RCRA Inspection Report

1) Inspector and Author of Report

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U.S. Environmental Protection Agency, Region 4
Enforcement and Compliance Assurance Division
Chemical Safety and Land Enforcement Branch
RCRA Enforcement Section
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2) Facility Information

The Chemours Company
7685 Kiln-DeLisle Road
Pass Christian, Mississippi 39571

EPA ID#: MSD096046792
NAICS #: 325130 – Synthetic Dye and Pigment Manufacturing

3) Responsible Officials

Suzanne Gibson
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4) Inspection Participants

Suzanne Gibson, Chemours Company
Robert Mills, Chemours Company
Tammy Finkes, Chemours Company
Janey Quigley, Chemours Company
William Rider, MDEQ
Laurie Benton DiGaetano, USEPA

5) Date of Inspection

May 15, 2024 at 9:30 AM

6) Applicable Regulations[1]

Resource Conservation and Recovery Act (RCRA) Sections 3002 (42 U.S. Code – Annotated U.S.C.A. 6925 and 6927), and 40 Code of Federal Regulation (C.F.R.) Parts 260 - 270, 273, 278, & 279; Mississippi Code of 1972, Miss. Code Ann. § 17-17-1 *et seq.,* and Mississippi Hazardous Waste Management Regulations, 11 Miss. Admin. Code Pt. 3, R. 1.1-1.24; and Hazardous Waste Permit MSD096046792.

Chemours DeLisle operates under a RCRA Hazardous Waste Permit number MSD096046792 which became effective on 9/17/2019. The Chemours DeLisle has a treatment and storage permit issued by the State of Mississippi that authorizes the facility to store hazardous waste in the Deepwell Storage Vault, the Primary Filter Storage Tanks (2), the Thickener Tanks (2) and the Splitter Feed Tanks (2).

Pursuant to 11 Miss. Admin. Code Pt. 3, R. 1.3 [40 C.F.R. § 262.17], a LQG may accumulate hazardous waste on-site for 90 days or less without a permit or without having interim status,

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.

as required by Section 17-17-27(4) of the Mississippi Code of 1972, Miss. Code Ann. § 17-17-27(4) [Section 3005 of RCRA, 42 U.S.C. § 6925], provided that the generator complies with the conditions listed in 11 Miss. Admin. Code Pt. 3, R. 1.3 [40 C.F.R. § 262.17] (hereinafter referred to as the "LQG Permit Exemption").

Pursuant to 11 Miss. Admin. Code Pt. 3, R. 1.3 [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 17-17-27(4) of the Mississippi Code of 1972, Miss. Code Ann. § 17-17-27(4) [Section 3005 of RCRA, 42 U.S.C. § 6925], and without complying with 11 Miss. Admin. Code Pt. 3, R. 1.3 [40 C.F.R. § 262.16(b) or §262.17(a)], except as required in 11 Miss. Admin. Code Pt. 3, R. 1.3 [40 C.F.R. § 262.15(a)(7) and (8)], provided that the generator complies with the satellite accumulation area conditions listed in 11 Miss. Admin. Code Pt. 3, R. 1.3 [40 C.F.R. § 262.15(a)] (hereinafter referred to as the "SAA Permit Exemption").

Pursuant to 11 Miss. Admin. Code Pt. 3, R. 1.21 [40 C.F.R. § 273.9], a small quantity handler of universal waste (SQHUW) is a universal waste handler who does not accumulate 5,000 kilograms or more of universal waste (batteries, pesticides, mercury-containing equipment, lamps, or aerosol cans, calculated collectively) at any time.

7) Purpose of Inspection

The purpose of this inspection was to conduct an unannounced compliance evaluation inspection to determine Chemours Company compliance with the conditions of its RCRA Hazardous Waste Facility Operating Permit (the State of Mississippi Hazardous Waste Management Permit Number MSD096046792), the applicable requirements of RCRA and the corresponding Mississippi regulations. This was an EPA lead inspection.

8) Facility Description

The Chemours DeLisle Plant manufactures titanium dioxide pigment (TiO_2 or pigment) using the chloride-ilmenite process. The facility is located on the north shore of Bay St. Louis in Harrison County, Mississippi. Chemours DeLisle owns approximately 2,500 acres, of which approximately 200 acres have been developed and are used in support of pigment manufacturing operations and five acres are associated with the solids pond and NPDES permitted wastewater treatment surface impoundments. An additional 156 acres are dedicated to a permitted solid waste disposal area authorized under a State of Mississippi Solid Waste Management permit. The Rain Basin, which is part of the NPDES permit, is approximately 87 acres. Chemours DeLisle employs approximately 500-600 people, has approximately 400 resident contractors, and operates 24 hours a day, seven days a week unless shut down for short periods for maintenance activities or severe weather. The facility is surrounded by a fence and access is controlled by contracted security.

