the outfalls. Monitoring at outfalls 008 and 009 as well as internal monitoring points 109, 209, and 309 are report only for all parameters.

Table 4 summarizes the outfalls and IMPs authorized by the NPDES permit.

Table 4. NPDES PERMIT NO. PA0027715 – OUTFALLS/IMPs				
Outfall/IMP	**Direct/Internal**	**Receiving Water**	**Sampling**	**Description**
001	Direct	Sewickley Creek	24-hour flow proportion composite sample[1]	Combined plant discharge - flows from internal outfalls 101 and 201 (described below), plant area storm water, laboratory wastewater, impoundment No. 6 blanket drain, manhole No. 3 seep, treated waste storage area storm water, and south toe tank.
101	Internal	N/A	24-hour flow proportion composite sample	North toe tank, east toe tank, No. 5 blanket drain, township road drains, PW1, No. 5 west standpipe drain, No. 5 bench drain and collection sump.
201	Internal	N/A	24-hour flow proportion composite sample	Raw leachate from landfill No. 6
007	Direct	Sewickley Creek	Grab	Treated sanitary wastewater.
008	Direct	Unnamed tributary to Sewickley Creek	Grab	Storm water from the paved plant driveway and lab area stormwater.
009	Direct	Unnamed tributary to Sewickley Creek	Grab	Storm water and sources monitored at Internal monitoring points (IMPs) 109, 209, and 309.
109	Internal	N/A	Grab	Non-contact storm water runoff from the eastern portion of the site.
209	Internal	N/A	Grab	Non-contact storm water runoff from the western portion of the site.
309	Internal	N/A	Grab	Storm water from areas near the toe of impoundment No. 5.
[1]Instantaneous maximum limitations are imposed to allow for a grab sample to be collected by the appropriate regulatory agency to determine compliance. The permittee is not required to monitor for the instantaneous maximum limitations. However, if grab samples are collected by the permittee, the results must be reported.				

The outfalls listed in **Table 4** are depicted in the MAX plant process flow diagram (**Appendix CWA C**).

The NPDES permit contains additional conditions for the facility such as self-monitoring, reporting and recordkeeping, management requirements, solids management, chemical additives, best management practices (BMPs), landfill leachate, and emergency overflows.

FACILITY OPERATIONS SUMMARY

RCRA Treatment Operations

MAX's hazardous waste treatment operations are currently performed within the three SWSS pits. The SWSS pits are permitted, in-ground hazardous waste tanks, and each pit has a capacity of 133 cubic yards. On average, MAX receives five to 15 truckloads of hazardous and non-hazardous waste for treatment per day. Much of the waste received on site arrives in bulk loads (i.e., roll-off containers or dump trucks), however, smaller quantities of waste may be received in containers like 55-gallon drums.

Trucks arriving on site first pass through a radiation monitor before heading to a truck scale to determine gross vehicle weight. The driver checks in at the main office with the manifest and other shipping documentation and receives unloading information from MAX personnel. Hazardous waste arriving on site may be directed to the SWSS pits for immediate treatment, placed in storage prior to treatment in the facility's permitted hazardous waste containment building, or placed in storage prior to treatment in a permitted container storage area. After the waste is unloaded, the truck driver will return to the truck scale to determine its tare weight and the actual weight of waste received by MAX. The truck is then directed to a tire-washing station at MAX's wastewater treatment plant before leaving the site.

MAX's permitted hazardous waste containment building, also referred to as the containment and processing or "CAP" building, is divided into four bays. Bays 1, 2, and 4, are designed to allow for the storage and quick retrieval of hazardous waste for treatment or retreatment. Bay 1 is used to store containerized hazardous waste prior to treatment. Bay 2 is currently used to store bulk, non-containerized waste that has been treated in the SWSS pits but requires additional treatment. Bay 3, which is fully enclosed, houses MAX's former WasteCAP system and equipment and is currently only used for the storage of small amounts of containerized hazardous waste. Bay 4 is currently used for the storage of bulk, non-containerized hazardous waste prior to treatment in the SWSS pits. The CAP building was constructed in 2008 with a reinforced concrete pad, exterior steel paneled walls, a geomembrane liner, and leak detection system.

MAX is also permitted to operate five hazardous waste container storage areas. Storage area No. 1 is no longer in use and storage area No. 2, which is near the wastewater treatment plant, is used to store wastewater treatment sludge. Container storage areas No. 3 and 4 are located near the containment building, and storage area No. 5 is located on landfill No. 6. Container storage areas No. 3, 4, and 5 may be used to store incoming hazardous waste, treated waste, and treatment reagents.

All waste loads arriving on site are sampled and screened to verify that the waste matches the existing profile and is acceptable for treatment. For wastes unloaded directly into a SWSS pit for

treatment, MAX personnel will collect a waste acceptance sample from the pit after the waste is unloaded. If waste needs to be stored in the CAP building prior to treatment, MAX will also collect a waste acceptance sample after the waste is unloaded. After the waste acceptance sample is collected, it is taken to the on-site laboratory. The WACP in MAX's 2005 permit requires the facility to evaluate, among other things, the color, odor, texture, physical state, and number of phases of incoming waste in order to approve its acceptance for treatment. After a waste is accepted, a waste receipt record is completed and maintained in the facility's operating record.

Treatment in the SWSS pits is performed for solid, semi-solid, and liquid wastes. This includes bulk solid wastes, such as metal processing residues, and containerized hazardous wastes including corrosive liquids. The treatment "recipe" for a given waste profile is determined through bench-scale waste treatability studies conducted by MAX's laboratory. The treatability study is conducted as part of an initial waste profile approval process that MAX performs for each new customer. Multiple batches of the same waste stream may be treated in one SWSS pit. Additionally, wastes with similar profiles or hazardous constituents may also be treated in the same SWSS pit because the treatment recipes are the same.

Based on the waste profile and the quantity of waste added to the SWSS pit, MAX operators will add treatment reagents using a long-arm excavator and/or a front-end loader to begin the stabilization treatment process. Typical treatment reagents include various grades of lime (calcium oxide and calcium hydroxide), ferrous sulfate, and calcium triple superphosphate, among others. Solidification agents may also be used in the SWSS pits to absorb free liquids and MAX has produced an ash/sand mixture known as "MAX Blend" for this purpose. After addition of the dry reagents, the excavator is used to mix the waste in the pits and encourage the treatment reaction. The excavator may mix the waste for 45 minutes to 1 hour, however, smaller batches may be mixed within 15 minutes. Depending on the treatment process, the mixed waste may be required to stay in the SWSS pit for several hours to allow the stabilization reaction to proceed. After treatment, a sample of treated waste is collected from the excavator bucket and taken to the on-site laboratory for analysis. To verify that treatment was successful, and a successfully treated hazardous waste may be disposed in landfill No. 6, the laboratory will typically perform analysis for TCLP metals for the land disposal restriction (LDR) standards, pH, and free liquids.

Treated waste is removed from the SWSS pits and placed in roll-off containers for storage pending laboratory analysis. The roll-off containers are typically placed in container storage areas No. 3 and 4. The containers are tagged with the generator profile name and a unique batch number. The batch number represents all waste streams that were treated in the same SWSS pit, and as a result may comprise multiple generator profiles or multiple shipments of the same waste stream that were treated simultaneously. After laboratory analysis indicates the

treated waste meets LDR standards and other non-hazardous waste disposal criteria, the batch receives approval from Jason Oblack, MAX's Director of Operations, to be disposed within landfill No. 6. A waste treatment record is created which contains the generator information, treatment details, batch number, final treatment verification analytical results, and approval signatures for disposal. Containers with waste approved for disposal are often staged in container storage area No. 5, which is situated on landfill No. 6. The waste is then disposed onto the active cell of landfill No. 6 and spread to even layers with an excavator. After approved batches are disposed in landfill No. 6, MAX applies a daily cover of clean soil over the material.

Most hazardous wastes treated at MAX are disposed in landfill No. 6. However, certain treated wastes may also be shipped for disposal at other facilities if they cannot meet the disposal criteria required by MAX's non-hazardous landfill permit for landfill No. 6. MAX representatives estimated that approximately 10% or less of all hazardous waste batches require retreatment in the SWSS pits. However, certain waste streams require retreatment more frequently than others because of their composition and hazardous constituents.

Active and Historic Disposal Units

Several historic surface impoundments were operated at MAX in the 1960's through the 1980's. These impoundments were primarily used to dispose lime-treated spent pickle liquor from the regional steel industry. Impoundments No. 1, 2, and 3 pre-dated the RCRA statute and contained treated pickle liquor. These units were closed prior to the effective date of the RCRA regulations. In the 2000's, the units were re-graded with treated waste to maintain their stormwater drainage gradients. The units are currently graded and capped and not in use.

The former impoundment No. 4 also held treated pickle liquor but was clean closed under RCRA and all hazardous waste was moved to impoundment No. 5. Impoundment No. 5 was operated as a RCRA interim status hazardous waste surface impoundment until approximately 1985. The waste in impoundment No. 5 was closed in place under a RCRA order in 2002. A 1985 consent order also established groundwater monitoring and pump and treat requirements for the closed impoundments that is still active today. Pumped groundwater and leachate from the former impoundments No. 1, 2, 3, and 5, are sent to MAX's wastewater treatment plant, and the facility monitors groundwater for chlorides, nitrates, and RCRA metals.

Because impoundment No. 5 operated as an interim status hazardous waste surface impoundment, and hazardous waste was closed in place as part of a 2002 closure approval, leachate collected from the closed impoundment meets the listing description for hazardous waste number F039. Leachate from impoundment No. 5 is collected and processed through MAX's wastewater treatment plant, which generates a waste clarifier sludge. As part of a 2016 consent order with PADEP, MAX agreed to manage its wastewater treatment sludge as F039 hazardous waste and begin hazardous waste delisting proceedings with the state. MAX

submitted a formal delisting petition for its F039 hazardous waste sludge to PADEP in 2019. At the time of NEIC's inspection, the delisting petition was still pending, and MAX was accumulating hazardous waste F039 sludge in its permitted container storage area No. 2 until it is sent off-site for disposal.

Former impoundment No. 6, which also historically held treated pickle liquor, was closed and changed into MAX's current non-hazardous waste landfill, landfill No. 6. PADEP issued the RCRA Subtitle D disposal permit for landfill No. 6 in 1989. Landfill No. 6 is the only active disposal unit on MAX's site. Its permitted disposal elevation has been increased over the years, and MAX representatives estimated that the unit has approximately two years of operation left before it reaches its disposal capacity. The total volume of waste currently disposed in landfill No. 6 is greater than 400,000 cubic yards.

Recently, MAX has proposed construction of a new on-site RCRA Subtitle C hazardous waste landfill, landfill No. 7, for the disposal of metal-bearing F- and K-listed hazardous wastes. The proposed location of landfill No. 7 is in MAX's current borrow soil area, where the facility obtains clean fill to cover disposed waste in landfill No. 6. On February 17, 2023, MAX withdrew its phase 1 permit application for landfill No. 7 because of technical deficiencies identified by PADEP. During NEIC's inspection, MAX representatives stated their intent to resubmit the landfill No. 7 permit application in the future.

Wastewater Management and Treatment

Wastewater generation and collection/transmission

Pump Station No. 5

Pump station No. 5 (PS 5) collects stormwater, drainage water from impoundment No. 5, and groundwater. The water flows by gravity to the pump station wet well. The pumps are manually controlled. The pumps send the water directly to the mother tank at the on-site industrial WWTP. PS 5 is also the designated location for internal monitoring point (IMP) 101. The facility pulls a 24-hour composite sample from IMP 101 by slightly opening a valve on the sample port tube on the piping. The sample port tube is allowed to drip at a relatively constant flow rate into a sample container over a period of 24 hours.

Pump Station No. 4

Pump station No. 4 (PS 4) sends ground water (seep #3), contact storm water from waste storage areas 3 & 4 (adjacent to the SWSS pits), the SWSS pits, the CAP building, and water collected in the little blue tank (LBT) (described below), to the on-site WWTP. The water from PS 4 enters the WWTP at the equalization tank. Sodium hypochlorite is dosed in at the pump

station wet well for ammonia removal. KR-DF7022, a diluted anti-foam/defoamer is also added at PS 4 as needed. The pumps at PS 4 are automatically controlled via a float system.

The LBT just upstream of PS 4 has limited secondary containment. Any stormwater collected in the containment area is drained and pumped to PS 4. In the case of a catastrophic failure of the LBT, wastewater would drain to Pond No. 4 which is listed as an emergency overflow in the NPDES permit.

