

RCRA Inspection Report

1) Inspector and Author of Report

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2) Facility Information

Clarios, LLC EPA ID# SCR000771451
1800 Paper Mill Road
Florence, South Carolina 29506

3) Responsible Officials

Matthew Hieshetter matthew.a.hieshetter@clarios.com
Regional EHS Manager

4) Inspection Participants

Matthew Hieshetter, Clarios Earle Watson, SCDHEC
Frank Thompson, Clarios Tom Richmond, SCDHEC
Laurie Benton DiGaetano, U. S. EPA

5) Date of Inspection

February 24, 2022

6) Applicable Regulations

Resource Conservation and Recovery Act (RCRA) Sections 3002 (42 U.S. Code – Annotated U.S.C.A. 6925 and 6927), South Carolina Hazardous Waste Management Regulations (SCHWMA) R.61-79, 260 through 270, 273, 278, & 279; South Carolina Hazardous Waste Permit SCR000771451; and 40 Code of Federal Regulation (C.F.R.), Parts 260 - 270, 273, 278, & 279.

Pursuant to S.C. Code Ann. Regs. 61-79.262.15(a) [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 the 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 Section 44-56-60(a)(2) and (b)(3) of the SCHWMA, S.C. Code Ann. § 44-56-60(a)(2) and (b)

[Section 3005 of RCRA, 42 U.S.C. § 6925], and without complying with S.C. Code Ann. Regs. 61-79.262.16(b) or R.61-79.262.17(a) [40 C.F.R. § 262.16(b) or §262.17(a)], except as required in S.C. Code Ann. Regs. 61-79.262.15(a)(7) and (8) [40 C.F.R. § 262.15(a)(7) and (8)], provided that the generator complies with the satellite accumulation area conditions listed in S.C. Code Ann. Regs. 61-79.262.15(a) [40 C.F.R. § 262.15(a)] (hereinafter referred to as the “SAA Permit Exemption”).

Pursuant to S.C. Code Ann. Regs. 61-79.262.17 [40 C.F.R. § 262.17], a large quantity generator may accumulate hazardous waste on-site for 90 days or less without a permit or without having interim status, as required by Section 44-56-60(a)(2) and (b)(3) of the SCHWMA, S.C. Code Ann. § 44-56-60(a)(2) and (b) [Section 3005 of RCRA, 42 U.S.C. § 6925], provided that the generator complies with the conditions listed in S.C. Code Ann. Regs. 61-79.262.17 [40 C.F.R. § 262.17] (hereinafter referred to as the “LQG Permit Exemption”).

7) **Purpose of Inspection**

The purpose of this inspection was to conduct an unannounced compliance evaluation inspection to determine Clarios, LLC’s compliance with the applicable requirements of RCRA and the corresponding SCDHEC regulations. This was an EPA lead inspection.

8) **Previous Inspection History**

SCDHEC has conducted five RCRA CEIs and one Nonfinancial Record Review (NRR) at the subject facility since 2013 and found violations during each of those inspections. As a result, SCDHEC has issued six Notices of Alleged Violation (NOAVs) to the facility and the parties entered into a Consent Order to resolve matters following each NOAV. SCDHEC alleged the following violations during each inspection:

Inspection / Enforcement	Alleged Violations
08/13/2013 CEI 12/16/2013 NOAV 06/02/2014 Consent Order	• Permit Condition III.M.1(A) – shrink wrap missing from battery pallets • Permit Condition I.E.1 – batteries over allotted time • 265.173(a) open containers • 265.173(c) and (d) tank labels • 262.34(a)(2) tank dates • 265.175(a)-(d) – no secondary containment for tanks • 262.11 – hazardous waste determinations • 262.90 – spilled corrosive liquid • 264.31 – spilled baghouse dust outside building
08/05/2014 CEI 11/06/2014 NOAV 04/23/2015 Consent Order	• 265.1101(c)(1)(i) – holes in wall of East Slag Warehouse • 265.110(c)(1)(ii) – slag piles exceeding wall height • 265.1101(c)(1)(iii), 262.90 and 264.31 – tracking from truck washing bay and East Slag Warehouse • 262.11 – hazardous waste determination

04/10/2015	NRR	• 262.11 – hazardous waste determination
09/24/2015	NOAV	• 262.12(c) – offering hazardous waste to transporter without a permit
02/09/2016	Consent Order	
06/22/2016	CEI	• 262.90 – pools of spilled material in CX area
09/13/2016	NOAV	• 265.173(a) – open container
09/27/2017	Consent Order	• 262.34(c)(1)(ii) – container label
04/10/2018	CEI w/EPA	• 262.34(c)(1)(ii) – container label
06/21/2018	NOAV	• 262.11 – hazardous waste determinations
09/24/2018	Consent Order	• 273.33 – damaged boxes of universal waste
		• 273.34 – universal waste labels
		• 264.1101(c)(1)(i) – gap between the floor and wall in East Slag Warehouse
		• 264.53(b) – submit updated contingency plan
		• Permit Condition III.G.
		• 264.16(b) – training
		• Permit Condition V.A. – waste minimization report
		• Permit Condition III.M. 2(a) – label pallets of batteries
		• Permit Condition II.A. – spill in battery warehouse
07/14/2020	CEI	• 262.15(a)(4) – open container
10/02/2020	NOAV	• 264.35 – aisle spacing
05/18/2021	Consent Order	• 264.173(c) – pallet labeling
		• 264.110(c)(1) – holes in wall of East Slag Warehouse
		• 262.15(a)(4) – open roll-off containers
		• 262.15(a)(5) – container labeling
		• 262.41(b) – quarterly report error
		• 262.12(b) – missing waste index
		• 264.54 – contingency plan update

9) **Facility Description**

According to www.clarios.com, Clarios LLC (Clarios) began when Brookfield Business Partners purchased the Power Solutions Division of Johnson Controls in 2019. The company designs, manufactures, transports, recycles and recovers batteries that are used in virtually every type of vehicle. Through a network of over 50 manufacturing, recycling, and distribution centers across the globe, Clarios converts 8,000 used lead-acid batteries per hour, 24-hours per day, every day. The company produces an estimated 150 million batteries each year, which is approximately 1/3 of the industry output.

Johnson Controls Battery Group, Inc. proposed to construct and operate the subject facility in April 2009, and the battery recycling center was fully operational here between July 2012 and March 2021. The facility includes a 450,000 square foot production building, which was constructed on an 80-acre parcel of the company's approximately 1,010-acre previously undeveloped land area in Florence, South Carolina. When it was fully operational, the subject facility received and stored spent lead-acid batteries, broke those batteries apart through

pulverization, and separated the component parts. The facility then recycled the battery component parts to produce:

- lead ingots, which were used in the production of new lead-acid batteries;
- polypropylene pellets, which were used in the production of new battery casings; and
- dried sodium sulfate crystals, which were sold as a commodity in general commerce.

The only production activities currently operating at the facility are those that occur in the Poly Plant area. All other battery recycling and production activities ceased operation here on March 22, 2021. The company is also performing facility closure and clean-up operations using one shift Monday-Friday. The facility's air handling, wastewater treatment plant (WWTP), alarms and security support operations continue to run twenty-four hours per day, seven days per week. The facility currently has approximately 31 employees.

When it was fully operational, the subject facility recycled approximately 15.3 million batteries per year, generating 132,000 metric tons of lead and 13,000 metric tons of polypropylene pellets. The facility operated under the NAICS Codes 336320 for Motor Vehicle Electrical and Electronic Equipment Manufacturing and 331492 for Secondary Smelting, Refining, and Alloying of Nonferrous Metal (Except Copper and Aluminum). The reclamation processes included the Wet End Reclamation System (the CX Area, the Poly Plant Area, and the CT Area), the Dry End Secondary Lead Production Processes (Smelting Furnace and Rotary Melting Furnace), and the Dry End Refining Kettle Processes (Soft Lead Refining Kettles and Hard Lead Refining Kettles). Designated storage areas associated with the reclamation processes included the Battery Core Warehouse, the Charge Prep Area, the East and West Slag Warehouses, and the Finishing Storage Area. The facility is also supported with an on-site WWTP, an on-site air filtration system, indoor floor sweepers, outdoor street sweeper trucks, truck wash stations, hazardous waste storage areas, a stormwater collection system, bioretention zones and ponds, a Poly Maintenance Shop, a vehicle maintenance area, employee locker rooms, and an on-site laundry.

