REPORT OF RCRA COMPLIANCE EVALUATION INSPECTION

At

BAYER CROPSCIENCE LP
2500 Wiggins Road
Muscatine, Iowa 52761
563-262-7140

EPA ID Number: IAD005273594

On

February 26, 2024

By

TOEROEK ASSOCIATES, INC.

For

U. S. ENVIRONMENTAL PROTECTION AGENCY
Region 7
Enforcement and Compliance Assurance Division

INTRODUCTION

At the request of the Enforcement and Compliance Assurance Division/Chemical Branch/RCRA Section (ECAD/CB/RCRA) of the U. S. Environmental Protection Agency (EPA) Region 7, Toeroek Associates, Inc., and its subcontractor CLAENE Group (Toeroek team) conducted a hazardous waste compliance evaluation inspection (CEI) at Bayer Cropscience LP (Bayer) at 2500 Wiggins Road in Muscatine, Iowa. The CEI was conducted under the authority of Section 3007 of the Resource Conservation and Recovery Act (RCRA), as amended. The CEI covered hazardous waste generator requirements, used oil management, and universal waste requirements, as applicable. This report and its attachments present the results of the CEI.

PARTICIPANTS

Bayer:
- Terry Larsen – Environmental Engineer
- Sarah Marston – HSE Management Systems Lead
- Mark Mathias –Environmental Lead
- Rakesh Nair –Business Unit Leader HSEQ (Exit briefing only)

Toeroek Team:
- Clifford Nelles, Inspector, 816-213-5192

INSPECTION PROCEDURES

Prior to the CEI at Bayer on February 26, 2024, I conducted a drive-by visual inspection. I did not observe any areas of concern during the drive-by. At approximately 0800 hours, I approached the main entry and explained the purpose of the CEI to the security guard. The security guard contacted Mr. Larsen to inform him of my arrival. Approximately 10 minutes later, Mr. Larsen met me in the main office lobby. I introduced myself and explained the purpose of the CEI. Mr. Larsen stated that Mr. Mathias was working from home and that he would join us later. Mr. Larsen and I adjourned to a conference room where we were met by Ms. Marston. After brief introductions, I conducted an entry briefing with Ms. Marston and Mr. Larsen.

During the entry briefing, I presented my business card and EPA credentials to Ms. Marston and Mr. Larsen. I explained the scope and procedures for the CEI. I explained the facility's right to make confidentiality claims for any or all the information obtained and provided a Notice Regarding Proprietary/Confidential Business Information. I stated that at the conclusion of the CEI, Mr. Larsen would be presented with a Confidentiality Notice (Notice) with which he could make or not make a claim of confidentiality for the facility. I also provided Ms. Marston and Mr. Larsen a copy of U.S. Federal Codes 1001 and 1002, concerning communication of false statements and documents to federal inspectors, and RCRA Section 3007, explaining EPA's inspection authority, both of which they read.

A copy of each of the following documents was left with Mr. Larsen during the inspection:

- RCRA Facility Access Information Sheet
- RCRA Section 3007
- U.S. Federal Codes 1001 and 1002
- Instructions for Responding to a Notice of Preliminary Findings
- Notice Regarding Proprietary/Confidential Business Information

Mr. Larsen declined copies of compliance assistance materials typically provided during CEIs as he already had copies of the materials.

I reviewed the Hazardous Waste Site Info Verification Report (Verification Report) with Mr. Larsen (Attachment 1). I changed the site manager's name under the Certifications section to Roger Gibson to capture the change in facility management; however, the Site Contact section of the Verification Report was not changed as Mr. Mathias remained the designated Site Contact. I made no other changes to the Verification Report.

I conducted the visual inspection of the facility, accompanied by Mr. Larsen. Mr. Mathias participated in the visual inspection upon his arrival at the facility. Following the visual inspection, I reviewed facility records, including hazardous waste manifests with land disposal restriction (LDR) notifications, contingency plan, inspection records, and training documentation. I prepared and completed a site-specific inspection checklist to document my observations.