TiO_2 is a white pigment used in plastics, paints, paper, textile fibers, and in many other materials that require whiteness, brightness, and opacity. The majority of the DeLisle Plant's product is used in paints and plastics. Titanium dioxide production involves three primary raw materials, petroleum coke (coke), ilmenite ore (ore), and chlorine. The chloride-ilmenite process uses ilmenite ore, a low-grade titanium dioxide ore. The DeLisle plant operates two

identical production lines, Line 1 and Line 2, and the manufacturing process has the following major process areas: Reaction, Environmental, Purification, Oxidation, Finishing, and Packing. Additional areas of Chemours DeLisle operate in support of facility operation.

Coke and Ore Unloading, Processing and Storage

Coke and ore raw materials arrive at the subject facility in railcars. Coke is removed from the railcar via gravity, and then pneumatically transported to the "Coke Storage Bin." The coke transfer system is equipped with bag filters, which capture coke that is then returned to the process. The bag filters are changed, as necessary, and used bag filters are land disposed.

Ore is unloaded from the railcar using gravity onto a belt conveyor system, which transfers the material for initial storage in the "Wet Ore Bins." Fugitive ore dust created from the off-loading is captured and returned to the belt conveyor system. Ore is transported from the Wet Ore Bins through one of two natural gas dryers and stored in the "Dry Ore Bins." Each natural gas dryer uses a cyclone and wet scrubber in series. Material from the cyclones and Ore dust from the wet scrubbers is sent back into the manufacturing process.

Coke and ore are sent from storage bins to the "Mix Bins." Fines from the coke and ore transfer system are captured in containers, exit a baghouse, and are sent to the onsite solid waste disposal area.

Chlorine Unloading, Storage and Processing

Liquid chlorine is off-loaded from a railcar into one of three storage tanks. Residual chlorine in purge lines and in the storage tank vents is captured and sent to a scrubber. The scrubber generates a wastewater that is sent to Spent Chemical Treatment.

Spent Chemical Treatment

Wastewaters generated from chlorine unloading, from oxidation, and from Reaction are all sent to Spent Chemical Treatment where a treating agent is added to ensure that any pH change does not liberate chlorine. Wastewater that is discharged from Spent Chemical Treatment is sent to Wastewater Treatment.

Reaction

Line 1 and Line 2 are separate production lines that contain identical process steps. The process begins by reacting petroleum coke, ore, and chlorine gas in a fluidized bed reactor called a "chlorinator." Chlorine gas used in this reaction process is a mixture of virgin chlorine gas and recycled chlorine gas from the oxidation process. The reaction process converts titanium dioxide in the ore to titanium tetrachloride ($TiCl_4$), also called "tickle," in a gaseous state. Ore impurities, predominately iron oxides, are chlorinated along with the titanium dioxide generate iron and other metal chlorides.

After the chlorinator, the product gases, unreacted solids (including unreacted ore and petroleum coke fines), and tail gases are separated. A process gas scrubbing system uses a water and caustic mixture to remove chlorine, $TiCl_4$, sulfur dioxide, and particulate matter. The $TiCl_4$ is condensed from the gas stream, captured, and sent to Purification. Recycle water is used to remove iron chloride and hydrochloric acid. Some iron chloride streams within the production process are not classified as RCRA wastes due to recycling, reuse and/or

reclamation, but Chemours DeLisle has determined that waste iron chloride solution is a D002 (corrosive), D007 (toxic – chromium), D008 (toxic – lead) hazardous waste. The hazardous waste iron chloride solution purge stream, which contains unreacted coke and unreacted ore, is sent to the Environmental (Filtration) Area to remove solids prior to deepwell injection.

Several intermittent streams are generated in the Reaction area. Vacuum equipment is used to collect vapors during maintenance and may be used for small leaks. These vapors are sent to a scrubber. Emissions from process equipment are vented to the Start-up Scrubber during start-ups. Coke and ore dust from equipment vents. The chlorinator will undergo periodic maintenance to remove unreacted solids from the bottom of the chlorinator. During this maintenance period the chlorinator will be rebricked, as necessary. The removed solids and brick are disposed in the onsite waste disposal area.

Purification

Crude $TiCl_4$ is pumped to the purification treatment reactor where the crude $TiCl_4$ is recirculated through a heat exchanger and evaporated into a column. An additive is pumped into the column to aid in impurity removal. Impurities from the column are removed and eventually managed with the iron chloride solution in Environmental. The $TiCl_4$ vapor exiting the column is condensed to form "pure" $TiCl_4$, which is then pumped to a series of storage tanks and held until use in oxidation. Emissions from Purification tank vents are routed to a scrubber. The scrubber discharge is sent to the Recycle Water Storage Area.

Oxidation

Pure liquid $TiCl_4$ from Purification is sent to a vaporizer and then to a reactor. In the reactor, the vaporized $TiCl_4$ is reacted with oxygen and process additives to form raw titanium dioxide pigment (TiO_2 or pigment) and chlorine gas. Pigment and chlorine gas exit the reactor together and are immediately separated in a cyclone and two parallel bag filters. The pigment is slurried in water in a slurry tank and sent to storage tanks. The chlorine gas that is regenerated in Oxidization is returned via closed loop to Reaction for reuse. Oxidation utilizes a scrubber to capture and remove emissions from vented gases. The scrubber uses water which creates hydrochloric acid, to which a treatment chemical is added to control pH. This wastewater is sent to the Spent Chemical Treatment in Reaction.

