

RCRA Inspection Report

1) Inspector and Author of Report

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2) Facility Information

BASF Corporation
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EPA ID# ALD001221902

3) Responsible Official

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4) Inspection Participants

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Lanny Sasser, ADEM
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Ben King, ADEM

5) Date of Inspection

August 16, 2022

6) Purpose of Inspection

The purpose of this inspection was to conduct an unannounced compliance evaluation inspection to determine BASF Corporation's compliance with the conditions of its Alabama Hazardous Waste Management and Minimization Act (AHWMMA) permit (ADEM Permit Number ALD001221902), the applicable requirements of RCRA, and the corresponding Alabama Department of Environmental Management (ADEM) regulations. This was an EPA lead inspection.

7) Applicable Regulations¹

Alabama Hazardous Waste Management and Minimization Act of 1978 (AHWMMA), Ala. Code § 22-30-1 *et seq.*, [Resource Conservation and Recovery Act (RCRA) Sections 3002 -

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.

3005, (42 U.S. Code - Annotated U.S.C.A. 6925 and 6927)] and rules 335-14-1 to 335-14-17 (2016 and 2018) of the Alabama Department of Environmental Management (ADEM) Administrative Code (ADEM Admin. Code) [40 Code of Federal Regulation (C.F.R.) Parts 260-270, 273 and 279].

Pursuant to ADEM Admin. Code r. 335-14-3-.01(5)(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 22-30-12(b) of the Alabama Hazardous Wastes Management and Minimization Act (AHWMMA), Ala. Code § 22-30-12(b) [Section 3005 of RCRA, 42 U.S.C. § 6925], and without complying with ADEM Admin. Code r. 335-14-3-.01(6)(b) or 335-14-3-.01(7)(a) [40 C.F.R. § 262.16(b) or § 262.17(a)], except as required in ADEM Admin. Code r. 335-14-3-.01(5)(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 ADEM Admin. Code r. 335-14-3-.01(5)(a) [40 C.F.R. § 262.15(a)] (hereinafter referred to as the “SAA Permit Exemption”).

Pursuant to ADEM Admin. Code r. 335-14-3-.01(7) [40 C.F.R. § 262.17], 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 22-30-12(b) of the AHWMMA, Ala. Code § 22-30-12(b) [Section 3005 of RCRA, 42 U.S.C. § 6925], provided that the generator complies with the conditions listed in ADEM Admin. Code r. 335-14-3-.01(7) [40 C.F.R. § 262.17] (hereinafter referred to as the “LQG Permit Exemption”).

8) Facility Description

BASF is a chemical manufacturing company that develops, manufactures, and markets a wide variety of special-purpose chemicals and chemical products worldwide. BASF employs approximately 10,000 people globally, and the United States corporate headquarters is located in Florham Park, New Jersey. With approximately 1,500 acres, the subject facility in McIntosh, Alabama, is one of the largest BASF facilities in the United States. Operations run twenty-four hours per day, seven days per week, and the facility currently has approximately 300 BASF employees and an additional 300 contract employees.

Production at the subject facility began in 1952, and BASF Corporation became the owner and operator at this facility following its acquisition of Ciba Specialty Chemicals Corporation in 2009. The facility operates under the primary NAICS Code 325100 for All Other Basic Organic Chemical Manufacturing and the NAICS Code 325998 for All Other Miscellaneous Chemical Product and Preparation Manufacturing. The current production areas at the subject facility include the Antioxidant (AO) Production Unit and the Light Stabilizers Unit (LSU). The facility also operates a Granulation Area where certain products are prepared and packaged for shipment.

The specialty chemicals produced at the subject facility are used in the manufacturing of a variety of household products. The AO Production Unit produces Irganox and Irgafox products, which are used to counteract the effects heat and time can have on the color, durability, and purity of plastics. Another product made in the AO Production Unit is added to industrial lubricants, engine oils, and transmission fluids to protect equipment and motors from deposits.