At the conclusion of the CEI, I conducted an exit briefing with Ms. Marston and Messrs. Larsen, Mathias, and Nair. During the exit briefing, I provided a Receipt for Documents and Samples,

which Mr. Larsen signed, acknowledging receipt (Attachment 2). I provided Mr. Larsen the Notice, which he signed indicating no confidential business information had been provided (Attachment 3). I also provided Mr. Larsen a Notice of Preliminary Findings (NOPF), which he signed to acknowledge receipt (Attachment 4).

A map of the facility obtained during the CEI is included as Attachment 5, and a Google Earth aerial photograph of the facility is included as Attachment 6. The 25 photographs taken during the CEI are included in Attachment 7, of which 23 are described in this report.

FINDINGS AND OBSERVATIONS

1. Facility Description and General Information

Bayer manufactures various herbicides and pesticides for agricultural use. At the facility, Bayer groups related production activities into areas called process units. The process units at the Bayer facility are the CAC Process Unit, Multi-Purpose Unit, A-Unit, Glyphosate Technical Unit, Formulation Unit, Dicamba Unit, Central Lab, and Utilities. The process units have associated process control areas, laboratories, and maintenance facilities. The facility has various tanks for storage of raw materials used in production, pesticide active ingredients produced, and warehouses for finished products.

Bayer is south of the city of Muscatine and is bordered to the east by the Mississippi river. The site is located within a heavy industrial area. Bayer owns approximately 550 acres at the facility site. The 145-acre portion of the site developed for manufacturing was constructed in 1961 as an ammonia terminal; the remaining acreage is rented to farmers and used for rail access. Since 1964 the site has been developed to include chemical manufacturing, pesticide active ingredient manufacturing, and pesticide formulation and packaging. Bayer purchased the facility from Monsanto on June 7, 2018 and merged it into a Bayer U.S.-Crop Science Division.

Bayer operates four less-than-90-day hazardous waste central accumulation areas (HWCAA). These areas include an aboveground storage tank (AST) in the Chloroacetic Acid (CAC) Process unit, an AST in the Multi-Purpose Unit, a container accumulation within the West warehouse, and another container accumulation area in the Dicamba Unit. Bayer also operates approximately 70 satellite accumulation areas (SAA) throughout the facility. Universal waste and used oil are accumulated in the various maintenance areas.

Hazardous wastes generated during routine facility operations include CAC, methanol purge, waste acetochlor, leather goods, water with aniline, waste ink and ink containers, waste aerosol cans, and wastewater treatment lab wastes. The facility considers these wastes to be hazardous based on product and process knowledge. Hazardous wastes are accumulated in less-than-90-day HWCAAs or satellite accumulation containers (SAC), and are collected for offsite incineration.

Nonhazardous wastes generated during routine facility operations include used oil, universal wastes, and general trash. Used oil generated during routine equipment maintenance is accumulated in 55-gallon used oil storage containers. Used oil is managed according to Title 40 *Code of Federal Regulations* (40 CFR) Part 279 and is shipped off site for recycling.

Equipment and facility maintenance generate waste batteries, lamps, and general trash. Waste batteries and lamps are considered universal waste, managed according to 40 CFR Part 273, and shipped off site for recycling. General trash is considered nonhazardous and is accumulated in various containers. General trash is collected for landfill disposal.

Bayer has been operating at its current location since August 1, 2020, and consists of an approximately 145-acre manufacturing site with multiple buildings, tank farms and ancillary facilities. The facility has approximately 563,533 square feet under roof and operates 24 hours per day, 7 days per week. Approximately 460 employees work one of two 12-hour shifts (5:00 a.m. to 5:00 p.m. or 5:00 p.m. to 5:00 a.m.) or one of two 8-hour shifts (7:00 a.m. to 3:00 p.m. or 3:00 p.m. to 11:00 p.m.). Bayer's primary North American Industry Classification System (NAICS) codes are 325320 (Pesticide and other Agricultural Chemical Manufacturing) and 325199 (All other Basic Organic Chemical Manufacturing).