Emissions from intermittent equipment are scrubbed with water, which is then sent to Wastewater Treatment. Emissions from the additive Feeder Vents are captured in a recirculated water scrubber.

Treatment

Slurried pigment is pumped into treatment tanks where various chemicals are added to meet customer specifications. The slurry is neutralized with either a base or acid, and chemicals are precipitated onto the surface of the pigment as colorless hydrated oxides. The coating is added to produce the customer's desired physical properties. After treatment, the pigment is stored in the Treated Tanks.

Finishing

The treated pigment is passed through a filter and sent to a natural gas dryer to evaporate any remaining water. Water that is removed during filtration is collected and sent to Wastewater

Treatment. After drying, the pigment is stored in various feed bins before it is sent to grinders that are used to break down agglomerates into uniform pigment particles. The pigment is then sent to a packing bin for final packaging or to a silo for slurry production. In the case of slurry production, dry pigment is mixed with water and dispersant. The final slurry is loaded in rail cars and tanker trucks.

Environmental (Filtration) Area

The Environmental (Filtration) Area includes equipment that is permitted to store and treat hazardous waste under Chemours DeLisle's Hazardous Waste Permit, permit number MSD096046792. This permit includes seven (7) permitted hazardous waste tanks: the Deepwell Storage Vault, the Primary Filter Storage Tanks (2), the Thickener Tanks (2), and the Splitter Feed Tanks (2).

Unit	Capacity (gallons)	Description of Hazardous Waste	Waste Codes
Deepwell Storage Vault	472,000	Iron Chloride Solution	D002 D007 D008
Primary Filter Storage Tank #1	87,240	Iron Chloride Solution	D002 D007 D008
Primary Filter Storage Tank #2	67,110	Iron Chloride Solution	D002 D007 D008
Thickener Tank #1	126,240	Iron Chloride Solution	D002 D007 D008
Thickener Tank #2	126,240	Iron Chloride Solution	D002 D007 D008
Splitter Feed Tank #1	12,150	Iron Chloride Solution	D002 D007 D008
Splitter Feed Tank #2	12,150	Iron Chloride Solution	D002 D007 D008

The Environmental Area also includes twenty-three less-than-90-day hazardous waste management tanks, including Gravity Settlers, Primary Filters, and Polish Filters treatment tanks.

The hazardous waste iron chloride solution, as generated, is a liquid stream with a nominal four percent solids by weight. The solids are unreacted chloride and ore that are entrained with the waste acid when it leaves the production process. According to the RCRA Permit, these chloride process waste solids retain the mining waste exemption in RCRA regulations at MHWMR 261.4(b)(7)(ii)(S). The solids are separated from the acid in several stages, which include flocculation and mechanical filtration. Neutralization of these Bevill-exempt solids takes place after they are filtered from the iron chloride solution. If return to the production process is not possible, they are disposed in an on-site solid waste disposal facility.

Upon entering Environmental, the hazardous waste iron chloride solution is pumped into one of two Thickener tanks where a flocculant is added to begin solids removal. The iron chloride solids (primarily coke and ore) are filtered, washed, neutralized, re-slurried, and either recycled into the manufacturing process or disposed in the onsite waste disposal area. Coke and Ore solids are dredged from the Solids Pond, and they are separated. The ore is collected and recycled back into the process, the coke is pressed and disposed in the onsite land disposal area. Return water is used to transport solids, is decanted, and returned to the process for reuse.

The hazardous waste iron chloride solution overflows the Thickener and is further clarified and filtered as it flows through in a series of permitted and central accumulation area tanks to the

Deepwell Storage Vault. The waste iron chloride solution is then injected into one of four Class I hazardous waste injection wells permitted under the Underground Injection Control Program. Approximately 300-400 million gallons pass through the waste treatment system and are disposed in the on-site deepwells each year. Liquids that accumulate in trenches and sumps in the Environmental Area are pumped to the Recycle Water Storage area for reuse. Emissions from the Environmental Area are captured in two scrubbers, which discharge liquids to the Recycle Water Storage area for reuse.

Recycle Water Storage

Chemours DeLisle collects and reuses water from the Environmental (Filtration) Area processes, as well as from the processes in the Reaction and Purification Areas. On May 21, 1999, Chemours DeLisle provided written notice to MDEQ claiming the conditional exclusion of the recycle water from the definition of solid waste under MHWMR 261.4(a)(17). This water is stored in aboveground vaults before recirculating through the production process. These storage vaults are located within secondary containment, and they are vented to a water scrubber. The water scrubber removes hydrochloric acid vapors from the vaults, and scrubber discharge is returned to the Recycle Water Storage Area. Solids that accumulate in the storage vaults are periodically dredged and sent to the Solids Pond. Coke and Ore solids are dredged from the Solids Pond, and they are separated. The ore is collected and recycled back into the process, and the coke is pressed and disposed in the onsite land disposal area.

