

REPORT OF RCRA COMPLIANCE EVALUATION INSPECTION

At

Plaze Inc
1000 Integram Drive
Pacific, Missouri 63069

EPA ID Number: MOD985809243

On

November 8 – 9, 2022

By

U.S. ENVIRONMENTAL PROTECTION AGENCY
Region 7

Enforcement and Compliance Assistance Division

1.0 INTRODUCTION

I performed a Resource Conservation and Recovery Act (RCRA) compliance evaluation inspection (CEI) at Plaze Inc (Plaze) located at 1000 Integram Drive, Pacific, Missouri, on November 8 – 9, 2022. I conducted the RCRA inspection under the authority of RCRA Section 3007(a), as amended. The inspection was a joint inspection with the Missouri Department of Natural Resources (MoDNR). During the inspection, I collected the information and data necessary to determine compliance with the applicable RCRA regulatory and statutory requirements. This report and attachments present the results of the inspection. Plaze was previously inspected by the MoDNR on August 20 – 21, 2019. The findings of MoDNR CEI of Plaze were:

- Out of date notification information.
- Incomplete hazardous waste determinations.
- Missing accumulation start date on hazardous waste containers.
- Satellite accumulation containers not closed.
- Satellite accumulation containers not labeled.
- Personnel training.
- Contingency plan content and distribution.

2.0 PARTICIPANTS

Plaze

Adam Micich, Environmental Health and Safety Manager
David Schuenemeyer, Chemical Handler
Jeff Ulrich, Plant Manager
Gary Myers, Hazardous Chemicals Manager
Jessica Nolan, Senior Vice-President and General Counsel (exit conference)
Tariq Beazer, Senior Environmental Health and Safety Manager (exit conference)
Lucas Huston, Production Manager (exit conference)

MoDNR

Brandon Backus, Environmental Program Manager

Cody Fanter, Environmental Program Analyst

Environmental Protection Agency Region 7

Kenneth Herstowski, Environmental Engineer, ECAD/CB/RCRA (Lead Inspector)

3.0 INSPECTION PROCEDURES

Prior to arriving at Plaze, I rallied with Messrs. Backus and Fanter at an offsite location. At about 08:16, we arrived at Plaze. A drive-by visual observation was completed from Integram Road of the north side of the facility with no findings. We proceeded to the Plaze security checkpoint where the security personnel on duty logged our names, vehicles, and arrival time. Security personnel directed us to a visitor parking area and entrance located at Building B. Upon entering Building B, we identified ourselves to the receptionist and asked to see Mr. Wingert as the facility contact. We were advised the Mr. Micich was now the facility contact whom the receptionist telephoned. Mr. Micich arrived shortly thereafter and greeted Messrs. Backus, Fanter and me. We introduced ourselves to Mr. Micich and explained the purpose of the visit was to conduct a RCRA CEI. We adjourned to a conference area on a mezzanine level of Building B where we were joined by Messrs. Ulrich and Schuenemeyer. I then proceeded with the entrance conference.

Messrs. Backus, Fanter and I presented our identification and credentials to those assembled. I explained the purpose and procedures of the RCRA CEI. I provided copies of RCRA Section 3007 to Mr. Ulrich which provides the EPA's inspection authority, Title 18 United States Code, Sections 1001 and 1002, which provides for penalties if false and/or misleading information is provided to Federal representatives, and for the possession and use of fraudulent documents. The assembled personnel were made aware of Plaze's confidentiality rights and were informed that a Confidentiality Notice would be provided at the end of the inspection for them to make a confidential business information claim. Mr. Ulrich provided verbal consent to proceed with the CEI. Mr. Micich acted as the primary facility representative.

I followed the inspection procedures discussed in the RCRA CEI Standard Operating Procedure (No. 2321.1D), unless noted differently. I completed checklists and other inspection related documents and collected photocopies that are included as attachments to this report. I collected 37 photographs with a digital camera and prepared a photographic log (attachments 1 and 2). I monitored for volatile organic emissions with a Thermo Fisher Scientific TVA2020 organic vapor analyzer utilizing a flame ionization detector (hereafter referred to as the "EPA FID"). Mr. Backus viewed potential volatile emission points with an optical gas imaging camera (a FLIR model GF320 – hereafter the "EPA Gas Imaging Camera"). I obtained copies of records from the facility as detailed in the sections that follow. During the inspection, discussions consisted of the facility operations, wastes generated, waste management practices, and an evaluation of RCRA air emissions compliance. I conducted a visual inspection of the areas noted below.

I obtained aerial photographs of the facility using Google Earth (attachment 3). A layout of the operations in Building B was obtained (attachment 4). A Notice of Preliminary Findings (NOPF) was issued to the facility at the conclusion of the inspection (attachment 5). Documents and records were collected during the inspection and a Receipt for Documents and Samples was prepared (attachment 6). A Confidentiality Notice in which the facility did not claim any records or documents as confidential business information was prepared (attachment 7). A site-specific inspection checklist was prepared and completed.

