

RCRA Inspection Report

1) Inspector and Author of Report

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U.S. Environmental Protection Agency, Region 4
61 Forsyth Street, S.W.
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2) Facility Information

Lanxess Corporation
2151 King Street Extension
Charleston, South Carolina 29405
Charleston County

EPA ID: SCD003358389
NAICS: 325199 - All Other Basic Organic Chemical
Manufacturing

3) Responsible Official

Renee Matala
Head of Health, Safety, Security, Environmental
Lanxess Corporation
2151 King Street Extension
Charleston, South Carolina 29405
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4) Inspection Participants

Renee Matala, Lanxess Corporation
Larry Kowal, Lanxess Corporation
Nick Kruth, Lanxess Corporation
Jay Gadsden, Lanxess Corporation
Gabriel Drake, Lanxess Corporation
Francisco Villarreal Leal, Lanxess Corporation

Ryan Donahue, SCDHEC
Tom Richmond, SCDHEC
Paula Whiting, US EPA Region 4 Atlanta

5) Date and Time of Inspection

April 9, 2024, at 9:00 a.m. EDT

6) Applicable Regulations¹

Resource Conservation and Recovery Act (RCRA) Sections 3002, 3005 and 3007 (42 U.S.C. §§ 6922, 6925 and 6927), and the regulations promulgated pursuant thereto at 40 Code of

¹ 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.

Federal Regulations (C.F.R.) Parts 260-270, 273 and 279.

South Carolina Hazardous Waste Management Act, S.C. Code Ann. § 44-56-10 et seq., and South Carolina Hazardous Waste Management Regulations (SCHWMR), S.C. Code Ann. Regs. 61-79.260-270, 61-79.273 and 61-79.279 and Hazardous Waste Storage Permit SCD003358389.

Pursuant to S.C. Code Ann. Regs. 61-79.262.17(a) [40 C.F.R. § 262.17(a)], a large quantity generator (LQG) 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) 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(a) [40 C.F.R. § 262.17(a)] (hereinafter referred to as the “LQG Permit Exemption”).

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 and/or either one quart of liquid acute hazardous waste 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) 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 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(a)(2) [40 C.F.R. § 262.17(a)(2)], which incorporates S.C. Code Ann. Regs. 61-79 Part 265, Subparts AA, BB and CC [Subparts AA, BB, and CC of 40 CFR Part 265], and is a condition of the LQG Permit Exemption, a generator is required to comply with applicable organic air emission standards for tanks.

Pursuant to S.C. Code Ann. Regs. 61-79.273.9 [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, or lamps, calculated collectively) at any time.

7) Purpose of Inspection

The purpose of the inspection was to conduct an unannounced RCRA compliance evaluation inspection (CEI) to determine the compliance of Lanxess Corporation, EPA ID Number: SCD003358389 with the applicable regulations. This was an EPA lead inspection.

8) Facility Description

Lanxess Corporation is headquartered in Cologne, Germany. Lanxess Corporation acquired the Charleston, SC facility after successfully completing the acquisition of Solvay’s phosphorus additives business in 2018. A RCRA permit for storage of hazardous waste and for identification and corrective action of Solid Waste Management Units (SWMUs) and/or Areas of Concern

(AOCs) at the facility was issued to Solvay on September 25, 2014. Lanxess owns all the equipment and the right to operate all the equipment. The land ownership and hazardous waste site ground and groundwater contamination is retained by Solvay. The site remediation is for ethylene dichloride (EDC), arsenic, pH and dichloropentane which is pumped from, originally 126 groundwater monitoring wells, now 26 groundwater monitoring wells. The contaminated groundwater is pumped to a thermal oxidizer unit which acts as an air stripper and boils off the EDC and volatile organic compounds at 150°C. The stripped water is then sent to the publicly owned treatment works North Charleston Sewer District. Lanxess has a pretreatment permit for the thermal oxidizer unit. According to Larry Kowal, the facility uses the EDC on-site as fuel.

The Charleston site includes six production plants. As part of the Polymer Additives business unit, the site in Charleston manufactures phosphorus chloride and numerous derivative products, such as flame-retardant additives and intermediate products for agrochemicals. The Charleston facility manufactures phosphorus trichloride (PCl₃) the largest volume product where the reactor liberates the chlorine and produces phosphorus. There are five production units: Halide, High Temperature Phosphate (HTP), Organic Specialty Unit (OSU), BRIQUEST (Ethephon) Unit and Thermal Oxidizer Unit (TOU).