Pump Station No. 6

Pump station No. 6 (PS 6) is located at the base of landfill No. 6 and sends landfill No. 6 blanket and mine drainage, as well as raw leachate (from the leachate collection system) from landfill No. 6, to the LBT. The LBT is approximately 400,000 gallons in capacity. The LBT is just upstream of PS 4 described above.

Pump Station No. 7

Pump station No. 7 (PS 7) is located just downstream of the Million Gallon Tank (MGT). Landfill contact stormwater (leachate) flows by gravity from landfill No. 6 to the MGT. The MGT is approximately 1.3 million gallons in capacity. The MGT and PS 7 are just upstream of PS 4 described above. PS 7 sends the contact stormwater from the MGT into the LBT. Water in the LBT is routed directly to the on-site WWTP as described above.

The pump stations listed in **Table 5** are depicted in the MAX plant process flow diagram (**Appendix CWA C**)

Table 5. PUMP STATIONS/WASTEWATER

Pump Station	Pumps From/To	Chemical Addition	Internal Monitoring Point	Description
PS5	PS 5/WWTP (EQ Tank)	N/A	IMP 101	Collects water from the north toe tank, east toe tank, No. 5 blanket drain, township road drains, PW1, No. 5 west standpipe drain, No. 5 bench drain and collection sump.
PS4	Little Blue Tank/WWTP (Mother Tank)	Sodium hypochlorite and KR-DF7022 defoamer	No	Receives water from the little blue tank (PS6 and PS 7), contact storm water from the SWSS pits, CAP building, and waste storage areas 3 and 4 located adjacent to the SWSS pits.

Table 5. PUMP STATIONS/WASTEWATER				
Pump Station	**Pumps From/To**	**Chemical Addition**	**Internal Monitoring Point**	**Description**
PS6	PS 6/Little Blue Tank	N/A	No	Raw leachate from landfill No. 6 and blanket and mine drain from landfill No. 6.
PS7	Million Gallon Tank/Little Blue Tank	N/A	IMP 201	Contact storm water (leachate) from landfill No. 6.

Recycle Water (6 Pack) Tanks

MAX has six semi-underground recycle water (6 pack) tanks that are used for various purposes. A diagram of the tanks and their uses is contained in **Appendix CWA D**. The tanks can be hydraulically connected through a pipe at the bottom of each tank to equalize levels or they also can be connected on the top and used as an overflow from one tank to another. **Table 6** below summarizes how the facility utilizes the 6 pack tanks. Each tank is approximately 9,500 gallons in capacity.

Table 6. RECYCLE WATER (6 PACK) TANKS		
Tank Number	**Waste Received**	**Description**
Tank #1	-	Tank #1 is equipped with a portable pump/hose to send wastewater from the 6 pack tanks to the on-site WWTP. Wastewater is pumped into the Neutralization tank at the on-site WWTP. Tanks #1, #2, and #3 are hydraulically connected to equalize water levels.
Tank #2	Receives overflow from mother tank and EQ tank from the on-site WWTP.	Tanks #1, #2, and #3 are hydraulically connected to equalize water levels.
Tank #3	Weir room drain, lab wastewater, F039 Pad Drain, wastewater from Tank #6	Tank #3 collects wastewater by gravity from the drain located in the weir room and the lab wastewater from the sink. Tank #3 receives stormwater from waste storage area #2, the F039 pad drain, located adjacent to the 6 pack tanks. Tanks #1, #2, and #3 are hydraulically connected to equalize water levels.

Table 6. RECYCLE WATER (6 PACK) TANKS		
Tank Number	**Waste Received**	**Description**
Tank #4	F039 Waste Sludge Tank	Stores F039 Waste Sludge from the on-site industrial WWTP. Decant water is manually pumped from tank #4 to Tank #5. Water may also overflow to Tank #5 if capacity of Tank #4 is exceeded. F039 Waste (sludge) is pumped out of Tank #4 and hauled off site for disposal.
Tank #5	Tire Cleaning Station, Upper Plant Stormwater and F039 Sludge Decant from Tank #4	Tanks #5 and #6 are hydraulically connected at the bottom to equalize water levels.
Tank #6	-	Tank #6 is manually pumped into Tank #3 when capacity is needed. Tanks #5 and #6 are hydraulically connected at the bottom to equalize water levels. Tank #6 will overflow into Tank #3 if capacity of Tank #6 is exceeded.

Industrial Wastewater Treatment Plant

The WWTP is designed as a continuous flow system but normally runs intermittently as needed. Standard operating procedure is to start up the WWTP on Monday morning. The WWTP runs continuously until Thursday afternoon when it is usually shut down. The process flow diagram for the industrial WWTP is contained in **Appendix CWA E**.

Influent enters the on-site industrial WWTP at two locations. PS 4 sends wastewater into the mother tank. The mother tank is approximately 20,000 gallons in size. The wastewater from the mother tank is routed to the equalization tank and flow is controlled with submersible pumps and an inline valve. By throttling the valve open or closed the flow rate into the equalization tank can be controlled. In addition to the flow from the mother tank described above, the equalization tank takes also takes flow directly from PS 5. Note that PS 5 is not depicted on the industrial WWTP process flow diagram (PFD) contained in **Appendix CWA E**.

After the flow equalization basin, wastewater is directed by gravity to the neutralization tank. The neutralization tank is dosed with hydrogen peroxide for the removal of Biological Oxygen Demand – 5 day (BOD5).

After the neutralization tank, wastewater flows to the flocculant tank for metals removal. The flocculant tank can be dosed with KR-B5000 flocculant (metals removal), diluted caustic solution (pH control), and a polymer solution (coagulant). The flocculant tank is equipped with a

small mixer. Metals removal is accomplished by raising the pH of the wastewater, typical treatment involves raising the pH to approximately 12 pH units. The higher pH results in the dissolved metals precipitating out from the wastewater. The flocculant and coagulant are used to drop out the precipitated metals in the sludge.

After treatment in the flocculant tank, the wastewater flows into a 20,000-gallon rectangular clarifier. The clarifier drops out the solids created in the flocculant tank. Sludge builds up in the clarifier and is reduced by sending solids to Tank #6 in the six pack tanks (see the description of Tank #6 above).

Clarified effluent is then sent to the pH adjustment tank. The pH adjustment tank is used to bring the pH back down to a pH of 6.0 to 9.0 to comply with discharge limitations. The pH adjustment tank was out of service during the inspection. The tank is used as a pass-through tank only.

After the pH adjustment tank, the treated wastewater flows into the weir box. Sodium metabisulfite can be dosed into the weir box to control residual chlorine and account for final pH adjustment if needed. The weir box has a pH probe to control chemical addition. The pH probe is used to regulate chemical dosing. A second pH probe located in the weir box is used to monitor for compliance with permit limits. In the chance that pH limits are not being met, an actuator activates a bypass valve to send the treated water to the six pack tanks, in particular tank #3. Water from the six pack tanks is eventually returned to the treatment system, specifically to the flocculant tank to be retreated.

The effluent sampling point for outfall 001 is located on the downstream end of the weir box control structure.

Sanitary WWTP

MAX has an on-site sanitary WWTP. It is a small package plant, and a process flow diagram of the sanitary plant is in **Appendix CWA F**. Sanitary wastewater flows by gravity to the first of two concrete inground tanks. The first concrete tank is used for primary settling of solids. Wastewater then flows into the second concrete tank used for aeration. The tank is baffled into two sections, aeration and then solids removal. The aeration tank helps reduce dissolved organic material through biological treatment. Solids are settled out in the second part of the tank.

Clarified effluent leaves the second tank and travels through three small boxes. Box number one contains chlorine tablets used for disinfection. Box number 2 drops out any remaining solids in the treated effluent. The final box, box number 3, is used for dechlorination with sodium bisulfite tablets. Treated effluent is discharged through outfall 007. Outfall 007 is

located just downstream of the weir box described above in the industrial WWTP. Effluent from outfall 007 and 001 is comingled and discharged to Sewickley Creek.

Stormwater

Non-contact stormwater is collected, transmitted by gravity, and authorized to discharge through outfalls 008 and 009. Outfall 009 has upstream internal monitoring points 109, 209, and 309 associated with it. A description of those outfalls is in **Table 4** above. A site plan of stormwater outfall 009 and upstream internal monitoring points 109, 209, and 309 is in **Appendix CWA G**.

Storm water outfalls 008 and 009, as well as the internal monitoring points 109, 209, and 309, are monitor and report only. There are no effluent limits associated with those outfalls.

Part C – IV. of the NPDES permit imposes requirements applicable to stormwater outfalls. The requirements are as follows:

- Stormwater Annual Report
- BMPs
    - Pollution prevention and exposure minimization
    - Good housekeeping
    - Erosion and sediment controls
    - Spill prevention and responses
    - Sector and site specific BMPs
- Routine inspections
- Preparedness, prevention, and contingency (PPC) plan
- Stormwater monitoring requirements

FIELD ACTIVITIES SUMMARY

The NEIC field team was joined by Allison Gieda, Eddie Simas, and Andrew Van Woert of EPA Region 3, and Pam McQuistian, Amanda Schmidt, and Jim Stewart of PADEP during the inspection. Not all participants were present for each day of the inspection. On March 20, 2023, NEIC inspectors conducted an opening meeting and presented credentials to Carl Spadaro, MAX's environmental general manager.

The NEIC RCRA field team performed the following activities to accomplish the investigation objectives:

- Met with facility personnel to discuss process operations, including waste screening and acceptance procedures, treatment and storage practices, treatment verification testing, and disposal procedures.

- Conducted walk-through tours of the facility to observe process operations, waste sampling practices, treatment procedures, laboratory analyses, disposal areas, and other RCRA permitted areas throughout the site. The NEIC RCRA field team took photographs and videos during the inspection which are included in **Appendix RCRA A** and **Appendix RCRA B**, respectively.

- Collected samples of treated hazardous waste disposed of in landfill No. 6 and treated hazardous waste in roll-off containers approved for disposal, to determine compliance with LDR treatment standards.

- Reviewed and/or copied facility documents including, among others, waste treatment records, select standard operating procedures, waste profiles, and RCRA permit appendices and related documents.

The NEIC CWA inspector conducted the following activities to accomplish the investigation objectives:

- Interviewed facility personnel and management responsible for operations, maintenance, monitoring, and reporting for the facility in relation to the NPDES permit.

- Reviewed operational documents, including but not limited to, PFDs, discharge monitoring reports (DMRs), and lab analysis relevant to the facility's operations and self-monitoring programs related to CWA.

- Visually inspected the physical control structures, discharge locations, and monitoring points as outlined in the NPDES permit. The NEIC CWA field team took photographs during the inspection which are included in **Appendix CWA H.**

Measurement and Sampling Activities

The NEIC RCRA field team provided support to this investigation by collecting samples of stabilized hazardous waste for LDR treatment verification purposes. **Table 7** summarizes field measurement and sampling activities. A copy of the chain of custody record is provided in **Appendix RCRA C**.

On March 21, 2023, the NEIC RCRA field team collected five grab samples from a mixture of four treated waste batches that had recently been disposed in landfill No. 6 (S01-S05; **Appendix**

RCRA A, photos 26-31). The four treated waste batches that were disposed in landfill No. 6, and sampled by NEIC, had been assigned the following treatment batch numbers: W030908, W031510, W031311, and W031405. Waste treatment records and manifests for these treatment batch numbers are provided in **Appendix RCRA D**.

On March 23, 2023, five grab samples of treated waste were also collected from treatment batch number W032003. These five grab samples were collected from three separate roll-off containers with the following container numbers: 512015, S358, and RT4427 (S06-S10, **Appendix RCRA A**, photos 86-93). The waste treatment record for this treatment batch is provided in **Appendix RCRA E**. Rain was observed during the collection of samples S06 – S10.