When the facility was in full operation, the Wet End Reclamation System processed used batteries, along with raw materials and recycled materials that were generated in the Dry End Processes, to produce intermediate materials and final products. The Dry End Secondary Lead Production processes used raw materials and materials generated on-site to produce molten lead. The Dry End Refining Kettles used refining agents and the molten lead to produce lead ingots.

First, spent lead-acid automotive batteries from off-site collection centers were received and stored in the Battery Core Warehouse before they were sent to the Wet End Reclamation System for processing. The recycling process began in the CX Area where batteries were broken apart, pulverized, and separated into battery components, which included:

- acid
- paste
- ferrous metal
- metallic lead
- plastic components.

These battery components were used with raw materials and recycled materials that were generated in the Dry End Processes to produce intermediate materials and final products. Raw materials used in the Wet End production processes included:

- sodium carbonate
- sulfuric acid
- caustic soda
- hydrogen peroxide
- sodium sulfide paste

Materials that were generated on-site in the Dry End Processes and recycled in the Wet End production processes included:

- flue dust (from Rotary Melting Furnace)
- flue dust (from Refining Kettles)
- baghouse dust (from Slag Warehouse)
- baghouse dust (from industrial hygiene)
- emission control dust / sludge (from Secondary Lead Smelting operations)

Intermediate materials generated in the Wet End Reclamation System processes and used in the on-site secondary lead production processes included:

- metallic lead
- chemically converted paste
- heavy plastics, which were used as a substitute for a commercial chemical product

Final products created in the Wet End Reclamation System, included:

- dried sodium sulfate crystals, which were produced in the CT Area and sold as a commodity in general commerce
- recovered polypropylene pellets, which are produced in the Poly Plant and used in the production of new battery casings at the company's other facilities
- ferrous scrap metal which was used in the production of batteries at the company's other facilities

The Dry End Secondary Lead Production Smelting and Rotary Melting Furnaces produced molten lead using raw materials and materials generated on-site. Raw materials used in the Secondary Lead Production Furnaces included:

- battery manufacturing lead scrap
- coal
- iron chips
- sodium carbonate

Materials generated on-site and used in the Secondary Lead Production Furnaces included:

- metallic lead (from Wet End)
- chemically converted paste (from Wet End)
- heavy plastics (from Wet End)
- internal plant waste with recoverable levels of lead
- dross by-product (from Refining Kettles)

The Dry End Soft Lead Refining Kettles and hard Lead Refining Kettles produced soft lead ingots and hard lead (alloy) ingots, respectively, using molten lead from the Secondary Lead Production Furnaces and refining agents.

SCDHEC issued a Hazardous Waste Permit for battery storage at the subject facility, Permit Number SCR000771451 (the HW Permit), to Johnson Controls Florence Recycling Center on 10/14/2010, and in March 2012, the company notified SCDHEC that they would begin receiving hazardous waste for storage. Johnson Controls Battery Group, Inc. first notified as a large quantity generator (LQG) of hazardous waste at this facility in May 2013, and the facility has continued to operate as an LQG since that time. Clarios, LLC filed a SCDHEC Notification and Reporting Form (DHEC 2701) on 10/15/2019 to add Clarios, LLC as a legal operator of the facility and to change the name of the legal owner of the facility from Johnson Controls Battery Group Inc. to Clarios, LLC.

A RCRA Facility Assessment (RFA) for the subject facility was initiated in March 2019 as part of the RCRA Permit, and a visual site inspection (VSI) for the RFA was conducted at the subject facility between March 26, 2019 through March 28, 2019. The findings of the preliminary review and the VSI are described in a RCRA Facility Assessment Report (RFA Report), which was prepared by Mabbett & Associates, Inc. and dated March 27, 2020.

10) Opening Conference

On February 24, 2022, EPA inspector Laurie Benton DiGaetano, accompanied by SCDHEC inspectors Tom Richmond and Earle Watson, arrived at the subject Clarios facility at approximately 10:20 a.m. Mr. Matthew Hieshetter, Regional EHS Manager, immediately received the inspectors. The inspectors introduced themselves, showed their credentials to Mr. Hieshetter, 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 inspectors 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. Hieshetter provided an overview of the facility's history and current operations during the opening conference. The company does not appear to meet the Small Business Regulatory Enforcement Fairness Act's classification of a "small business," which is generally set by the Small Business Administration using the business' SIC/NAICS code and annual receipts or number of employees. Therefore, the EPA inspector did not provide a copy of the agency's information sheet for small businesses, which can be found at <https://www.epa.gov/sites/production/files/2017-06/documents/smallbusinessinfo.pdf>.

Mr. Hieshetter and the inspectors were joined by Mr. Frank Thompson, EHS Specialist, following the opening conference. The inspection participants discussed health and safety protocols and required personal protective equipment (PPE), and the facility provided each inspector with a battery-powered air purifying respirator, a full coverage PPE suit, gloves and shoe covers for use during the inspection tour. The inspection participants donned the required

PPE in the facility locker rooms, and then Mr. Hieshetter and Mr. Thompson led the inspectors on a tour of the Facility operations.

11) **Findings**

Air Handling System: Although most process areas at the facility are no longer in operation, the company continues to operate the subject facility's air handling systems, which are designed to maintain negative pressure inside the building and to control emissions from the building. According to the RFA Report, air emissions from the recycling facility are controlled by extensive ventilation systems with filtration baghouses and scrubbers, make-up air units, and filtered exhaust units. Baghouses and ceramic scrubbers serve the CX Area, Charge Prep, Foundry, CT, East and West Slag Warehouses, and Refinery. Filtered exhaust units service the Poly Plant, CX Area, Charge Prep, Foundry, Refinery, and inspection and storage building.

Manufacturers of baghouse and exhaust filters used in the air handling system recommend replacing these filters at designated differential pressure thresholds. When the facility replaces used baghouse filters, the used filters are placed in trash bags or into sealed cardboard containers while inside the baghouse compartment and then double bagged at the doorway of the baghouse compartment. Smaller exhaust filters are also bagged when they are removed from service. Bags of used filters are accumulated as hazardous waste in a covered roll-off in the HW and Metal Recycling Roll-off CAA.

PPE Satellite Accumulation Areas (SAAs): Employees are required to utilize PPE due to the elevated levels of heavy metals present in the former production and recycling areas. Designated SAAs are located throughout the facility for accumulating used PPE and debris. Each SAA holds one 55-gallon trash can with a plastic liner bag for accumulating hazardous waste. Mr. Hieshetter explained that janitorial staff are contracted to remove the liner bags from full containers at each SAA, to contain the hazardous waste contents by tying a knot in the liner, and to transfer the knotted liner bags to a roll-off container in the Hazardous Waste and Metals Recycling Roll-Off central accumulation area (CAA). (When the facility was fully operational, the janitorial staff transferred the knotted liner bags to the Hazardous Waste Compactor in the Battery Warehouse.)

The inspectors first observed the PPE and debris SAAs inside the locker room, at the locker room exits (Photo 1), and in the hallway leading from the locker rooms to the former production and recycling areas (Photo 2). Each of these SAAs held one 55-gallon trash can, and each trash can was labeled D004 / D006 / D008 hazardous waste solid. None of the containers observed in these SAAs were marked to indicate the hazards of its contents.

Pursuant to S.C. Code Ann. Regs. 61-79.262.15(a)(5)(ii) [40 C.F.R.

§ 262.15(a)(5)(ii)], which is a condition of the SAA Permit Exemption, a generator is required to mark or label its containers with an indication of the hazards of the contents.