Wastewater Treatment

The Wastewater Treatment Area collects wastewater from the Oxidation, Finishing and Power Areas. The wastewater is collected in the equalization basin or the hold pond before it enters the neutralization tank. In addition to pH adjustment, flocculant is also added to the contents of the neutralization tank to aid in the removal of TiO_2 solids. The neutralization tank discharges to the disengagement pond, and the treated wastewater then travels through a colling pond to allow further settling of pigment. After cooling, treated wastewater is discharged to Bay St. Louis through the facility's NPDES permitted outfall. Surface impoundments that are associated with the NPDES system are periodically dredged to remove TiO_2 solids, which are subsequently sent to the onsite waste disposal area as non-hazardous waste. Return water generated in TiO_2 solids management units are sent back to Wastewater Treatment.

Hazardous Waste Generation and Notification

In addition to the hazardous waste management activities associated with the Hazardous Waste Permit number MSD096046792, which was issued to Chemours DeLisle on September 17, 2019, and expires on August 31, 2029, Chemours DeLisle also operates as a large quantity generator (LQG) of hazardous waste. Routine hazardous waste generated at the facility include waste iron chloride solution, waste paint, waste flammable liquids, and waste isopropyl alcohol. The hazardous waste iron chloride solution does not contain organics in concentrations of 10 percent by weight or greater, so the air emission monitoring and control requirements in 264 subparts AA and BB do not apply. The facility manages hazardous waste that contains more than 500 ppmw volatile organic compounds in containers less than or equal to 55-gallons. These containers are subject to the container Level 1 standards in the hazardous waste central accumulation area.

Chemours DeLisle has identified ten hazardous waste satellite accumulation areas (SAAs) and one hazardous waste container central accumulation area (CAA) in the Quick Reference Guide to the Contingency Plan. SAAs are used to manage hazardous wastes generated in areas such as the garage, the maintenance shop, the laboratory, and the paint testing area. Lead personnel are assigned to manage each SAA. When a container in the SAA is full, personnel date the container and submit a form to the Environmental Leader before delivering the container to the CAA. On the form, personnel describe the waste and verify that the container is closed, labeled, dated, and in good condition. The Environmental Leader retains a copy of the form that is submitted for each container while that container is stored in the CAA. The forms serve as a record of each container in the current inventory at the CAA. When a container is shipped off-site, the corresponding form is discarded.

In its most recent Hazardous Waste Generator Notification (EPA Form 8700-12) dated February 23, 2022, Chemours DeLisle reported that the following types and volumes of hazardous wastes were generated on-site during calendar year 2021:

Waste Description	**EPA Waste Code**	**Pounds**
cloth-like filter bags from a process in titanium dioxide production; characteristic for arsenic and chromium	D004, D007	3,544
Paint related material from painting activities necessary for facility maintenance and upkeep; ignitable; characteristic for MEK; includes spent solvent	D001, D035, F003, F005	10,814
Paint-like product produced as part of quality assurance testing for manufactured pigments; ignitable	D001	18,027
Residues from aerosol can puncture; ignitable	D001	260
Off-spec resin product; ignitable	D001	500
Absorbent solids containing listed U220 toluene product; ignitable; generated from product unloading and handling (not related to spill clean-up)	D001, U220	5,786
Offspec phosphoric acid 85% solution; corrosive	D002	7,187
Groundwater recovered from purging of specific monitoring wells during sampling activities; contains trace amounts of tetrachloroethylene, trichloroethylene, and their degradation products (natural attenuation is occurring)	D039, D040, U210	330
Onsite laboratory solvent waste; ignitable	D001, F003	100
Aqueous acidic solution containing iron chloride from the production of titanium dioxide by the ilmenite-chloride process; corrosive; characteristic for chromium and lead	D002, D007, D008	4,098,581,162 H134 onsite

9) Previous Inspection History

For the past twenty years, MDEQ has conducted a RCRA CEI at the subject facility every 1-2 years, and four of those inspections were conducted jointly with the EPA. MDEQ and the EPA conducted the most recent RCRA CEI on July 13, 2022, and found apparent violations of labeling requirements for tanks and containers. The apparent violations were corrected on or before September 13, 2022.

10) Opening Conference

On May 15, 2024, EPA inspector Laurie Benton DiGaetano, accompanied by MDEQ inspector William Rider, arrived at Chemours DeLisle (Photo 1) at approximately 9:30 AM. The inspectors watched a short safety video before Robert Mills, Environmental Leader, received the inspectors. The inspectors introduced themselves, showed their credentials to Robert Mills, and explained the purpose of the visit. Robert Mills and the inspectors were soon joined by Suzanne Gibson, Environmental Leader, for the opening conference.