November 8, 2022

At about 08:16, Messrs. Backus, Fanter and I arrived at Plaze as described above. During the entrance conference I collected general facility information, discussed waste generation, and reviewed the scope of the records review. Following the entrance conference Messrs. Backus, Fanter and I conducted a visual inspection of the facility. Messrs. Micich and Schuenemeyer (and later joined by Mr. Myers) accompanied us during the visual inspection. The areas reviewed included:

- Building A Satellite Accumulation Area
- Building B Filling Lines and Maintenance Area
- Building B Container Storage Area
- Building C North and South Mixing Rooms
- Tank Farm

Following the visual inspection, Messrs. Backus, Fanter and I reviewed requested records (attachment 8).

After completing the records review, I summarized my observations from the visual inspection and records review with Messrs. Micich, Myers, and Schuenemeyer after which Messrs. Backus, Fanter and I departed.

November 9, 2022

I arrived at Plaze at 08:51 and proceeded to the Plaze security checkpoint where the security personnel on duty logged my name, vehicle, and arrival time. I parked in the visitor parking area and entered Building B. I checked in with the receptionist who called Mr. Micich who arrived a short time later. Mr. Micich and I proceeded to a conference room for the exit conference. Present in the conference room was Messrs. Huston and Schuenemeyer. Mr. Micich initiated a video conference call for those in the conference room and Ms. Nolan, Messrs. Beazer, Myers, and Backus. I reviewed the purpose and scope of the CEI. I provided Mr. Micich with a Confidentiality Notice and a Receipt for Documents and Samples both of which he signed as acknowledgement of receipt. I provided Mr. Micich with a copy of the Confidentiality Notice (yellow copy of the completed carbonless transfer set) and Receipt of Documents and Samples (yellow copy of the completed carbonless transfer set). I reviewed and discussed my findings detailed in a NOPF. I provided Mr. Micich a NOPF which he signed as acknowledgement of receipt. I provided a copy of the NOPF with "Instructions for Responding to a NOPF" printed on the reverse of the copy to Mr. Micich (yellow copy of the completed carbonless transfer set). I discussed providing a response to the NOPF. I described my process and timeline for converting field and record review observations into an inspection report. I provided and discussed compliance assistance information.

Upon my return to the office following the inspection, I emailed Mr. Micich a NOPF with an additional finding regarding universal waste lamps that was omitted from the NOPF provided during the exit conference on November 9, 2022. I emailed Mr. Micich a NOPF with an addition finding regarding missing tank inspections on November 16, 2022.

4.0 FINDINGS AND OBSERVATIONS

4.1 General Information/Facility Description

PLZ Corp manufactures, packages, and distributes a comprehensive line of contract fill, branded, and private-label aerosol and liquid products. PLZ Corp operates at 17 locations in the United States to formulate, blend,

fill, and package more than 2,500 branded and private-label products. PLZ Corp dates back to 1939 with the founding of Plaze Incorporated by John Ferring III with the invention of Plastic Auto Glaze Polish.

The Plaze facility in Pacific, Missouri, was constructed in 2011. Two other Plaze facilities are nearby in St. Clair, Missouri. Plaze fills and packages for distribution aerosol products such as lubricants, cleaners, insecticides, disinfectants, and adhesives. Plaze is located on approximately 25 acres with the street address of 1000 Integram Drive in a light industrial area. South of Plaze is Brush Creek and a class 1 railroad line. Northeast of Plaze is the Pacific Highschool and the nearest residential area is approximately 0.42 miles to the east¹ (attachment 3).

The following building summary is from the site description provided by Plaze (attachment 9).

Building A is approximately 139,00 square feet and serves as the aerosol warehouse and contains such features as raw materials/empty cans/caps/domes, finished goods (aerosol products), and shipping office/truck docks.

Building B is approximately 108,000 square feet and serves as the main manufacturing facility. It includes the production lines, empty can storage and staging, packaging materials/carton/valves, reverse osmosis equipment, boiler room, manufacturing laboratory, and mezzanine with engineering offices, compressor, and electrical equipment.

Building C is approximately 24,000 square feet and serves as the chemical warehouse and batching.

Building DC is approximately 160,000 square feet distribution warehouse and includes finished good warehouse and two offline labeling production lines.

Plaze employs approximately 226 onsite personnel who work two staggered 10-hour shifts and three staggered 12-hour shifts to provide 24-hour coverage Monday through Thursday. One 12-hour shift is staffed on Friday, Saturday, and Sunday.