Table 7. FIELD MEASUREMENT AND FIELD SAMPLING ACTIVITIES

Location Identifier	Dates	Method, and/or Procedure[1], and Equipment	Measurer Name
MEASUREMENTS			
MSA Altair used to screen location for safety; RadEye used to screen samples for radiation	March 21 and 23, 2023	**NEIC procedure:** *Safety and Sample Screening Instruments,* NEICPROC/17-002 **Instrument guide(s):** *MSA Altair 5X Multi-Gas Monitoring Equipment* *RadEye B20-ER – Radiation Detection Equipment* **Equipment:** MSA Altair 5X Multi-Gas meter, SN2125 RadEye survey meter, SN S84599	Lorna Goodnight, Laura Kanopkin, and Brian Kennedy

Station No.	Appendix RCRA A Photo Nos.	Date and Time	Sampling Technique	Method, and/or Procedure, and Equipment	Sampler Name
SAMPLING					
S01	26, 31	March 21, 2023, 2:26 PM	Grab sample	**Method:** ASTM D5633: Standard Practice for Sampling with a Scoop **NEIC procedure:** *Soil and Solid Sampling/Scoops*, NEICPROC/00-052 **Equipment:** Pre-cleaned single-use plastic disposable scoops	Laura Kanopkin
S02	27, 31	March 21, 2023, 2:29 PM			
S03	28, 31	March 21, 2023, 2:32 PM			
S04	29, 31	March 21, 2023, 2:34 PM			
S05	30, 31	March 21, 2023, 2:38 PM			
S06	86	March 23, 2023, 10:57 AM			
S07	87	March 23, 2023, 11:00 AM			
S08	88	March 23, 2023, 11:03 AM			
S09	89	March 23, 2023, 11:07 AM			
S10	90	March 23, 2023, 11:11 AM			

[1] The current version of each procedure, at the time of the investigation, was followed.

All environmental measurement activities were performed in accordance with the NEIC quality system. All field sampling, field measurements/monitoring, and/or laboratory measurements described in this report are within the scope of NEIC's ISO/IEC 17025 accreditation issued by the ANSI National Accreditation Board (certificate No. FT-0303).

Activities were documented in field records. Samples collected during the field activities were shipped (via common carrier) to the NEIC laboratory in Denver, Colorado, for analysis.

LABORATORY ACTIVITIES SUMMARY

Bradley W. Miller (Miller) and Tanner Cheney (Cheney) of the laboratory team received the samples at the NEIC laboratory via FedEx from Brian Kennedy's custody on March 29, 2023. Miller and Cheney performed sample physical descriptions following NEIC operating procedure *Physical Description/Phase Separation*, NEICPROC/00-045R5. Cheney then prepared the samples for laboratory technical support. Cheney reduced the particle size of the entire sample so that it could be passed through a 9.5-millimeter (0.375-inch) sieve. The samples were then systematically subsampled by taking approximately 50 two-gram aliquots to generate a 100-gram subsample (approximately) for leaching by EPA *Test Methods for Evaluating Solid Waste: Physical/Chemical Methods* (SW-846) Method 1311: Toxicity Characteristic Leaching Procedure. **Table 8** summarizes analytical objectives, techniques, and methods. The TCLP extracts were digested following EPA Method 3015A: Microwave Assisted Acid Digestion of Aqueous Samples and Extracts. Metals analyses were performed using SW-846 Test Method 6010D: Inductively Coupled Plasma-Optical Emission Spectrometry. Mercury, from the TCLP extracts, were digested and analyzed by EPA Method 245.1: Determination of Mercury in Water by Cold Vapor Atomic Absorption Spectrometry.

Table 8. ANALYTICAL OBJECTIVE, TECHNIQUE, AND METHOD; ANALYST; AND DATE PERFORMED

Analytical Objective, Technique, and Method	NEIC Analyst	Samples Analyzed by Method (Station Nos.)	Date(s) Performed
Preparatory method: • SW-846 Test Method 1311: Toxicity Characteristic Leaching Procedure	Tanner Cheney	S01-S10	April 3-4, 2023 (Mercury Analyses)
	Tanner Cheney Bradley W. Miller		May 22-23, 2023 (Metals Analyses)

Table 8. ANALYTICAL OBJECTIVE, TECHNIQUE, AND METHOD; ANALYST; AND DATE PERFORMED			
Analytical Objective, Technique, and Method	**NEIC Analyst**	**Samples Analyzed by Method (Station Nos.)**	**Date(s) Performed**
Mercury: • Cold vapor atomic absorption by EPA Method 245.1: Determination of Mercury in Water by Cold Vapor Atomic Absorption Spectrometry; Revision 3.0. • *Elemental Analyses,* NEICGUID/18-001 *Nippon RA-3420 and RA-4500 Mercury Analyzers, Cold Vapor Atomic Absorption* instrument guide	Erick Zacher	S01-S10	April 5, 2023
Preparatory method: • TCLP metals extracts (except mercury) were digested following SW-846 Method 3015A: Microwave Assisted Acid Digestion of Aqueous Samples and Extracts;	Bradley W. Miller Tanner Cheney	S01-S10	May 31 and June 12, 2023
Metals: • Inductively Coupled Plasma-Optical Emission Spectrometry, SW-846 Method 6010D modified, Revision 5, July 2018,	Bradley W. Miller Bryan Locher	S01-S10	June 21, 23, and July 3, 2023

ANALYTICAL RESULTS

Laboratory observations are summarized in **Table 9.** The TCLP extract metals results and 40 Code of Federal Regulations (CFR) §§ 268.40 and 268.48 LDR and universal treatment standards (UTS) for non-wastewater samples are summarized in **Table 10**.

Laboratory observations, method modifications, and other information are documented in the project file. A copy of the chain of custody record is provided in **Appendix RCRA C**. Laboratory photographs are found in **Appendix RCRA F**.

Table 9. LABORATORY OBSERVATIONS AND SAMPLE PHYSICAL DESCRIPTIONS			
Station No.	**Station Location/ Description of Sample Location**	**Appendix RCRA F Photo File Names**	**Laboratory Sample Physical Description**
S01	Landfill No. 6, treatment batch Nos. W030908, W031510, W031311, and W031405	IMG_0918.JPG IMG_0919.JPG IMG_0920.JPG IMG_0921.JPG	Brown soil-like material with green colored aggregates
S02		IMG_0922.JPG IMG_0923.JPG IMG_0924.JPG IMG_0925.JPG	Brown soil-like material with white colored aggregates
S03		IMG_0926.JPG IMG_0927.JPG IMG_0928.JPG IMG_0929.JPG	Brown soil-like material with off-white and yellow-colored aggregates
S04		IMG_0930.JPG IMG_0931.JPG IMG_0932.JPG	Brown soil-like material with grey aggregates
S05		IMG_0933.JPG IMG_0934.JPG IMG_0935.JPG	Brown soil-like material
S06	Batch No. W032003, roll-off No. 512015	IMG_0936.JPG IMG_0937.JPG IMG_0938.JPG	Brown soil-like material with grey aggregates
S07	Batch No. W032003, roll-off No. 512015	IMG_0940.JPG IMG_0941.JPG IMG_0942.JPG IMG_0943.JPG	Brown soil-like material with grey and white aggregates
S08	Batch No. W032003, roll-off No. S358	IMG_0944.JPG IMG_0945.JPG IMG_0946.JPG IMG_0947.JPG	Brown soil-like material with small grey aggregates
S09	Batch No. W032003, roll-off No. RT4427	IMG_0948.JPG IMG_0949.JPG IMG_0950.JPG	Brown soil-like material with brown aggregates
S10	Batch No. W032003, roll-off No. RT4427	IMG_0951.JPG IMG_0952.JPG IMG_0953.JPG IMG_0954.JPG	Brown soil-like material with grey aggregates

Table 10. TCLP ELEMENTAL RESULTS AND 40 CFR §§ 268.40 AND 268.48 LDR AND UNIVERSAL TREATMENT STANDARDS FOR NONWASTEWATER SAMPLES

Station No.	(milligrams per liter [mg/L] TCLP)													
	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Lead	Mercury	Nickel	Silver	Selenium	Thallium	Vanadium	Zinc[5]
S01[1]	< 0.081	< 0.354	< 1.01	< 0.011	112	0.040	5.89	< 0.005	0.876	< 0.044	0.298	0.426	< 0.011	140
S02[1]	< 0.081	< 0.354	< 1.01	< 0.011	81.5	0.038	3.51	< 0.005	0.697	< 0.044	0.293	0.329	< 0.011	80.9
S03[1]	< 0.081	< 0.354	< 1.01	< 0.011	52.7	0.036	2.84	< 0.005	0.417	< 0.044	< 0.289	0.372	< 0.011	36.8
S04[1]	< 0.081	< 0.354	< 1.01	< 0.011	114	0.036	16.2	< 0.005	0.572	< 0.044	< 0.289	0.340	< 0.011	279
S05[1]	< 0.081	< 0.354	< 1.01	< 0.011	147	0.041	7.74	< 0.005	0.712	< 0.044	0.304	0.394	< 0.011	529
S06[2]	< 0.081	< 0.354	< 1.01	< 0.011	2.86	< 0.034	4.15	< 0.005	0.166	< 0.044	< 0.289	< 0.03	< 0.011	107
S07[2]	< 0.081	< 0.354	< 1.01	< 0.011	2.34	< 0.034	3.12	< 0.005	0.158	< 0.044	< 0.289	< 0.03	< 0.011	82
S08[2]	< 0.081	< 0.354	< 1.01	< 0.011	2.55	< 0.034	2.97	< 0.005	0.154	< 0.044	< 0.289	< 0.03	< 0.011	75
S09[2]	< 0.081	< 0.354	< 1.01	< 0.011	2.59	< 0.034	2.47	< 0.005	0.165	< 0.044	< 0.289	< 0.03	< 0.011	141
S10[2]	< 0.081	< 0.354	< 1.01	< 0.011	2.33	< 0.034	3.09	< 0.005	0.142	< 0.044	< 0.289	< 0.03	< 0.011	70.4
LDR[3] and Universal Treatment Standards[4]	1.15	5	21	1.22	0.11	0.6	0.75	0.025	11	0.14	5.7	0.2	1.6	4.3

[1] Values for these samples are an average of three measurement replicates (n=3).

[2] Values for these samples are an average of two measurement replicates (n=2).

[3] The applicable LDR treatment standards for hazardous waste numbers D004-D011 are provided, as referenced in 40 CFR § 268.40, Treatment Standards for Hazardous Waste.

[4] The applicable universal treatment standards for antimony, beryllium, nickel, thallium, vanadium, and zinc are provided, as referenced in 40 CFR § 268.48, Table UTS.

[5] As specified in footnote 5 of 40 CFR § 268.48, Table UTS, zinc is not an underlying hazardous constituent in characteristic wastes, according to the definition at 40 CFR § 268.2(i).

INVESTIGATION OBSERVATIONS

NEIC made the following observations during the RCRA and CWA compliance inspection. Excluding Observation 1, which required laboratory analysis, the NEIC field team members discussed all observations with facility representatives during the closeout meeting.

These observations are not final compliance determinations. EPA Region 3 will make the final compliance determinations based on its review of this report and other technical, regulatory, and facility information.

With certain exceptions, the Pennsylvania Code incorporates the federal RCRA regulations (40 CFR parts 260 through 270) by reference in 25 Pa. Code Chapters 260a through 270a. Unless otherwise specified, the federal regulations that were in place at the time of the Pennsylvania Code's incorporation are cited in the observations below. The conditions of MAX's February 14, 2005, hazardous waste permit No. PAD004835146 are also cited.

Observation: 1 RCRA

Observation Summary: MAX's treatment of hazardous waste by stabilization does not ensure that treated wastes meet the appropriate LDR treatment standards prior to disposal:

- NEIC collected and analyzed five grab samples (S01-S05) from a mixture of four treated waste batches that were disposed in MAX's residual waste landfill No. 6. Samples S01-S05 all exceeded the LDR treatment standards for cadmium and lead. Samples S01-S05 also exceeded the LDR universal treatment standard (UTS) for thallium.

- NEIC collected and analyzed five grab samples (S06-S10) of a treated waste batch in roll-off containers that MAX had approved for disposal in landfill No. 6. Samples S06-S10 all exceeded the LDR treatment standards for cadmium and lead.

Citation:

MAX's February 14, 2005, Hazardous Waste Permit No. PAD004835146, Part II – General Facility Conditions

S. Land Disposal Restrictions

The Permittee shall comply with standards under 40 CFR Part 268 (incorporated by reference at 25 Pa. Code Chapter 268a, except where stated at 25 Pa. Code § 268a.1) applicable to hazardous waste storage and treatment facilities.

Land disposal restrictions, applicability of treatment standards, 40 CFR § 268.40

(a) A prohibited waste identified in the table "Treatment Standards for Hazardous Wastes" may be land disposed only if it meets the requirements found in the table… D006…Cadmium…Nonwastewaters…0.11 mg/l TCLP and meet § 268.48 standards… D008…Lead…Nonwastewaters…0.75 mg/l TCLP and meet § 268.48 standards.

(b) …For all nonwastewaters, compliance with concentration level standards is based on grab sampling.

Observation: 1 RCRA

(e) For characteristic wastes (D001–D043) that are subject to treatment standards in the following table "Treatment Standards for Hazardous Wastes,"…all underlying hazardous constituents (as defined in § 268.2(i)) must meet Universal Treatment Standards, found in § 268.48, Table Universal Treatment Standards, prior to land disposal as defined in § 268.2(c) of this part.