The inspectors described the anticipated use of equipment (digital camera) during the inspection and provided a request for records. 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 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 requested a review of any photographs taken during the inspection in order to evaluate them for business confidentiality. The company did not assert a business confidentiality claim for any information submitted to EPA or for any photographs taken during the inspection.

Suzanne Gibson 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 Suzanne Gibson led the inspectors on a tour of the Facility operations.

11) Inspection Observations

Environmental (Filtration) Area:

Tammy Finkes joined the inspection participants for the facility tour in the Environmental (Filtration) Area. Ms. Finkes explained that the facility does not need to use all storage and treatment tanks in the Environmental Area because production Line 2 has not been in operation for the past 1.5-2 years. As a result, the facility alternates between identical tanks to keep them in working condition. Tank preventative maintenance activities are scheduled in April and November each year, and the off-line tank is brought back into service when the active tank is brought off-line at that time. Upon completion of the preventative maintenance activities, the off-line tank is filled with water.

Tanks in the Environmental (Filtration) Area share a common secondary containment system, which is equipped with a trench system that collects spills or rainwater and liquids and serves as a leak detection system in the areas where hazardous waste is treated. Liquids that are collected by the trench system are pumped back into the process.

Chemours adds flocculants to the waste slurry in a six-inch pipe that transfers unreacted hazardous waste iron chloride solution containing solids from Chlorinator to Environmental, where the unreacted wastes are treated and prepared for underground injection. Hazardous waste iron chloride solution is initially added to one of two permitted Thickener Tanks (126,240 gallons each) (Photo 2 and 3). At the time of the inspection, Thickener #2 was not in service, because it had been taken off-line for preventative maintenance in April (Photo 4). The waste moves from the Thickener Tanks to one of two permitted Splitter Feed Tanks (12,120 gallons each) (Photo 5). The hazardous waste iron chloride solution is transferred from the permitted Splitter Tanks to one of six Lamella Tanks, which are designed to separate solids from liquids. Treated liquids go from the Lamella tanks to one of two permitted Primary Filter Storage Tanks (87,240 and 67,110-gallons, respectively), before they are treated in one of ten Primary Filter Tanks. Solids are returned from the Lamella Tanks to the permitted Thickener Tanks. The vapors from the Lamella tanks are vented to scrubbers. Each Primary Filter Tank vessel is equipped with cloth-type filters which are designed to remove solids from the liquid hazardous waste stream. Chemours performs preventative maintenance activities on one Primary Filter Tank vessel every week. The preventative maintenance activity includes running a wash cycle to remove solids from the vessel, and then pulling filters out of the vessel so that they can be sprayed to clear them of any residual solids and then returned to service inside the Primary Filter Tank vessel. Wash water generated from spraying filters is collected in the secondary containment trenches and pumped back into the process. Hazardous waste iron chloride solution further flows from the Primary Filter Tanks to the six Polishing Filter Tanks and at times to the Deck Tank. Treatment in the Polishing Filter Tanks includes an automatic cleanup cycle designed to transfer any solids that are removed in the Polishing Filter Tank back into the treatment process. The treated liquids are pumped to the permitted Deepwell Storage Vault (476,000 gallons).

Each Thickener Tank, Splitter Feed Tank, and Primary Filter Storage Tank was labeled with the words “Hazardous Waste” and identified with an indication of the hazards (IOH) of its contents. The six Lamella Tanks, ten Primary Filter Tanks, one Deck Tank, and six Polishing Filter Tanks are regulated as CAA tanks. Each CAA tank was labeled with the words “Hazardous Waste” and identified with an IOH of its contents. Chemours DeLisle representatives stated that they receive an email 10-days before any CAA tank is scheduled to come off-line and be emptied, that they maintain a log to record when CAA tanks are cleaned out, and that this process is designed to ensure that each CAA tank is cleaned out at least once every 90 days.

The inspectors observed liquid dripping from a leak in the underflow line of Lamella Tank #6 (Photo 6), and the facility representatives reported the leak to an operator in this area for investigation. In an email to the inspectors on July 9, 2024, Suzanne Gibson explained that when the operator investigated the leak on the day of the inspection, he discovered that the valve had not been fully closed. Suzanne Gibson stated that the operator immediately closed the valve fully, which stopped the leak, and monitored the area throughout the remainder of his shift, which confirmed that there was no further leak.

Hazardous Waste Container Central Accumulation Area (CAA):

Chemours manages a hazardous waste container CAA in covered concrete pad within an area surrounded by a locked chain link fence. The area was identified with signs which read “Danger, No Smoking” and “Drum Storage Pad” (Photo 7). The CAA is equipped with a phone capable of summoning the control room to activate an emergency alarm system, and personnel working in the area carry cell phones or two-way radios to summon emergency assistance from local police departments, fire departments, or state or local emergency response teams, if necessary. The CAA is equipped with portable fire extinguishers, spill control equipment, and decontamination equipment.