The two main product families made in the facility's LSU are Tinuvins and Hindered Amine Light Stabilizers (HALS). Tinuvins are light absorbers that absorb damaging UV light. They are used in automotive finishes to preserve the shine, in photographic inks to keep colors vivid and in outdoor stain to protect wood finishes. HALS are used in milk jugs, outdoor furniture, carpet, automotive coatings, and yogurt containers to improve stability and to prevent the degradation of polymers that is caused by absorbed UV rays.

The facility consists of the above-described production units and the following permitted post-closure care units that are located at the site: "Closed Above Ground Landvault #1," "Closed Class C Landfill," "Closed Biological Sludge Landfill," "Closed Rectangular / Triangular Ponds," "Closed Sludge 1-4 / 5-day / 10-day / Equalization Impoundments," "Closed Dilute / Diazinon Destruction Impoundments," and "Closed GM-44 Impoundment." BASF currently operates a groundwater monitoring / remediation system that consists of five background wells, seventeen point-of-compliance wells, eight effectiveness monitoring wells, three corrective action monitoring wells, eight recovery wells, and four boundary monitoring wells. BASF also has a wastewater treatment plant that discharges to the Tombigbee River under NPDES Permit AL0003093, and active solid / hazardous waste landfill (Above Ground Landvault #2) and an operational hazardous waste disposal unit (Boiler #7).

The Above Ground Landvaults #1 and #2 (LV1 and LV2) were initially permitted to receive incinerator ash generated from burning hazardous waste on-site. BASF personnel stated that the incinerator unit was taken out of service in 2012. Although the LV2 is still permitted to receive solid and hazardous wastes, BASF personnel stated that the unit is currently only used to dispose of concrete demolition waste, rubble that passes TCLP testing, and clean dirt. Personnel stated that the facility ships approximately 450 20-yard trailers of non-hazardous waste sludge that is generated in the on-site wastewater treatment system from the facility each year, and that they are actively looking at options for solidifying this sludge and disposing of it in LV2.

The majority of hazardous wastes generated at the subject facility are bulk solvents that have been recovered from manufacturing processes. Production lines run on a continuous feed system and various solvents may be added during the manufacturing process. Some of those solvents are later removed from the system and recovered for reuse or disposal. Recovered solvents become a generated waste when they do not meet the quality control standards for reuse. BASF also generates non-bulk hazardous waste such as laboratory wastes, paint waste, used filters, aerosol cans, and cleanup waste in locations throughout the facility. The subject facility has been a large quantity generator (LQG) of hazardous waste for over thirty years.

BASF manages hazardous waste on-site under the ADEM Permit Number ALD001221902 (the RCRA Permit) in three storage tanks; under the LQG Permit Exemption in eight storage tanks, in three non-bulk container central accumulation areas (CAAs), and in one bulk tanker trailer CAA; and under the SAA Permit Exemption in twenty SAAs. Many of the SAAs are located in the on-site laboratories, where hazardous wastes are initially accumulated in containers of up to 5-gallon capacity. According to facility personnel, containers of hazardous waste in laboratory SAAs are collected daily. Personnel bring these containers to the associated non-bulk CAA and transfer the contents of the laboratory containers into 55-gallon drums for further management on-site. Hazardous waste bulk solvents are managed onsite in storage tanks and tanker trailer containers. In process areas where hazardous wastes are accumulated in bulk tanker trailers, personnel

estimated that it may take a couple hours to fill the tanker trailer. The full trailer is then either transferred to the on-site bulk tanker trailer CAA or taken to an on-site unloading area where the waste is transferred into a hazardous waste storage tank.

The RCRA Permit includes conditions for burning selected AO and HALS hazardous waste spent solvents in Boiler #7. This unit is regulated as an Industrial Furnace. It is a package boiler used to heat water and produce up to 130,000 lbs/hr of 150 psig steam for process and infrastructure requirements. Boiler #7 utilizes natural gas fuel and up to 25% of the heat input from supplemental waste fuel sources. These waste fuel source streams are spent solvents that generally contain o-Xylene, Methanol, Cyclohexane, tertiary Butyl Alcohol, n-octane, and Irganox residuals and are classified as hazardous due to their ignitability (D001) and methanol content (F003).