The facility was last inspected by the EPA on March 26-28, 2016, with no findings.

2. RCRA Status

Bayer is identified on the Notification Acknowledgement/Verification Report provided by EPA (Attachment 1) as a large quantity generator (LQG) of hazardous waste (generating more than 1,000 kilograms [kg] of hazardous waste per month). After the CEI, Mr. Larsen emailed a copy of the facility's 2023 Biennial Report to me (Attachment 8). Based on the Biennial Report, the facility generated 1,128,213 pounds of CAC (D028) in 2023 (Attachment 8, Page 4). This corresponds to approximately 94,018 pounds (42,646 kg) of CAC per month. Based on the generation rate of CAC alone, I confirmed that Bayer is operating as a LQG of hazardous waste and inspected the facility as such. I also inspected the facility as small quantity handler (SQH) of universal waste (accumulating less than 5,000 kg of universal waste at any time) and a used oil generator.

3. Waste Streams

This section of the CEI report describes the waste streams generated by the facility, including the facility's waste determinations and waste codes, generation process and rate, management at the facility, and ultimate disposition. The following discussion of waste streams is based on conversations with facility representatives, the visual inspection, and my review of waste shipping documents. Mr. Larsen accompanied me during the visual inspection. Mr. Mathias joined the CEI during the visual inspection of the AST hazardous waste accumulation tank at the Multi-Purpose Unit. All inspection participants were provided a copy of U.S. Federal Codes 1001 and 1002, which they read.

CAC waste is generated from CAC production. The waste is liquid and contains 1,2-dichloroethane. The facility considers the waste to be hazardous (D028) based on product and process knowledge. Based on the 2023 Biennial Report, the facility generates approximately 94,018 pounds (42,735 kg) of CAC per month (Attachment 8, Page 4, GM-1). The waste is pumped to a 10,000-gallon CAC hazardous waste AST upon generation via hard piping from the manufacturing process unit. The waste is then shipped off site to either Clean Harbors

Environmental in Deer Park, Texas, or Ross Incineration Services in Grafton, Ohio, for incineration.

During the CEI, I observed the hazardous waste accumulation AST for CAC (Attachment 7, Photographs 10 and 11). The AST appeared to be structurally sound with no evidence of leaks or spills. The AST was labeled with the words "hazardous waste" and an indication of the nature of the hazard, and held approximately 7,300 gallons of waste. The AST was last emptied on February 6, 2024. I noted no concerns with accumulation of CAC during the CEI.

Methanol purge is generated from the manufacturing of herbicide safener that contains methanol. The facility considers the waste to be hazardous (D001) based on product and process knowledge. Based on the 2023 Biennial Report, the facility generates approximately 8,600 pounds (3,909 kg) of methanol purge per month (Attachment 8, Page 4, GM-3). The waste is pumped to a 10,000-gallon hazardous waste AST in the Multi-Purpose Unit upon generation. The waste is then shipped off-site to either Ross Incineration Services in Grafton, Ohio, or Clean Harbors Environmental in Aragonite, Utah, for incineration.

During the CEI, I observed the hazardous waste accumulation AST for methanol purge (Attachment 7, Photograph 8). The AST appeared to be structurally sound with no evidence of leaks or spills. The AST was labeled with the words "hazardous waste" and an indication of the nature of the hazard, and held approximately 900 gallons of waste. The AST was last emptied on December 14, 2023. I noted no concerns with accumulation of methanol purge during the CEI.