The hazardous waste CAA is generally limited to an area, which was delineated by a painted border on the floor and hanging chains and located to the left on the covered concrete berm. Posted signs identified the CAA and hanging chains divided it into three distinct sections (Photo 8).

- Five 30-gallon containers of hazardous waste paint, which is generated in the control laboratory, were stored on wooden pallets in the first section. Each container was labeled hazardous waste flammable liquid, identified with a flammable liquid DOT hazard sticker, and marked with an accumulation start date. The oldest container was dated April 9, 2024;

- Two 55-gallon containers of hazardous waste were stored on wooden pallets in the second section. Each container was labeled hazardous waste paint related material, identified with a flammable solid DOT hazard sticker, and marked with an accumulation start date. The older container was dated April 4, 2024. The inspectors noted that the hazardous waste labels indicate that the waste in these containers is identified with F-listed EPA Hazardous Waste Numbers, which are based on the Toxic Waste Hazard Code, but that the container is not identified with an indication that the contents are toxic; and

- One 5-gallon container, two 30-gallon containers, and four cubic yard boxes of hazardous waste were stored on wooden pallets in the third section. The 5-gallon container held waste solvents generated in the laboratory. This container was labeled hazardous waste, identified with a flammable liquid DOT hazard sticker, and dated May 12, 2024. One of the two 30-gallon containers held sorbent materials and waste toluene product generated as residual material in transfer hoses used to unload incoming toluene product. Sorbent materials are added to the waste toluene to minimize personnel exposure to fumes that are released when opening the container in the SAA. This container was labeled hazardous waste toluene with absorbents, identified with a flammable solid DOT hazard sticker, and dated May 15, 2024. The second 30-gallon container held purged groundwater from a monitoring well that is sampled to monitor a historic release of perchloroethylene (PCE). This container was labeled hazardous waste PCE purge water, identified with a Class 9 DOT hazard sticker, and dated April 11, 2024. The cubic yard boxes held oxidation bag filters, which are changed out approximately once each year. Personnel stated that the bag filters slightly exceed the TCLP limit for chromium and arsenic. Each cubic yard box was labeled hazardous waste, identified with a Class 9 DOT hazard sticker, and dated May 7, 2024. Because the DOT Class 9 label

does not indicate any specific hazard associated with the waste, the EPA has determined that it is not appropriate to meet the RCRA indication of hazards labeling standard.

Pursuant to 11 Miss. Admin. Code Pt. 3, R. 1.3 [40 C.F.R. § 262.17(a)(5)(i)], which is a condition of the LQG Permit Exemption, a generator must mark or label its containers with an indication of the hazards of the contents clearly visible for inspection on each container.

Next to the identified hazardous waste CAA, the inspectors also observed one 55-gallon container labeled nonhazardous oxygen cylinders for recovery/recycling, one 5-gallon container labeled nonhazardous nonregulated miscellaneous off-spec products, one 5-gallon container labeled nonhazardous non-RCRA caulk/putty material products, and three 55-gallon containers labeled used oil.

In addition to the designated hazardous waste CAA, Chemours has also dedicated a portion of the space on the covered concrete slab for managing containers of universal waste. The inspectors observed the following containers of universal waste in this area:

- Two 55-gallon, eight 30-gallon, and three 5-gallon containers of universal waste aerosol cans. Each container was labeled as universal waste aerosol cans, identified with a flammable gas DOT hazard sticker, and marked with an accumulation start date. The oldest container was dated May 31, 2023;
- One cardboard box, one 30-gallon container, and three 5-gallon containers of universal waste batteries. Each container was labeled as universal waste batteries, identified with a corrosive DOT hazard sticker, and marked with an accumulation start date. The oldest container was dated July 12, 2023; and
- One 5-gallon container of universal waste lamps. The container was labeled universal waste lamps and marked with an accumulation start date of November 16, 2023.

Paint Yard SAA:

Chemours DeLisle manages a SAA in the Paint Yard for accumulating used paint rollers and brushes and waste paint as hazardous waste paint related material. The inspectors observed one 55-gallon container in this SAA (Photo 9). The container was equipped with a closed, latched lid. It was labeled as hazardous waste paint related material and identified with a flammable solid DOT hazard sticker.

Garage:

The inspectors observed one 30-gallon container for accumulating discarded aerosol cans used in the Garage (Photo 10). The container was closed, it was labeled universal waste aerosol cans, and it was dated April 9, 2024.

Laboratory SAAs:

The inspection participants were unable to bring electronic devices into the laboratory due to safety concerns. Therefore, no photographs were taken in this area. Chemours manages three SAAs in the Laboratory:

- The inspectors observed one 30-gallon container in the first SAA, which is used to accumulate used rags, paper towels and cotton material contaminated with spent xylene generated during cleaning activities in the Laboratory. The container was closed, labeled hazardous waste, and identified with a Class 9 DOT hazard sticker. Because the DOT Class 9 label does not indicate any specific hazard associated with the waste, the EPA has determined that it is not appropriate to meet the RCRA indication of hazards labeling standard.