The facility is on 101 acres with 40 acres in operation. Lanxess Corporation employs 71 employees with 10-15 employees handling hazardous waste, 22 nested contractors who work four 12-hour shifts, five days per week.

Solvay USA Inc is listed as the legal operator, but Lanxess is the legal owner. The most recent Hazardous Waste Generator Notification (EPA Form 8700-12) dated January 1, 2023, characterized the facility as a Large Quantity Generator (LQG) of hazardous waste. Lanxess Corporation may generate hazardous waste streams, spent aerosol cans, used solvent, used oil, universal lamps and batteries, paint waste and other wastes. The hazardous waste may be designated with the following EPA Waste Codes D001, D002, D003, D004, D005, D006, D007, D026, D028, and F002.

9) Previous Inspection History

This facility was last inspected on November 23, 2021, by South Carolina Department of Health and Environmental Control (SCDHEC). Deficiencies of universal waste were noted.

10) Opening Conference

On April 9, 2024, EPA inspector Paula Whiting, accompanied by SCDHEC inspectors Ryan Donahue and Tom Richmond arrived at Lanxess Corporation at approximately 9:00 a.m. EDT. The inspectors signed in at the security office and were escorted to a EHS Office. Mr. Larry Kowal, Health, Safety, Security, Environmental (HSSE) Manager, received the inspectors. The inspectors introduced themselves, showed their credentials to the representatives, and explained the purpose of the visit.

The inspectors described the anticipated use of a 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 the EPA. The company did not assert a business confidentiality claim.

Mr. Kowal 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 facility representative led the inspectors on a tour of the facility operations. Below is a description of the observations made during the inspection.

11) Inspection Observations

Inorganic Waste Drum Storage Area

The Inorganic Waste Drum Storage Area (IWDSA) is identified in the RCRA Permit as solid waste management unit (SWMU 10). The IWDSA permitted to store a maximum of 17,000-gallons of hazardous waste filter cakes, and phosphorus compounds (D002-D008, D010 and D011). IWDSA consists of a covered concrete pad with a chain across the entrance (Pictures 1-2). The inspectors observed the required signs, a spill kit, a safety shower, and safety dunk tanks. The staff have phones and radios for emergency communication.

The secondary containment appeared in good condition, and twenty 55-gallon (approximately 1,100-gallons) containers of hazardous waste were stored in this area. The oldest container was dated January 31, 2024. The inspectors observed hazardous waste containers of PCL Reactor Waste, corrosive, inhalation hazard, D002, D003, D004, D006, and Contaminated PPE and Sample Bottles, D002. Mr. Kowal explained that decontamination equipment is kept under water that is treated with hydrogen peroxide, H₂O₂. This prevents a reaction if the PCl₃ is released.

Mr. Kowal explained that stormwater from the facility's hard surfaces is captured in grates and conveyed to the North Lake (Picture 3).

Hazardous Waste Tanks

The facility has two 10,000-gallon RCRA Permitted hazardous waste tanks, 646 and 647 (Pictures 4-5). Tank 646 contains organic flammable chlorine hazardous waste that are shipped out in a tanker truck, and Tank 647 contains organic flammable hazardous waste with high BTUs that will be burned. The Permit Application indicates that the organic content of the hazardous waste managed in the RCRA Permitted tanks may be as high as 100%. Therefore, the tanks are subject to the RCRA Organic Air Emission Standards found in 40 C.F.R. 264 Subparts BB and CC.

At the time of the inspection, the inspectors observed the tanks appeared to be in good condition, however no Subpart BB tags were on the tank or its ancillary equipment, and the equipment was not marked to readily identify and distinguish each component from the other equipment (Pictures 6-9, 11).

Pursuant to Condition IV.C.3 (Air Emission Standards) of the RCRA Permit and S.C. Code Ann. Regs. 61-79.264.200 [40 C.F.R. § 264.200] which incorporates S.C. Code Ann. Regs. 61-79.264.1050(d) [40 C.F.R. § 264.1050(d)], each piece of equipment to which this subpart applies shall be marked in such a manner that it can be distinguished readily from other pieces of equipment.