Waste acetochlor, butachlor is sample waste generated in the onsite laboratories. The facility considers the waste to be hazardous (D001, D002) based on product and process knowledge. Based on the 2023 Biennial Report, the facility generates approximately 844 pounds (384 kg) of waste acetochlor, butachlor per month (Attachment 8, Page 6, GM-7). The waste is accumulated in SACs in the laboratories. Full SACs are transferred to a HWCAA in either the West Warehouse or Dicamba unit. The waste is shipped to Ross Incineration Services in Grafton, Ohio, for incineration.

During the CEI, I observed the following SAC in the laboratories:

- One 20-gallon SAC in the CCR Lab #2 that held approximately five gallons of sample waste (Attachment 7, Photographs 1 and 2).
- One 5-gallon SAC in Routine Lab #5 that held approximately one gallon of waste (Attachment 7, Photograph 3).
- One 5-gallon SAC in C1 Process Lab that held approximately one gallon of waste (Attachment 7, Photograph 9).

All SACs observed were labeled structurally sound, closed, labeled with the words "hazardous waste" and an indication of the nature of the hazard, at or near the point of generation, under control of the operator, and did not exceed 55-gallons of waste.

I also observed seven 5-gallon less-than-90-day hazardous waste accumulation containers (HWACs) of waste acetochlor, butachlor in the West Warehouse HWCAA. The HWCAA is described in Section 5 of this report.

Leather goods consist of used personal protective equipment (PPE). The facility considers the waste to be hazardous (D007) based on product and process knowledge. Other hazardous waste codes, such as D001 through D009, are added as appropriate if the PPE is contaminated with characteristic or listed hazardous waste. Based on the 2023 Biennial Report, the facility generates approximately 1,117 pounds (508 kg) of PPE per month (Attachment 8, Page 6, GM-8 and Page 10, GM-19). The facility maintains approximately 24 SACs for PPE throughout the facility. Full PPE SACs are transferred to either the HWCAA in the West Warehouse or the HWCAA in the Dicamba Unit. The PPE is transported to Ross Incineration Services in Grafton, Ohio, for incineration.

During the CEI, I observed a 55-gallon SAC of leather goods in the Multi-Purpose Unit (Attachment 7, Photograph 6). The SAC was near the point of generation, under the control of the operator, labeled with the words "hazardous waste" and an indication of the nature of the hazard, held approximately 25 gallons of waste leather goods, and was closed. I noted no concerns with accumulation of leather goods during the CEI.

Water with aniline is an aqueous waste generated during testing in the central laboratory. The facility considers the waste to be hazardous (U012) based on product and process knowledge because the waste stream may contain unused aniline mixed only with water. Based on the 2023 Biennial Report, the facility generates approximately 174 pounds (79 kg) of water with aniline per month (Attachment 8, Page 13, GM-30). Water with aniline is accumulated in a 20-gallon SAC in the IH Lab. Full SACs are taken to the HWCAA in the West Warehouse and emptied into a 300-gallon HWAC (tote). The waste is transported to Ross Incineration Services in Grafton, Ohio, for incineration.

During the CEI, I observed a 300-gallon HWAC in the West Warehouse HWCAA. The HWCAA is described in Section 5 of this report.

Ink containers/ink cleaning material is generated during the printing process associated with product packaging. The facility considers the waste to be hazardous (D005, D006, D007, D008, D019) based on product and process knowledge. The D001 hazardous waste code may be added as needed if ignitable ink-related is disposed. Based on the 2023 Biennial Report, the facility generates approximately 40 pounds (18 kg) of the waste per month (Attachment 8, Page 16, GM-37). Ink containers/ink cleaning materials are accumulated in 20-gallon SACs in the Dicamba Unit and 55-gallon HWACs in the Dicamba Unit HWCAA. Ink waste is transported to Ross Incineration Services in Grafton, Ohio, for incineration.

During the CEI, I observed two 55-gallon HWACs of in containers/ink cleaning material in the Dicamba Unit HWCAA. The HWCAA is described in Section 5 of this report.

