

## **RCRA Inspection Report**

### **1) Inspector and Author of Report**

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U.S. Environmental Protection Agency, Region 4  
Enforcement and Compliance Assurance Division  
Chemical Safety and Land Enforcement Branch  
RCRA Enforcement Section  
61 Forsyth Street, S.W.  
Atlanta, Georgia 30303

### **2) Facility Information**

Mitsubishi Chemical America, Inc.  
Electrolyte Division  
2665 Fite Road, Suite 101  
Memphis, Tennessee 38127

EPA ID#: TNR000031054  
NAICS #: 325199 – All Other Basic Organic  
Chemical Manufacturing

### **3) Responsible Officials**

Yohei Hori  
Plant Manager  
yohei.hori@mcgc.com

### **4) Inspection Participants**

Jeff Stroud, Mitsubishi Chemical  
America, Inc. Electrolyte Division  
(MCAED)  
Tim McCaffery, MCAED  
David B. Wright, MCAED  
Terry Hibbler, MCAED

Cliff Caudle, Tennessee Department of  
Environment and Conservation (TDEC)  
Jason Simpson, TDEC  
Kayla Acosta, USEPA

### **5) Date of Inspection**

April 11, 2024 at 9:30 A.M.

### **6) Applicable Regulations<sup>1</sup>**

Resource Conservation and Recovery Act (RCRA) Sections 3002 (42 U.S. Code – Annotated U.S.C.A. 6925 and 6927), and 40 Code of Federal Regulation (C.F.R.) Parts 260 - 270, 273, 278, & 279; Tennessee Hazardous Waste Management Act of 1977, Tennessee Code Annotated (Tenn. Code Ann.) § 68-212-101 *et seq.*, and Chapter 0400-12-01 of the Rules and Regulations of the State of Tennessee (Tenn. Comp. R. & Regs.)

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<sup>1</sup> As the State's authorized hazardous waste program operates in lieu of the federal RCRA program, the citations of those authorized provisions will be to the authorized State program. However, for ease of reference, the federal citations will follow in brackets.

Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.01(2)(a) [40 C.F.R. § 260.10], a large quantity generator of hazardous waste (LQG) is a generator who generates greater than or equal to 1,000 kilograms (2,200 pounds) of non-acute hazardous waste in a calendar month.

Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(f)1. [40 C.F.R. § 262.15(a)], a generator may accumulate as much as 55 gallons of non-acute hazardous waste in containers at or near any point of generation where wastes initially accumulate, which is under the control of the operator of the process generating the waste, without a permit or without having interim status, as required by Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(f)1. [Section 3005 of RCRA, 42 U.S.C. § 6925], and without complying with Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(g)2. or 0400-12-01-.03(1)(h)1. [40 C.F.R. § 262.16(b) or § 262.17(a)], except as required in Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(f)1.(vii and viii) [40 C.F.R. § 262.15(a)(7) and (8)], provided that the generator complies with the satellite accumulation area conditions listed in Ten Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(f)1. [40 C.F.R. § 262.15(a)] (hereinafter referred to as the “SAA Permit Exemption”).

Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(h) [40 C.F.R. § 262.17], an LQG may accumulate hazardous waste on-site for 90 days or less without a permit or without having interim status, as required by Section 68-212-108 of the THWMA, Tenn. Code Ann. § 68-212-108 [Section 3005 of RCRA, 42 U.S.C. § 6925], provided that the generator complies with the conditions listed in Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(h) [40 C.F.R. § 262.17] (hereinafter referred to as the “LQG Permit Exemption”).

Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.12(1)(i) [40 C.F.R. § 273.9], a small quantity handler of universal waste (SQHUW) is a universal waste handler who does not accumulate 5,000 kilograms or more of universal waste (batteries, pesticides, mercury-containing equipment, lamps, or aerosol cans, calculated collectively) at any time.

## **7) Purpose of Inspection**

The purpose of this inspection was to conduct an unannounced compliance evaluation inspection to determine Mitsubishi Chemical America, Inc. Electrolyte Division’s compliance with the applicable requirements of RCRA and the corresponding regulations. This was an EPA lead inspection.