Tank 647 conservation vent equipment tag #85-CV-6479 was short bolted and needed to be leveled with a nut. The inspectors observed that Tank 647 had a recirculation pump in hazardous waste service, leaking into the secondary containment (Picture 8). In addition, the secondary containment concrete is corroded under the sample port and needs repair (Pictures 9-10). The sample port associated with Tank 647, is an open-ended line equipped with a threaded cap. The area had two fire extinguishers and an eyewash.

Pursuant to Condition IV.C.3 (Air Emission Standards) of the RCRA Permit and S.C. Code Ann. Regs. 61-79.264.200 [40 C.F.R. § 264.200], which incorporates S.C. Code Ann. Regs. 61-79.264.1052(b)(2) and (c) [40 C.F.R. § 264.1052(b)(2) and (c)], (b)(2) If there are indications of liquids dripping from the pump seal, a leak is detected. (c)(1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in § 265.1059, and (2) A first attempt at repair (e.g., tightening the packing gland) shall be made no later than 5 calendar days after each leak is detected.

Pursuant to Condition II.A. (Design and Operation of Facility) of the RCRA Permit and S.C. Code Ann. Regs. 61-79.264.31 [40 C.F.R. § 264.31], an owner or operator is required to maintain and operate its facility to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment.

Pursuant to Condition IV.D.4 (Tank System Closure or Repair) and S.C. Code Ann. Regs. 61-79.264.193(e)(1)(iii) [40 C.F.R. § 264.193(e)(1)(iii)], an owner or operator accumulating hazardous waste in tanks must have a secondary containment system that satisfies the requirement of external liner systems must be free of cracks or gaps.

Pursuant to Condition IV.F. (Recordkeeping and Reporting) and S.C. Code Ann. Regs. 61-79.264.196(b)(2) [40 C.F.R. § 264.196(b)(2)], if the release was to a secondary containment system, all released materials must be removed within 24 hours or in as timely a manner as is possible to prevent harm to human health and the environment.

Beside the tank secondary containment is a hazardous waste tote unloading area. The inspectors observed the secondary containment flooring is acid brick with a floor drain sump (Pictures 12-13). The satellite accumulation area (SAA) with a blue 55-gallon container of Tank 646 Waste Organic Liquids D001, D002, D028, sat in the corner on a secondary containment pallet. The container was closed and labeled. The secondary containment is intentionally kept full of water in the event there is a release of phosphorus. The phosphorus is kept submerged in water because it is a highly reactive metal and when it is exposed to air it auto-ignites. When exposed to air, it is oxidized rapidly to phosphorus pentoxide. The inspectors observed that the piping for the hazardous waste tote unloading was missing a bolt from the flange (Pictures 14-15). The inspectors found the bolt and nut and the facility reinserted them during the inspection.

Organic Waste Pad

At the time of the inspection, the HWCAA Organic Waste Pad was empty (Picture 16). Next to the Organic Waste Pad was a non-hazardous waste storage area with thirty-four 275-gallon totes of Trichloropropylphosphate (TCPP) Phosphorus Flame Retardants Wastes Levagard PP and Wastewater (Pictures 17-19). Near the Organic Waste Pad was the South Lake (Picture 20). Piping to the lake allows pumping out of the lake during emergency responses.

BRIQUEST Unit

The BRIQUEST Unit manufactures Ethephon, a cotton growth regulator. The inspectors observed a SAA for managing contaminated personal protective equipment (PPE) and sample bottles, D001, flammable liquid (Pictures 21-23). The 55-gallon container in this SAA was closed and labeled. The spent bottles are triple rinsed and discarded in a gray trash can.

Thermal Oxidizer Unit Roll-off

Next to the Thermal Oxidizer Unit (TOU) was a 20-cubic yard roll-off with discarded packing from the air strippers (Pictures 24-26). Mr. Kowal explained the packing increases the surface area to make the water drops smaller which allows the volatile organic compounds to become vapor. The packing pulls out the vapor which is burned in the TOU at 1700°F. Mr. Kowal stated that the packing was analyzed using the toxic characteristic leaching procedure (TCLP) and passed.