The word “aerosol” also refers to the dispenser or package used to change the ingredient inside the container into an aerosol. Although ‘aerosol’ refers to a finished product, it is made up of four components: the container, the valve, the actuator, and the cap. The container can be made from different materials but is usually made of tin-plated steel or aluminium. The valve operates as a non-visible component to keep the container airtight, clean, and hygienic and regulates the flow of the product during use. The actuator or button controls the angle, amount, shape, and the fineness of the product spray. The cap functions as a seal and keeps the product contained until it is used. A propellant gas or a mixture of propellant gases which represents 5% to 90% of the product. These can be compressed gases or liquefied gases. The propellant gas exerts pressure on the active product and solvent solution, forcing the liquid up through the dip tube and through the valve when opened, allowing the product to be expelled together with the propellant in the form of droplets, foam, paste or powder.²

Plaze operated six filling lines to fill and package aerosol products for commercial, industrial and consumer uses. The product liquids filled into the cans are either shipped to Plaze in bulk or formulated on site. The product is pumped from above ground storage tanks or mixing tanks to a filling line via above ground piping where the cans are filled, the caps containing the dip tube, valve and actuator are crimped to the can, the can pressurized with the propellant, and packaged for distribution. Alternatively, products can be received or placed in bulk containers which are moved to the filling line where the product in the container is pumped to the filling

¹ Distances and areas estimated using Google Earth Pro

² Summarized from <https://www.aerosol.org/about-aerosols/>

line. The aerosol components (can, valve, cap, etc.) are manufactured off site. The cans may be preprinted with the product labeling, or the labeling may be applied at the filling line.

4.2 RCRA Status

I reviewed with Mr. Micich the Notification Acknowledgement/Verification Report (attachment 10). Mr. Micich indicated that he is the new site contact. Mr. Backus and I provided compliance assistance regarding updating the facility contact information. The Notification Acknowledgement/Verification Report indicates that Plaze is a large quantity generator of hazardous waste. Review of the Plaze 2021 Biennial Report shows 4,566,101 pounds of hazardous waste generated. The EPA e-Manifest system shows that Plaze has shipped 2,877,614 pounds of hazardous waste in 2022 (information as of October 18, 2022). I asked Mr. Micich if Plaze generates universal waste or used oil to which he replied they manage universal waste lamps on site.

Therefore, I inspected Plaze as a large quantity generator and small quantity handler of universal waste.

4.3 Waste Streams and Management

The following summarizes the major hazardous wastes generated by Plaze as reported in the 2021 Biennial Report. The discussion notes which wastes were observed during my CEI.

Waste Flammable Liquids

Plaze generates Waste Flammable Liquids from product formulation, cleaning of mixing tanks, line flushing, discard of off-specification products, and emptying of uncapped aerosol cans. Line flushing is the use of new product or a solvent to push (flush) the previous product from piping and hoses. The line flush is comprised of the old product flushed from the piping and hoses plus a portion of the new product or the spent solvent. The waste is primarily generated at the filling lines in Building B where it is accumulated in satellite accumulation containers near the point of generation and in the mixing rooms in Building C where it is transferred into containers. Containers of Waste Flammable Liquids are moved to the Container Storage Area at Building B for accumulation on site for less than 90 days. The containers are subsequently moved to the South Mixing Room in Building C to the location of a waste transfer appliance where the contents are transferred into the Hazardous Waste Tank. Alternatively, the container can be moved directly to the waste transfer appliance and the contents transferred to the Hazardous Waste Tank. Plaze has determined that Waste Flammable Liquids have EPA waste codes D001, D035, D039, D040, F002, F003, and F005.

The Waste Flammable Liquids in the Hazardous Waste Tank are shipped off site in semi-truck cargo tanks for hazardous waste treatment. In 2021, Plaze shipped 2,628,718 pounds of Waste Flammable Liquids to BuziUnicem dba Lone Star Industries, Inc., Cape Girardeau, Missouri, MOD981127319 for energy recovery (EPA management code H050), 42,683 pounds to Lone Star Greencastle WDF, Greencastle, Indiana, IND006419212, for energy recovery (EPA management code H050), and 27,872 pounds to AES Environmental, LLC, Calvert City, Kentucky, KYD985073196 for storage, bulking and/or offsite transfer (EPA management code H141). I obtained a waste profile for the Waste Flammable Liquids shipped to BuziUnicem (attachment 11).