Spent solvents must meet the specifications set forth in the Request for Disposal of Waste (RDW) or BASF Waste Profile (Waste Profile) records in order to obtain approval for burning in Boiler #7. These records are electronic forms that contain a description of the process generating the waste, an estimate of the quantity to be generated for the year, and data on the composition, source and hazardous characteristics of the waste. First, personnel must compare the waste records for each bulk shipment with the RDW or Waste Profile. If the records indicate that the waste may be managed in Boiler #7, personnel must collect two representative samples from that bulk shipment. The first sample is visually inspected for consistency with the waste description found on the RDW or Waste Profile. When the waste shipment meets the visual criteria, the second sample is tested for compatibility with other wastes, if any, contained in the receiving Boiler storage tank(s).

Approved bulk shipments of spent solvents are transported from locations in the main plant in tank trailers with capacities ranging from 5,000 to 7,500-gallons. These shipments are transferred to tanks UT-V-813 and UT-V-814 through an emission-controlled pumping system UT-P-810. The facility also has a rail car station capable of filling the tanks through a pumping system UT-P-811, but this rail car station and pumping system are not in active use. Tanks UT-V-813 and UT-V-814 are permitted to store hazardous waste under the RCRA Permit before it is routed to Boiler #7 for burning. The RCRA Permit also requires liquid waste feed to Boiler #7 to be sampled weekly and annually. Weekly samples are analyzed for specific waste feed parameters, and annual samples are analyzed for selected metals.

Bulk shipments of hazardous waste, including bulk shipments that have been rejected for burning in Boiler #7, are shipped off-site for treatment or disposal. BASF typically manages these bulk shipments under the LQG Permit Exemption in the following hazardous waste storage tanks or tanker trailer container storage areas:

Tank	Size	Hazardous Waste	Waste Codes
V03	10,000-gallon	Irgafos evaporator waste	D001, F003, F005
V15	1,500-gallon	Metilox waste	D001, F003
V-400-505	15,000-gallon	Irganox Bottoms	D001, F003
V-400-508	15,000-gallon	Irganox Methanol Waste	D001, F003
V-561	15,000-gallon	Waste Monoazo from Tinuvin	D001, D036, F003
V-562	15,000-gallon	Tinuvin Flasher Bottoms	D001, D036, F003

V-1250	15,000-gallon		D001, F003
V-1300	15,000-gallon		D001, F003
Tote			D001, F003
Bulk CAA			

According to the facility's 2019 Biennial Report, which was submitted to ADEM on February 20, 2020. BASF generated the following hazardous wastes during calendar year 2019:

Lab waste from Synthesis and Tinuvin	D001, D002	5488 pounds
AQC – Lab retain samples	D002	26 pounds
Leachate from Permitted Landvault #1 and #2	F039	2.5 e7 pounds WHERE DID IT GO?
2,4 DTBP Cleanup	D002	2926 pounds
Waste Aerosol Cans from Maintenance Activity	D001, D003	2565 pounds
AQC Lab waste	D001, D018, D022, F002, F003, F005	4188 pounds
Area 1 waste (solids)	D001, F003	7520 pounds
Area 15 unused material	D001, U037	1548 pounds
Area 20 waste solvents	D001	1,845,538 pounds
Irgafos Evaporator Waste	D001, F003, F005	5,492,695 pounds
Waste evaporator bottoms from Irganox	D001, F003	664,303 pounds
Waste evaporation bottoms containing Methyl Acrylate from Irganox	D001, F003	5,531,605 pounds
Irganox Sump Cleanout	D001, F003	508 pounds
Waste methanol from Irganox	D001, F003	3,219,907 pounds
Waste solvents from centrifuge cleanout from Tinuvin production	D001, F003	1019 pounds
Old equipment disposal – mercury manometer	D009	25 pounds
Paint and Oily Products	D001	1296 pounds
Irganox Evaporator Bottoms Cleanup	D001	3133 pounds
Filters from Tinuvin Production	D001, D036, F003	6165 pounds
Waste Flasher Bottoms from Tinuvin Production	D001	709,467 pounds
Waste Purifier Feed from Tinuvin Production	D001, D003	264,176 pounds
Tinuvin Raw Material Waste	D002	23,401 pounds
Tinuvin Soda Lime Cleanup	D002	74 pounds
Tinuvin Sump Cleanout	D001, F001	975 pounds
Waste flammable from Tinuvin Production	D001, D036, F003	2027 pounds
Waste monoazo from Tinuvin Production	D001, D036, F003	399,728 pounds
Waste solid monoazo from Tinuvin Production	D036	3925 pounds
Waste Paint from Maintenance Activity	D008, F002	546 pounds