Laboratory

The laboratory had two SAAs (Pictures 27-28). The first SAA held a red fire can of Tank 646 Waste Organic Liquids in Fumehood 2. The container was closed and labeled. The second SAA held a 4-liter amber jar for spent high-performance liquid chromatography (HPLC) liquid. The jar was labeled but not closed and had the tubing in the opening. Inside the container was a 100 mL of spent liquid waste inside.

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.

Universal Waste Storage

The universal waste storage area was in an office. The inspectors observed two 4-foot universal waste lamp boxes, and one square box of spent U-lamps (Picture 29). The boxes were closed, labeled and the oldest date was June 19, 2023. The square box was labeled as 'Other' instead of universal waste.

Pursuant to S.C. Code Ann. Regs. 61-79.273.14(e) [40 C.F.R. § 273.14(e)], a SQHUW must label or mark each lamp or container of lamps clearly with one of the following phrases: "Universal Waste-Lamp(s)," or "Waste Lamp(s)," or "Used Lamps."

Universal Waste Batteries

The universal waste batteries were kept in an exterior storage building. Two large Rubbermaid containers were used to separate the batteries. The first container was for spent lead acid batteries but contained a small plastic container of corroded lead acid batteries (Pictures 30, 32). The container was not labeled, and the facility was not able to demonstrate the waste was accumulated less than one year for the batteries.

Pursuant to S.C. Code Ann. Regs. 61-79.273.14(a) [40 C.F.R. § 273.14(a)], a SQHUW must label or mark each Universal Waste battery or container or tank in which the batteries are contained clearly with one of the following phrases: "Universal Waste - Battery(ies)," or "Waste Battery(ies)," or "Used Battery(ies)."

Pursuant to S.C. Code Ann. Regs. 61-79.273.15(a) and (c) [40 C.F.R. § 273.15(a) and (c)], a SQHUW may accumulate universal waste no longer than one year and must be able to demonstrate the length of time that the universal waste has accumulated from the date that it became a waste or was received.

The second container held a single spent lithium battery that was placed in the wrong container (Picture 31). The facility was not able to demonstrate that the spent battery waste was accumulated less than one year, but it was immediately moved to the Storeroom to be added to the other universal waste batteries.

Pursuant to S.C. Code Ann. Regs. 61-79.273.15(a) and (c) [40 C.F.R. § 273.15(a) and (c)], a SQHUW may accumulate universal waste no longer than one year and must be able to demonstrate the length of time that the universal waste has accumulated from the date that it became a waste or was received.

Storeroom

The universal waste batteries were stored in two 5-gallon containers near the service window (Pictures 33-36). The spent lithium battery was added to one of the 5-gallon containers. The inspectors observed a container of spent nickel cadmium batteries, and a container of spent

lithium batteries.

Used Oil Building

A 55-gallon container of used oil was sitting on a secondary containment pallet (Picture 37). The container was closed and labeled, and the pallet was clean. However, the container was labeled as non-hazardous waste hydraulic oil and absorbent when it should be labeled as used oil contaminated debris. Mr. Gadsden immediately relabeled the container.

Pursuant to S.C. Code Ann. Regs. 61-79.279.22(c)(1) [40 C.F.R. § 279.22(c)(1)], containers and aboveground tanks used to store used oil at generator facilities must be labeled or marked clearly with the words “Used Oil.”

A 55-gallon container of spent sand blast grit was stored in this building (Picture 38). Mr. Gadsden stated the spent grit was being stored until the facility completes a hazardous waste analysis on the material. The material had not yet been sampled or sent for analysis. The inspectors explained that the label needed to state the contents was pending analysis and required a start accumulation date. Mr. Gadsden added the pending analysis statement and the date March 28, 2024. A spill kit was observed in the building.

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 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 articulated in S.C. Code Ann. Regs. 61-79.262.11 [40 C.F.R. § 262.11].

12) Records Review

The inspectors requested the training records; the contingency plan; the daily and weekly inspection records; the LDAR records; the tank integrity records; the waste minimization plan; the waste profiles; and the 2021-2024 hazardous, non-hazardous, and used oil manifests.

The most recent generator status notification (EPA Form 8700-12) was last updated January 1, 2023. This notification was found to be missing Waste Codes F003 and F005.