Battery Warehouse: Facilities that receive and store spent lead-acid batteries prior to reclaiming them in a manner other than regeneration are subject to RCRA hazardous waste permitting requirements, and the facility operated the Battery Core Warehouse operated as a hazardous

waste permitted storage area for incoming lead acid batteries. The warehouse also served as a hazardous waste CAA used to hold cubic yard boxes of D004 / D006 / D008 hazardous waste used PPE, drums of D004 / D006 / D008 hazardous waste sludge from outdoor street sweepers, drums of D004 / D006 / D008 hazardous waste debris from the magnetic separators, and containers of D004 / D006 / D008 hazardous waste construction debris. The facility also operated a Hazardous Waste Compactor, which was typically used to dispose of D004 / D006 / D008 hazardous waste laundry lint, laundry HEPA filters, PPE, and facility air filters. The compactor was connected to a closed roll-off container, which was moved to the Hazardous Waste and Metal Recycling Roll-off CAA when it became full.

According to Mr. Hieshetter, the Battery Warehouse has not been in use at the facility for approximately six months. The inspectors observed that all racks used to store incoming used batteries had been removed from the warehouse. In addition, no containers of hazardous waste were observed in the former CAA. Mr. Hieshetter stated that, although the floors had been generally cleaned with sweeper trucks, all closure activities have not yet been completed for the Battery Warehouse.

The Hazardous Waste Compactor was no longer being used to compact waste, and the area was no longer being managed as a CAA. The inspectors observed two plastic garbage bags that appeared to contain hazardous waste used PPE and debris inside the unit (Photo 3), but no roll-off container next to the unit. The bags were not labeled with the words “hazardous waste,” marked with an indication of the hazards of their contents or marked with an accumulation start date. Mr. Hieshetter speculated that the contractors hired to clear out the warehouse may have left them behind when they were finished working in this area.

Pursuant to the RCRA Permit, Module I - Standard Conditions, Condition I.A. - Effect of Permit, any storage, treatment, and/or disposal of hazardous waste not authorized in this Permit is prohibited, except as allowed by S.C. Code Ann. Regs. 61-79 [40 C.F.R.].

Pursuant to the RCRA Permit, Module III - Containers, Condition III.B.2. - Prohibited Waste, the Permittee is prohibited from storing hazardous waste that is not identified in Permit Condition III.B.1.

The inspectors also observed loose hazardous waste, dust and debris remaining inside the Hazardous Waste Compactor unit behind an access panel and on the floor below the unit (Photo 4). This material appears to be hazardous waste that leaked from containers and was left behind in the compactor unit during processing.

Pursuant to the RCRA Permit, Module I - Standard Conditions, Condition I.A. - Effect of Permit, any storage, treatment, and/or disposal of hazardous waste not authorized in this Permit is prohibited, except as allowed by S.C. Code Ann. Regs. 61-79 [40 C.F.R.].

Pursuant to the RCRA Permit, Module III - Containers, Condition III.B.2. - Prohibited Waste, the Permittee is prohibited from storing hazardous waste that is not identified in Permit Condition III.B.1.

Pursuant to the RCRA Permit, Module II – General Facility Conditions, Condition II.A. – Design and Operation of Facility, the Permittee shall construct, maintain and operate the facility in a manner to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment.

The inspectors also observed one intact battery on the floor near the compactor unit (Photo 5). This battery was not on a shrink-wrapped pallet or labeled, and the facility ceased accumulating used batteries for recovery, treatment, or disposal on or before 03/22/2021.

Pursuant to the RCRA Permit, Module VI - Land Disposal Restrictions, Condition IV.B.2. - Storage Prohibition, which incorporates S.C. Code Ann. Regs. 61-79.268.50(b) [40 C.F.R. Part 268.50(b)], the Permittee may store hazardous waste restricted from land disposal under S.C. Code Ann. Regs. 61-79.268 [40 C.F.R. Part 268] for up to one year unless the Agency can demonstrate that such storage was not solely for the purpose of accumulation of such quantities of hazardous waste as are necessary to facilitate proper recovery, treatment, or disposal.

Finally, the inspectors observed one 55-gallon trash can in a former hazardous waste SAA inside the Battery Warehouse. This container, which was labeled as hazardous waste, was previously used to accumulate hazardous waste PPE and debris generated in the Battery Warehouse. The inspectors observed that the trash can was empty.

CX Area: At the time of the inspection, no production or recycling activities appeared to be occurring in the CX Area. Mr. Hieshetter stated that the equipment used in the former sodium sulfate process had been removed from the facility. The remaining equipment in the former production area was roped off with caution tape, and the process units appeared to be idle. The manhole / access port on Tanks V-203 and PK 701C were both removed, revealing the interior of the tank vessels. The inspectors observed some residual dust and sludge inside Tank V-203. Storage of hazardous waste in Tank V-203 did not meet the conditions of the SAA Permit Exemption or the LQG Permit Exemption, and the area is not permitted for the storage of hazardous waste.

Pursuant to the RCRA Permit, Module I - Standard Conditions, Condition I.A. - Effect of Permit, any storage, treatment, and/or disposal of hazardous waste not authorized in this Permit is prohibited, except as allowed by S.C. Code Ann. Regs. 61-79 [40 C.F.R.].

Pursuant to the RCRA Permit, Module III - Containers, Condition III.B.2. - Prohibited Waste, the Permittee is prohibited from storing hazardous waste that is not identified in Permit Condition III.B.1.

Although the production and recycling activities did not appear to be operating, the inspectors observed a liquid puddle which appeared to be coming from an active pump and hose in this area. This unknown liquid was flowing into the floor trenches and sump.

Pursuant to S.C. Code Ann. Regs. 61-79.262.11 [40 C.F.R. § 262.11], a person who generates a solid waste, as defined in S.C. Code Ann. Regs. 61-79.261.2 [40 C.F.R. § 261.2], must use the steps articulated in S.C. Code Ann. Regs. 61-79.262.11 [40 C.F.R. § 262.11] to 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.

The inspectors observed four totes along the wall inside the CX Area (Photo 6). One tote appeared to be empty; two totes were labeled sodium hydroxide and identified with a DOT corrosive hazard placard; and the fourth tote was dated August 26, 2020 but not labeled. The full totes contained a dark material, which did not appear to be on-spec virgin sodium hydroxide.

Pursuant to S.C. Code Ann. Regs. 61-79.262.11 [40 C.F.R. § 262.11], a person who generates a solid waste, as defined in S.C. Code Ann. Regs. 61-79.261.2 [40 C.F.R. § 261.2], must use the steps articulated in S.C. Code Ann. Regs. 61-79.262.11 [40 C.F.R. § 262.11] to 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.

The inspectors also observed one cubic yard box of poly pellets inside the wall inside the CX Area, and five empty metal hoppers.

Finally, the inspectors observed one 55-gallon trash can in a hazardous waste SAA inside the CX Area (Photo 7). This trash can was full of used PPE and debris. It was labeled D004 / D006/ D008 debris, but it was not marked with an indication of the hazards of its contents.

Pursuant to S.C. Code Ann. Regs. 61-79.262.15(a)(5)(ii) [40 C.F.R. § 262.15(a)(5)(ii)], which is a condition of the SAA Permit Exemption, a generator is required to mark or label its containers with an indication of the hazards of the contents.

Poly Department: According to Mr. Hieshetter, the Poly Plant is the only remaining production process in operation at the facility. Mr. Hieshetter stated that, although the Poly Plant process does not generate hazardous waste, hazardous waste used PPE and debris are generated and managed in this area. The inspectors observed four SAAs identified by the facility for accumulating used PPE and debris generated in the Poly Plant area. One SAA was located next to a transport truck (Photo 8), another was located outside the production office (Photo 9), the third was located next to the door between Bays 4 and 5 (Photo 10), and the fourth was located next to the door leading into the Poly Plant Maintenance Area. Each container was labeled with the words hazardous waste, but none were marked to identify the hazards of the contents.