9) **Previous Inspection History**

ADEM has conducted a RCRA CEIs at the subject facility nearly every year for over ten years, and the EPA participated in the RCRA CEIs that were conducted on July 09, 2019, and on December 04, 2012. The most recent RCRA CEI was conducted by ADEM on June 14, 2021. No apparent violations were observed during that inspection.

10) **Opening Conference**

On August 16, 2022, EPA inspector Laurie Benton DiGaetano, accompanied by ADEM personnel Lanny Sasser, Paul Searcy, and Ben King, arrived at BASF Corporation at approximately 10:00 a.m. After watching a safety video, completing a safety test, and obtaining visitor identification, the inspectors were received by Mr. Louis Dwayne Goldman, EHS Specialist. Mr. Goldman and the inspectors were joined by Ms. Allison Ruffing, EHS and OpEx Manager for the opening conference. The inspectors introduced themselves, showed their credentials to Mr. Goldman, and explained the purpose of the visit.

The inspectors described the anticipated use of equipment (digital camera) during the inspection and provided a request for records. The EPA inspector explained that the Small Business Regulatory Enforcement Fairness Act's classification of a "small business" is generally set by the Small Business Administration using the business' SIC/NAICS code and annual receipts or number of employees. A copy of the agency'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. Goldman and Ms. Ruffing provided an overview of the facility's history and current operations during the opening conference. The inspection participants also discussed health and safety protocols and required personal protective equipment before Mr. Goldman and Ms. Ruffing led the inspectors on a tour of the Facility operations.

11) **Observations**

Lab Building 1 CAA: Mr. John Weaver, Manager of Analytical Services, joined the inspection participants at the facility's CAA just outside of Laboratory Building 1. This covered and curbed concrete area is surrounded by a chain link fence and identified with signs that read "No Smoking," "Danger – Hazardous Waste Storage Area," and "Unauthorized Persons Keep Out." The area is equipped with an emergency alarm and an emergency shower and eyewash station, and with a fire sprinkler system and portable fire extinguisher. Facility personnel explained that hazardous waste is transferred from SAAs in the laboratory to this CAA every day. Once full, the 55-gallon drums in this CAA are transferred to the facility's main CAA where it is picked up by Heritage Environmental Services and transported to an off-site permitted hazardous waste treatment, storage, disposal facility.

The inspectors observed four 55-gallon drums on a secondary containment pallet in this CAA. One drum, which was nearly full, was equipped with a closed and locked funnel. The drum was labeled D001, D018, D022 F002, F003, F005 hazardous waste LB2 solvents, it was identified with toxic and flammable liquid DOT hazard placards, and it was dated July 29, 2022. The second drum, which was also nearly full, was labeled D001, D018, F002, F003, F005 hazardous waste GCC/HPLC vials with solvents, it was identified with toxic and flammable liquid DOT hazard placards, and it was dated August 09, 2022. The remaining two drums were empty.