Waste Aerosols

Plaze generates Waste Aerosols consisting of capped or capped and pressurized aerosols primarily during the filling in Building B. The waste is generated at the filling lines in Building B where it is accumulated in satellite accumulation containers near the point of generation. Mr. Myers stated that the cans have the product liquid

inside and have been capped or capped and pressurized. Mr. Myers stated that aerosols that have not been capped are to have the contents drained into the Waste Flammable Liquids satellite accumulation containers. Plaze has determined that Waste Aerosols have EPA waste code D001, D035, D039, and D040. In 2021, Plaze shipped 1,458,337 pounds of Waste Aerosols off site to Giant Resource Recovery – Attalla, Inc., Attalla, Alabama, ALD070513767, for fuel blending (EPA management code H061), and 81,550 pounds to AES Environmental, LLC, Calvert City, Kentucky, KYD985073196 for storage, bulking and/or offsite transfer (EPA management code H141).

Waste Flammable Solids

Plaze generates Waste Flammable Solids consisting of rags, adsorbent mats, pads, booms, and loose adsorbents primarily from the cleanup of product leaks and spills. The waste is accumulated in various sized metal oily waste safety cans with a foot pedal actuated lid satellite accumulation containers near the point of generation. Mr. Schuenemeyer described that the safety cans are emptied daily and contents placed into a 55-gallon hazardous waste accumulation container. The filled and partially filled 55-gallon containers are accumulated in the Container Storage Area at Building B. When a sufficient quantity of Waste Flammable Solids is collected in the 55-gallon container, the waste is compacted into another 55-gallon container. Plaze has determined that Waste Flammable Liquids have EPA waste codes D001, F003, and F005. In 2021, Plaze shipped 3,200 pounds of Waste Flammable Solids off site to Tradebe Treatment and Recycling of WI LLC, Milwaukee, Wisconsin, WID988580056, for storage, bulking and/or offsite transfer (EPA management code H141).

Waste Aerosol Retains

Plaze retains aerosols filled on site from each production lot for possible future quality analysis. The aerosols are retained for a minimum of three years after which they are deemed waste and disposed. The Waste Aerosol Retains are accumulated in approximately 1-cubic yard covered plastic bins in the Container Storage Area at Building B. Plaze has determined that Waste Aerosol Retains have EPA waste codes D001, D002, D035, D040, U002, and U031. In 2021, Plaze shipped 4,724 pounds of Waste Aerosol Retains to AES Environmental, LLC, Calvert City, Kentucky, KYD985073196 for storage, bulking and/or offsite transfer (EPA management code H141) and 1,930 pounds to Envirite of Illinois Inc, Harvey, Illinois, ILD000666206, for storage, bulking and/or offsite transfer (EPA management code H141).

Sodium Hydroxide Solutions

Plaze generates Sodium Hydroxide Solutions from the cleaning of mixing tanks, filling, and line flush of caustic cleaning products. The Sodium Hydroxide Solutions are accumulated in 55-gallon containers in the Container Storage Area at Building B. Plaze has determined that Sodium Hydroxide Solutions have EPA waste code D002. In 2021, Plaze shipped 30,053 pounds to AES Environmental, LLC, Calvert City, Kentucky, KYD985073196 for neutralization (EPA management code H121) and storage, bulking and/or offsite transfer (EPA management code H141), and 1,930 pounds to Tradebe Treatment and Recycling of WI LLC, Milwaukee, Wisconsin, WID988580056, for storage, bulking and/or offsite transfer (EPA management code H141). I obtained a waste profile for the Sodium Hydroxide Solutions shipped to Tradebe (attachment 12). Mr. Myers stated that the Sodium Hydroxide Solution is now planned to be shipped as a product for pH adjustment during wastewater treatment to Renew Chemical, Inc., St. Louis, Missouri, where it will be used (attachment 13).

4.4 Hazardous Waste Accumulation

4.4.1 Building B Container Storage Area

Messrs. Backus, Fanter and I visually inspected the Container Storage Area at Building B on November 8, 2022, accompanied by Messrs. Micich and Schuenemeyer (page 4, attachment 3). The Container Storage Area is an extension of Building B that is open on the south end to a paved area at the rear of the building. I observed fire extinguishers and a spill kit available. Mr. Schuenemeyer stated that employees working in the area have two-way radios with which they can summon assistance.

I observed three palletized containers of aerosol cans, one plastic approximately 1-cubic yard covered bin of aerosol cans, and four containers of rags/adsorbents. Outside in the paved area south of the Container Storage Area, I observed ten 1-cubic yard covered bin of aerosol cans. The accumulation start dates on the containers were all within the 90-day time frame for onsite accumulation.