Pursuant to S.C. Code Ann. Regs. 61-79.262.15(a)(5)(ii) [40 C.F.R. § 262.15(a)(5)(ii)], which is a condition of the SAA Permit Exemption, a generator is required to mark or label its containers with an indication of the hazards of the contents.

Poly Plant Maintenance Area: Facility maintenance activities are performed in the Poly Plant Maintenance Area, and the facility manages one SAA in this area for accumulating hazardous waste PPE and debris. The inspectors observed one 55-gallon trash can near the entrance (Photo 11), and four additional trash cans on a wooden pallet near the center of the Maintenance Area (Photo 12). One of the trash cans on the wooden pallet was empty, but the trash can near the entrance and the three trash cans on the wooden pallet all contained hazardous waste PPE and debris. The total volume of hazardous waste in this SAA was greater than 55-gallons. All of the trash cans were labeled as hazardous waste, but none were marked with an indication of the hazards of its contents. The trash can near the entrance was open, and one of the full trash cans on the wooden pallet did not have a lid. During the inspection, facility personnel placed a lid on the full trash can on the wooden pallet.

Pursuant to S.C. Code Ann. Regs. 61-79.262.15(a)(6) [40 C.F.R. § 262.15(a)(6)] a generator who accumulates an excess of 55-gallons of hazardous waste at or near any point of generation must comply within three consecutive calendar days with the applicable central accumulation area (CAA) regulations or remove the excess from the SAA within three consecutive calendar days to either a CAA, an on-site interim status or permitted treatment, storage, or disposal facility, or an off-site designated facility. The generator must mark or label the container(s) holding the excess accumulation of hazardous waste with the date the excess amount began accumulating and continue to comply with the other requirements of the SAA Permit Exemption during the three-consecutive-calendar-day period.

Pursuant to S.C. Code Ann. Regs. 61-79.262.15(a)(5)(ii) [40 C.F.R. § 262.15(a)(5)(ii)], which is a condition of the SAA Permit Exemption, a generator is required to mark or label its containers with an indication of the hazards of the contents.

Pursuant to S.C. Code Ann. Regs. 61-79.262.15(a)(4) [40 C.F.R. § 262.15(a)(4)], which is a condition of the SAA Permit Exemption, a generator is required to keep containers of hazardous waste closed at all times during accumulation, except when adding, removing, or consolidating waste; or when temporary venting of a container is necessary for the proper operation of equipment, or to prevent dangerous situations, such as build-up of extreme pressure.

The inspectors observed two Safety-Kleen parts washer units in the Maintenance Area. One parts washer was empty.

Charge Prep Truck Wash: The Charge Prep Room is equipped with a Truck Wash for washing vehicles, such as those used to transport raw materials into the Charge Prep Area, before they

leave the building. The Truck Wash includes a series of three large floor sumps that collect and then drain liquids through underground piping for transfer to the onsite WWTP.

The facility manages one SAA for accumulating hazardous waste PPE and debris in the Charge Prep Truck Wash area (Photo 13). The inspectors observed one 55-gallon trash can in this SAA. The container was labeled hazardous waste solid, but it was not marked with an indication of the hazards of its contents.

Pursuant to S.C. Code Ann. Regs. 61-79.262.15(a)(5)(ii) [40 C.F.R. § 262.15(a)(5)(ii)], which is a condition of the SAA Permit Exemption, a generator is required to mark or label its containers with an indication of the hazards of the contents.

Charge Prep Area: The Charge Prep Room, which is situated between the CX Area and the Foundry, was used to gather necessary materials in the quantities necessary for continued processing at the Foundry. These materials were arranged inside the Charge Prep Room in six bunkers along one wall, seven bunkers along a second wall, and five bunkers along the third wall. The six bunkers along the south wall were used to store battery components, including acid, lead paste, ferrous metal, metallic lead, spent battery separators from the Poly Plant, and spent ceramic from CX scrubbers (RFA Report page 48). Other materials from facility processes that were brought to the Charge Prep Room and stored in the Charge Prep Bunkers included: wastewater treatment filter cakes generated by the WWTP; flue dust from the Baghouse and Filter Exhaust Systems; floor sweepings from Indoor Floor Sweepers; and dross from the Refinery. Materials in the Charge Prep Bunkers were managed as raw materials or hazardous secondary materials until they were placed into the furnaces as feedstock for the Foundry. According to the RFA Report, secondary hazardous materials that could not be utilized due to excess quantities, off-spec ingredients, or when unneeded, were collected in covered roll-off containers and sent off-site as hazardous waste.

Although the entire room (including the Charge Prep Bunkers) contained a heavy layer of dust on the floor, most materials had been removed from the Charge Prep Bunkers at the time of the inspection. The inspectors made the following observations of the Charge Prep Bunkers:

Bunker Number	Label	Observations
A1		Mostly empty
A2	Fusion Debris	Empty
A3	Paste	Empty
A4	Separator	Significant volume of material (Photo 14)
A5	Separator	Mostly empty
A6	Separator	Empty
B1	Iron	Roped off with material piled in the corner (Photo 15)
B2	Antimony Dross	Empty, storing equipment
B3	Paste	Mostly empty, some material in the corner
B4	Paste	Empty

B5	Iron	
B6	Coal	Empty
C1	Paste	Mostly empty
C2	Separator	Mostly empty
C3	Paste	Mostly empty
C4	Separator	Mostly empty
C5	Filler Paper	Mostly empty

According to Mr. Hieshetter, Charge Prep Bunker A4 contained material that was generated when the floors were removed from the East and West Slag Warehouses, and material that is accumulated by the Indoor Floor Sweepers. Mr. Hieshetter stated that the facility is shipping two truck loads of this material from the facility to Chemical Waste Management's permitted hazardous waste treatment, storage and disposal (TSD) facility in Emelle, Alabama every week. Hazardous waste observed in this area was not being accumulated or stored in containers, and the volume far exceeded 55-gallons. Storage of hazardous waste in the Charge Prep Bunkers did not meet the conditions of the SAA Permit Exemption or the LQG Permit Exemption, and the bunkers are not permitted for the storage of hazardous waste.

Pursuant to the RCRA Permit, Module I - Standard Conditions, Condition I.A. - Effect of Permit, any storage, treatment, and/or disposal of hazardous waste not authorized in this Permit is prohibited, except as allowed by S.C. Code Ann. Regs. 61-79 [40 C.F.R.].

Pursuant to the RCRA Permit, Module III - Containers, Condition III.B.2. - Prohibited Waste, the Permittee is prohibited from storing hazardous waste that is not identified in Permit Condition III.B.1.

Pursuant to the RCRA Permit, Module II – General Facility Conditions, Condition II.A. – Design and Operation of Facility, the Permittee shall construct, maintain and operate the facility in a manner to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment.

The inspectors also observed over 55-gallons of hazardous waste baghouse dust in and around a hopper beneath the baghouse unit in the Charge Prep Area (Photo 16). This hopper was open, and it was not labeled. Hazardous waste baghouse dust was also observed outside of the container on the floor next to the hopper. This area did not meet the conditions of the SAA Permit Exemption or the LQG Permit Exemption, and it was not permitted for the storage or hazardous waste baghouse dust.

Pursuant to the RCRA Permit, Module I - Standard Conditions, Condition I.A. - Effect of Permit, any storage, treatment, and/or disposal of hazardous waste not authorized in this Permit is prohibited, except as allowed by S.C. Code Ann. Regs. 61-79 [40 C.F.R.].

Pursuant to the RCRA Permit, Module III - Containers, Condition III.B.2. - Prohibited Waste, the Permittee is prohibited from storing hazardous waste that is not identified in Permit Condition III.B.1.

Pursuant to the RCRA Permit, Module II – General Facility Conditions, Condition II.A. – Design and Operation of Facility, the Permittee shall construct, maintain and operate the facility in a manner to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment.