Pursuant to S.C. Code Ann. Regs. 61-79.262.12(c), every generator within the State who produces a hazardous waste which is classified or listed for the first time by a revision of R.61-79.261 shall file with the Department a revised or new Notification Form for that waste within ninety (90) days after the effective date of such revision.

Training Records

The inspectors requested the training records for the employees handling hazardous waste. Training for Larry Kowal, Renee Matala, Nick Kruth and Jay Gadsden were provided. At the time of the inspection, Ms. Matala had been employed one week, and her external training was

pending. Mr. Kowal and Mr. Kruth received RCRA Hazardous Waste Management Refresher Webinar by Lion Technology on January 8, 2024, and January 17, 2024, respectively. Mr. Gadsden received RCRA Hazardous Waste Management Online Course by Lion Technology on January 17, 2024, and the RCRA Hazardous Waste Management Refresher Webinar by Lion Technology on February 9, 2024.

The Lanxess' XLearn RCRA Hazardous Waste Module, the training list of employees, and the job titles and descriptions were not available for review.

Pursuant to Conditions I.I.4 (Personnel Training Documents and Records) and II.G (Personnel Training) of the RCRA Permit, and S.C. Code Ann. Regs. 61-79.264.16 [40 C.F.R. § 264.16], the owner or operator must maintain training records that include, among others: the job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job; a written job description for each position; a written description of the type and amount of both introductory and continuing training that will be given to each person filling a position; and records documenting that the training required has been given to and completed by Facility personnel.

The inspectors requested the Contingency Plan Waste Handling Procedure for review. The plan did have an emergency contact list but did not have an updated evacuation map, a fire extinguisher inspection list, a list of emergency response equipment, the Quick Reference Guide, and documentation (i.e., green return receipt cards, emails) that copies the current contingency plan that were provided to the local emergency response agencies (i.e., fire, police, hospital). In 2023, the contingency plan was updated but was not sent out to the Local Emergency Planning Committees (LEPCs).

Pursuant to Condition II.E (Contingency Plan) of the RCRA Permit and S.C. Code Ann. Regs. 61-79.264.53 [40 C.F.R. § 264.53], a copy of the contingency plan and all revisions to the plan must be: (a) maintained at the facility; and (b) Submitted to all local police departments, fire departments, hospitals, and State and local emergency response teams that may be called upon to provide emergency services.

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) [40 C.F.R. § 262.262(b)] and is a condition of the LQG Permit Exemption, 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.

The weekly inspection records for 2023-2024 were reviewed. Fourteen weekly inspection forms for the Inorganic HWCAA had 'Not Applicable' when there were no containers, there were no times of day recorded on the 2022 Organic HWCAA weekly inspection forms, and December 1, 2023, and December 18, 2023, inspection forms were missing.

Pursuant to Conditions II.D (General Inspection Requirements) and III.F (Inspection Schedules and Procedures) of the RCRA Permit, and S.C. Code Ann. Regs. 61-79.264.15 and 264.174 [40 C.F.R. § 264.15 and 264.174], an owner or operator is required to, at least weekly, inspect central accumulation areas looking for leaking containers and for deterioration of containers caused by corrosion or other factors.

The daily tank inspection records for 2022-2024 were reviewed. The inspectors observed that the tank inspections were conducted every day at 8 AM for both tanks. The forms did not document the leaking recirculation pump nor the corroded secondary containment under the sample port. In addition, the January 30, 2022, March 9, 2022, and March 21, 2022, daily tank inspection forms were blank.

Pursuant to Condition IV.E (Inspection Schedules and Procedures) of the RCRA Permit and S.C. Code Ann. Regs. 61-79.264.195(e) [40 C.F.R. § 264.195(e)], an owner or operator accumulating hazardous waste in tanks must conduct daily inspections of tank ancillary equipment that is not provided with secondary containment.

The hazardous waste tank integrity testing records were reviewed. The tanks were inspected to API 510 requirements. Tanks 646 and 647 were inspected visually internally and externally on July 8, 2022, and September 1, 2023. No issues were observed.

The LDAR records for the hazardous waste tank ancillary piping were reviewed. LDAR Busters was contracted by Strata LLC to conduct the LDAR monitoring in December 2023. Four leaks were detected from three valves and one agitator.