Universal treatment standards, 40 CFR § 268.48

(a) Table UTS identifies the hazardous constituents, along with the nonwastewater and wastewater treatment standard levels, that are used to regulate most prohibited hazardous wastes with numerical limits. For determining compliance with treatment standards for underlying hazardous constituents as defined in § 268.2(i), these treatment standards may not be exceeded. Compliance with these treatment standards is measured by an analysis of grab samples, unless otherwise noted in the following Table UTS.
Thallium…Nonwastewater standard…0.20 mg/l TCLP

General waste analysis, 40 CFR § 264.13(a)

(1) Before an owner or operator treats, stores, or disposes of any hazardous wastes, or nonhazardous wastes if applicable under § 264.113(d), he must obtain a detailed chemical and physical analysis of a representative sample of the wastes. At a minimum, the analysis must contain all the information which must be known to treat, store, or dispose of the waste in accordance with this part and part 268 of this chapter.

Evidence:
Appendix RCRA A – RCRA Photographs
Appendix RCRA D - Waste Treatment Records and Manifests for Samples Collected on March 21, 2023
Appendix RCRA E - Waste Treatment Record for Samples Collected on March 23, 2023
Appendix RCRA G - MAX Waste Profiles for Treated Wastes Sampled by NEIC

Description of Observation: After the treatment of hazardous wastes in the SWSS pits by stabilization, MAX collects a sample of the treated waste for analysis at its on-site laboratory to determine if the treated waste meets the LDR treatment standards for disposal. If the analysis indicates that the treated waste meets the standards, MAX representatives will approve the disposal of the treated waste in the on-site landfill, landfill No. 6. The approval for the disposal of treated hazardous wastes in landfill No. 6 is recorded in a waste treatment record. Prior to disposal in landfill No. 6, treated wastes may be stored in roll-off containers in container storage areas No. 3 and 4.

On March 21, 2023, the NEIC RCRA field team collected five grab samples (S01-S05) from a mixture of four treated waste batches that had been disposed that day within the active cell of landfill No. 6 (**Appendix RCRA A**, photos 26-31). The four treated waste batches that were disposed that day in landfill No. 6 were assigned the following batch numbers: W030908, W031510, W031311, and W031405. Waste treatment records and manifests for these treatment batch numbers are provided in **Appendix RCRA D**. MAX's waste profiles for the wastes in the four treatment batches are in **Appendix RCRA G**. Based on the waste profiles, the wastes in the four batches had been characterized with the following combined EPA

hazardous waste numbers: D004 (arsenic), D005 (barium), D006 (cadmium), D007 (chromium), D008 (lead), D010 (selenium), and D011 (silver). As reflected in the four waste treatment records, all four batches were treated in MAX's SWSS pits (as indicated in the "Location Sampled" section of the treatment records in **Appendix RCRA D**, pages 1, 7, 12, and 14) and were approved for disposal in landfill No. 6 based on analysis conducted in the on-site laboratory.

NEIC laboratory analysis of grab samples S01-S05 indicate that all samples exceeded the LDR nonwastewater treatment standards for cadmium and lead of 0.11 mg/L TCLP and 0.75 mg/L TCLP, respectively. As shown in Table 10 in the Laboratory Activities Summary, samples S01-S05 far exceeded the LDR treatment standard for cadmium, including sample S05 which had a reported TCLP concentration of cadmium of 147 mg/L, or greater than 1,300 times the LDR treatment standard. Furthermore, samples S01-S05 all exceeded the hazardous waste toxicity characteristic concentration for cadmium of 1.0 mg/L TCLP (40 CFR § 261.24, hazardous waste No. D006), and samples S01, S04, and S05, exceeded the toxicity characteristic concentration for lead of 5.0 mg/L TCLP (hazardous waste No. D008). This may indicate that portions of the waste batches disposed in landfill No. 6 remained hazardous waste after treatment. Landfill No. 6 is not permitted for hazardous waste disposal. Of the mixture of four batches that was sampled by NEIC from landfill No. 6, three of those batches included waste that had arrived at MAX for treatment as D006 hazardous waste (**Appendix RCRA D**, pages 2, 3, 5, 8-10, and 13) and D008 hazardous waste (**Appendix RCRA D**, pages 2, 3, 5, 8-10, and 15).

Samples S01-S05 also exceeded the nonwastewater universal treatment standard (UTS) for thallium of 0.2 mg/L TCLP, as shown in Table 10. The LDR nonwastewater treatment standards at 40 CFR § 268.40 require that, for hazardous waste Nos. D004-D011, the treated waste must also meet the UTS for underlying hazardous constituents at 40 CFR § 268.48, including thallium. (Zinc was also found over the UTS limit for samples S01-S05, but as stated in footnote 5 to Table UTS in 40 CFR § 268.48, zinc is not considered an underlying hazardous constituent in characteristic wastes.)

On March 23, 2023, the NEIC RCRA field team collected five grab samples (S06-S10) of treated waste from batch number W032003. The treated waste batch had been approved for disposal in landfill No. 6 on March 22, 2023, as indicated on the waste treatment record (**Appendix RCRA E**) but was awaiting disposal in roll-off containers on March 23, 2023. The five grab samples were collected from three separate roll-off containers with the following container numbers: 512015, S358, and RT4427 (**Appendix RCRA A**, photos 86-93). MAX's waste profile for the waste in treatment batch W032003 is included in pages 1 and 2 of **Appendix RCRA G**. Prior to treatment by MAX, this waste had been characterized with EPA hazardous waste numbers D006 (cadmium) and D008 (lead).

NEIC laboratory analysis of grab samples S06-S10 indicate that all samples exceeded the LDR treatment standards for cadmium and lead, as shown in Table 10, above. Furthermore, samples S06-S10 all exceeded the hazardous waste toxicity characteristic concentration for cadmium (D006) of 1.0 mg/L TCLP (40 CFR § 261.24), which may indicate that the waste batch remained a D006 hazardous waste after treatment. If MAX disposed of batch number W032003 in landfill No. 6 without further treatment, as had previously been approved, MAX

Observation: 1 RCRA

may have disposed of hazardous waste in an unpermitted landfill. (Zinc was also found over the UTS limit for samples S06-S10, but as stated in footnote 5 to Table UTS in 40 CFR § 268.48, zinc is not an UTS in characteristic wastes.)

Based on the information above, MAX disposed of treated waste in landfill No. 6 (samples S01-S05) and approved for disposal additional treated waste to landfill No. 6 (samples S06-S10), that exceeded the applicable LDR treatment standards. Samples S01-S10 also exceeded the toxicity characteristic concentration for cadmium, and samples S01, S04, and S05 exceeded the toxicity characteristic for lead, which may indicate that at least portions of the waste batches sampled by NEIC remained hazardous waste after treatment. Landfill No. 6 is not permitted for hazardous waste disposal.

The analytical results from the NEIC laboratory indicate that MAX's hazardous waste stabilization treatment process is ineffective at meeting the appropriate LDR treatment standards. As stated in the June 1, 1990, *Federal Register* (FR) (55 FR 22539), a waste analysis plan should ensure that the LDR treatment standards will be met and, even when a plan is strictly adhered to, does not shield a facility from having to meet the treatment standard:

> *[A] disposal facility might violate the land disposal restrictions while at the same time comply with the provisions of its waste analysis plan…In any case, enforcement of the land disposal restrictions is based on grab samples …and analysis of all constituents regulated by the applicable treatment standards, not on the facility's waste analysis plan.*

Observation: 2 RCRA

Observation Summary: MAX's permitted hazardous waste containment building does not appear to be operating as a completely enclosed hazardous waste management unit. There are large openings in the exterior walls around bays 1 and 2 which expose the hazardous waste to the elements. Additionally, bay 4, where large quantities of bulk hazardous waste are stored, does not appear to be constructed as a completely enclosed unit as it does not have any barrier, wall, or door along its eastern side.

Citation:

MAX's February 14, 2005, Hazardous Waste Permit No. PAD004835146, Part IV Containment Building

(C) Design and Operating Requirements

7. The Permittee shall construct, operate, and maintain the containment building in a manner which prevents surface water percolation and precipitation entry into stored hazardous waste, as specified in Attachment 6.

10. The containment building walls (interior and exterior) that serve as structural support walls shall be sufficiently reinforced to prevent failure.

MAX's February 14, 2005, Hazardous Waste Permit No. PAD004835146, Attachment 6 Containment and Processing Building Management Plan

1.0 Background

Hazardous waste Containment Buildings are regulated by 40 CFR 264, Subpart DD paragraphs 1100 through 1102 and corresponding sections of 25 Pa Code.

Observation: 2 RCRA

2.0 CAP Building Operations

The CAP Building is completely enclosed with roof to control rainfall, sides and access doors 264.1101(a)(1).

Containment building applicability, 40 CFR § 264.1100

The requirements of this subpart apply to owners or operators who store or treat hazardous waste in units designed and operated under § 264.1101 of this subpart. The owner or operator is not subject to the definition of land disposal in RCRA section 3004(k) provided that the unit:

(a) Is a completely enclosed, self-supporting structure that is designed and constructed of manmade materials of sufficient strength and thickness to support themselves, the waste contents, and any personnel and heavy equipment that operate within the unit, and to prevent failure due to pressure gradients, settlement, compression, or uplift, physical contact with the hazardous wastes to which they are exposed; climatic conditions; and the stresses of daily operation, including the movement of heavy equipment within the unit and contact of such equipment with containment walls;

Containment building design and operating standards, 40 CFR § 264.1101

(a) All containment buildings must comply with the following design standards:

(1) The containment building must be completely enclosed with a floor, walls, and a roof to prevent exposure to the elements, (e.g., precipitation, wind, run-on), and to assure containment of managed wastes.

Evidence:

Appendix RCRA H - February 14, 2005, Hazardous Waste Permit No. PAD004835146
Appendix RCRA A – RCRA Photographs
Appendix RCRA G - MAX Waste Profiles for Treated Wastes Sampled by NEIC
Appendix RCRA I – Containment and Processing Building Management Plan
Appendix RCRA J – August 18, 1992, Preamble to the Final Rule for Hazardous Waste Containment Buildings

Description of Observation: MAX operates a permitted hazardous waste containment building, also known as its CAP building, as described in Part IV of the facility's February 14, 2005, hazardous waste permit (**Appendix RCRA H**, page 33). The permit allows MAX to store hazardous waste numbers D004-D008, D010, D011, K061, and K062 within the containment building. Although containment building operations are described in the 2005 permit, MAX representatives stated the current containment building was constructed in 2008.

The containment building is divided into four main areas or bays numbered from the south end of the building to the north. Bays 1 and 2, the southernmost bays, are constructed with concrete pads, steel exterior walls, a shared roof, and are equipped with closeable bay doors along their eastern side. At the time of NEIC's inspection, bay 1 was storing containerized hazardous waste awaiting treatment and bay 2 was storing bulk hazardous waste that required retreatment in MAX's SWSS pits. The NEIC RCRA field team observed significant damage and deterioration to the exterior walls surrounding the door frames to bays 1 and 2, such that large holes were present in the walls (**Appendix RCRA A**, photos 44, 45, and 97). Large sections of the exterior walls were also damaged or missing at the southeast corner of

the containment building at bay 1 and the southern wall of bay 1 (**Appendix RCRA A**, photo 94).

Bay 3 houses MAX's former WasteCAP hazardous waste treatment process equipment. MAX representatives stated the WasteCAP process, which previously treated K061 electric arc furnace dust, has not been used since approximately 2013. At the time of NEIC's inspection, bay 3 was storing containerized hazardous waste that was awaiting treatment in the SWSS pits (**Appendix RCRA A**, photos 49-52). Bay 3 appeared to be fully enclosed and no damage to the exterior walls of bay 3 were noted.

Bay 4, the northernmost bay, is also constructed with a concrete pad, steel exterior walls, and an overhanging roof. However, bay 4 is not equipped with a wall or door along its eastern side and is not fully enclosed (**Appendix RCRA A**, photos 43, 100, 101, 102). At the time of NEIC's inspection, bay 4 was storing hazardous waste awaiting treatment in the SWSS pits. MAX representatives provided waste profiles for the hazardous waste stored in bay 4. The profiles indicate the waste had been characterized with EPA hazardous waste Nos. D006 (cadmium) and D008 (lead) (**Appendix RCRA G**, pages 1-4).