Foundry and Refinery Areas: According to the RFA Report, slag (D004, D005, D008, D010), spent ceramic (D008) from scrubbers, spent furnace brick (D008) and lead containing debris (D004, D006, D008) were generated by the Foundry and Refinery during normal operations. Foundry slag was cooled in a crucible and stored in the East or West Slag Warehouse; spent ceramic from scrubbers and lead containing debris were stored in the Charge Prep Bunkers for reuse or disposal depending on material need; and spent furnace bricks were accumulated in various sized containers, which were then emptied into roll-offs in the Refractory Brick Roll-off CAA. Mr. Hieshetter stated that the facility has continued to generate some spent furnace bricks during the facility shut down activities, and that these spent furnace bricks are managed as hazardous waste.

The facility also continues to manage SAAs in the Foundry and Refinery Areas for accumulating hazardous waste PPE and debris. The inspectors observed one SAA in the middle of the Foundry Area (Photo 17), and three SAAs throughout the Refinery Area (Photos 18, 19 and 20). Each SAA held one 55-gallon trash can, each trash can was labeled hazardous waste solids, and all contained hazardous waste. None of the containers were marked with an indication of the hazardous of its contents.

Pursuant to S.C. Code Ann. Regs. 61-79.262.15(a)(5)(ii) [40 C.F.R. § 262.15(a)(5)(ii)], which is a condition of the SAA Permit Exemption, a generator is required to mark or label its containers with an indication of the hazards of the contents.

The inspectors also observed an additional SAA, which was used to accumulate the contents of waste aerosol cans, in the Refinery Area (Photo 21). This SAA held one 55-gallon drum, which was equipped with a can puncture device. The drum was open and covered with cobwebs. Although it appeared that words had once been stenciled on the container, the text was illegible because it was faded and covered with paint.

Pursuant to S.C. Code Ann. Regs. 61-79.262.15(a)(4) [40 C.F.R. § 262.15(a)(4)], which is a condition of the SAA Permit Exemption, a generator is required to keep containers of hazardous waste closed at all times during accumulation, except when adding, removing, or consolidating waste; or when temporary venting of a container is necessary for the proper operation of equipment, or to prevent dangerous situations, such as build-up of extreme pressure.

Pursuant to S.C. Code Ann. Regs. 61-79.262.15(a)(5) [40 C.F.R. § 262.15(a)(5)], which is a condition of the SAA Permit Exemption, a generator is required to mark or label its containers (i) with the words “Hazardous Waste” and (ii) with an indication of the hazards of the contents.

The inspectors also observed two areas next to the corner on opposite walls in the Foundry Area where hazardous waste baghouse dust was being accumulated. The inspectors observed over 55-gallons of hazardous waste baghouse dust in and around a metal hopper in each of these areas (Photo 22). The areas did not meet the conditions of the SAA Permit Exemption or the LQG Permit Exemption, and they were not permitted for the storage of hazardous waste baghouse dust.

Pursuant to the RCRA Permit, Module I - Standard Conditions, Condition I.A. - Effect of Permit, any storage, treatment, and/or disposal of hazardous waste not authorized in this Permit is prohibited, except as allowed by S.C. Code Ann. Regs. 61-79 [40 C.F.R.].

Pursuant to the RCRA Permit, Module III - Containers, Condition III.B.2. - Prohibited Waste, the Permittee is prohibited from storing hazardous waste that is not identified in Permit Condition III.B.1.

Pursuant to the RCRA Permit, Module II – General Facility Conditions, Condition II.A. – Design and Operation of Facility, the Permittee shall construct, maintain and operate the facility in a manner to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment.

The emission control dust from the Smelting Furnaces has a high lead content and is a listed hazardous waste (K069). While in operation, the facility recycled K069 flue dust that was generated in the baghouses serving the Secondary Lead Smelting process and other emission control dusts that were generated in the baghouses serving the other areas of the facility. According to the RFA Report, a screw conveyor system transferred flue dust from the baghouses to a tank where it was combined with water to create a slurry. The slurry was then pumped to the desulfurization reactor where it was processed into a feedstock, which was stored in the Charge Prep Bunkers until it was used in the Rotary Furnaces.

East and West Slag Warehouses: Foundry slag generated by the Dry End Secondary Lead Production Processes was collected and stored in the East and West Slag Warehouses. Foundry slag exhibits the hazardous waste characteristic of toxicity for elevated levels of arsenic (D004) and lead (D008), and occasionally for elevated levels of Barium (D005) and/or Selenium (D010). According to the RFA Report, the warehouses were constructed to contain and store slag in accordance with RCRA Subpart DD containment building requirements. During operation, the facility shipped hazardous waste foundry slag off-site by rail.

Each Slag Warehouse was also equipped with a Truck Wash for washing trucks used to transport waste slag before they left the building. These truck wash stations were also used by indoor wet

floor sweepers and outdoor street sweepers to offload stored liquids and solids and by metal recycling hoppers for rinsing and sorting. Each Truck Wash includes a series of three large floor sumps that collect and then drain liquids through underground piping for transfer to the onsite WWTP. Clean ferrous materials were taken from the Truck Wash stations and placed in the scrap metal recycling bin in the Hazardous Waste and Metal Recycling CAA. Nonferrous metals and other solids and sludges generated in the Truck Wash stations were transferred to the hazardous waste roll-off container in the Hazardous Waste and Metal Recycling CAA.

The East (Photo 23) and West (Photos 24 and 25) Slag Warehouses were no longer in use at the time of the inspection. The flooring system in these areas had been removed, leaving the underlying subfloor system exposed. Although facility operations ceased on 03/22/2021, the inspectors observed significant levels of hazardous waste slag dust and debris remaining in the underlying subfloor system during the inspection. Storage of hazardous waste in the East and West Slag Warehouses did not meet the conditions of the SAA Permit Exemption or the LQG Permit Exemption, and the warehouses are not permitted for the storage of hazardous waste.

Pursuant to the RCRA Permit, Module I - Standard Conditions, Condition I.A. - Effect of Permit, any storage, treatment, and/or disposal of hazardous waste not authorized in this Permit is prohibited, except as allowed by S.C. Code Ann. Regs. 61-79 [40 C.F.R.].

Pursuant to the RCRA Permit, Module III - Containers, Condition III.B.2. - Prohibited Waste, the Permittee is prohibited from storing hazardous waste that is not identified in Permit Condition III.B.1.

Pursuant to the RCRA Permit, Module II – General Facility Conditions, Condition II.A. – Design and Operation of Facility, the Permittee shall construct, maintain and operate the facility in a manner to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment.

Finish Goods Area: The facility manages at least two SAAs in the Finish Goods Area: one by the support beam (Photo 26) and another in the middle of the room (Photos 27 and 28). The inspectors observed one 55-gallon trash can containing hazardous waste PPE and debris in each of these SAAs. Both cans were labeled with the words hazardous waste, but neither was marked with an indication of the hazards of its contents. The container in the middle of the room was open. The inspectors observed two additional red trash cans staged by the loading dock doors in this area, but those containers were both empty.

Pursuant to S.C. Code Ann. Regs. 61-79.262.15(a)(5)(ii) [40 C.F.R. § 262.15(a)(5)(ii)], which is a condition of the SAA Permit Exemption, a generator is required to mark or label its containers with an indication of the hazards of the contents.

Pursuant to S.C. Code Ann. Regs. 61-79.262.15(a)(4) [40 C.F.R. § 262.15(a)(4)], which is a condition of the SAA Permit Exemption, a generator is required to keep

containers of hazardous waste closed at all times during accumulation, except when adding, removing, or consolidating waste; or when temporary venting of a container is necessary for the proper operation of equipment, or to prevent dangerous situations, such as build-up of extreme pressure.