Pursuant to 11 Miss. Admin. Code Pt. 3, R. 1.3 [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 observed one 30-gallon container in the second SAA, which is used to accumulate spent hazardous waste liquids generated in the laboratory. The container was closed with a latched funnel, labeled hazardous waste, and identified with a flammable liquid DOT hazard sticker; and

- The third SAA is located in a locked flammable storage locker just outside of the Laboratory door. The inspectors observed one 5-gallon container of hazardous waste solvents, one 5-gallon container of xylene product, one 5-gallon container of mineral spirits product, and one 1-gallon container of acetone product inside this flammable storage locker. The container of hazardous waste solvents was closed, labeled hazardous waste, and identified with a flammable liquid DOT hazard sticker.

Building 538 Maintenance Shop:

Chemours accumulates discarded aerosol cans used in Building 538 in a designated area. The inspectors observed one 30-gallon container in this area (Photo 11). The container was closed, it was labeled universal waste aerosol cans, and it was dated April 4, 2024.

The inspectors also observed one 55-gallon container labeled for the accumulation of empty calibration gas cylinders. Facility personnel stated that the empty cylinders are depressurized in another maintenance shop at the end of the plant before they are cut in half and sent as scrap metal for recycling.

Building 538 Tool Room:

Chemours accumulates discarded batteries used in Building 538 in a designated area near the Tool Room. The inspectors observed one 5-gallon container in this area. The container was closed, it was labeled universal waste batteries, and it was dated May 9, 2024.

12) Records Review

Contingency Plan and Quick Reference Guide (QRG):

The actions that facility personnel should take in response to an emergency are described in the facility's Iron Chloride Management Contingency Plan, which was last updated in January 2014. The plan describes actions facility personnel must take in response to fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents

to air, soil, or surface water at the facility. The plan describes arrangements agreed to with the Local Emergency Planning Committee. The plan includes the name and telephone numbers for David Quigly, who is identified as the primary emergency coordinator. It also includes the position title and telephone number for individuals who are authorized to serve as alternate emergency coordinators. The plan includes a list of emergency equipment, such as fire extinguishing systems, spill control equipment, communications and alarm systems, and decontamination equipment, available at the facility. The list includes the location of each equipment item and a brief outline of its capabilities. The plan describes plans for evacuation, which include signal(s) to be used to begin evacuation, evacuation routes, and alternate evacuation routes. A copy of the Iron Chloride Management Contingency Plan (and its quick reference guide) was submitted the police department, fire department, hospital, State and local emergency response teams and the Local Emergency Planning Committee.

The quick reference guide, which was last updated in June 2023, includes the names of hazardous waste, the hazard associated with each hazardous waste, and the estimated maximum amount of each hazardous waste that may be present at any one time; a map of the facility showing where hazardous wastes are generated, accumulated and treated and routes for accessing these wastes; 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).

Training Records:

According to facility personnel, each of four daily work shifts include six environmental technicians and two Team Managers who are responsible for hazardous waste management activities. Personnel stated that these employees all receive HAZWOPER and Hazardous Waste Training during the new employee orientation and again during annual refresher training after that. The inspectors reviewed an example of the new hire training module, which includes instruction on RCRA requirements, and the records of annual training provided for randomly selected employees.

Waste Manifest and Land Disposal Restriction (LDR) Records:

Over the past three years, Chemours has routinely shipped hazardous waste to Safety-Kleen (KYD053348108) and to Clean Harbors Deerpark (TXD055141378). The Facility initiated a total of six shipments of hazardous waste to Safety-Kleen (KYD053348108) in 2021, six shipments in 2022, and four shipments in 2023. Hazardous wastes sent to Safety-Kleen (KYD053348108) include: D001 waste paint; D001 D035 F003 F005 waste solids containing flammable liquids; D001 D018 D035 D039 waste flammable liquids (acetone, MEK); D001 U220 waste solids containing flammable liquid (toluene); and D001 waste alcohol solutions. The Facility initiated seven shipments of hazardous waste to Clean Harbors Deerpark (TXD055141378) in 2021, eleven shipments in 2022, and six shipments in 2023. Hazardous wastes sent to Clean Harbors Deerpark (TXD055141378) include: D001 U220 waste solids containing flammable liquid (toluene); D039 D040 U210 hazardous waste liquid (tetrachloroethene, trichloroethene); D004 D007 hazardous waste solid (chromium, arsenic); D001 waste flammable liquid (stoddard solvent, petroleum naphtha, xylene); D001 D035 F003 F005 waste solids containing flammable liquid (MEK, xylene); D002 waste hydrochloric acid; and D001 waste flammable liquids.

In addition to routine shipments noted above, Chemours also initiated four shipments of hazardous waste aerosols and one shipment of D001, D003 waste flammable liquids (xylene, alcohols) to Clean Harbors El Dorado (ARD069748192); one shipment of D002 waste phosphoric acid to Clean Harbors Baton Rouge (LAD010395127); one shipment of D001 waste isopropyl alcohol to Safety-Kleen (ILD980613913); and two shipments of D039 D040 U210 hazardous waste liquid (tetrachloroethene, trichloroethene) to Clean Harbors Laport (TXD982290140).