The permit conditions for MAX's hazardous waste containment building reference the federal regulations for containment buildings in 40 CFR part 264 Subpart DD. Additionally, Attachment 6 of MAX's hazardous waste permit is a containment building management plan that references the design and operating standards for containment buildings in 40 CFR part 264 (**Appendix RCRA I**). Those regulations, and specifically 40 CFR § 264.1101, require that containment buildings be "completely enclosed" to avoid regulation as land disposal units under RCRA. Attachment 6 of the permit further describes MAX's CAP building as "completely enclosed with a roof to control rainfall, sides and access doors" (**Appendix RCRA I**, page 3)

In the preamble for the final rule for hazardous waste containment buildings, EPA stated the following (**Appendix RCRA J**, pages 1 and 4 [57 FR 37211 and 37214, August 18, 1992]):

> *We explain below in detail how containment buildings are defined. However, the key features for determining that they are not land disposal units are that wastes are stored indoors in a secure structure (securely walled, roofed, and floored) that is designed to provide containment comparable to that provided by tanks or containers…*
>
> *Thus, to distinguish these units from waste piles - i.e., land disposal units - hazardous wastes managed in these units must be fully contained within the unit. As such, the unit must be completely enclosed with a floor, walls and a roof to prevent exposure to precipitation and wind (§ 264.1101(a)(1) and § 265.1101(a)(1)).*
>
> *Although a number of commenters to the proposed rule did not believe complete enclosure to be necessary, EPA continues to regard this as key to ensuring complete containment of wastes managed in these units, and thus distinguishing these units from land disposal units such as piles.*

Observation: 2 RCRA

Both in the preamble for the final rule for containment buildings and in the final regulatory language at subpart DD of 40 CFR part 264, EPA makes clear that hazardous waste containment buildings must be "completely enclosed" with a floor, walls, and a roof. The damage to the exterior walls of bays 1 and 2 of MAX's containment building does not allow the building to completely enclose the hazardous waste inside and will not prevent exposure of waste to the elements. Additionally, as currently constructed, bay 4 does not appear to meet the "completely enclosed" requirement for containment buildings because it does not have any barrier, wall, or door on its eastern side.

Observation: 3 RCRA

Observation Summary: MAX does not maintain its hazardous waste containment building to prevent the entry of precipitation into the building and onto hazardous waste. During moderate to heavy rainfall on March 23, 2023, the NEIC RCRA field team observed precipitation enter the containment building through the roof of bay 4 and contact bulk, non-containerized hazardous waste. On the same day, the NEIC RCRA field team observed liquid that appeared to be stormwater on the ground inside of bay 3.

Citation:

MAX's February 14, 2005, Hazardous Waste Permit No. PAD004835146, Part IV Containment Building

(C) Design and Operating Requirements

2. *The Permittee shall construct and maintain the containment building with structures that provide protection from precipitation.*
4. *The Permittee shall operate and maintain a surface water run-off and run-on control system, as specified in Attachment 6.*
7. *The Permittee shall construct, operate, and maintain the containment building in a manner which prevents surface water percolation and precipitation entry into stored hazardous waste, as specified in Attachment 6.*

MAX's February 14, 2005, Hazardous Waste Permit No. PAD004835146, Attachment 6 Containment and Processing Building Management Plan

2.0 CAP Building Operations

The CAP Building is completely enclosed with roof to control rainfall, sides and access doors 264.1101(a)(1).

Containment building design and operating standards, 40 CFR § 264.1101

(b) All containment buildings must comply with the following design standards:

(2) The containment building must be completely enclosed with a floor, walls, and a roof to prevent exposure to the elements, (e.g., precipitation, wind, run-on), and to assure containment of managed wastes.

Evidence:

Appendix RCRA H - February 14, 2005, Hazardous Waste Permit No. PAD004835146
Appendix RCRA A – RCRA Photographs
Appendix RCRA G - MAX Waste Profiles for Treated Wastes Sampled by NEIC
Appendix RCRA B – RCRA Videos

Observation: 3 RCRA

Description of Observation: As described above in **Observation 2 RCRA**, MAX operates a permitted hazardous waste containment building, also known as its CAP building, as described in Part IV of the facility's February 14, 2005, hazardous waste permit (**Appendix RCRA H**, page 33). The permit allows MAX to store hazardous waste numbers D004-D008, D010, D011, K061, and K062 within the containment building.

At the time of NEIC's inspection, bay 4 was storing bulk, non-containerized hazardous waste awaiting treatment in the SWSS pits. The hazardous waste in bay 4 resembled a brown, soil-like material (**Appendix RCRA A**, photos 43 and 100). MAX representatives provided waste profiles for the hazardous waste stored in bay 4. The profiles indicate the waste had been characterized with EPA hazardous waste Nos. D006 (cadmium) and D008 (lead) (**Appendix RCRA G**, pages 1-4).

On March 23, 2023, the NEIC RCRA field team observed bay 4 of the containment building during moderate to heavy rainfall. Precipitation was observed entering bay 4 through holes in the building roof and falling directly onto the hazardous waste stored within (**Appendix RCRA B**, video P3230388.MOV). Holes in the bay roof are visible near the upper left skylight in photo 101 of **RCRA Appendix A**. The stormwater that entered bay 4 pooled near the bay's entrance and at the toe of the piled waste and was observed draining from the bay floor through a pipe at the building's northeast corner (**Appendix RCRA A**, photo 102). MAX representatives stated the pipe discharged to the exterior containment building sump, which connected the SWSS pit sump and eventually to the wastewater treatment plant. Stormwater was observed continuously draining from inside bay 4 through the discharge pipe and into the exterior containment building sump (**Appendix RCRA B**, video P3230389.MOV).

On March 23, 2023, the NEIC RCRA field team also entered bay 3 of the containment building during moderate to heavy rainfall. Liquid that appeared to be stormwater was observed on the ground inside bay 3 near several chemical containers (**Appendix RCRA A**, photo 99). It was unclear if the stormwater was entering the bay through a leak in the roof or by other means.

Observation: 4 RCRA

Observation Summary: MAX does not appear to be maintaining, or conducting required inspections of, the leak detection system of its hazardous waste containment building. The leak detection tube at the northeast corner of the containment building is not currently accessible for monitoring because it is covered by backfill, and MAX has been unable to monitor for leaks per the method required in its permit.

Citation:

MAX's February 14, 2005, Hazardous Waste Permit No. PAD004835146, Part IV Containment Building

(C) Design and Operating Requirements

8. The Permittee shall construct, operate, and maintain a leachate collection and removal system according to the plans and specifications in Attachment 6…

(H) Monitoring and Inspection

Observation: 4 RCRA

1. *The Permittee shall inspect the containment building daily when waste is being stored or treated and weekly when the building is not in use to detect…leachate collection/detection systems.*
2. *The Permittee shall record the amount of liquids removed from the leachate detection zone at least weekly…*
3. *If there is liquid detected in the leachate detection zone…the Permittee shall follow the action and notification requirements of 40 CFR 264.1101(c)(3).*

MAX's February 14, 2005, Hazardous Waste Permit No. PAD004835146, Attachment 6 Containment and Processing Building Management Plan

2.0 CAP Building Operations

The leak detection system is monitored by a tube installed at the low point in the system the collection sump (264.1101(b)(3)(i))…

4.0 Containment Building Evaluation and Repair Plan

The Containment Building will be inspected at least weekly and after storm events…[for] *the presence of leachate in and proper functioning of leachate collection and removal systems (264.1101(b)(3)(i), 264.1101(c)(4)).*

Containment building design and operating standards, 40 CFR § 264.1101

(c) Owners or operators of all containment buildings must:

(4) Inspect and record in the facility operating record, at least once every seven days, data gathered from monitoring and leak detection equipment as well as the containment building and the area immediately surrounding the containment building to detect signs of releases of hazardous waste.

Evidence:
Appendix RCRA K – Inspection Plan
Appendix RCRA A – RCRA Photographs
Appendix RCRA L – March 13, 2023, MAX Weekly Facility Inspection Report
Interviews with facility personnel

Description of Observation: MAX's hazardous waste containment building is constructed with a leachate collection and detection system. The system consists of a pipe situated in the detection zone between the building's concrete pad and a secondary liner beneath the pad. Attachment 2 of MAX's hazardous waste permit contains a facility inspection plan. Carl Spadaro, MAX's environmental general manager, provided NEIC a copy of the inspection plan attachment to the permit (**Appendix RCRA K**). Page 12 of the inspection plan describes the containment building leak detection system and its weekly inspection schedule:

The leak detection tube installed between the synthetic liner and the concrete sump is to be tested, on a weekly basis, by placing a slight vacuum on the tube. A hand vacuum pump is connected to the tube and if a leak is present, liquid will accumulate in the pump reservoir. Check the pH of any liquid collected to determine if a leak has occurred. Inspect the synthetic liner, concrete, and metal for damage or deterioration. Check that the area is clean and free of debris.

According to Carl Spadaro, MAX's environmental general manager, the leak detection tube is located somewhere near the exterior containment building sump, shown in photo 46 of

Observation: 4 RCRA

Appendix RCRA A. At the time of NEIC's inspection, Mr. Spadaro stated that the leak detection tube was no longer visible because it had become covered by backfill. As result, Mr. Spadaro stated that the current method of leak detection was to visually inspect the area where the geotextile membrane attaches to the outer wall of the containment building (visible as the black liner along the wall in photo 46).

It is unclear to NEIC when the leak detection tube became inaccessible, and the leak detection monitoring requirements prescribed in MAX's permit ceased. MAX operators complete a weekly facility inspection report to monitor units subject to RCRA requirements, among others. An inspection report reviewed for the week of March 13, 2023, appears to indicate that the containment building leak detection system was inspected on Friday, March 17, 2023 (**Appendix RCRA L**, page 2, "CAP Building Sump and Leak Detection (Weekly)"). However, given the statements of MAX representatives and the state of the area where the leak detection tube is present, it appears unlikely that the recorded inspection was completed with a handheld vacuum pump as required by MAX's permit.

Observation: 5 RCRA

Observation Summary: MAX does not appear to be conducting daily inspections of its hazardous waste containment building when waste is stored in the building, as required by its hazardous waste permit. MAX personnel only conduct inspections of the containment building during weekdays and no inspections appear to be conducted during weekends. Additionally, MAX was unable to provide documentation to demonstrate that annual structural inspections of the secondary containment system and the containment building base are conducted.

Citation:

MAX's February 14, 2005, Hazardous Waste Permit No. PAD004835146, Part IV Containment Building

(H) Monitoring and Inspection

1. The Permittee shall inspect the containment building daily when waste is being stored or treated and weekly when the building is not in use to detect evidence of deterioration, malfunctions or improper operation of run-on/run-off controls, wind dispersal controls, leachate collection/detection systems and liner condition. The Permittee shall also conduct annual structural inspections of the secondary containment system and containment building base.

MAX's February 14, 2005, Hazardous Waste Permit No. PAD004835146, Attachment 6 Containment and Processing Building Management Plan

4.2 Annual Inspections

In addition to routine inspections, detailed inspections of the Containment Building base and secondary containment surfaces are conducted annually to determine the overall condition of the Containment Building and to assess the need for non-routine maintenance. Records of repairs made since the previous annual evaluation are used to determine the scope of the inspection…Where warranted, wall thickness is determined by destructive and/or non-destructive means…Steel surfaces are examined for pitting, abrasion, general and localized surface deterioration, and other indications of wall thinning…The results of the annual evaluations and records of any

Observation: 5 RCRA

maintenance performed based upon the evaluations are maintained in the facility operating record.

Evidence:
Appendix RCRA A – RCRA Photographs
Appendix RCRA L – March 13, 2023, MAX Weekly Facility Inspection Report
Interviews with facility personnel

Description of Observation: MAX's hazardous waste containment building does not appear to be inspected on a daily basis when hazardous waste is stored within the building, as required by MAX's hazardous waste permit. At the time of NEIC's inspection, MAX representatives stated that the facility operates on a single shift, Monday through Friday. The NEIC RCRA field team observed hazardous waste stored in bays 1, 2, 3, and 4 of MAX's hazardous waste containment building during the inspection (**Appendix RCRA A**, photos 43-45 and 49-52). MAX's internal facility inspection report for the week of March 13, 2023 (the week before NEIC's inspection), indicates that the containment building was inspected Monday through Friday of that week (**Appendix RCRA L**, page 2). However, no inspections are noted on Saturday, March 18 or Sunday March 19, when the hazardous waste observed by the NEIC RCRA field team was likely present in the containment building.

MAX's hazardous waste permit also requires that an annual structural inspection of the containment building base and secondary containment system (including exterior walls) be conducted. At the close of the inspection on March 24, 2023, NEIC requested that MAX provide records related to the annual structural inspections by March 31, 2023. No records of the annual structural inspections were received by NEIC.