NOPF 3 – 40 CFR 265.1087(c)(3)/40 CFR 265.173(a): Level 1 containers of hazardous waste not closed. 10 CSR 25-5.262(1) → 40 CFR 262.34(a)(1)(i)

The State of Missouri has adopted by reference the EPA's requirements for generators of hazardous waste found at 40 Code of Federal Regulations (CFR) Part 262³. The regulations at 40 CFR 262.34, Accumulation Time, allow generators to accumulate hazardous waste on site for 90 days or less without a permit as long as the generator complies with certain applicable requirements⁴. 40 CFR 262.34(a)(1)(i) requires compliance with, in pertinent part, "...the applicable requirements of subparts I, AA, BB, and CC of 40 CFR part 265..." 40 CFR 265.1087(c)(3)⁵ requires control of volatile organic air emissions from containers (see discussion in Section 4.8.1 for the discussion of this finding regarding air emissions from containers). The requirement at 40 CFR 265.173(a)⁶ requires "*A container holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste.*"

I observed four 55-gallon containers of Waste Flammable Solids at the Container Storage Area. Waste Flammable Solids are collected from satellite accumulation locations in an open top design 55-gallon metal container which is brought to the Container Storage Area. When a sufficient quantity of Waste Flammable Solids is collected, the waste is compacted into another 55-gallon container. The container in the rear on the left with the metal lid was was a filled and compacted 55-container which was closed with the metal drum lid and locking ring, in good condition, labeled "Hazardous Waste," and dated with an accumulation start date of November 1, 2022.

The remaining three of the four observed Waste Flammable Solids containers were provided with plastic closure lids as the contents of these containers would be compacted into another container (photograph 12, attachment 1). The two containers in the foreground were filled and the container in the rear on the right was one-quarter filled. The plastic lids on the two containers on the right were upside down and did not cover the contents of the Waste Flammable Solids in the containers. The plastic lid on the container in the lower left was not completely in place as it was not "snapped" down.

³ See 10 Code of State Regulations (CSR) 25-5.262(1), Standards Applicable to Generators of Hazardous Waste, incorporating by reference the requirements in 40 CFR Part 262, July 1, 2013.

⁴ The requirements for containers are found at 40 CFR 262.34(a), et seq.

⁵ 40 CFR Part 265, Subpart CC, Air Emission Standards for Tanks, Surface Impoundments, and Containers

⁶ 40 CFR Part 265, Subpart I, Use and Management of Containers

See Sections 4.8.1 for the discussion of air emission requirements for these containers.

4.4.2 Building C North Mixing Room

Messrs. Backus, Fanter and I visually inspected the North Mixing Room on November 8, 2022, accompanied by Messrs. Micich, Myers, and Schuenemeyer (page 3, attachment 3). I observed a 350-gallon intermediate bulk container (referred to as a “tote” by Plaze) used to manage Waste Flammable Liquids removed from the mixing tanks in the North Mixing Room. The container is moved to the South Mixing Room where a waste transfer appliance is located to transfer the waste from the container to the Hazardous Waste Tank. The container was empty at the time of my visual inspection. See the discussion in Section 4.8.2 regarding this container.

4.4.3 Building C South Mixing Room

Messrs. Backus, Fanter and I visually inspected the South Mixing Room on November 8, 2022, accompanied by Messrs. Micich, Myers, and Schuenemeyer (page 3, attachment 3). I observed a 350-gallon intermediate bulk container (referred to as a “tote” by Plaze) used to manage Waste Flammable Liquids removed from the mixing tanks in the South Mixing Room. A waste transfer appliance located in the South Mixing Room is used to transfer the waste from the container to the Hazardous Waste Tank.

NOPF 4 – 40 CFR 265.1087(d)/40 CFR 265.173(a): Level 2 containers not closed and do not meet DOT standards. 10 CSR 25-5.262(1) → 40 CFR 262.34(a)(1)(i)

The State of Missouri has adopted by reference the EPA’s requirements for generators of hazardous waste found at 40 CFR Part 262. The regulations at 40 CFR 262.34, Accumulation Time, allow generators to accumulate hazardous waste on site for 90 days or less without a permit as long as the generator complies with certain applicable requirements. 40 CFR 262.34(a)(1)(i) requires compliance with, in pertinent part, “...the applicable requirements of subparts I, AA, BB, and CC of 40 CFR part 265...” 40 CFR 265.1087(c)(3) requires control of volatile organic air emissions from containers (see discussion in Section 4.8.2 for the discussion of this finding regarding air emissions from this container). The requirement at 40 CFR 265.173(a) requires “*A container holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste.*”

I observed the lid for the 350-gallon intermediate bulk container was not in place covering the contents of the container and did not have the locking ring in place (photograph 29, attachment 1). I observed the container had been modified to include an additional opening in which an open dip tube was placed for transferring Waste Flammable Liquids into and out of the container (photograph 28, attachment 1). The observed container was approximately two-thirds filled with Waste Flammable Liquids. At the end of the first day of the inspection, Mr. Myers stated that the container had been emptied and would no longer be used to accumulate hazardous waste and Plaze would instead pump the Waste Flammable Liquids directly from the mixing tank to the Hazardous Waste Tank.

See Sections 4.8.2 for the discussion of air emission requirements for this container.