Indoor Floor Sweepers: When the facility was fully operational, indoor floor sweeper trucks were used to clean floors in the process areas. The indoor floor sweeper trucks included dry vacuum trucks, which were used in the Foundry and Refinery, and wet vacuum trucks, which were used in the CX Area. The indoor wet sweepers used water, squeegee and scrubber brushes to scrub and sweep the floor in the CX Area; and the indoor dry trucks collected dust, debris and wash water from the floors in the Foundry and Refinery process areas. Each indoor sweeper truck has an on-board reservoir hopper tank to manage materials that are vacuumed during use.

Treated wastewater from the WWTP was used to refill the indoor wet sweepers, and waste wash water collected by the indoor wet floor sweepers was reintroduced to the process through the floor sumps in the Poly Plant. Solid debris collected by the indoor dry floor sweepers was deposited in the Charge Prep area until it was used as a feedstock in the Foundry furnace.

Mr. Hieshetter stated that the facility continues to utilize one indoor dry vacuum truck to accumulate dust and debris from the process area floors, and the solid debris collected by the indoor dry vacuum truck continues to be deposited in the Charge Prep area for eventual disposal as hazardous waste.

Wastewater Treatment Area: According to the RFA Report, the on-site WWTP received wastewater from the Charge Prep Truck Wash, the East and West Slag Warehouse Truck Washes, the Foundry and Refinery cooling systems, the evaporative coolers, the Foundry and Refinery Baghouses and their associated slurry tanks, the laundry and PPE washing systems, the laboratories, the CX Area, the Poly Plant, the Street Sweeper Trucks, and the Storm Drain Collection System.

Although most process areas at the facility are no longer in operation, the company continues to operate the WWTP to manage wastewater that is generated on-site. The WWTP is staffed 24-hours per day, 7-days per week. Wastewater is transferred to the WWTP using overhead and underground piping. The WWTP is designed to filter storm water runoff from the facility rooftops through lined ponds and then recycle that stormwater by pumping it to the baghouse scrubbers. Treated wastewater may be used by the on-site truck wash stations, in the street sweeper trucks, and as on-site process water. Treated wastewater that is not reused on-site is discharged to the City of Florence Publicly Owned Treatment Works (POTW).

At the time of the inspection, the facility was managing two SAAs to accumulate hazardous waste PPE and debris generated in the WWTP. The first SAA was located near the entrance to the WWTP, and the second was located near the filter press area. Each SAA held one 55-gallon trash can. Each container was labeled with the words “hazardous waste,” “contains hazardous or toxic waste,” and “PPE.”

The facility was also managing a SAA to accumulate hazardous waste filter cake. The inspectors observed two metal hoppers, placed beneath the filter press. Each hopper was identified with a DOT toxic hazard placard. Mr. Hieshetter explained that the metal hoppers are taken to the Hazardous Waste Roll-off and Metal Recycling CAA, where their contents are emptied into a hazardous waste roll-off container, immediately after the filter cake is removed from the press. He estimated that the filter press is emptied about once every other day.

Outdoor Street Sweepers: WWTP personnel are also responsible for operating the outdoor Street Sweeper Trucks, which are used to control outdoor lead deposition from nonpermeable outdoor ground surfaces. The trucks use vacuums and water to collect surface dust from these nonpermeable ground surfaces and accumulate vacuumed materials in an on-board reservoir hopper tank. When the facility was fully operational, street sweeper trucks were driven to the East Slag Truck Wash or the West Slag Truck Wash to be emptied. Liquids from the outdoor sweepers flowed from the Truck Wash to the WWTP via underground pipes. Solids and sludges in the outdoor sweepers were removed from the onboard collection compartment and managed as hazardous waste. Currently, the outdoor street sweepers are driven to the Charge Prep Truck Wash to be emptied. Liquids from the sweepers flow from the Truck Wash to the WWTP via underground pipes. Solids and sludges in the sweepers are removed from the on-board reservoir hopper tanks and managed as hazardous waste; and treated wastewater from the WWTP is used to refill the trucks.

Stormwater System: A total of sixteen ponds, which include bioretention basins and infiltration ponds, were constructed to surround the facility and prevent storm water from paved or impervious surfaces (other than rooftops) from flowing directly offsite. The Storm Drain Collection System is designed to collect rain that falls onto paved or impervious ground surfaces and route it to a bioretention basin. The bioretention basins are designed to prevent seepage of lead into the surrounding soil by gravity filtering stormwater through a layer of sand, which is placed on the bottom of each basin. Filtered stormwater is then transported from the bioretention basins to the infiltration ponds through underground polyvinyl chloride pipes. The infiltration ponds are designed to allow filtered stormwater to infiltrate the subsurface. Rain that falls on the building roof top may be routed through the Storm Drain Collection System, or it may be routed to the onsite WWTP for treatment and discharge to the Florence POTW.

Stormwater runoff from the paved or impervious ground surfaces at the facility that is not intercepted by the Storm Drain Collection System must pass through a mulch berm before it reaches the exposed ground surface. The mulch berms, which are 6-inches high and 18-inches wide, border the edges of roadways, parking lots and grassed areas and are intended to filter stormwater and remove lead before the stormwater reaches the exposed ground surface. According to the RFA Report, the facility performs annual monitoring and maintenance of the mulch berms by splitting the site into four zones and addressing each zone on a rotating quarterly basis. When mulch is removed for replacement, the used mulch is managed as hazardous waste.

Hazardous Waste Metals Recycling Roll-off CAA: The Hazardous Waste and Metal Recycling Roll-off CAA is located south of the WWTP. This area is used to accumulate and store hazardous waste filter cake from the WWTP, hazardous waste PPE from the on-site SAAs, and hazardous waste solids and sludges generated by the indoor and outdoor sweeper trucks. The

inspectors observed that this area, which is defined by a concrete pad and surrounded by a chain link fence, was secured with a locked gate and identified with a “hazardous waste storage area” sign. The area is equipped with shovels and brooms to respond to a potential release of hazardous waste, and an emergency telephone is located in the adjacent WWTP. Mr. Hieshetter stated that emergency communication is also done via cell phones, which are carried by personnel when working in this area.

The inspectors observed four roll-off containers in the middle of the CAA and four dumpsters along the back fence inside the CAA. Two black roll-off containers were designated for accumulating hazardous waste sludge generated as filter cake in the WWTP. One of these roll-off containers was empty, and the other was labeled hazardous waste sludge and dated 02/18/2022. Two red roll-off containers were designated for accumulating other lead-contaminated hazardous wastes generated at the facility. One of these roll-off containers was empty, and the other was labeled hazardous waste lead debris and dated 02/14/2022. Neither roll-off was marked with an indication of the hazards of its contents.

Pursuant to S.C. Code Ann. Regs. 61-79.262.17(a)(5)(i)(B) [40 C.F.R. § 262.17(a)(5)(i)(B)], which is a condition of the LQG Permit Exemption, a generator is required to mark or label containers with an indication of the hazards of the contents.

Facility Yard: According to Mr. Hieshetter, the facility excavated a layer of soils and sediments from the entire Biobasin #1 in January following the discovery of elevated levels of lead and arsenic in that area. The facility determined that the top 3-4 inches of the excavation contained enough arsenic, cadmium and lead to exhibit the toxicity characteristic of hazardous waste. The inspectors observed three blue roll-off containers which contained the excavated soils on the concrete in the facility yard. Each roll-off was labeled D004 / D006 / D008 hazardous waste soil from pond and dated January 4, 2022. The containers were not marked with an indication of the hazards of their contents. Storage of hazardous waste in the Facility Yard did not meet the conditions of the SAA Permit Exemption or the LQG Permit Exemption, and the Facility Yard is not permitted for the storage of hazardous waste soil.

Pursuant to the RCRA Permit, Module I - Standard Conditions, Condition I.A. - Effect of Permit, any storage, treatment, and/or disposal of hazardous waste not authorized in this Permit is prohibited, except as allowed by S.C. Code Ann. Regs. 61-79 [40 C.F.R.].

Pursuant to the RCRA Permit, Module III - Containers, Condition III.B.2. - Prohibited Waste, the Permittee is prohibited from storing hazardous waste that is not identified in Permit Condition III.B.1.