Aerosol cans are generated during maintenance of machinery. The facility considers the waste to be hazardous (D001, D035, U002, U159, U161, U220, U239) based on product and process knowledge. The waste codes appear to reflect over-coding of the waste stream, as the U-listed codes represent ingredients in the aerosol product blends and not sole active ingredients. Based on the 2023 Biennial Report, the facility generates approximately 69 pounds (31 kg) of the waste

per month (Attachment 8, Page 9, GM-16). Aerosol cans are accumulated in approximately 21 SAC throughout the maintenance shops. When full, the SACs are transferred to the HWCAA in either the West Warehouse or the Dicamba Unit. The waste is transported to Ross Incineration Services in Grafton, Ohio, for incineration.

During the CEI, I observed a SAC of aerosol cans in the maintenance shop (Attachment 7, Photograph 5). The 55-gallon SAC was near the point of generation, under control of the operator, labeled with the words "hazardous waste" and an indication of the nature of the hazard, held approximately 15 gallons of empty aerosol cans, and was closed. I noted no concerns with accumulation of aerosol cans during the CEI.

Wastewater treatment lab waste is generated during the testing of wastewater being treated on site. The facility considers the waste to be hazardous (D002) based on product and process knowledge. The facility generates less than five pounds of wastewater treatment lab waste per month. The waste is accumulated in a 5-gallon SAC in the wastewater treatment lab and is transported to Ross Incineration Services in Grafton, Ohio, for incineration.

During the CEI, I observed a 5-gallon SAC in the wastewater treatment plant (Attachment 7, Photograph 22). The SAC was near the point of generation, under control of the operator, labeled with the words "hazardous waste" and an indication of the nature of the hazard, closed, and held approximately two gallons of D002 wastewater treatment lab waste. I noted no concerns with accumulation of wastewater treatment lab waste during the CEI.

Waste lamps are generated by maintenance replacing spent lamps. The facility manages waste lamps as universal waste according to provisions of 40 CFR Part 273. Bayer generates approximately 100 universal waste lamps (UWL) per year. The waste is accumulated in UWL containers and transported to Clean Harbors in El Dorado, Arkansas, for recycling. The last offsite shipment of UWL was January 23, 2024.

During the CEI, I observed two UWL containers in the machine shop (Attachment 7, Photographs 17 and 19). A 20-gallon UWL accumulation container was labeled with the words "universal waste lamps," closed, dated May 24, 2023, and held approximately 15 UWL. A four-foot UWL accumulation container was labeled with the words "universal waste lamps," closed, dated January 23, 2024, and held approximately 25 UWL. I noted no concerns with management of waste lamps during the CEI.

Waste batteries are generated by maintenance replacing spent batteries in equipment (such as radios and pagers). The facility manages waste batteries as universal waste according to provisions of 40 CFR Part 273. Bayer generates approximately 63 pounds of universal waste batteries (UWB) per month. The waste is accumulated in UWB containers and transported to Spring Grove Resource Recovery in Cincinnati, Ohio, for recycling. The last offsite shipment of UWB was January 23, 2024.

During the CEI, I observed a UWB container in the machine shop (Attachment 7, Photograph 18). The 20-gallon container was labeled with the words "universal waste batteries,"

closed, dated May 24, 2023, and held approximately 5 gallons of UWB. I noted no concerns with management of waste batteries during the CEI.

Used oil is generated during maintenance of equipment. The facility manages used oil according to provisions of 40 CFR Part 279. Bayer generates approximately 100 gallons of used oil per year. The waste is accumulated in 55-gallon used oil storage containers and transported to Spring Grove Resource Recovery in Cincinnati, Ohio, for recycling.

During the CEI, I observed a 55-gallon used oil storage container in a machine shop that held approximately 50 gallons of used oil (Attachment 7, Photograph 20). I observed another 55-gallon used oil storage container in a machine shop that held approximately 35 gallons of used oil (Attachment 7, Photograph 21). Both containers were labeled with the words "used oil, and appeared to be in good condition with no apparent leaks or damage. I noted no concerns with management of used oil during the CEI.