4.4.4 Hazardous Waste Tank

Plaze utilizes a tank for the accumulation of Waste Flammable Liquids (photographs 34 – 36, attachment 1). The tank is an above ground tank located in the southwest corner of the Tank Farm west of Building A (page 2, attachment 3). The tank has a nominal capacity of 9,000 gallons and is designed and fabricated to Underwriters Laboratories UL-142 specifications (attachment 14). The tank has an external sight gauge with which to

measure the level of hazardous waste in the tank (photograph 34, attachment 1). I obtained the initial hazardous waste tank certification (attachment 15). The condition of the tank was last assessed in 2017 (attachment 16). The Hazardous Waste Tank is within a group of sixteen 9,000-gallon vertical storage tanks located within a concrete vault which provides secondary containment for the tanks. Piping for the tanks including the Hazardous Waste Tank are located in an above ground pipe rack leading from the Tank Farm into Building A.

Messrs. Backus, Fanter and I visually inspected the Hazardous Waste Tank on November 8, 2022, accompanied by Messrs. Micich, Myers, and Schuenemeyer (page 3, attachment 3). I observed the shell of the tank appeared to be in good condition with no obvious signs of corrosion to the exterior. I observed the tank level in the attached sight gauge was one foot. The tank was labeled “Hazardous Waste.” The concrete containment vault was free of liquids and appeared to be in good condition. The Tank Farm is provided with combustion monitors that automatically sound a fire alarm with a lower explosive limit reading of twenty-five percent is exceeded. Mr. Myers described water cannons adjacent to the Tank Farm for use in firefighting operations.

NOPF 7 – 40 CFR 265.31: Manway missing bolts with volatile organic emissions (non-sudden release of hazardous waste). 10 CSR 25-5.262(1) → 40 CFR 262.34(a)(4)

The State of Missouri has adopted by reference the EPA’s requirements for generators of hazardous waste found at 40 CFR Part 262. The regulations at 40 CFR 262.34, Accumulation Time, allow generators to accumulate hazardous waste on site for 90 days or less without a permit as long as the generator complies with certain applicable requirements. 40 CFR 262.34(a)(4) requires compliance with, in pertinent part, “The generator complies with the requirements for owners or operators in subparts C and D in 40 CFR part 265...” 40 CFR Part 265, Subpart C – Preparedness and Prevention, includes the requirement at 40 CFR 265.31 – Maintenance and operation of facility which states *“Facilities must be maintained and operated to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment.”*

I observed the manway on the top of the Hazardous Waste Tank. The manway is 18 inches in diameter, includes a fiberglass gasket, and 18 locations to bolt the manway cover to the tank. I observed that only four of the bolt locations were bolted. I monitored the circumference of the manway cover to tank interface with the EPA FID using EPA Method 21⁷ procedures. I observed volatile organic emissions of 2,312 parts per million by volume (ppmv) with a background concentration of 12.6 ppmv in the location indicated by the tip of the reference ball point pen (approximately one o’clock position) when the manway is viewed from above while standing on the north side of the manway (photograph 33, attachment 1). I visually inspected the interface between the manway cover and the tank for cracks, gaps, or other signs of deterioration. The fiberglass gasket material was discolored in several places which may indicate past leaks of volatile organic compounds and cracks or gaps in the manway cover to tank interface.

See Section 4.8.3 for the discussion of air emission requirements for the Hazardous Waste Tank.

4.5 Satellite Accumulation

Plaze utilizes Satellite Accumulation⁸ containers in Buildings A, B, and C and at the Tank Farm (page 2, attachment 3). Waste Flammable Liquids are accumulated into 55-gallon metal containers using a drum funnel

⁷ EPA Method 21 – Determination of Volatile Organic Compound Leaks, is promulgated at 40 CFR Part 60, Appendix A

⁸ Satellite accumulation is a term of art for the situation where the generator accumulates hazardous waste in containers at or near any point of hazardous waste generation. The pertinent requirements are found at 40 CFR 262.34(c)(1), et seq. (10 CSR 25-5.262(1)).

attached to the container in the two-inch container opening. When full, Waste Flammable Liquid satellite accumulation containers are moved to the Container Storage Area at Building B and subsequently moved to the waste transfer appliance in the South Mixing Area in Building C where the contents are transferred into the Hazardous Waste Tank. Alternatively, the container can be moved directly to the waste transfer appliance and the contents transferred to the Hazardous Waste Tank. Waste Flammable Solids are accumulated in 6, 10 or 21-gallon metal oily waste safety cans with a foot pedal actuated lid. The Waste Flammable Solids accumulated in the oily waste safety cans are emptied daily per Mr. Schuenemeyer. Waste Aerosols are collected in 55-gallon metal containers of open top design. The containers are equipped with a metal cover with a hinged opening sized for aerosol cans. Below the hinged opening is a chute so the aerosol will roll into the container. The metal cover is also equipped with a vent that vents the container contents outside of the building. Filled containers of aerosol cans are moved to the Container Storage Area at Building B where the contents are transferred into approximately one-cubic yard plastic bins (photograph 11, attachment 1). Each of the filling lines in Building B has multiple satellite accumulation containers for Waste Flammable Solids, Waste Flammable Liquids and Waste Aerosols adjacent to the point of generation.