Weekly Inspection Records:

The inspectors reviewed Chemour's available records of inspections of the hazardous waste central accumulation area (CAA) since January 2022. The inspection log includes a checklist to record the following observations about containers of hazardous waste in the CAA: accumulation start date, age of container, hazardous waste label, name of waste, indication of hazard, container condition, closed container, and storage to minimize potential of leaks or spills. The log also includes a checklist to record observations of the communication equipment, fire extinguisher, eye wash station, and spill response equipment. Personnel conducting these inspections record the date and time of the inspection, the name and signature of the person conducting the inspection, and detailed notes about observations made during these inspections.

Daily Inspection Log for the Deepwell Vault and Related Equipment:

The inspectors reviewed Chemour's available records of inspections of the Deepwell Vault and related equipment since October 2023. The inspection log includes a checklist to record observations in the following areas: the line from Polish Filters to the Deepwell Vault, the Deepwell Vault, the lines from the Deepwell Vault to the Transfer Pumps, the Deepwell Transfer Pumps, the Injection Pumps, the lines from the Injection Pumps to the Wellheads, the Wellhead Sump Pumps, the Wellhead Sumps, and the Emergency Containment Wall Valve.

Daily RCRA Inspection Log:

The inspectors reviewed Chemour's available records of inspections of the other hazardous waste tanks and equipment since May 2023. The inspection log includes a checklist to record observations in the following areas: Trench System Alarms; Recycle Water Vaults, Iron Chloride Management Flocculant Box and Sump Settler; Iron Chloride Management Secondary Containment and Sumps; Primary Filter Storage Tanks, Primary Filters, Polish Filters, Filtrate Surge and Primary Filter Drain Tanks; and Reaction Feed Lines, Splitter Boxes, Lamellas, and Thickeners. The checklist provides space to identify leaks, cracks or deterioration of: the tanks and vessels, the piping, flanges, elbows and instrumentation; the pumps, valves, expansion joints and seals; the 654 Sump and Trench System; the acid brick; the recycle vaults and secondary containment; and the trench system overflow. It also provides space to identify missing hazardous waste labels on tanks and vessels.

13) Closing Conference

The inspectors conducted the exit meeting at 5:30 PM with Suzanne Gibson and Janey Quigley, Environmental Health and Safety Manager. During this meeting, the inspectors stated their preliminary conclusions of the inspection.

14) List of Attachments

Attachment 1 – Photo Log

15) Signed

LAURIE DIGAETANO

Digitally signed by LAURIE DIGAETANO
Date: 2024.07.12 10:05:19 -04'00'

Laurie Benton DiGaetano
Environmental Engineer

16) Concurrence

ALAN NEWMAN

Digitally signed by ALAN NEWMAN
Date: 2024.07.12 13:18:52 -04'00'

Alan R. Newman
Acting Chief
RCRA Enforcement Section

Attachment 1 – Photo Log

Eleven Photos taken on: May 15, 2024
Photos taken by: Laurie Benton DiGaetano
Photos taken with: Panasonic DMC TS-5
EPA Property Tag: S09533

	**Photo 1**: Entrance sign for the Chemours DeLisle facility in Pass Christian, Mississippi.
	**Photo 2**: Thickener Tank #1.
	**Photo 3**: Thickener Tank #1.

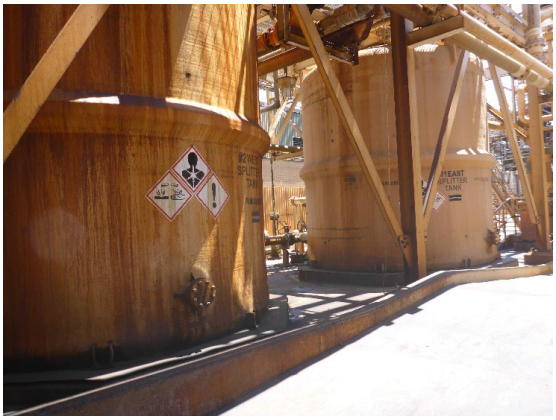
	**Photo 4**: Thickener Tank #2.
	**Photo 5**: Splitter Feed Tanks.
	**Photo 6**: Leaking connection in the underflow line of Lamella Tank #6.

	**Photo 7**: Chain link fence and signage securing entry to and identifying the hazardous waste Central Accumulation Area.
	**Photo 8**: Hazardous waste CAA, delineated by painted border on the floor and hanging chains that divide the area into three distinct sections.
	**Photo 9**: One 55-gallon container of hazardous waste paint related material generated in the Paint Yard SAA.

	**Photo 10**: One 30-gallon container of universal waste aerosol cans generated in the Garage.
	**Photo 11**: One 30-gallon container of universal waste aerosol cans generated in Building 538 Maintenance Shop.