As noted in **Observation 2 RCRA**, significant deterioration of the exterior walls of bays 1 and 2 were observed by the NEIC RCRA field team, such that large sections of the wall were missing or damaged. Additionally, as noted in **Observation 3 RCRA**, holes in the roof of bay 4 allowed precipitation to enter the bay and contact hazardous waste.

Observation: 6 RCRA

Observation Summary: MAX does not appear to be conducting adequate inspections to ensure that areas around mechanical waste processing equipment in the hazardous waste containment building are clean and free of debris. Material that appeared to be waste residue was observed on the floor underneath a former waste treatment unit in bay 3 of the hazardous waste containment building.

Citation:
MAX's February 14, 2005, Hazardous Waste Permit No. PAD004835146, D. General Inspection Requirements
The Permittee shall follow the inspection plan set out in the inspection schedule, Attachment 2. The Permittee shall remedy any deterioration or malfunction discovered by an inspection and maintain records of inspections as required by 40 CFR 264.15 (incorporated by reference at 25 Pa. Code Chapter 264a).

MAX's February 14, 2005, Hazardous Waste Permit No. PAD004835146, Attachment 2 Inspection and Maintenance Plan

Observation: 6 RCRA

3.0 Containment Building, Mechanical Waste Processing, and Treatment Reagent Storage Area

3.3 Mechanical Waste Processing Units(s) – Inspect the screens, crushers, conveyors, mixers, silos, and control units for damage and deterioration…Check that the area around the operating equipment is clean and free of debris, oil and grease, and trip and fall hazards. Check that the doors are in good condition, that wind dispersion has not occurred, and that stormwater has not accumulated in the area.

Evidence:
Appendix RCRA A – RCRA Photographs
Appendix RCRA K – Inspection Plan

Description of Observation: Bay 3 of MAX's hazardous waste containment building houses the former WasteCAP hazardous waste treatment equipment. MAX representatives stated the WasteCAP process, which previously treated K061 electric arc furnace dust, has not been used since approximately 2013. MAX representatives explained the uses of the former treatment equipment including a former waste mixing unit on the ground floor of bay 3. The mixing unit, which is elevated off the floor, was previously used to treat K061 hazardous waste. After waste was treated in the unit, the mixer would open to allow treatment residue to fall into a roll-off box stationed underneath. At the time of NEIC's inspection, the RCRA field team observed material that appeared to be waste residue on the floor underneath the mixing unit (**Appendix RCRA A**, photo 53).

Attachment 2 of MAX's hazardous waste permit contains a facility inspection plan. Section 3.0 includes inspection requirements for the hazardous waste containment building including waste processing equipment like the mixing unit. The inspection requirements specify that the MAX representatives should ensure that the area around the mixing unit is kept "clean and free of debris" (**Appendix RCRA K**, page 13).

Observation: 7 RCRA

Observation Summary: MAX staged five open drums of hazardous waste at the hazardous waste containment building. MAX was not adding to or removing waste from the containers.

Citation:
MAX's February 14, 2005, Hazardous Waste Permit No. PAD004835146, Part V – Storage in Containers
F. Management of Containers
The Permittee shall manage containers as required by 40 CFR § 264.173 (incorporated by reference at 25 Pa. Code Chapter 264a) and 25 Pa. Code § 264a.173.

Management of containers, 40 CFR § 264.173
(a) A container holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste.

Evidence:
Appendix RCRA A – RCRA Photographs

Description of Observation:

Observation: 7 RCRA

On March 22, 2023, NEIC inspectors observed five drums of hazardous waste that MAX had staged behind the CAP building (**Appendix RCRA A**, photos 56-58). The drums contained solids that were adhered to the inside of the containers. MAX representatives stated that the drums needed to be cut open to remove the remaining solids and brought to the SWSS pits for treatment. All five drums did not have caps in the bungholes and were open. Containers of hazardous waste are required to be closed unless waste is being added or removed.

Observation: 8 RCRA

Observation Summary: NEIC inspectors observed oily staining on the ground near a waste oil storage tank. The struts on the tank were stained which may indicate a leak in the tank.

Citation:

Subchapter C. Waste Oil Generators, 25 Pa. Code § 298.22

(b) Condition of units. A container or aboveground storage tank used to store waste oil at generator facilities shall meet the following requirements:

(1) Be in good condition. For example, containers and aboveground storage tanks may not exhibit severe rusting, apparent structural defects or deterioration.

(2) Not leaking (no visible leaks).

(f) Response to releases. Upon detection of a release of waste oil to the environment not subject to Chapter 245, Subchapter D (relating to corrective action process for owners and operators of storage tanks and storage tank facilities and other responsible parties) which has occurred after June 2, 2001, a generator shall perform the following cleanup steps:

(1) Stop the release.

(2) Contain the released waste oil.

(3) Clean up and manage properly the released waste oil and other materials.

(4) Repair or replace any leaking waste oil storage containers or tanks prior to returning them to service, if necessary.

Evidence:

Appendix RCRA A – RCRA Photographs

Description of Observation:

MAX generates waste oil from oil changes conducted on vehicles and equipment. The waste oil is stored in a small cylindrical tank labeled with the words “Used Oil” (**Appendix RCRA A**, photo 59). MAX representatives stated the tank is maintained and periodically emptied by an outside contractor, Safety-Kleen. On March 22, 2023, NEIC inspectors observed the fuel area where the tank is kept and noted black, oily staining of the soil underneath the tank (**Appendix RCRA A**, photo 61). The staining may indicate that the tank has a small leak that allows waste oil to leak out onto the ground. Additionally, inspectors observed oily stains along the back wall of the adjacent concrete fueling pad (**Appendix RCRA A**, photo 60). The regulations applicable to generators of waste oil in Pennsylvania require that tanks used to store waste oil must be in good condition and have no visible leaks. Additionally, waste oil generators must ensure that releases of waste oil are properly cleaned up and that waste oil storage units are repaired prior to returning to service.

Observation: 9 RCRA

Observation Summary: MAX did not label an aboveground storage tank of waste oil with the words "Waste Oil."

Citation:

Subchapter C. Waste Oil Generators, 25 Pa. Code § 298.22

(c) Labels.

(1) Except as provided in paragraphs (2) and (3), a container or aboveground storage tank used to store waste oil at generator facilities shall be labeled or marked clearly with the words "waste oil" by no later than December 2, 2001.

(2) Containers or aboveground storage tanks which are labeled or marked with the words "used oil" on June 2, 2001, shall be labeled or marked with the words "waste oil" by no later than June 2, 2003.

Evidence:

Appendix RCRA A – RCRA Photographs

Description of Observation:

MAX generates waste oil from oil changes conducted on vehicles and equipment. The waste oil is stored in a small cylindrical tank labeled with the words "Used Oil" (**Appendix RCRA A**, photo 59). In the state of Pennsylvania, aboveground storage tanks of waste oil are required to be labeled with the words "Waste Oil."

Observation: 10 RCRA

Observation Summary: MAX stored F039 hazardous waste for greater than 90 days without an approved time limit extension from the PADEP.

Citation:

Conditions for exemption for a large quantity generator that accumulates hazardous waste, 40 CFR § 262.17

A large quantity generator may accumulate hazardous waste on site without a permit or interim status, and without complying with the requirements of parts 124, 264 through 267, and 270 of this chapter, or the notification requirements of section 3010 of RCRA, provided that all of the following conditions for exemption are met:

(a) Accumulation. A large quantity generator accumulates hazardous waste on site for no more than 90 days…

(b) Accumulation time limit extension. A large quantity generator who accumulates hazardous waste for more than 90 days is subject to the requirements of 40 CFR parts 124, 264 through 268, and part 270 of this chapter, and the notification requirements of section 3010 of RCRA, unless it has been granted an extension to the 90-day period. Such extension may be granted by EPA if hazardous wastes must remain on site for longer than 90 days due to unforeseen, temporary, and uncontrollable circumstances. An extension of up to 30 days may be granted at the discretion of the Regional Administrator on a case-by-case basis.

Evidence:

Appendix RCRA H – February 14, 2005, Hazardous Waste Permit No. PAD004835146

Appendix RCRA A – RCRA Photographs

Appendix RCRA M – March 7, 2023, Hazardous Waste Accumulation Time Extension Request

Observation: 10 RCRA

Description of Observation:

MAX generates hazardous waste landfill leachate sludge (EPA hazardous waste No. F039) during the periodic clean-out of the wastewater treatment system sludge thickener tank. The sludge is removed from the treatment tank and accumulated on site before it is shipped off-site for disposal. At the time of NEIC's inspection, F039 hazardous waste sludge was observed stored in a vacuum box container located at container storage area No. 2. Container storage areas under MAX's permit are not permitted for storage of F039 hazardous waste (**Appendix H**, page 37).

On March 22, 2023, the NEIC RCRA field team observed a vacuum box in container storage area No. 2 labeled with a tag that read "F039 12-9-22" (**Appendix RCRA A**, photos 68-69). MAX representatives stated that the "12-9-22" (December 9, 2022) date was the accumulation start date for the waste in the container, indicating that the waste had been accumulating for 103 days at the time of the inspection. Because MAX is not permitted to store F039 hazardous waste, it failed to meet the permit exemption condition applicable to large quantity generators by exceeding the 90-day accumulation limit.

During the close-out conference on March 24, 2023, MAX representatives informed NEIC inspectors that US Ecology, the waste management company MAX sends this waste to for disposal, had requested an updated analysis of the sludge prior to accepting the hazardous waste shipment. MAX indicated that the analytical results were still pending at the time of NEIC's inspection, and the facility had requested a 30-day extension from PADEP on March 7, 2023, 88 days after the accumulation start date. A copy of the extension request letter was submitted to NEIC after the inspection on April 3, 2023 (**Appendix RCRA M**). At the time of NEIC's inspection, however, MAX had not received a response from PADEP that approved the extension to store F039 hazardous waste beyond the 90-day limit.

Observation: 11 RCRA

Observation Summary: A vacuum box container accumulating F039 hazardous waste was actively leaking at the time of the NEIC's inspection.

Citation:

Conditions for exemption for a large quantity generator that accumulates hazardous waste, 40 CFR § 262.17(a)(1)(ii)

A large quantity generator may accumulate hazardous waste on site … provided that all of the following conditions for exemption are met:

- *(a) Accumulation. A large quantity generator accumulates hazardous waste on site for no more than 90 days… The following accumulation conditions also apply:*
  - *(1) Accumulation of hazardous waste in containers. If the hazardous waste is placed in containers, the large quantity generator must comply with the following:*
    - *(ii) Condition of containers. If a container holding hazardous waste is not in good condition, or if it begins to leak, the large quantity generator must immediately transfer the hazardous waste from this container to a container that is in good condition, or immediately manage the waste in some other way that complies with the conditions for exemption of this section;*

Evidence:

Observation: 11 RCRA

Appendix RCRA A – RCRA Photographs
Appendix RCRA B – RCRA Videos
Appendix RCRA N – Follow-up Photographs of Leaking F039 Container Submitted by MAX

Description of Observation:

During a tour of the wastewater treatment area on March 22, 2023, the NEIC RCRA field team observed a vacuum box in container storage area No. 2 that was dripping from an inlet on the side of the box. Liquid from the container was leaking onto the storage area's concrete pad and mixing with a puddle of rainwater that had accumulated at the southeast corner of the pad (**Appendix RCRA A**, photos 70-72, 74, and 75, and **Appendix RCRA B**, video P3230361.MOV).

MAX representatives stated that the leak from the container had been identified before NEIC's inspection, that prior attempts to repair the leak were unsuccessful, and that the facility was waiting until the vacuum box was emptied to replace the valve on the inlet with a cap. The RCRA regulations for large quantity generators of hazardous waste require that containers be in good condition. If a container begins to leak, the generator must immediately transfer the hazardous waste or immediately manage the waste in a way that complies with the regulations. MAX did not immediately address the leaking container and allowed hazardous waste to be released onto the containment pad at container storage area No. 2.

On March 24, 2023, MAX representatives stated that the leak had been repaired the previous night. MAX submitted follow-up photos to NEIC on April 3, 2023, to demonstrate that the vacuum box was no longer leaking (**Appendix RCRA N**).

Observation: 12 RCRA

Observation Summary: The concrete secondary containment pad of container storage area No. 2 has settled and, at the time of NEIC's inspection, did not appear to be draining accumulated liquid as required by MAX's hazardous waste permit.

Citation:

MAX's February 14, 2005, Hazardous Waste Permit No. PAD004835146, Part V – Storage in Containers

D. Placement Requirements

The permittee shall store all hazardous waste containers in accordance with the following volume and location requirements:

2. Area #2 (see Attachment 7)

G. Containment

The Permittee shall manage Areas 1-5 in accordance with 40 CFR § 264.175 (incorporated by reference in Pa. Code Chapter 264a.).