## **8) Facility Description**

Mitsubishi Chemical America (MCA) is a subsidiary of Mitsubishi Chemical. MCA provides industry solutions for a variety of markets including aerospace and defense; automotive; building and construction; energy production and storage; food and beverage; industrial; infrastructure and transportation; inks; coatings and adhesives; IT and electronics; medical; packaging printing; and labeling; recreation and household goods. MCA has 20 group companies in North and South America and is one of four regional headquarters established by Mitsubishi Chemical Corporation. Mitsubishi as a company was originally founded in 1870. According to MCA’s website, MCA was formed on April 01, 2017, and has over 4,000 employees in four different countries.

Mitsubishi Chemical America, Inc. Electrolyte Division (known herein after as “MCAED” or “the facility”) located in Memphis, Tennessee specializes in the manufacturing of Sol-Rite™ formulated electrolytes used for lithium-ion batteries. The actual lithium-ion batteries are not manufactured at this location. Formulations are designed to meet customer needs and optimize battery performance. The Sol-Rite™ electrolyte formulation mainly consists of organic solvents such as ethylene carbonate and lithium salt electrolytes such as LiPF6. There are two main waste streams generated at the facility. Lime flush which is managed as hazardous waste and is hard-piped into a 6,340-gallon horizontal above ground storage tank and special industrial waste which is managed as non-hazardous waste and tested periodically. Waste is also generated from the facility’s QC laboratory and routine maintenance at the facility.

The facility began operations in 2012 as a joint venture under MC Ionic Solutions US, Inc. and in 2017 became part of MCA. MCAED occupies approximately four acres of land within a shared and secured industrial park that also includes MCA Methacrylates. The facility employs approximately 40 workers and operates 24 hours a day, seven days a week, with two 12-hour shifts.

The facility first notified of its regulated waste activities under MC Ionic Solutions US, Inc. on March 08, 2011, as a LQG of hazardous waste. MCAED most recently notified as an LQG on March 08, 2023. According to the facility’s registration information the facility generates the following hazardous wastes with associated EPA waste codes: D001 (ignitable waste, dimethyl carbonate waste, paint-related waste), D002 (corrosive waste), D003 (reactive waste), D007 (chromium waste), and D010 (selenium). Universal waste batteries are also generated at the facility.

## **9) Previous Inspection History**

TDEC has conducted one RCRA CEI at the subject facility since 2019 and found 11 RCRA violations during that inspection for Subpart BB and CC requirements for Organic Air Emissions, container labeling requirements for containers stored in less than 90-day central accumulation areas (CAAs), Subpart J tank requirements, weekly inspections for CAAs, updates to the contingency plan, and records of contingency plan being sent to local authorities.

As a result, TDEC issued a consent order to MCAED on 05/21/2020. TDEC verified that the facility had returned to compliance (during a follow-up inspection) on 11/25/2019.

## **10) Opening Conference**

On April 11, 2024, EPA inspector Kayla Acosta, accompanied by TDEC inspectors Cliff Caudle and Jason Simpson, arrived at MCAED at approximately 9:30 A.M. David B. Wright, EHS Environmental Specialist immediately received the inspectors. Mr. Wright, and the inspectors were joined by Jeff Stroud, Health, and Safety Specialist, for the opening conference. The inspectors introduced themselves, showed their credentials, and explained the purpose of the visit.

The inspectors described the anticipated use of equipment (digital camera) during the inspection and provided a request for records. The EPA inspector explained that the Small Business Regulatory Enforcement Fairness Act's classification of a "small business" is generally set by the Small Business Administration using the business' SIC/NAICS code and annual receipts or number of employees. A copy of the EPA's information sheet for small businesses can be found at <https://www.epa.gov/sites/production/files/2017-06/documents/smallbusinessinfo.pdf>. The EPA inspector also discussed the company's ability, pursuant to 40 C.F.R. § 2.203, to assert a business confidentiality claim for information submitted to EPA. The company did not assert a business confidentiality claim.

Mr. Wright and Mr. Stroud provided an overview of the facility's history and current operations during the opening conference. The inspection participants also discussed health and safety protocols and required personal protective equipment before Mr. Stroud led the inspectors on a tour of the Facility operations.

## **11) Inspection Observations**

### **Solvent Feed Area:**

This Area is comprised of 15 bays where raw materials and product are stored in 6,000-gallon shipping containers. Three bays are designated for finished products to be shipped offsite while the other bays are used for bulk raw materials. Raw materials are hard piped from the shipping containers to the production building. At this point of the inspection, the inspectors were joined by Terry Hibbler, Production Supervisor and Tim McCaffery, EHS Specialist.