4.5.1 Building A (page 2, attachment 3)

Messrs. Backus, Fanter and I visually inspected the satellite accumulation containers in Building A on November 8, 2022, accompanied by Messrs. Micich and Schuenemeyer.

I observed a 55-gallon container of Waste Aerosols in the northeast portion of Building A that was in good condition, closed, and labeled “Hazardous Waste.”

4.5.2 Building B (page 2, attachment 3)

Messrs. Backus, Fanter and I visually inspected the satellite accumulation containers in Building B on November 8, 2022, accompanied by Messrs. Micich and Schuenemeyer.

NOPF 1 – 40 CFR 265.173(a): Satellite Accumulation containers not closed. 10 CSR 25-5.262(1) → 40 CFR 262.34(c)(1)(i)

The State of Missouri has adopted by reference the EPA’s requirements for generators of hazardous waste found at 40 CFR Part 262. The regulations at 40 CFR 262.34(c), et seq., allow generators to accumulate hazardous waste in containers near the point of hazardous waste generation without a permit (satellite accumulation) as long as the generator complies with certain provisions therein. In accordance with 40 CFR 262.34(c)(1)(i), Satellite Accumulation must comply, in pertinent part, “...with §§ 265.171, 265.172, and 265.173(a) of this chapter” The requirement at 40 CFR 265.173(a) found in 40 CFR Part 265, Subpart I, Use and Management of Containers, requires “*A container holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste.*”

NOPF 2 – 40 CFR 265.173(a): Satellite Accumulation container not labeled. 10 CSR 25-5.262(1) → 40 CFR 262.34(c)(1)(ii)

The State of Missouri has adopted by reference the EPA’s requirements for generators of hazardous waste found at 40 CFR Part 262. The regulations at 40 CFR 262.34(c), et seq., allow generators to accumulate hazardous waste in containers near the point of hazardous waste generation without a permit (satellite accumulation) as long as the generator complies with certain provisions therein. The requirement at 40 CFR 262.34(c)(1)(ii) states “*Marks his containers either with the words “Hazardous Waste” or with other words that identify the contents of the containers.*”

Filling Line 1

I observed satellite accumulation containers comprised of two approximately 6-gallon oily waste safety cans containing Waste Flammable Solids that were in good condition, closed, and labeled “Hazardous Waste.” I observed a filled container of Waste Flammable Liquids nearby with an accumulation start date of November 6, 2022.

NOPF 1: I observed a satellite accumulation container containing Waste Flammable Liquids at Filling Line 1 (attachment 4). The container was approximately one-half filled. The one-inch opening in the top of the container was not closed (threaded plug was not in place) (photographs 1 and 2, attachment 1). A closed drum funnel was attached to the container in the two-inch container opening. The container was in good condition and labeled “Hazardous Waste.”

Filling Line 2

I observed satellite accumulation containers consisting of one approximately 6-gallon and one approximately 21-gallon oily waste safety cans containing Waste Flammable Solids that were in good condition, closed, and labeled “Hazardous Waste.” I observed one 55-gallon satellite accumulation container of Waste Aerosols in good condition, closed, and labeled “Hazardous Waste.”

NOPF 1: I observed a 55-gallon satellite accumulation container containing Waste Flammable Liquids at Filling Line 2 (attachment 4). The container was approximately one-half filled. The one-inch opening in the top of the container was not closed (threaded plug was not in place prior to my photograph) (photographs 3 and 4, attachment 1). A closed drum funnel was attached to the container in the two-inch container opening. The container was in good condition and labeled “Hazardous Waste.”

NOPF 1: I observed a 5-gallon satellite accumulation container containing Waste Flammable Liquids at Filling Line 2 (attachment 4). The container was approximately fifteen percent filled (photograph 5, attachment 1). The container was being used to collect Waste Flammable Liquids from a leak in the filling apparatus. The container was not equipped with a lid. (see also the discussion in NOPF 2 below for this container)

NOPF 2: The same subject (above) 5-gallon satellite accumulation container containing Waste Flammable Liquids at Filling Line 2 (attachment 4). The container was approximately fifteen percent filled (photograph 5, attachment 1). The container was being used to collect Waste Flammable Liquids from a leak in the filling apparatus. The container was not labeled “Hazardous Waste.”