MAX's February 14, 2005, Hazardous Waste Permit No. PAD004835146, Attachment 7 Container Storage Management Plan

2.0 Container Storage Area Operations

Container Storage Areas No. 1-4 are curbed to prevent run-on and runoff (264.175(b)(4)), and sloped so that spills drain to designated holding tanks or reactors ((264.175(b)(1)); (264.175(b)(2)).

Observation: 12 RCRA

Use and Management of Containers - Containment, 40 CFR 264.175

(a) Container storage areas must have a containment system that is designed and operated in accordance with paragraph (b) of this section, except as otherwise provided by paragraph (c) of this section.

(b) A containment system must be designed and operated as follows:

(2) The base must be sloped or the containment system must be otherwise designed and operated to drain and remove liquids resulting from leaks, spills, or precipitation, unless the containers are elevated or are otherwise protected from contact with accumulated liquids;

Evidence:

Appendix RCRA A – RCRA Photographs

Appendix RCRA O – Container Storage Area Management Plan

Description of Observation:

During a tour of container storage area No. 2 on March 22, 2023, the NEIC RCRA field team observed that the concrete secondary containment pad had settled causing liquid to accumulate in the southeast corner of the pad and not drain towards a sump in the center of the pad (**Appendix RCRA A**, photos 68, 72-74). MAX representatives told NEIC inspectors that liquid that accumulates in the secondary containment pad is intended drain to a central sump and pump back into the wastewater treatment system. The NEIC RCRA field team observed that the pad is no longer operating in this way, as evidenced by the liquids accumulating along the southeast corner the containment area.

According to Attachment 7 of MAX's permit (**Appendix RCRA O**, page 3), container storage area No. 2 is constructed with a concrete surface and concrete curbing; the concrete surface is designed to be sloped and curbed to drain to a sump. The current condition of the containment pad is no longer operating to meet the intent for spills and accumulated precipitation to drain properly.

Observation: 13 RCRA

Observation Summary: MAX did not follow the designated procedures for sample collection as required in the waste analysis and classification plan (WACP) of its hazardous waste permit. NEIC inspectors observed MAX representatives collect grab samples instead of required composite samples for hazardous waste acceptance screening and for hazardous waste post-treatment verification testing. Additionally, NEIC observed that MAX operators do not use the required sampling tools as specified in the WACP.

Citation:

MAX's February 14, 2005, Hazardous Waste Permit No. PAD004835146, Part II – General Facility Conditions

B. General Waste Analysis

1. The Permittee shall follow the procedures described in the attached Waste Analysis Plan, Attachment 1. The Permittee shall…use approved sampling and analytical methods…

MAX's Hazardous Waste Permit No. PAD004835146, Attachment 1 Waste Analysis and Classification Plan, 5.0 Sampling Procedures

Observation: 13 RCRA

5.3 Waste Shipment Samples

The following sampling strategies are employed to ensure that representative samples are collected for waste acceptance evaluations.

5.3.1 Bulk Solid Waste Shipments

Dry materials and materials with large or uneven particle sizes are sampled using a shovel or scoop. Since these devices only allow sampling near the surface of the waste, multiple samples are collected and composited in a clean plastic container from different depths when a shovel or scoop is used.

In order to ensure the representative nature of the samples collected from bulk solid waste shipments, multiple points within the shipping container are sampled. A minimum of three sampling locations evenly distributed along the length of the container are sampled and composited.

5.4 Waste Treatment Units

All waste treatment conducted at the facility is performed in tanks or mechanical processing units. The following procedures ensure that representative samples are obtained from the tanks or treatment units for post-treatment testing.

5.4.2 Solid Processing Tanks and Mechanical Processing Units

Samples from the tank or mechanical units used for waste processing in solid form are obtained by collecting samples from a minimum of four locations spaced evenly along the length of the tank or storage container. An excavator bucket may be used to collect the sample from a tank while the storage container can typically be accessed with a scoop or shovel. An aliquot is removed from each excavator bucket or storage container using a scoop and composited into a sample container. The composite sample is thoroughly mixed and delivered to the laboratory for characterization.

Evidence:

Appendix RCRA P – March 5, 2004, Waste Analysis and Classification Plan
Appendix RCRA A – RCRA Photographs
Appendix RCRA Q – MAX SOP Treated Waste Sampling Procedure

Description of Observation:

According to the approved WACP in MAX's current hazardous waste operating permit, samples are to be collected of incoming hazardous waste shipments for the purpose of verifying physical and chemical characteristics to determine waste acceptance. This is referred to as a "fingerprint," and the specific analytical tests and observations required for a given waste stream are determined during MAX's initial waste approval procedures. Results of the fingerprint analysis are recorded on a Waste Receipt Record form which are completed for every hazardous waste shipment received (**Appendix RCRA P**, page 29-30).

MAX's WACP also states that samples are to be collected and analyzed at the on-site laboratory for treatment verification after stabilization is performed in the SWSS pits.

On March 21 and 22, 2023, NEIC inspectors observed the unloading of a bulk hazardous waste shipment into the SWSS treatment pits, the collection of waste acceptance (fingerprint) samples prior to treatment, the treatment by stabilization in the SWSS pits, and the collection of treatment verification samples. The sample collection process was the same for all treated waste batches observed by NEIC during the inspection: an excavator scooped

Observation: 13 RCRA

out one bucket of material from the SWSS pit, lifted the filled bucket to the pit's curb, and a MAX operator used their gloved hand to skim across the top layer of material and place the collected sample into a small white plastic pail (**Appendix RCRA A**, photos 3, 5, 33, 34, 79-81). The pail was tagged with a label and delivered directly to the on-site laboratory for analysis.

NEIC inspectors also reviewed MAX's standard operating procedure (SOP) for treated waste sample collection from the SWSS pits (**Appendix RCRA Q**). The SOP directs operators to take "one single grab sample" to "represent the entire mixture within the [SWSS] unit." This procedure is consistent with the sample collection practices observed during the NEIC inspection.

In contrast to what was observed on-site, however, MAX's WACP requires that representative samples of incoming bulk wastes must be collected from a minimum of three locations evenly distributed along the container and composited (**Appendix RCRA P**, page 38). Additionally, the WACP requires that waste treatment verification samples must be collected from a minimum of four locations spaced evenly within the tank (SWSS pit) or storage container and composited (**Appendix RCRA P**, page 43). The composite samples must be thoroughly mixed prior to delivery to the laboratory. NEIC inspectors observed that MAX only collects a single grab sample from one location in a SWSS pit for both incoming wastes and treated wastes, which does not meet the WACP requirements for representative sampling. The SOP for treated waste sampling (**Appendix RCRA Q**) incorrectly directs operators to collect a grab sample instead of a representative composite sample, as required by the WACP.

The sampling procedure for incoming bulk waste shipments in the WACP further specifies that a representative sample is collected using a shovel or scoop. The sampling procedure for waste treatment verification in the WACP also specifies that a representative sample is collected using a scoop. NEIC inspectors observed that MAX operators were only using a nitrile-gloved hand to collect incoming or treated waste from the excavator bucket into the sample pail. This practice does not meet the requirements of the WACP for waste acceptance or treatment verification and, given the nature of hazardous waste treated on site including sharp debris, may be hazardous to the operator.

Observation: 14 RCRA

Observation Summary: Waste was not effectively contained in the SWSS pits. NEIC inspectors observed waste materials on the ground outside of the hazardous waste treatment pits.

Citation:

MAX's February 14, 2005, Hazardous Waste Permit No. PAD004835146, Part II – General Facility Conditions

A. Design and Operation of Facility

The Permittee shall maintain and operate the facility to minimize the possibility of a fire, explosion, or release of hazardous waste or hazardous waste constituents to air, soil, surface water, or groundwater which could threaten human health of the environment.

Observation: 14 RCRA

MAX's February 14, 2005, Hazardous Waste Permit No. PAD004835146, Part III – Storage/Treatment in Tanks

O. Waste Tracking

The Permittee shall minimize or eliminate the tracking of waste within or outside the site and the immediate waste unloading/loading areas.

Evidence:

Appendix RCRA A – RCRA Photographs

Description of Observation:

During the inspection, the NEIC RCRA field team observed the treatment of various hazardous wastes at the SWSS pits. Waste material was observed spilled outside of the edges of the SWSS pits onto the surrounding area (**Appendix RCRA A**, photos 1-3, 9, 32, 36-39, 78). NEIC inspectors noted visible gray lime and darker colored dirt-like material on the ground that resembled the waste mixed in the pits.

NEIC inspectors also observed vehicles transporting waste from the CAP building bay 2 to the SWSS pits for retreatment on March 22, 2023. The vehicles came into contact with the waste in the CAP building and tracked it across the area between the CAP building and the SWSS pits (**Appendix RCRA A**, photo 44).

MAX's permit requires that the facility operates to minimize the release of hazardous waste to the environment. Hazardous waste is spilled outside of the SWSS pits during routine stabilization operations. Additionally, the practice of driving vehicles into contact with waste piles in the CAP building without any type of decontamination procedure is contributing to the release of hazardous waste into the area outside of the SWSS pits.

Observation: 15 RCRA

Observation Summary: Containers in container storage areas No. 3 and 4 were not closed; tarps on top of three roll-off boxes were not fully covering the containers or completely fastened.

Citation:

MAX's February 14, 2005, Hazardous Waste Permit No. PAD004835146, Part V – Storage in Containers

D. Placement Requirements

The permittee shall store all hazardous waste containers in accordance with the following volume and location requirements:

3. Area #3 (see Attachment 7)

4. Area #4 (see Attachment 7)

F. Management of Containers

The Permittee shall manage containers as required by 40 CFR § 264.173 (incorporated by reference at 25 Pa. Code Chapter 264a) and 25 Pa. Code § 264a.173.

G. Containment

Each container shall be constructed of, or shall be lined or coated with, a material compatible with the waste and shall be covered with a tarp or similar device to prevent precipitation contact with the waste.

Observation: 15 RCRA

MAX's February 14, 2005, Hazardous Waste Permit No. PAD004835146, Attachment 7 Container Storage Management Plan

2.0 Container Storage Areas

Roll-off storage containers are covered to prevent the accumulation of precipitation. All containers holding hazardous waste are closed during storage except when it is necessary to add or remove waste (264.173(a)).

Evidence:

Appendix RCRA A – RCRA Photographs

Appendix RCRA O – Container Storage Area Management Plan

Description of Observation:

MAX's hazardous waste permit allows the storage of containers of both untreated and treated hazardous waste in roll-off containers in container storage areas No. 3 and 4. The treated hazardous waste stored in these areas is typically awaiting the results of laboratory analysis prior to on-site disposal. MAX may also store treatment chemicals in roll-off containers in these areas.

On March 21, 2023, NEIC inspectors observed three roll-off containers covered with tarps with straps that were not completely fastened. As a result, the tarps on these containers had slipped and portions of the container contents were open and exposed (**Appendix RCRA A**, photos 12 and 16). MAX's permit contains a container storage area management plan that requires that hazardous waste containers in storage areas No. 3 and 4 be closed and covered to prevent the intrusion of precipitation into an open container (**Appendix RCRA O**, page 3). At the time of the inspection, the majority of roll-off containers in storage areas No. 3 and 4 were not labeled in a way to distinguish which contained hazardous waste and which were pending analysis. The three roll-off containers with unsecured tarps may or may not have been open containers of hazardous waste. However, treated hazardous waste pending analytical results may be still hazardous waste as it has not yet been determined that the treatment was effective.

Observation: 1 CWA

Observation Summary: The pH adjust tank at the on-site industrial wastewater treatment plant is not properly operated and maintained and was out of service.

Citation:

NPDES Permit No. PA0027715 – Part B I. Management Requirements

D. Proper Operation and Maintenance

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance includes, but is not limited to, adequate laboratory controls including appropriate quality assurance procedures. This provision also includes the operation of backup or auxiliary facilities or similar systems that are installed by the permittee, only when necessary to achieve compliance with the terms and conditions of this permit. (40 CFR 122.41(e))

Observation: 1 CWA

Evidence:
Appendix CWA E – Industrial WWTP Process Flow Diagram
Appendix CWA A – MAX NPDES Permit PA0027715
Appendix CWA B – MAX CWA Effluent Exceedances January 2022 – March 2023
Interviews with facility personnel

Description of Observation: The facility staff is not using the pH adjust tank in the on-site industrial wastewater treatment plant (**Appendix CWA E**). The NPDES permit (**Appendix CWA A**) requires the facility to properly operate and maintain all facilities and systems of treatment and control which are installed or used by the permittee to achieve compliance with the terms and conditions of the permit.