Overflow CAA: The inspectors observed several tractor trailers and roll-off containers in an area of the paved facility yard referred to as the “Overflow Area.” Four of the roll-off containers appeared to be empty, and two of those were labeled for accumulating nonhazardous waste. A fifth roll-off container held cardboard and other general trash. Two tractor trailers were labeled hazardous waste slag dust and dated February 23, 2022. Mr. Hieshetter explained that these

tractor trailers held material from the Charge Prep Bunker, which is being shipped off-site at a rate of two trailers per day. The facility has a total of four trailers dedicated to shipping hazardous waste from the Charge Prep Bunker to Chemical Waste Management's permitted TSD in Emelle, Alabama. Two of the trailers were in transit at the time of the inspection, and the two trailers observed in the Overflow Area were staged in preparation for transit. These trailers were labeled as hazardous waste and marked with an accumulation start date, but they were not marked to indicate the hazards of their contents.

Pursuant to S.C. Code Ann. Regs. 61-79.262.17(a)(5)(i)(B) [40 C.F.R. § 262.17(a)(5)(i)(B)], which is a condition of the LQG Permit Exemption, a generator is required to mark or label containers with an indication of the hazards of the contents.

Contingency Plan: 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 August 20, 2021. 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, and it 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 includes information necessary to support the actions personnel must take in the event of an emergency. The plan lists the names and emergency telephone numbers for persons identified as emergency coordinators, and those individuals are listed in the order in which they will assume responsibility as alternates. The plan includes a list of emergency equipment and its location at the facility. The list includes fire extinguishing systems, spill control equipment, communications and alarm systems, and decontamination equipment. 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.

The quick reference guide includes the types/names of hazardous waste in layman's terms and the associated hazard associated with each hazardous waste present at any one time; the estimated maximum amount of each hazardous waste that may be present at any one time; the identification of any hazardous wastes where exposure would require unique or special treatment by medical or hospital staff; a street map of the facility in relation to surrounding businesses, schools and residential areas; the locations of water supply; the identification of on-site notification systems; and the name of the emergency coordinator(s) and emergency telephone number(s).

Although the quick reference guide includes a map of the facility showing where hazardous wastes are generated, accumulated and treated, the map did not identify each area where the inspectors observed hazardous wastes being generated or accumulated. Specifically, the quick reference guide did not identify each SAA and the areas where hazardous waste was stored in the Charge Prep Bunkers, at the baghouses, or in the Facility Yard.

Pursuant to S.C. Code Ann. Regs. 61-79.262.17(a)(6) [40 C.F.R. § 262.17(a)(6)], which incorporates S.C. Code Ann. Regs. 61-79.262.262(b)(4) [40 C.F.R. § 262.262(b)(4)] and is a condition of the LQG Permit Exemption, the quick reference guide a map of the facility showing where hazardous wastes are generated accumulated and treated and routes for accessing these wastes.

Training Records: The inspectors reviewed facility job descriptions and records of hazardous waste training. Matthew Hieshetter, Bobby Hopkins and Frank Thompson all received hazardous waste training on November 13, 2020 and November 9, 2021. The facility also provided records of hazardous waste training for employees of Envirovac, the contractor performing clean-up activities related to the shut-down of facility processes.

Waste Manifest Records: The inspectors reviewed available hazardous waste manifest records and land disposal restriction forms for shipments of hazardous waste sent since January 2021.

Inspection Records: The inspectors reviewed available records of monthly inspections of the structures and equipment in the Dry End, the Wet End, and the WWTP, and of the water tanks. No records of inspection were available for the Wet End structures and equipment in January 2021 or for the water tanks in February 2021. Although the facility's processing activities ceased operation in March 2021, the Charge Prep Truck Wash, the Water Tanks and the WWTP continue to run. No records of monthly inspection were available for the Wheel Washing Areas, the WWTP, or the Water Tanks since June 2021.

Pursuant to the RCRA Permit, Module II - General Facility Conditions, Condition II.D. - General Inspection Requirements, which references Section F of the approved Permit Application, the Permittee shall inspect the Wheel Washing Areas, the WWTP, and the Water Tanks on a monthly basis.

The inspectors reviewed available records of weekly inspections of the Battery Warehouse since January 2021. Although one single intact battery was observed during the inspection, the weekly inspection records indicated that the remaining containers were removed from the Battery Warehouse during the week of September 1, 2021. No records of inspection were available for the Battery Warehouse for the weeks of February 21, 2021 for the weeks following July 1, 2021.

Pursuant to the RCRA Permit, Module III - Containers, Condition III.G. - Inspection Schedules and Procedures, which incorporates Section F of the Approved Permit Application, the Permittee shall inspect the container area weekly (generally every seven days, not to exceed any nine-day calendar interval), in accordance with the inspection Schedule to detect leaking containers and deterioration of containers and the containment system caused by corrosion and other factors.

The inspectors reviewed available records of weekly inspections of the Battery Warehouse, the Roll-off CAA, the Hazardous Waste 40-Yard CAA, the Hazardous Waste Compactor Unit, the CAA, the East Slag Warehouse and the West Slag Warehouse since January 2021. No records of inspection were available for the Roll-off CAA, the Hazardous Waste 40-Yard CAA, the Hazardous Waste Compactor Unit, the CAA, the East Slag Warehouse and the West Slag

Warehouse for the weeks of February 1, 2021 and February 7, 2021; no record of inspection were available for the Hazardous Waste Compactor Unit for the week of April 28, 2021; and no records of inspection were available for the Battery Warehouse for the weeks of February 21, 2021 for the weeks following July 1, 2021. Records indicated that containers were removed from the Battery Warehouse during the week of September 1, 2021.

Pursuant to S.C. Code Ann. Regs. 61-79.262.17(a)(1)(v) [40 C.F.R. § 262.17(a)(1)(v)], which is a condition of the LQG Permit Exemption, a generator is required to, at least weekly, inspect central accumulation areas looking for leaking container and for deterioration of containers caused by corrosion or other factors.

Pursuant to the RCRA Permit, Module III - Containers, Condition III.G. - Inspection Schedules and Procedures, which incorporates Section F of the approved Permit Application, the Permittee shall inspect the container area weekly (generally every seven days, not to exceed any nine-day calendar interval), in accordance with the inspection Schedule to detect leaking containers and deterioration of containers and the containment system caused by corrosion and other factors.

12) Closing Conference

The inspectors conducted the exit meeting with Mr. Hieshetter and Mr. Thompson. During this meeting, the inspectors stated their preliminary conclusions of the inspection.

13) Inspection Findings

Based on the observations made during the inspection, Clarios was apparently deficient with the following RCRA requirements:

- **Pursuant to S.C. Code Ann. Regs. 61-79.262.11 [40 C.F.R. § 262.11], a person who generates a solid waste, as defined in S.C. Code Ann. Regs. 61-79.261.2 [40 C.F.R. § 261.2], must use the steps articulated in S.C. Code Ann. Regs. 61-79.262.11 [40 C.F.R. § 262.11] to 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.**
 - Liquid leaking from pump and line in CX Area
 - Three totes of dark material, two of which were labeled as sodium hydroxide, in CX Area
- **Pursuant to S.C. Code Ann. Regs. 61-79.262.15(a)(4) [40 C.F.R. § 262.15(a)(4)], which is a condition of the SAA Permit Exemption, a generator is required to keep containers of hazardous waste closed at all times during accumulation, except when adding, removing, or consolidating waste; or when temporary venting of a container is necessary for the proper operation of equipment, or to prevent dangerous situations, such as build-up of extreme pressure.**