### **Hazardous Waste Tank in the Solvent Feed Area:**

The last bay in the Solvent Feed Area is used to store the 6,340-gallon hazardous waste horizontal above-ground storage tank (Photos 1-4). Waste generated from cleaning out reactor vessels is hard piped to the hazardous waste tank. The tank also has a secondary containment pit. Rainwater accumulating in the containment pit gets analyzed before being pumped out and sent for proper disposal. The hazardous waste tank is continuously monitored with an Emerson Delta V Distributed Control System (DCS) which monitors tank level and other sensors. The tank appeared in good condition and was labeled with the words "Hazardous Waste" and marked with an indication of the hazard of the contents. In order to maintain compliance with the 90-day accumulation limit, hazardous waste is emptied out every 1-2 months and tracked by the facility's electronic tank inventory logs. The tank's ancillary equipment appeared to be tagged pursuant to Subpart BB Air Emission Standards for Equipment Leaks. Fire control equipment and spill control equipment are also located next to the hazardous waste tank. A "No Smoking" sign and a "Hazardous Waste 90-Day Accumulation Area" sign was observed in this area (Photo 5).

Adjacent to the tank was a 250-gallon tote labeled "ISO Sample Waste" and labeled "Hazardous Waste" (Photo 6). The tote was marked with an indication of the hazard of the content and had an indicator to show the 55-gallon level on the tote. The tote was being managed as a satellite accumulation area (SAA) container for residual waste generated from the transfer of waste

from the hazardous waste tank. At the time of the inspection, the waste inside the tote was below the 55-gallon marker. After some discussion and concern expressed by the inspectors for ensuring that the container does not pass 55-gallons of hazardous waste, the facility decided to manage the 250-gallon tote as a less than 90-day CAA container. Facility representatives added a date to the container for 04/03/2024 and will be managing the container according to CAA requirements and include this area on the weekly inspections for CAAs from now on.

#### Raw Materials Warehouse CAA:

The facility's main CAA is located in the Raw Materials Warehouse. Wastes mainly generated from the QC Laboratory are stored here. This building is equipped with fire control, automatic sprinklers, and spill control. The inspectors observed "No Smoking" signs throughout the area. The facility has an alarm system capable of providing emergency instruction to facility personnel and is equipped with a device capable of summoning emergency assistance from local emergency responders. The inspectors observed the following hazardous waste:

- One 55-gallon container labeled "Filter Waste" (Photo 7). The container was closed, labeled with the words "Hazardous Waste", marked with an indication of the hazard of the contents, but was missing an accumulation start date;
- One 55-gallon container labeled "Flammable and Toxic" (Photo 8). The container was closed but was missing a hazardous waste label and an accumulation start date;
- One 30-gallon container labeled "Used Iodine Only" (Photo 9). The container had a funnel on it which contained a latch that was not closed and secured. The container was also marked with an indication of the hazard of the contents; however, the container did not have a hazardous waste label on it and no accumulation start date;
- One 30-gallon container as observed with no hazardous waste label, no indication of the hazard of the contents, no accumulation start date, and the container had a funnel on it which contained a latch that was not closed and secured (Photo 10);
- One 250-gallon tote labeled filter waste. The container was closed, labeled with the words "Hazardous Waste", marked with an indication of the hazard of the contents, and dated 03/16/2024 (Photo 11); and
- Three 250-gallon totes labeled "Tote Wash". All three totes were labeled "Hazardous Waste", closed, marked with an indication of the hazard of the contents, two were marked with an accumulation start date of 03/22/2024, and the third was marked with an accumulation start date of 03/21/2024.

**Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(h)1.(i)(IV)I. [40 C.F.R. § 262.17(a)(1)(iv)(A)], a container holding hazardous waste must always be closed during accumulation, except when it is necessary to add or remove waste.**

**Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(h)1.(v)(I)I-III. [40 C.F.R. § 262.17(a)(5)(i)(A-C)], a large quantity generator must mark or label its containers with the following:**

**(A) The words "Hazardous Waste";**

**(B) An indication of the hazards of the contents (examples include, but are not limited to, the applicable hazardous waste characteristic(s) (i.e., ignitable, corrosive, reactive, toxic); hazard communication consistent with the Department of Transportation requirements at 49 CFR part 172 subpart E (labeling) or subpart F (placarding); a hazard statement or pictogram consistent with the Occupational Safety and Health Administration Hazard Communication Standard at 29 CFR 1910.1200; or a chemical hazard label consistent with the National Fire Protection Association code 704); and**

**(C) The date upon which each period of accumulation begins clearly visible for inspection on each container.**

Facility representatives labeled and marked containers that were missing “Hazardous Waste” labels, hazard indications, and accumulation start dates during the inspection.