Facility staff stated during the inspection that the sodium bisulfite freezes outside in the winter months and the pH adjustment is accomplished in the weir box downstream of the pH adjustment tank. Because the pH adjustment tank is out of service, facility staff limit the pH adjustment in the flocculant tank to approximately 9.5 pH units, knowing they do not have the capability to easily lower the pH to permit limits with the pH adjust tank out of service.

By not having the capability to increase the pH to a higher value normally seen in metals removal treatment systems (12 pH units), the facility is not getting complete treatment which can result in exceedances of effluent limitations for metals.

A copy of the effluent limit exceedances (**Appendix CWA B**) obtained from ECHO displays the metal exceedances from January 1, 2022, through March 31, 2023, from outfall 001.

Observation: 2 CWA

Observation Summary: Wastewater from the Recycle Water (6 pack) Tanks is pumped to the flocculant tank in the on-site industrial WWTP, bypassing the neutralization tank.

Citation: NPDES permit – Part B I. Management Requirements
F. Bypassing
1. Bypassing Not Exceeding Permit Limitations - The permittee may allow a bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions in paragraphs two, three and four of this section. (40 CFR 122.41(m)(2))

2. Other Bypassing - In all other situations, bypassing is prohibited and DEP may take enforcement action against the permittee for bypass unless:

a. A bypass is unavoidable to prevent loss of life, personal injury or "severe property damage." (40 CFR 122.41(m)(4)(i)(A))

b. There are no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance. (40 CFR 122.41(m)(4)(i)(B))

c. The permittee submitted the necessary notice required in F.4.a. and b. below. (40 CFR 122.41(m) (4)(i)(C))

Observation: 2 CWA

3. DEP may approve an anticipated bypass, after considering its adverse effects, if DEP determines that it will meet the conditions listed in F.2. above. (40 CFR 122.41(m)(4)(ii))

4. Notice

a. Anticipated Bypass – If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible, at least 10 days before the bypass. (40 CFR 122.41(m)(3)(i))

b. Unanticipated Bypass – The permittee shall submit oral notice of any other unanticipated bypass within 24 hours, regardless of whether the bypass may endanger health or the environment or whether the bypass exceeds effluent limitations. The notice shall be in accordance with Part A III.C.4.b.

Evidence:
Appendix CWA E – Industrial WWTP Process Flow Diagram
Appendix CWA A – MAX NPDES Permit PA0027715
Appendix CWA B – MAX CWA Effluent Exceedances January 2022 – March 2023
Interviews with facility personnel

Description of Observation:
MAX is bypassing the neutralization tank at the on-site industrial wastewater treatment plant (**Appendix CWA E**). The NPDES permit (**Appendix CWA A**) requires the facility to properly operate and maintain all facilities and systems of treatment and control which are installed or used by the permittee to achieve compliance with the terms and conditions of the permit.

Facility staff explained that the wastewater from the recycle water (6 pack) tanks is pumped into the on-site industrial WWTP with a semi portable pump and hose. The water is directed into the flocculant tank bypassing the neutralization tank. The neutralization tank, with the dosing of hydrogen peroxide, is used to control organics in the waste stream.

A copy of the effluent limit exceedances (**Appendix CWA B**) obtained from ECHO displays the BOD, 5-day exceedances from January 1, 2022, through March 31, 2023, from outfall 001.

Observation: 3 CWA

Observation Summary: Internal monitoring point 201, the discharge pipe of pump station No. 7, may not be sampling the "raw leachate" as outlined by the permit and the fact sheet.

I. C. For Internal Monitoring Point 201*
Receiving Waters: Sewickley Creek (WWF) through Outfall 001

Type of Effluent: Raw leachate from Landfill No. 6
1. The permittee is authorized to discharge during the period from Permit Effective Date through Permit Expiration Date.
2. Based on the anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply (see also Additional Requirements and Footnotes).

Observation: 3 CWA

**Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): at the discharge pipe from Pump Station No. 7*

Evidence:
Appendix CWA A – MAX NPDES Permit PA0027715
Appendix CWA I – Fact Sheet for NPDES Permit PA0027715
Appendix CWA C – MAX Plant Process Flow Diagram
Interviews with facility personnel

Description of Observation:
The NPDES permit (**Appendix CWA A**) cites that internal monitoring point 201 is to monitor "raw leachate from landfill No. 6". The footnote in the permit states that IMP 201 is located "at the discharge pipe from Pump Station No. 7". MAX does collect samples for IMP 201 at pump station No. 7 as outlined by the permit.

In addition, page 3 of the fact sheet (**Appendix CWA I**) states:

"IMP 201 was created for the previous permit to evaluate compliance with effluent limits on wastewaters from a proposed hazardous liquid/slurry treatment system. MAX did not and does not plan to install such a system. Therefore, the "IMP 201" designation will be used for Pump Station No. 7, which is where MAX collects information on the volume of leachate directed to the industrial wastewater treatment plant from Landfill No. 6. This monitoring will allow DEP to better implement 40 CFR Part 445 for future permit renewals."

In speaking with facility staff and according to the MAX overall Plant Process Flow Diagram (**Appendix CWA C**) that was submitted with the NPDES permit application, pump station No. 7 routes flow from the million-gallon tank to the little blue tank. The million-gallon tank collects contact storm water which drains off landfill No. 6.

"Raw leachate" is collected in pump station No. 6 which pumps leachate and various drainage water to the little blue tank, just downstream of pump station No. 7.

Internal monitoring point 201, the discharge pipe of pump station No. 7, may not be sampling the "raw leachate" as outlined by the permit and the fact sheet.

Observation: 4 CWA

Observation Summary: MAX is taking process control grab samples at outfall 001 and not reporting those analytical results on the DMRs.

Part A – Effluent Limitations, Monitoring, Recordkeeping and Reporting Requirements
I.A. For Outfall 001

1. The permittee is authorized to discharge during the period from Permit Effective Date through Permit Expiration Date.
2. Based on the anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply (see also Additional Requirements and Footnotes).

Observation: 4 CWA

Footnotes
(3) Instantaneous maximum limitations are imposed to allow for a grab sample to be collected by the appropriate regulatory agency to determine compliance. The permittee is not required to monitor for the instantaneous maximum limitations. However, if grab samples are collected by the permittee, the results must be reported.

Evidence:
Appendix CWA A – MAX NPDES Permit PA0027715
Appendix CWA J – MAX Process Control Internal Grab Samples Outfall 001
Interviews with facility personnel

Description of Observation:
The NPDES permit (**Appendix CWA A**) requires 24-hour composite samples to determine compliance with the average monthly and daily maximum effluent limits established for outfall 001. The permit also has instantaneous maximum effluent limits for parameters that require a 24-hour composite sample. The instantaneous maximums are established to allow the regulatory agency to determine compliance with grab samples during an inspection. MAX is not required to take grab samples to demonstrate compliance with the instantaneous effluent limits. However, if MAX does take grab samples at outfall 001, those results must be reported on the discharge monitoring reports.

MAX took "process control" grab samples at outfall 001 on March 6, 2023, and on October 19, 2022 (**Appendix CWA J**). The samples were analyzed for BOD 5-day, ammonia, total recoverable phenolics, and total metals. MAX facility staff stated during the inspection that the results from the process control grab samples were not reported on the discharge monitoring reports.

MAX took process control grab samples at outfall 001 and did not report the analytical results on the DMRs.

Observation: 5 CWA

Observation Summary: The Pollution Prevention Control (PPC) plan required by the NPDES permit is not complete and/or current and is not followed by MAX.

Citation: NPDES permit – Part C IV. Requirements Applicable to Stormwater Outfalls
E. *Preparedness, Prevention, and Contingency (PPC) Plan*

1. The permittee shall develop and implement a PPC Plan in accordance with 25 Pa. Code § 91.34 following the guidance contained in DEP's "Guidelines for the Development and Implementation of Environmental Emergency Response Plans" (DEP ID 400-2200-001), its NPDES-specific addendum and the minimum requirements below.

a. The PPC Plan must identify all potential sources of pollutants that may reasonably be expected to affect the quality of stormwater discharges from the facility.

b. The PPC Plan must describe preventative measures and BMPs that will be implemented to reduce or eliminate pollutants from coming into contact with stormwater resulting from routine site activities and spills.

Observation: 5 CWA

c. The PPC Plan must address actions that will be taken in response to on-site spills or other pollution incidents.

d. The PPC Plan must identify areas which, due to topography or other factors, have a high potential for soil erosion, and identify measures to limit erosion. Where necessary, erosion and sediment control measures must be developed and implemented in accordance with 25 Pa. Code Chapter 102 and DEP's "Erosion and Sediment Pollution Control Manual" (DEP ID 363-2134-008).

e. The PPC Plan must address security measures to prevent accidental or intentional entry which could result in an unintentional discharge of pollutants.

f. The PPC Plan must include a plan for training employees and contractors on pollution prevention, BMPs, and emergency response measures. This training must be conducted in accordance with paragraph C.4.c of this section.

g. If the facility is subject to SARA Title III, Section 313, the PPC Plan must identify releases of "Water Priority Chemicals" within the previous three years. Water Priority Chemicals are those identified in EPA's "Guidance for the Determination of Appropriate Methods for the Detection of Section 313 Water Priority Chemicals" (EPA 833-B-94-001, April 1994). The Plan must include an evaluation of all activities that may result in the stormwater discharge of Water Priority Chemicals.

h. Spill Prevention Control and Countermeasure (SPCC) plans may be used to meet the requirements of this section if the minimum requirements are addressed.

Evidence:
Appendix CWA A – MAX NPDES Permit PA0027715
Appendix CWA K – MAX PPC Plan Revised March 2023
Interviews with facility personnel

Description of Observation:
Part C – IV. of the NPDES permit (**Appendix CWA A**) imposes requirements applicable to stormwater outfalls. One of those requirements is for MAX to develop and implement a PPC plan. The PPC plan was reviewed during the inspection. The following items were either not current or were not followed by the facility:

1. There was no documentation of waste storage and chemical inventory.
2. The comprehensive tank system plan was missing from the PPC.
3. MAX was not providing annual stormwater training to their employees.
4. The PPC plan did not contain a preventative maintenance program.

An updated PPC plan, revised March 2023, was submitted after the inspection concluded and is contained in **Appendix CWA K**.

Observation: 6 CWA

Observation Summary: The weir trough in the rectangular clarifier in the on-site industrial WWTP is full of holes and is not properly operated and maintained.

Citation:
NPDES Permit No. PA0027715 – Part B I. Management Requirements

D. Proper Operation and Maintenance
The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance includes, but is not limited to, adequate laboratory controls including appropriate quality assurance procedures. This provision also includes the operation of backup or auxiliary facilities or similar systems that are installed by the permittee, only when necessary to achieve compliance with the terms and conditions of this permit. (40 CFR 122.41(e))

Evidence:
Appendix CWA E – Industrial WWTP Process Flow Diagram

Description of Observation:
In the on-site Industrial WWTP (**Appendix CWA E**), solids in the wastewater are removed via a rectangular clarifier. The clarifier is equipped with a weir and trough which collects the treated wastewater and routes it to the next unit process. The weir and trough were observed with substantial leaks and not properly operated and maintained.

Observation: 7 CWA

Observation Summary: MAX is not monitoring pH at internal monitoring point 101 continuously as required by the NPDES permit.

I. C. For Internal Monitoring Point 101*
Receiving Waters: Sewickley Creek (WWF) through Outfall 001

1. The permittee is authorized to discharge during the period from Permit Effective Date through Permit Expiration Date.
2. Based on the anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply (see also Additional Requirements and Footnotes).

	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2)	Required
	Average Monthly	Daily Maximum	Minimum	Average Monthly	Daily Maximum	Instant. Maximum	Measurement Frequency	Sample Type
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	Continuous	Recorded
pH (S.U.)	XXX	XXX	XXX	XXX	Report	XXX	Continuous	Recorded

Observation: 7 CWA
Evidence: **Appendix CWA A** – MAX NPDES Permit PA0027715 **Interviews with facility personnel**
Description of Observation: According to the NPDES permit (**Appendix CWA A**), MAX is required to monitor continuously for pH at IMP 101. The internal monitoring point is located at pump station No. 5. MAX takes a 24-hour time composite sample at IMP 101. MAX facility staff stated during the inspection that they currently monitor pH at IMP 101 by pulling a grab sample when they conclude taking the time composite sample. MAX is required to monitor pH continuously at IMP 101.