General trash consists of office-type refuse, such as waste packaging materials and food containers. The facility has determined that general trash is nonhazardous based on product and process knowledge. General trash is accumulated in several containers throughout the facility and transferred to a 4-cubic-yard roll-off container or compactor. General trash is collected by Republic Services and transported to the Muscatine County Landfill for disposal. I observed accumulation of general trash during the CEI and noted no deficiencies.

4. Required Response Equipment and Hazard Management

Per 40 CFR 262.17(a)(6) referencing Subpart M, a LQG must operate to minimize the possibility of a fire, explosion, or spill, and must maintain emergency response equipment. During the visual inspection, I observed spill response equipment such as mats, absorbent materials, shovels, and brooms, as well as the presence and availability of fire extinguishers. I determined that the spill and fire response equipment was adequate for the hazardous wastes generated and accumulated at the facility.

5. Container Accumulation Areas

Two HWCAAs are located in the West Warehouse and the Dicamba Unit.

During the CEI, I observed eight HWACs in the West Warehouse HWCAA (Attachment 7, Photographs 12 through 16). Seven of the HWACs were 5-gallon containers of waste acetochlor, butachlor. The HWACs were structurally sound and closed. However, three of the HWACs were turned such that the labeling was not visible (Attachment 7, Photographs 12 and 13). Therefore, these three HWACs were not marked with accumulation start dates that were visible for inspection, as required by 40 CFR 262.17(a)(5)(i)(C) **(NOPF No. 1)**. I provided compliance assistance regarding HWAC labeling. During the CEI, employees of Bayer turned the three HWACs so labeling was visible for inspection (Photographs 14 and 15). All HWACs were labeled with the words "hazardous waste," an indication of the nature of the hazard, and an accumulation start date. The oldest accumulation start date was January 25, 2024.

The other HWAC was a 300-gallon tote of water with aniline (U012) (Photograph 16). The tote was labeled with the words "hazardous waste" and an indication of the nature of the hazard, closed, dated February 9, 2024, and held approximately 125 gallons of waste.

The West Warehouse HWCAA was maintained with adequate aisle space. I asked Mr. Larsen if the West Warehouse HWCAA was inspected. He stated that the HWCAA inspections are conducted on a weekly basis by the area operator and that the operator maintains an inspection log. I reviewed three years of inspection logs and noted no missed inspections. Copies of the log for the last three inspections are included in Attachment 9.

During the CEI, I observed two HWACs in the Dicamba Unit HWCAA that held ink containers/ink cleaning material waste (Attachment 7, Photographs 24 and 25). The HWACs were labeled with the words "hazardous waste" and an indication of the nature of the hazard, closed, and dated. The oldest accumulation start date was January 4, 2024.

I asked Mr. Larsen if the Dicamba Unit HWCAA was inspected. He stated that it was inspected on a weekly basis by the area operator and that he maintains an inspection log. I reviewed the inspection log for the last three years and noted no missed inspections. A copy of the inspection log for the last three inspections is included as Attachment 10.

I asked Mr. Larsen how a worker would summon emergency assistance at the two HWCAA. He stated that all of the workers who handle hazardous waste carry a two-way radio. In addition, a telephone is present in the HWCAAs.

6. Manifests and Biennial Report

Bayer generated manifests for 164 hazardous waste shipments from February 26, 2021, to February 26, 2024. Most of the shipments were tanker trucks. During the CEI, I reviewed manifests and LDR notifications for five shipments in 2021, five in 2022, five in 2023, and five in 2024. Copies of the manifests for hazardous wastes shipped from January 4, 2024, through January 25, 2024, are included in Attachment 11 as examples. I noted no deficiencies during my review of manifests.

The Hazardous Waste Biennial Report for 2023 was submitted on February 27, 2024 (Attachment 8).