- Container in SAA in the Poly Plant Maintenance Area
 - Container in SAA for aerosol cans in the Refinery Area
 - Container in one SAA in the Finished Goods Area
- **Pursuant to S.C. Code Ann. Regs. 61-79.262.15(a)(5) [40 C.F.R. § 262.15(a)(5)], which is a condition of the SAA Permit Exemption, a generator is required to mark or label its containers (i) with the words “Hazardous Waste” and (ii) with an indication of the hazards of the contents.** For containers at the following SAAs:
 - Inside the locker room
 - At the locker room exits
 - In the hallway leading from the locker rooms to the former production and recycling areas
 - In the CX Area
 - In the Poly Plant next to a transport truck
 - In the Poly Plant outside the production office
 - In the Poly Plant next to the door between Bays 4 and 5
 - In the Poly Plant next to the door leading to the Poly Plant Maintenance Area
 - In the Poly Plant Maintenance Area
 - In Charge Prep Truck Wash Area
 - In the Foundry Area
 - Three in the Refinery Area
 - Aerosol cans in the Refinery Area
 - Two SAAs in the Finish Goods Area
- **Pursuant to S.C. Code Ann. Regs. 61-79.262.15(a)(6) [40 C.F.R. § 262.15(a)(6)] a generator who accumulates an excess of 55-gallons of hazardous waste at or near any point of generation must comply within three consecutive calendar days with the applicable central accumulation area (CAA) regulations or remove the excess form the SAA within three consecutive calendar days to either a CAA, a on-site interim status or permitted treatment, storage, or disposal facility, or an off-site designated facility. The generator must mark or label the container(s) holding the excess accumulation of hazardous waste with the date the excess amount began accumulating and continue to comply with the other requirements of the SAA Permit Exemption during the three-consecutive-calendar-day period.**
 - Four 55-gallon drums of hazardous waste in a SAA in the Poly Plant Maintenance Area
- **Pursuant to S.C. Code Ann. Regs. 61-79.262.17(a)(1)(v) [40 C.F.R. § 262.17(a)(1)(v)], which is a condition of the LQG Permit Exemption, a generator is required to, at least weekly, inspect central accumulation areas looking for leaking container and for deterioration of containers caused by corrosion or other factors.**
 - No records of inspection for the Roll-off CAA, the Hazardous Waste 40-Yard CAA, the Hazardous Waste Compactor Unit, the CAA, the East Slag Warehouse and the West Slag Warehouse for the weeks of February 1, 2021 and February 7, 2021

- No records of inspection were available for the Hazardous Waste Compactor Unit for the week of April 28, 2021.
- **Pursuant to S.C. Code Ann. Regs. 61-79.262.17(a)(5)(i) [40 C.F.R. § 262.17(a)(5)(i)], which is a condition of the LQG Permit Exemption, a generator is required to mark or label containers with the words “Hazardous Waste;” with an indication of the hazards of the contents; and with the date upon which each period of accumulation begins clearly visible for inspection on each container.**
 - Two roll-off containers in the Hazardous Waste Roll-off and Metal Recycling CAA
 - Two 40-yard containers of hazardous waste in the Overflow Area CAA
- **Pursuant to S.C. Code Ann. Regs. 61-79.262.17(a)(6) [40 C.F.R. § 262.17(a)(6)], which incorporates S.C. Code Ann. Regs. 61-79.262.262(b)(4) [40 C.F.R. § 262.262(b)(4)] and is a condition of the LQG Permit Exemption, the quick reference guide a map of the facility showing where hazardous wastes are generated accumulated and treated and routes for accessing these wastes.**
 - Each SAA
 - Charge Prep Bunker
 - Three baghouse areas
 - Facility Yard
- **Pursuant to the RCRA Permit, Module I - Standard Conditions, Condition I.A. - Effect of Permit, any storage, treatment, and/or disposal of hazardous waste not authorized in this Permit is prohibited, except as allowed by S.C. Code Ann. Regs. 61-79 [40 C.F.R.].**
 - Two plastic bags of hazardous waste used PPE inside the Hazardous Waste Compactor Unit
 - Hazardous waste that leaked from containers and was left behind inside and beneath the Hazardous Waste Compactor Unit
 - Hazardous waste residual dust and sludge inside former process tanks, including Tank V-203 in CX Area
 - Hazardous waste in a Charge Prep Bunker(s)
 - Hazardous waste baghouse dust in Charge Prep Area
 - Hazardous waste baghouse dust in two corners in Foundry Area
 - Hazardous waste slag dust and debris remaining in the underlying subfloor system of the East and West Slag Warehouses
 - Three trailers of hazardous waste excavated soils in the Facility Yard
- **Pursuant to the RCRA Permit, Module II – General Facility Conditions, Condition II.A. – Design and Operation of Facility, the Permittee shall construct, maintain and operate the facility in a manner to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment.**
 - Hazardous waste that leaked from containers and was left behind inside and beneath the Hazardous Waste Compactor

- Hazardous waste in Charge Prep bunker(s)
 - Hazardous waste baghouse dust on floor near hopper in Charge Prep Area
 - Hazardous waste baghouse dust on floor near two hoppers in Foundry Area
 - Hazardous waste slag dust and debris remaining in the underlying subfloor system of the East and West Slag Warehouses
- **Pursuant to the RCRA Permit, Module III - Containers, Condition III.B.2. - Prohibited Waste, the Permittee is prohibited from storing hazardous waste that is not identified in Permit Condition III.B.1.**
 - Two plastic bags of hazardous waste used PPE inside the Hazardous Waste Compactor Unit
 - Hazardous waste that leaked from containers and was left behind inside and beneath the Hazardous Waste Compactor
 - Hazardous waste residual dust and sludge inside former process tanks, including Tank V-203 in CX Area
 - Hazardous waste in Charge Prep bunker(s)
 - Hazardous waste baghouse dust in Charge Prep Area
 - Hazardous waste baghouse dust in two corners in Foundry Area
 - Hazardous waste slag dust and debris remaining in the underlying subfloor system of the East and West Slag Warehouses
 - Hazardous waste excavated soils in three trailers in the Facility Yard
- **Pursuant to the RCRA Permit, Module II - General Facility Conditions, Condition II.D. - General Inspection Requirements, which references Section F of the approved Permit Application, the Permittee shall inspect the Wheel Washing Areas, the WWTP, and the Water Tanks on a monthly basis.**
 - Missing records of nine monthly inspections for the Wheel Washing Areas, the WWTP, and the Water Tanks between June 2021 and February 2022.
- **Pursuant to the RCRA Permit, Module III - Containers, Condition III.G. - Inspection Schedules and Procedures, the Permittee shall inspect the container area weekly (generally every seven days, not to exceed any nine-day calendar interval), in accordance with the inspection Schedule to detect leaking containers and deterioration of containers and the containment system caused by corrosion and other factors.**
 - Missing records of weekly inspections for the Battery Warehouse
- **Pursuant to the RCRA Permit, Module VI - Land Disposal Restrictions, Condition IV.B.2. - Storage Prohibition, which incorporates S.C. Code Ann. Regs. 61-79.268.50(b) [40 C.F.R. Part 268.50(b)], the Permittee may store hazardous waste restricted from land disposal under S.C. Code Ann. Regs. 61-79.268 [40 C.F.R. Part 268] for up to one year unless the Agency can demonstrate that such storage was not solely for the purpose of accumulation of such quantities of hazardous waste as are necessary to facilitate proper recovery, treatment, or disposal.**
 - One intact battery left behind near the Hazardous Waste Compactor

14) **List of Appendices**

Appendix 1: Photo Log:
28 Photos taken on: 02/24/2022
Photos taken by: Laurie Benton DiGaetano
Photos taken with: Panasonic DMC TS-5 Digital Camera
EPA Property Tag: S09533

15) **Signed**

LAURIE DIGAETANO Digitally signed by LAURIE DIGAETANO
Date: 2022.05.16 09:28:25 -04'00'

Laurie Benton DiGaetano
Senior Enforcement and Compliance Specialist

Date

Concurrence

ARACELI CHAVEZ Digitally signed by ARACELI CHAVEZ
Date: 2022.05.16 10:41:09 -04'00'

Araceli B. Chavez
Chief
RCRA Enforcement and Compliance Section

Date