The Waste Minimization Plans for 2021-2023 were requested but not provided.

Pursuant to Condition VII.B (Waste Minimization Recording Requirements) and S.C. Code Ann. Regs. 61-79.264.73(b)(9) [40 C.F.R. § 264.73(b)(9)], an owner or operator shall record in the operating record, a certification by the permittee no less often than annually, that the permittee has a program in place to reduce the volume and toxicity of hazardous waste that he generates to the degree determined by the permittee to be economically practicable; and the proposed method of treatment, storage or disposal is that practicable method currently available to the permittee which minimizes the present and future threat to human health and the environment.

Hazardous and non-hazardous manifests were reviewed for 2022-2024. Hazardous wastes were shipped to the following:

- Chemtron Corporation (EPA ID OHD987021128) in Avon Lake, OH
- Geocycle (EPA ID SCD003368891) in Holly Hill, SC
- US Ecology Tulsa, Inc (EPA ID OKD000402396) in Tulsa, OK
- Clean Harbors Deer Park LLC (EPA ID TXD055141378) in LaPorte, TX
- Clean Harbors El Dorado LLC (EPA ID ARD069748192) in El Dorado, AR

The land disposal restriction forms were reviewed.

Non-hazardous wastes were shipped to VLS Recovery Services (EPA ID SCR000762468) in Maudlin, SC.

The inspectors observed that some of the 2022 and 2023 manifests were missing the signed, returned copy of the form from the designated facility to the generator. In addition, no exception reports were provided to the EPA or SCDHEC.

Pursuant to S.C. Code Ann. Regs. 61-79.262.40(a) [40 C.F.R. § 262.40(a)], a generator must keep a copy of each manifest signed in accordance with § 262.23(a) for three years or until he receives a signed copy from the designated facility which received the waste. This signed copy must be retained as a record for at least three years from the date the waste was accepted by the initial transporter.

Pursuant to S.C. Code Ann. Regs. 61-79.262.42(a)(2) [40 C.F.R. § 262.42(a)(2)], a large quantity generator must submit an Exception Report to the EPA Regional Administrator for the Region in which the generator is located if he has not received a copy of the manifest with the handwritten signature of the owner or operator of the designated facility within 45 days of the date the waste was accepted by the initial transporter. The Exception Report must include: (i) A legible copy of the manifest for which the generator does not have confirmation of delivery; (ii) A cover letter signed by the generator or his authorized representative explaining the efforts taken to locate the hazardous waste and the results of those efforts.

13) Exit Meeting and Follow-up

The inspectors conducted the exit meeting with Mr. Kowal, Ms. Matala, Mr. Kruth, Mr. Gadsden, Mr. Drake, Mr. Villarreal Leal, and Mr. Rolf-Michael Jansen, Plant Manager. During this meeting, the EPA and SCDHEC presented the preliminary results of the inspection. Lanxess Corporation was inspected as a LQG of hazardous waste.

On May 29, 2024, Mr. Kowal emailed the inspectors the following updates:

During the closing meeting the findings were summarized and 3 request were made. Please see our response below:

1. Send verification of submitting the updated Contingency Plan to the LEPC. See below email of LEPC receipt.
2. Send RCRA training. See attached RCRA Part 1 and 2 Training.
3. Send confirmation of employees performing RCRA duties as completed training. See download of XLearn RCRA Training.
 - a. The site has also made the necessary corrections to all 8 items identified during the field review. See attached Before & After Photos.
 - b. The site has corrected 6 of 7 documents identified during the documentation review. The remaining item will be completed during the site wide June Safety Meeting training. Documents can be sent if you would like.

14) Summary

The following observations were made at the time of the inspection.