BASF also manages a SAA for accumulating waste aerosol cans in this area. The inspectors observed one 55-gallon drum in this SAA. The drum was located in the back corner of the caged CAA. It was identified as laboratory aerosol cans, labeled D001, D003 hazardous waste, and marked with a flammable gas DOT hazard placard.

LB1 Instrument Lab B119: Mr. Weaver remained with the inspection participants during the tour of SAAs inside Laboratory Building 1. BASF manages two SAAs in Instrument Lab B119 for accumulating hazardous wastes generated in the laboratory. Laboratory personnel also explained that hazardous waste liquids generated by the analytical testing machines is discharged into the laboratory sinks for transfer to the on-site wastewater treatment system for treatment and discharge under the NPDES Permit Number AL0003093.

The first SAA is used to accumulate LB2 hazardous waste solvents generated during Quality Assurance/Quality Control (QA/QC) testing of finished products. The inspectors observed a total of seven 2.5-gallon flammable cans in this SAA. Each container was closed, labeled hazardous waste (toluene, chloroform), and identified as containing toxic and flammable liquids.

The second SAA is used to accumulate GC/HPLC vials generated during QA/QC testing of finished products. The inspectors observed one 1-gallon container and two 5-gallon containers in this SAA. Each container was closed, labeled hazardous waste (toluene, benzene), and identified as containing toxic and flammable liquids.

Environmental Energy Operations (EEO): The facility's on-site wastewater treatment system, hazardous waste Boiler #7, and the active operations of the Landvaults are all managed by the EEO Group. Mr. Jason Stanley, EEO Operations Leader, and Mr. Scott Holston, Ops Supervisor, joined the inspection participants during the inspection of this area.

BASF operates a hazardous waste fueled boiler (Boiler #7) that utilizes selected hazardous waste from Tanks UT-V-813 and UT-V-814. Up to 25% of the heat input of Boiler #7 can be supplied from the waste fuel, which primarily consists of methanol with trace organic constituents (AO and HALS streams), and the remainder of the heat input is supplied from natural gas. Boiler #7 is regulated as an Industrial Furnace and its emissions are managed under a Title V air permit (Major Source Operating Permit 108-0003).

The major components of the boiler system include the package hazardous waste boiler, Tanks UT-V-813 and UT-V-814, and ancillary equipment consisting of waste fuel piping and transfer pumps, vent piping, and a small knock-out pot (UT-V-815) to separate liquids in the vent system. Tanks UT-V-813 and UT-V-814 are fixed-roof, above ground 31,000-gallon tanks with emergency relief venting. They are located within a concrete secondary containment system that

has a six-mil thick polyethylene membrane liner. Pressure relief valves on the tanks route vapors from the tanks to UT-V-815. The knockout pot collects vapors and directs them to Boiler #7 for energy recovery. The boiler includes a steam header system, instrument control and automated monitoring system with a flame protection PLC and a boiler control PLC. This system uses conventional instruments and screen displays to monitor and control the entire boiler operation for the McIntosh facility.

The inspectors observed Boiler #7 and Tanks UT-V-813 and UT-V-814. Warning signs reading “Danger, Authorized Personnel Only” were posted near the storage tanks, and the area was equipped with an emergency shower and eyewash station and with a fire extinguisher. Each tank was labeled D001, F003 hazardous waste and identified with a NFPA fire diamond. The inspector also observed the tank loading/unloading area located next to the storage tanks. Piping used to transfer waste fuel was clearly labeled “waste fuel. The inspectors observed one 5-gallon bucket labeled “hazardous waste” in this area. The bucket was closed, and it was empty. Personnel explained that the bucket is used to collect drips and spills that may occur during sampling events, and the collected material is released to the on-site wastewater treatment system.