QC Laboratory:

The QC laboratory uses a liquid chromatography machine and an ion chromatography machine to conduct sample analysis of products. The inspectors observed two 5-gallon SAA containers for laboratory samples. The containers were closed, labeled “Hazardous Waste”, and marked with an indication of the hazard of the contents.

The inspectors also observed two one-gallon closed containers for used syringes from research and development (R&D) labeled “Hazardous Waste” but were missing an indication of the hazard of the contents (Photo 12).

**Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(b) [40 C.F.R. § 262.11], a person who generates a solid waste, as defined in 40 CFR 261.2, must make an accurate determination as to whether that waste is a hazardous waste in order to ensure wastes are properly managed according to applicable RCRA regulations. A hazardous waste determination is made using the steps listed in 40 C.F.R. § 262.11(a-g).**

Mr. Tim McCaffery stated that these syringes were used in R&D and were empty of liquid are non-hazardous waste and were being incorrectly labeled as hazardous waste. Mr. McCaffery stated that the facility would be completing a new waste determination and will be managing these containers as non-hazardous waste going forward.

The inspectors also observed a 5-gallon closed container labeled “Hazardous Waste Sharps” (Photo 13). The container was labeled Flammable/ Corrosive to indicate the hazard of the contents. The container had a date of 05/11/2023.

**Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(b) [40 C.F.R. § 262.11], a person who generates a solid waste, as defined in 40 CFR 261.2, must make an accurate determination as to whether that waste is a hazardous waste in order to ensure wastes are properly managed according to applicable RCRA regulations. A hazardous waste determination is made using the steps listed in 40 C.F.R. § 262.11(a-g).**

Mr. McCaffery stated the sharps container was the same as the syringes and was mis-labeled as hazardous waste but are non-hazardous. The facility will be making a new waste determination as mentioned above and manage the syringes as non-hazardous waste. SAA containers are not labeled with an accumulation start date until the 55-gallon threshold is reached.

## 12) Records Review

### Contingency Plan and Quick Reference Guide (QRG):

The actions that facility personnel should take in response to an emergency are described in the facility's contingency plan, which was last updated on May 17, 2023.

The plan describes actions facility personnel must take in response to fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water at the facility.

The plan describes arrangements agreed to with the local police department, fire department, other emergency response teams, emergency response contractors, equipment suppliers, local hospitals or the Local Emergency Planning Committee.

The plan lists the names and emergency telephone numbers for persons identified as emergency coordinators. Yuri Brooman is listed as the primary emergency coordinator, and the other individuals are listed as alternates; however, one emergency coordinator listed is no longer with the company. The Facility failed to immediately update the contingency plan when the list of emergency coordinators changed.

**Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(h)1.(vi) [40 C.F.R. § 262.17(a)(6)], which incorporates Tenn. Comp. R. & Regs. 400-12-01-.03(12)(k)4.[40 C.F.R. § 262.263(d)], and is a condition of the LQG permit exemption, the contingency plan must be reviewed, and immediately amended, if necessary, whenever: (d) The list of emergency coordinators changes.**

The plan includes a list of all emergency equipment at the facility. The list includes fire extinguishing systems, spill control equipment, communications and alarm systems, and decontamination equipment. The list appears to be up to date. The plan includes the location and a physical description of each item on the list, and a brief outline of its capabilities. The plan includes an evacuation plan for personnel. This plan describes signal(s) to be used to begin evacuation, evacuation routes, and alternate evacuation routes.

According to facility personnel, the contingency plan was provided to the onsite first responders of the industrial park (the Draslovskia Fire Brigade); however, there was no documentation available for review to demonstrate that the contingency plan was sent to the Shelby County Fire Department, Shelby County Sheriff, Shelby County LEPC, and City of Memphis Police Department, and Regional Medical Center (Regional One Health).

**Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(h)1.(vi) [40 C.F.R. § 262.17(a)(6)], which incorporates Tenn. Comp. R. & Regs. 0400-12-01-.03(12)(g)2. [40 C.F.R. §262.256(b)],**

and is a condition of the LQG permit exemption, the large quantity generator shall maintain records documenting the arrangements with the local fire department as well as any other organization necessary to respond to an emergency. This documentation must include documentation in the operating record that either confirms such arrangements actively exist or, in cases where no arrangements exist, confirms that attempts to make such arrangements were made.

The facility did not have a quick reference guide for its contingency plan.

Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(h)1.(vi) [40 C.F.R. § 262.17(a)(6)], which incorporates Tenn. Comp. R. & Regs. 0400-12-01-.03(12)(j)2. [40 C.F.R. §262.262(b)], and is a condition of the LQG permit exemption, a large quantity generator that first becomes subject to these provisions after May 30, 2017 or a large quantity generator that is otherwise amending its contingency plan must at that time submit a quick reference guide of the contingency plan to the local emergency responders identified at paragraph (a) of this section or, as appropriate, the Local Emergency Planning Committee. The quick reference guide must include the following elements:

- (1) The types/names of hazardous wastes in layman's terms and the associated hazard associated with each hazardous waste present at any one time (e.g., toxic paint wastes, spent ignitable solvent, corrosive acid);
- (2) The estimated maximum amount of each hazardous waste that may be present at any one time;
- (3) The identification of any hazardous wastes where exposure would require unique or special treatment by medical or hospital staff;
- (4) A map of the facility showing where hazardous wastes are generated, accumulated and treated and routes for accessing these wastes;
- (5) A street map of the facility in relation to surrounding businesses, schools and residential areas to understand how best to get to the facility and also evacuate citizens and workers;
- (6) The locations of water supply (e.g., fire hydrant and its flow rate);
- (7) The identification of on-site notification systems (e.g., a fire alarm that rings off site, smoke alarms); and
- (8) The name of the emergency coordinator(s) and 7/24-hour emergency telephone number(s) or, in the case of a facility where an emergency coordinator is continuously on duty, the emergency telephone number for the emergency coordinator.

Training Records:

The inspectors reviewed facility job descriptions and employee names that were provided for the EHS Manager, Operational Supervisor, Logistics Manager, and EHS Specialist. Each

description included the requisite skill, education, or other qualifications, and duties of facility personnel assigned to that position.

The facility provided a written description of the type and amount of both introductory and continuing training to be given to each person filling the positions listed above. The inspectors reviewed records of employee hazardous waste training completed in 2020-2023.

Waste Manifest and Land Disposal Restriction (LDR) Records:

The inspectors reviewed available hazardous waste manifest records and land disposal restriction forms for shipments of hazardous waste sent since 2021. Hazardous waste is routinely shipped to Tradebe Treatment & Recycling (EPA ID TND000772186) in Millington, Tennessee. The inspectors noted that the following manifests were missing the hazardous waste transporter EPA ID number:

| Manifest Number | Shipping Date |
|-----------------|---------------|
| 023142054JJK    | 11/24/2021    |
| 023142295JJK    | 7/21/2022     |
| 023142301JJK    | 10/27/2022    |
| 023142296JJK    | 11/17/2022    |
| 023142284JJK    | 12/22/2022    |

**Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.03(3)(a)1.(i) [40 C.F.R. § 262.20(a)(1)], a generator that transports, or offers for transport a hazardous waste for offsite treatment, storage, or disposal, or a treatment, storage, or disposal facility that offers for transport a rejected hazardous waste load, must prepare a Manifest (OMB Control number 2050-0039) on EPA Form 8700-22, and, if necessary, EPA Form 8700-22A.**

Weekly Inspection Records:

The inspectors reviewed weekly inspections records for the Raw Materials Warehouse CAA from 2021-2024. Inspections include a checklist for container condition, leaks, labeling, accumulation start date, and secondary containment. The inspection records include the name of the inspector, date, and time of the inspection. Weekly inspections were missing from the following weeks: the last week of June 2021 to the first week of November 2021, the last two weeks of December 2021, all of January 2022, the first two weeks in February 2022, the third week of March 2022, and from April 2023 to the first week of February 2024.

**Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(h)1.(V)I-II. [40 C.F.R. § 262.17(a)(1)(v)], at least weekly, the large quantity generator must inspect central accumulation areas. The large quantity generator must look for leaking containers and for deterioration of containers caused by corrosion or other factors. See paragraph (a)(1)(ii) of this section for remedial action required if deterioration or leaks are detected.**

### Tank Records:

LDAR monitoring is conducted by a third-party named Team, Inc. LDAR records for tank ancillary equipment and calibration records for toxic vapor analyzers were available for review since 2021. No issues were noted.

The hazardous waste tank P.E. certification for tank integrity and tank assessment was available for review. The tank, ancillary equipment, and secondary containment was last evaluated and certified by a P.E. on 06/12/2018 by John D. Hughes, Registration No. 7983.

Daily tank inspection records were available for review since 2021. Daily tank inspection records were missing for the following days: All days after July 08, 2021, all of 2022, and three dates in 2023 (3/15/23, 8/27/23, 10/29/23). No issues were noted for 2024 daily tank inspections.

**Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(h)1.(ii) [40 C.F.R. § 262.17(a)(2)], which incorporates Tenn. Comp. R. & Regs. 0400-12-1-.05(10)(f)(1, 2, 3, 5, 7) [40 C.F.R. §265.195(a-c,e,g)] and is a condition of the LQG permit exemption:**

- (a) The owner or operator must inspect, where present, at least once each operating day, data gathered from monitoring and leak detection equipment (e.g., pressure or temperature gauges, monitoring wells) to ensure that the tank system is being operated according to its design.**
- (b) Except as noted under the paragraph (c) of this section, the owner or operator must inspect at least once each operating day: (1) Overfill/spill control equipment (e.g., waste-feed cutoff systems, bypass systems, and drainage systems) to ensure that it is in good working order; (2) Above ground portions of the tank system, if any, to detect corrosion or releases of waste; and (3) The construction materials and the area immediately surrounding the externally accessible portion of the tank system, including the secondary containment system (e.g., dikes) to detect erosion or signs of releases of hazardous waste (e.g., wet spots, dead vegetation).**
- (c) Owners or operators of tank systems that either use leak detection equipment to alert facility personnel to leaks, or implement established workplace practices to ensure leaks are promptly identified, must inspect at least weekly those areas described in paragraphs (b)(1) through (3) of this section. Use of the alternate inspection schedule must be documented in the facility's operating record. This documentation must include a description of the established workplace practices at the facility.**
- (e) Ancillary equipment that is not provided with secondary containment, as described in § 265.193(f)(1) through (4), must be inspected at least once each operating day.**
- (g) The owner or operator must document in the operating record of the facility an inspection of those items in paragraphs (a) and (b) of this section.**

Records of annual inspections of the tank's air emission control equipment was not available for review.

**Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.03(1)(h)1.(ii) [40 C.F.R. § 262.17(a)(2)], which incorporates Tenn. Comp. R. & Regs. 0400-12-1-.05(29)(f)3.(iv)(I-IV) [40 C.F.R. § 265.1085(c)(4)] and is a condition of the LQG Permit Exemption, the owner or operator shall inspect the air emission control equipment in accordance with the requirements listed in 40 CFR 265.1085(c)(4)(i-iv).**

Annual Reports:

Annual reports are submitted to TDEC. Annual reports were available for review for 2021-2023. The inspectors observed several errors within each annual report for the waste streams. Specifically Waste Stream #16—D002 is listed in section 1h, but “Corrosive” was not selected in section 1f for all three years.

**Pursuant to Tenn. Comp. R. & Regs. 0400-12-01-.03(5)(b)1.(iii)(I), a generator who is a large or small quantity generator for at least one month of the calendar year who ships any hazardous waste off-site to a treatment, storage, or disposal facility within the United States must complete and submit an annual report to the Commissioner by March 1 for the preceding calendar year. Such report must be submitted on forms provided by the Commissioner, and the form must be completed according to the instructions accompanying it. The report must include, but shall not necessarily be limited to, the following information:**

**(iii) For each hazardous waste stream (i.e., each separate waste but not necessarily each batch or shipment of such waste) generated by the generator during the reporting year, except for those wastes identified in part 4 of this subparagraph, the following information: (I) A descriptive name of the waste and the appropriate waste code(s) from Rule 0400-12-01-.02.**

Hazardous Waste Reduction Plan:

The facility's hazardous waste reduction plan was available for review. The plan was last reviewed, updated, and signed on April 28, 2021.