7. Hazardous Waste Tanks

The hazardous waste AST identified as the CAC Waste Tank is located at the east end of the CAC Unit (Attachment 5). CAC waste is transferred into the tank via hard piping from the solvent separation column in the CAC Unit. The CAC waste is then transferred from the tank to truck trailer tankers via hard piping and a dedicated transfer rack near the CAC Waste Tank. The AST has a capacity of 12,500 gallons and is within secondary containment. Bayer inspects and assesses the condition of the tank on an ongoing 5-year assessment cycle. The tank was last assessed on July 21, 2023. At the time of the CEI, the AST was structurally sound, labeled with the words "hazardous waste" and an indication of the nature of the hazard, and held approximately 9,125 gallons of CAC waste. (Attachment 7, Photographs 10 and 11). The tank

was last RCRA-emptied on February 6, 2024. I noted no deficiencies with the condition and management of the hazardous waste AST and secondary containment during the CEI.

The hazardous waste AST identified as the Multi-Purpose Unit Tank is located outside at the southeast area of the tank storage for the Multi-Purpose Unit and contains only methanol purge waste. When concentrations of impurities in the methanol used in the processes increases to the point that the methanol is no longer useful, it is pumped in 400-gallon batch transfers into the Multi-Purpose Unit Tank to purge the impurities. The waste is transferred into the tank via hard piping from three locations in the Multi-Purpose Unit. The purge is transferred from tank to truck trailer tankers via hard piping and a transfer rack located near the Multi-Purpose Unit. At the time of the CEI, the AST was labeled with the words "hazardous waste" and an indication of the nature of the hazard, and held approximately 900 gallons of methanol purge (Attachment 7, Photograph 8). The AST was last assessed on November 24, 2020, and was last RCRA-emptied on December 14, 2023. I noted no deficiencies with the condition and management of the hazardous waste AST and secondary containment during the CEI.

I asked Mr. Mathias if the tanks are inspected. He stated that the tanks are inspected on a daily basis by the area operator and that an inspection log was maintained. I reviewed the inspection logs for the last three years and noted no deficiencies or missed inspections. Copies of representative inspection logs for the CAC and the Multi-Purpose ASTs are included in Attachments 12 and 13.

8. Preparedness and Prevention Plan

LQG facilities are required by 40 CFR 262.17(a)(6) to meet the emergency preparedness, prevention, and procedures requirements including documented arrangements with response agencies. According to Mr. Mathias, Bayer is the subject of a regular inspection by the Muscatine Fire Department hazardous materials team. He explained the fire department is shown the layout of the facility, the location of the hazardous waste HWCAAs, and other facility features during inspections.

The facility's Contingency Plan was last updated May 2017. I reviewed the Contingency Plan against the content requirements of 40 CFR 262.261. I noted the Contingency Plan included a description of actions needed to respond to fires, explosions, and spills, a description of arrangements with the local emergency agencies, a list of emergency response equipment (including capabilities and location), and a complete evacuation plan with a description of the signals used, as required by 40 CFR 262.17(a)(6) Referencing 262.261(a, c, e, and f). The Contingency Plan included telephone numbers of the primary emergency coordinator, Mr. Mathias, and the alternate emergency coordinators, as required by 40 CFR 262.17(a)(6) Referencing 262.261(d). A copy of the Contingency Plan is included as Attachment 14. I did note the Contingency Plan had the former name of the facility (Monsanto); however, the content of the plan was still applicable to current operations at the facility.

The Contingency Plan also included a Quick Reference Guide, as required by 40 CFR 262.17(a)(6) Referencing 262.262(b). A copy of the Quick Reference Guide is included as Attachment 15. I noted no deficiencies with the facility's emergency preparedness, prevention,

and procedures during the CEI, including content of the Contingency Plan and Quick Reference Guide.

9. Personnel Training Requirements

Personnel training is required by LQG regulations specified in 40 CFR 262.17(a)(7) to ensure that employees are thoroughly familiar with proper waste handling procedures relevant to their responsibilities. Bayer provides annual training to personnel who handle and manage hazardous waste. Copies of the training records for Mr. Larsen are included in Attachment 16.