HALS (Area 20): Ms. Vickie Smith, Operations Leader LS HALS, joined the inspection participants during the tour of the HALS (Area20). Hazardous waste from the HALS Production process is initially accumulated as D001, F003 hazardous waste in Tank V-1250. Over time, an aqueous layer of waste forms in Tank V-1250, and this layer is pumped to Tank V-1300 for further separation. Organic waste settles to the bottom of Tank V-1300, and this layer is pumped back to Tank V-1250. The aqueous layer that forms on top of the organic waste in Tank V-1300 is discharged to the on-site wastewater treatment system. Samples are routinely taken from Tank V-1250, and any leaks or spills that occur during sampling are collected in a 5-gallon bucket. The 5-gallon bucket is then immediately emptied into a hazardous waste tote next to Tank V-1250.

Personnel explained that Tanks V-1250 and V-1300 and the associated tote are emptied on an as-needed basis during any given production campaign, and they are emptied completely between campaigns. The inspectors observed Tanks V-1250 and V-1300 and the sample tote. The tanks and tote were each labeled as D001, F003 hazardous waste, and identified with a NFPA Fire diamond. Facility personnel noted that the NFPA Fire diamond on Tank V-1250 was coming loose and will need to be secured to the tank again. The tote was dated July 25, 2022.

Area 17/18 Bulk CAA: The inspectors observed a line of tanker trailers in the Area 17/18 Bulk CAA and began a physical inspection of the area before the heavy downpour of rain resumed. The inspectors observed a hazardous waste label on one tanker trailer before the storm drove the inspection participants back into the vehicles. This trailer was labeled as hazardous waste isopropanol and methanol and it was dated June 07, 2022.

Area 17/18 CAA: BASF manages a CAA for accumulating and storing sample vials and their contents in the Area 17/18 CAA. This area is located just inside a warehouse door, and the inspectors observed two 55-gallon drums in this area. The area was observed from a vehicle, and the inspectors did not exit the vehicle due to the heavy downpour of rain. Each drum was labeled

as hazardous waste and identified with flammable liquid and corrosive DOT hazard placards. The area was also equipped with an emergency eyewash station, and danger signs.

IRGAFOS: Tank V03 is a 10,000-gallon tank used to accumulate and store D001, F003 hazardous waste that is generated in the IRGAFOS process. Waste from Tank V03 is offloaded into tanker trailers, which may be staged in a bulk storage CAA before transport to Tanks UT-V-813 or UT-V-814 for use in Boiler #7 or to an off-site hazardous treatment, storage or disposal facility. The inspectors observed this area from a vehicle, but they did not exit the vehicle due to the heavy downpour of rain. Three tanker trailers in this area appeared to be labeled as hazardous waste.

Contingency Plan: The actions that facility personnel should take in response to fires, explosions, floods, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water are described in the facility's Contingency Plan, which was last updated on October 28, 2021. The plan lists the names and emergency telephone numbers for persons identified as emergency coordinators, and describes arrangements agreed to with the local emergency response entities. The plan includes information about emergency equipment at the facility, and it includes an evacuation plan and evacuation map for personnel.

A copy of the Contingency Plan (and its quick reference guide) was most recently submitted to the Washington County Emergency Management Agency, the McIntosh Police Department, the Washington County Sheriff, the Alabama State Troopers, Jackson Memorial Hospital, Washington County Infirmary, the University of South Alabama Health University Hospital, Springhill Medical Center, Mobile Infirmary Medical Center, and Providence Hospital on November 03, 2021.

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 map of the facility showing where hazardous wastes are generated, accumulated and treated; a street map of the facility; 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: The RCRA Permit includes job descriptions for the Area Manager, Plant Production Engineers, Production Resource Coordinators, Operator/Operations Technicians, Unit Maintenance Engineer, and MEI Support Personnel. Each job description includes the qualifications, responsibilities, and duties related to that position. The RCRA Permit also states that all personnel newly assigned to hazardous waste areas are required to complete six hours of classroom instruction and a minimum of fourteen days of on-the-job training prior to assuming duties related to managing hazardous waste. Additional training and refresher training are to be provided as job responsibilities change and when performance indicates the need. All employees are also required to receive a refresher at least annually.