**Pursuant to Tenn. Comp. R. & Regs. Rule 0400-12-01-.03(6)(b)1.(i), a hazardous waste reduction plan shall include, at a minimum, the following: (i) A dated and signed written policy articulating management support for the generator's hazardous waste reduction plan.**

**Pursuant to Tenn. Comp. R. & Regs. Rule 0400-12-01-.03(6)(c)1., all generators shall annually review their waste reduction plan and complete a hazardous waste reduction progress report which shall:(ii) Analyze and quantify progress made, if any, in hazardous waste reduction, relative to each performance goal established under subparagraph (b) of this paragraph. (iii) Set forth amendments, if needed, to the hazardous waste reduction plan and explain the need for the amendments.**

**13) Closing Conference**

The inspectors conducted the exit meeting with Tim McCaffery and Jeff Stroud. During this meeting, the inspectors stated their preliminary conclusions of the inspection.

Containers that were missing hazardous waste labels, start accumulation dates, and/or hazard indications were addressed during the inspection and those observations were corrected.

The facility still needs to provide the following documents: documentation demonstrating their hazardous waste determination for the containers in the QC laboratory that contained R&D syringes and sharps, updated contingency plan and QRG, documentation that the updated contingency plan and QRG were submitted to the local emergency responders, missing tank records if available, missing weekly inspections if available, and records that the annual reports and hazardous waste reduction plan were revised and/or updated.

**14) List of Attachments**

Attachment 1 – Photo Log

**15) Signed**

KAYLA  
ACOSTA

 Digitally signed by KAYLA  
ACOSTA  
Date: 2024.06.17 10:27:07  
-04'00'

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Kayla Acosta  
Physical Scientist

**16) Concurrence**

LAURIE  
DIGAETANO

 Digitally signed by LAURIE  
DIGAETANO  
Date: 2024.06.17 10:58:16  
-04'00'

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for Alan R. Newman, Acting Chief  
RCRA Enforcement Section

**Attachment 1 – Photo Log**

[13] Photos taken on: April 11, 2024

Photos taken by: Kayla Acosta

Photos taken with: EPA Issued Digital Camera



Photo 1: Hazardous waste tank in Solvent Feed Area.



Photo 2: Hazardous waste tank in Solvent Feed Area.

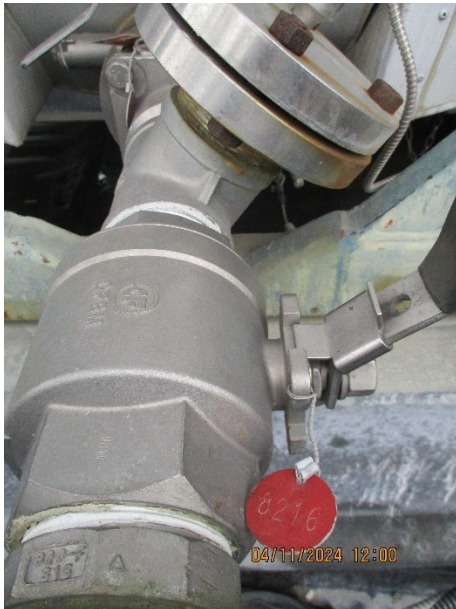


Photo 3: Hazardous waste tank ancillary equipment.



Photo 4: Top of hazardous waste tank and piping connections.



Photo 5: Signage posted near hazardous waste tank in Solvent Feed Area.



Photo 6: 250-gallon tote labeled "ISO Sample Waste" and labeled "Hazardous Waste" next to hazardous waste tank.



Photo 7: Raw Materials Warehouse CAA. 55-gallon container of filter waste.



Photo 8: Raw Materials Warehouse CAA. 55-gallon container of flammable, toxic waste.



Photo 9: Raw Materials Warehouse CAA. 30-gallon container of used iodine waste.



Photo 10: Raw Materials Warehouse CAA. 30-gallon container with no labeling at all.



Photo 11: Raw Materials Warehouse CAA. 250-gallon tote of filter waste.



Photo 12: QC Laboratory—1-gallon containers of used syringes from R&D.



Photo 13: QC Laboratory—5-gallon container of used sharps form R&D.