I reviewed the written job descriptions for production technician, EHS Generalist, and Environmental Engineer during the CEI and noted that the job descriptions appeared to meet requirements of 40 CFR 262.17(a)(7)(iv). A job description for HSE Manager including the training requirements is in Attachment 17.

10. Air Emissions: 40 CFR Part 265 Subparts AA, BB, CC

EPA regulations in 40 CFR Part 265, Subparts AA, BB, and CC apply to LQGs. If a LQG manages hazardous waste with an organic concentration greater than 10 parts per million by weight (ppmw), the standards specified in Subpart AA apply to hazardous waste air emissions from certain process vents. A process vent used in distillation, fractionation, solvent extraction, thin-film evaporation, air stripping, or steam stripping is regulated by Subpart AA. Bayer is not subject to the Subpart AA regulations because the facility does not have any of the process vents listed above.

If a LQG has equipment that contains or contacts hazardous waste composed of 10 percent or greater organics by weight, the facility is subject to Subpart BB standards for inspection and monitoring of the equipment. Bayer is subject to the Subpart BB regulations because it does have equipment that contains or comes in contact with hazardous waste. I noted no concerns with inspection and monitoring of equipment per the Subpart BB light liquid service requirements.

The standards found in Subpart CC apply to LQGs that manage hazardous waste in containers with organic compounds (VOC) concentration that exceeds 500 ppmw. The Subpart CC standards are applicable because the facility accumulates hazardous waste that contains VOCs in 55-gallon hazardous waste accumulation containers. During the CEI, I determined that Bayer meets the Subpart CC requirements for containers by using Container Level 1 controls (hazardous waste accumulation containers smaller than 122 gallons that are Department of Transportation [DOT]-approved). I noted no concerns with management of hazardous waste per the Subpart CC air emissions requirements.

11. Summary of Preliminary Findings

In summary, as part of the CEI, I made the following preliminary finding:

(1) Failure to mark three HWACs with accumulation start dates that were visible for inspection as required by 40 CFR 262.17(a)(5)(i)(C) (**NOPF No. 1**)

Other than items specifically noted in the narrative, I observed no additional issues. However, further review by EPA may change or add to my findings.

Clifford A. Nelles Digitally signed by Clifford A. Nelles Date: 2024.04.04 17:01:21 -05'00' Date:_____

Clifford A. Nelles, Inspector
CLAENE Group

Whisnant, Amber Digitally signed by Whisnant, Amber Date: 2024.04.18 18:00:18 -05'00' Date: _____

Amber Whisnant, Section Chief
ECAD/CB/RCRA, EPA Region 7

Attachments:

1. Hazardous Waste Site Info Verification Report for Inspector (2 pages)
2. Receipt for Documents and Samples (1 page)
3. Confidentiality Notice (1 page)
4. Notice of Preliminary Findings (1 page)
5. Site Map (1 page)
6. Google Earth Photograph of Facility (1 page)
7. Photographic Documentation (Photolog and 25 Photographs) (16 pages)
8. Copy of 2023 Biennial Report Summary (20 pages)
9. Copy of Inspection Log for West Warehouse (1 page)
10. Copy of Inspection Log for Dicamba (1 page)
11. Copies of Manifests and LDR for shipments dated January 4, 2024, January 10, 2024, and January 23, 2024 (7 pages)
12. Copies of Inspection Logs for CAC Hazardous Waste Storage Tank (4 pages)
13. Copies of Inspection Logs for Multi-Purpose Hazardous Waste Storage Tank (4 pages)
14. Copy of RCRA Contingency Plan (13 pages)
15. Copy of Quick Reference Guide (8 pages)
16. Copies of Training Records for Terry Larsen (3 pages)
17. Copy of Job Description for HSE Manager (4 pages)