Waste Manifest Records: According to the e-manifest system, BASF shipped tanker trucks containing the following hazardous wastes to Holcim Inc/Geocycle LLC during calendar year 2022:

# of Shipments	Hazardous Waste Codes	Waste Description	Approximate Quantity and Frequency of Shipments	Total Quantity (pounds)
66	D001, F003	Waste flammable liquids (METHANOL, ISO-OCTANOLS)	9 shipments of 40,846 pounds per month	2,695,850
6	D001, F003	Waste flammable liquids (METHANOL, ISOPROPANOL)	2 shipments of 40,577 pounds per month	243,460
16	D001	Waste flammable liquids (METHANOL, XYLENE)	2 shipments of 37,728 pounds per month	603,640
91	D001, F003	Waste flammable liquids (METHYL ACRYLATE, METHANOL)	13 shipments of 42,551 pounds per month	3,872,180
50	D001, F003	Waste flammable liquids (OCTANE, T-BUTANOL)	7 shipments of 41,500 pounds per month	2,075,000
6	D001, F003	Waste flammable liquids (XYLENE, BUTYL AMINE)	2 shipments of 38,988 pounds per quarter	233,930
59	D001, F003, F005	Waste flammable liquids (XYLENE, ISOPROPANOL)	8 shipments of 43,032 pounds per month	2,538,890
10	D001, D036, F003	Waste flammable liquids (Xylenes (mixed isomers))	1-4 shipments of 40,727 pounds every 1-2 months	407,270

The e-manifest system also indicated that BASF manifested hazardous waste to Heritage Thermal (OHD980613541) and to Rineco Chemical (ARD981057870) during calendar year 2022. Three shipments of D001 hazardous waste flammable liquids were sent to Heritage Thermal (OHD980613541): 1,020 pounds in January, 500 pounds in March, and 2,044 pounds in May, and a total of twenty shipments of hazardous waste were shipped to Rineco Chemical (ARD981057870). The following wastes were included in the shipments to Rineco Chemical:

# of Shipments	Hazardous Waste Codes	Waste Description	Total Quantity (pounds)
1	D001, F003	Solids Containing Flammable Liquid (XYLENE, METHANOL, ISOPROPANOL)	7,886
2	D039	Hazardous Waste, Liquid (TETRACHLOROETHYLENE)	5,015
1	D001	Waste Flammable Liquids (ISOPROPANOL)	4,186
1	D001, F003	Waste Flammable Liquids (METHANOL, ISO-OCTANOLS)	4,043
6	D001, D036, F003	Waste Flammable Liquids (XYLENE, METHANOL)	3,837
1	D001	Waste Flammable Liquids (2,4-DI-TERT-BUTYLPHENOL, METHYL ACRYLATE)	2,100
2	D001, F003	Waste Flammable Liquids (METHANOL, XYLENE)	1,907
3	D001, D018, D022, F002, F003, F005	Waste Flammable Liquids, Toxic (TOLUENE, CHLOROFORM)	1,491
3	D001, D036, F003, F005	Waste Flammable Liquids (XYLENE, METHANOL)	945
2	D036	Hazardous Waste, Solid (NITROBENZENE)	829
3	D001, D018, F002, F003, F005	Waste Flammable Liquids, Toxic (TOLUENE, BENZENE)	623
4	D001, D003	Waste Aerosols, Flammable	565
2	D001, D002	Waste Flammable Liquids, Corrosive (SULFURIC ACID, METHANOL)	538
1	D001	Waste Solids Containing Flammable Liquid (METHANOL)	284
1	D001, F003, F005	Waste Flammable Liquids (XYLENE, ISOPROPANOL)	253
1		Solids Containing Flammable Liquid ((OIL, DIESEL FUEL) OIL SPILL MATERIAL)	87

CAA Weekly Inspection Records: The inspectors reviewed records of weekly inspections of the Laboratory CAA since December 2021. The inspection checklist used in this area includes areas to record the number of drums in the area, the condition of the drum, the condition of the labels,

and a description of corrective actions to address concerns. Records include the name of the person conducting each inspection, and the date of each inspection, but they do not include the time of each inspection.