15) List of Attachments

Attachment A – Photo Log: Lanxess Corporation

16) Signed

Whiting, Paula  Digitally signed by Whiting, Paula
Date: 2024.07.02 10:12:57 -04'00'

for Paula A. Whiting
Environmental Engineer

17) Concurrence

**LAURIE
DIGAETANO**  Digitally signed by LAURIE
DIGAETANO
Date: 2024.07.02 15:09:56 -04'00'

for Alan R. Newman
Acting Chief
RCRA Enforcement Section

ATTACHMENT A

LANXESS CORPORATION
CHARLESTON, SOUTH CAROLINA

COMPLIANCE EVALUATION INSPECTION PHOTOGRAPHS

APRIL 9, 2024

Photos taken by Paula A. Whiting
Camera Type: Olympus Tough
Serial Number: SC7374



Picture 1 – Inorganic HWCAA



Picture 4 – Hazardous Waste Tanks 646 and 647



Picture 2 – Inorganic HWCAA



Picture 5 – Hazardous Waste Tank level



Picture 3 – North Lake stormwater runoff



Picture 6 – Hazardous Waste Tank missing BB tags



Picture 7 – Hazardous Waste Tank missing BB tags



Picture 9 – Hazardous Waste Tank sample port missing BB tags



Picture 8 – Hazardous Waste Tank 647 recirc pump leaking



Picture 10 – Hazardous Waste Tank secondary containment corroded



Picture 11 – Hazardous Waste Tank roof missing BB tags



Picture 14 – HW tote unloading pump missing bolt



Picture 12 – HW tote unloading area



Picture 15 – HW tote unloading pump and piping



Picture 13 – HW tote unloading sump



Picture 16 – Organic Waste Pad



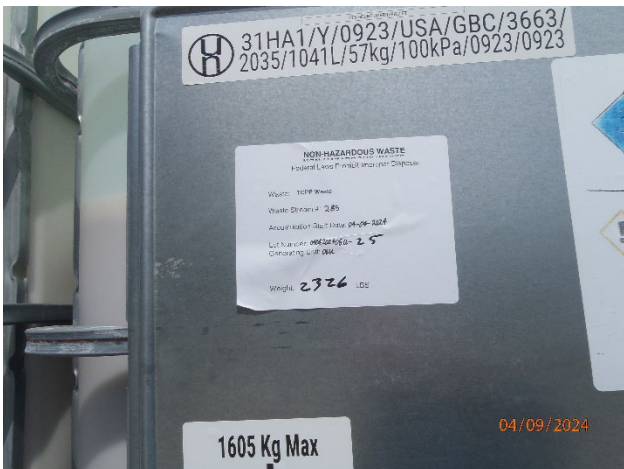
Picture 19 – Organic Waste Pad non-hazardous waste totes



Picture 17 – Organic Waste Pad non-hazardous waste totes



Picture 20 – South Lake



Picture 18 – Organic Waste Pad non-hazardous waste totes



Picture 21 – BRIQUEST Unit SAA



Picture 22 – BRIQUEST Unit SAA



Picture 25 – TOU Roll-off packing from air strippers



Picture 23 – BRIQUEST Unit SAA



Picture 26 – TOU Roll-off packing from air strippers



Picture 24 – TOU Roll-off



Picture 27 – Lab red can SAA



Picture 28 – Lab HPLC SAA



Picture 31 – Universal Waste Batteries – lithium battery



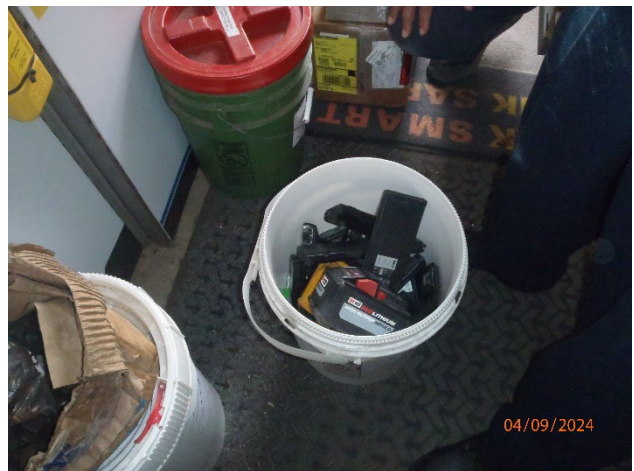
Picture 29 – Universal Waste Storage



Picture 32 – Universal Waste Batteries



Picture 30 – Universal Waste Batteries - lead acid



Picture 33 – Storeroom universal waste batteries



Picture 34 – Storeroom universal waste batteries



Picture 35 – Storeroom universal waste batteries



Picture 36 – Storeroom universal waste batteries



Picture 37 – Used Oil Building



Picture 38 – Used Oil Building spent sandblast grit