Pursuant to ADEM Admin. Code r. 335-14-3-.01(7)(a)1.(v) [40 C.F.R. § 262.17(a)(1)(v)], which is a condition of the LQG Permit Exemption, an LQG is required to, at least weekly, inspect CAAs looking for leaking containers and for deterioration of containers caused by corrosion or other factors. The LQG must record inspections in an inspection log or summary. He must keep these records for at least three years from the date of inspection. At a minimum, these records must include the date and time of the inspection, the name of the inspector, a notation of the observations made, and the date and nature of any repairs or other remedial actions.

The inspectors reviewed the available records for weekly inspections of the HALS (Area 20) Main CAA in the warehouse between March 23, 2022 and July 06, 2022. These records include a checklist to record observations concerning container labels, condition, closure, evidence of spills or leaks, and the condition of the secondary containment. BASF personnel stated that Heritage personnel conduct duplicate weekly inspections of this CAA.

Boiler #7, Tank UT-V-813 and Tank UT-V-814 Inspections: The inspectors reviewed EEO's available records for daily inspections of Boiler #7, Tank UT-V-813 and Tank UT-V-814, and their associated ancillary equipment between December 2021 and July 2022. The inspection checklists included records of observations concerning the integrity of the tanks, evidence of leaking from the pumps, chips or gaps in the secondary containment, coating on the secondary containment concrete, the presence of liquid in the secondary containment, the level indicators for Tanks UT-V-813 and UT-V-814, the integrity of pressure gauge PSE-56788, and evidence of leaks in the piping, fittings or secondary containment of Boiler #7. Records of daily inspections in this area also included checklists to record observations concerning the truck secondary containment in the unloading area; evidence of leaks from tank trucks; the presence of signage, sample jars and drip pans in this area; the condition of drip buckets; verification that OEL valves are closed, capped and painted; and general housekeeping.

The inspectors also reviewed the June 2022 records of compatibility testing of incoming liquid hazardous waste for use in Boiler #7.

According to Appendix I of the RCRA Permit Application, the air emissions for Boiler #7 and hazardous waste storage tanks UT-V-813 and UT-V-814 are addressed under Section 18 of the facility's Title V Air Permit, Permit No. 108-0003. Per 335-14-29(c)(1) and 40 C.F.R. § 264.1080(b)(7), the air pollutant emissions from the tanks will be controlled with the air permit requirements, and the associated pumps, valves and sampling lines are periodically inspected per the inspection plan to identify leaks and schedule them for repair. The tanks are not subject to RCRA Subpart CC Air Emission standards due to low (<500 ppmw) Volatile Organic concentrations found in the waste stream profiles for the AO and HALS hazardous waste streams managed in these tanks.

RCRA Landvault 02 Inspections: The inspectors reviewed records of weekly inspections of the landfill conducted between February 07 and August 15, 2022. The inspections include documentation of observations concerning erosion, settling, sinkholes, vegetation, and drain ditches for the runoff/runoff of the landvault; concerning perimeter fencing, wash pad, warning signs, and burrowing animals for the security of the landvault; and concerning the piping, detection pots, sump pumps, concrete, french drain wells, and monitoring wells of the leachate system for the landvault.

12) **Closing Conference**

The inspectors concluded the exit meeting at approximately 4:30 p.m. with Mr. Goldman and Ms. Ruffing. During this meeting, the inspectors stated their preliminary conclusions of the inspection.

13) **Signed**

LAURIE DIGAETANO Digitally signed by LAURIE DIGAETANO
Date: 2022.10.03 13:54:12 -04'00'

Laurie Benton DiGaetano
Senior Enforcement and Compliance Specialist

Concurrence

DARYL HIMES Digitally signed by DARYL HIMES
Date: 2022.10.01 23:34:29 -04'00'

for Araceli B. Chavez
Chief
RCRA Enforcement Section