Filling Line 3

I observed a 55-gallon satellite accumulation container containing Waste Flammable Liquids and a 55-gallon satellite accumulation container containing Waste Aerosols at Filling Line 3 (attachment 4). The containers were in good condition, closed and labeled “Hazardous Waste.”

Filling Line 4

I observed satellite accumulation containers consisting of four approximately 6-gallon and one approximately 21-gallon oily waste safety cans containing Waste Flammable Solids that were in good condition, closed, and labeled “Hazardous Waste.” I observed one 55-gallon satellite accumulation container of Waste Aerosols in

good condition, closed, and labeled “Hazardous Waste.” I observed one 55-gallon satellite accumulation container of Waste Flammable Liquids in good condition, closed, and labeled “Hazardous Waste.”

NOPF 1: I observed a 5-gallon satellite accumulation container containing Waste Flammable Liquids at Filling Line 4 (attachment 4). The container was approximately twenty percent filled (photograph 6, attachment 1). The container was being used to collect Waste Flammable Liquids from a leak in the filling apparatus. The container was not equipped with a lid. (see also the discussion in NOPF 2 below for this container)

NOPF 2: The same subject (above) 5-gallon satellite accumulation container containing Waste Flammable Liquids at Filling Line 2 (attachment 4). The container was approximately twenty percent filled (photograph 6, attachment 1). The container was being used to collect Waste Flammable Liquids from a leak in the filling apparatus. The container was not labeled “Hazardous Waste.”

Filling Line 5

I observed satellite accumulation containers consisting of three approximately 6-gallon oily waste safety cans containing Waste Flammable Solids that were in good condition, closed, and labeled “Hazardous Waste.” I observed one 55-gallon satellite accumulation container of Waste Aerosols in good condition, closed, and labeled “Hazardous Waste.”

NOPF 1: I observed a 55-gallon satellite accumulation container containing Waste Flammable Liquids at Filling Line 4 (attachment 4). The container was approximately one-half filled (photographs 7 and 8, attachment 1). An unlatched drum funnel was attached to the container in the two-inch container opening. The container was in good condition and labeled “Hazardous Waste.”

Bundler

I observed one 55-gallon satellite accumulation container of Waste Aerosols in good condition, closed, and labeled “Hazardous Waste.” I observed one 55-gallon satellite accumulation container of Waste Flammable Liquids in good condition, closed, and labeled “Hazardous Waste.”

Maintenance Shop

I observed one 30-gallon satellite accumulation container of Waste Flammable Liquids comprised of waste inkjet printer ink in good condition, closed, and labeled “Hazardous Waste.”

NOPF 1: I observed a 5-gallon satellite accumulation container containing Waste Flammable Liquids comprised of waste inkjet ink outside the south entrance to the Maintenance Shop. Plaze services inkjet printers at this location (attachment 4). The container was approximately five percent filled (photograph 9, attachment 1). The container was being used to collect Waste Flammable Liquids from servicing inkjet printers. The container was not equipped with a lid. (see also the discussion in NOPF 2 below for this container)

NOPF 2: The same subject (above) 5-gallon satellite accumulation container containing Waste Flammable Liquids at Filling Line 2 (attachment 4). The container was approximately five percent filled (photograph 9, attachment 1). The container was being used to collect Waste Flammable Liquids from servicing inkjet printers. The container was not labeled “Hazardous Waste.”

Line 6

I observed two 55-gallon satellite accumulation containers of Waste Aerosols in good condition, closed, and labeled “Hazardous Waste.” I observed one 55-gallon satellite accumulation container of Waste Flammable Liquids in good condition, closed, and labeled “Hazardous Waste.” I observed two approximately 6-gallon oily waste safety cans containing Waste Flammable Solids that were in good condition, closed, and labeled “Hazardous Waste.”

I provided compliance assistance regarding the Satellite Accumulation requirements during the visual inspection and during the exit conference.

4.5.3 Tank Farm (page 2, attachment 3)

Messrs. Backus, Fanter and I visually inspected the satellite accumulation container at the Tank Farm on November 8, 2022, accompanied by Messrs. Micich, Myers, and Schuenemeyer.

NOPF 1: I observed a 5-gallon satellite accumulation container containing Waste Flammable Liquids drained from the sight gauge for the Hazardous Waste Tank (page 3, attachment 3). The container was less than five percent filled (photographs 31 and 32, attachment 1). The container was not equipped with a lid. (see also the discussion in NOPF 2 below for this container)

NOPF 2: The same subject (above) 5-gallon satellite accumulation container containing Waste Flammable Liquids drained from the sight gauge for the Hazardous Waste Tank. The container was approximately fifteen percent filled (photographs 31 and 32, attachment 1). The container was not labeled “Hazardous Waste.”

4.6 Subpart BB – Air Emission Standards for Equipment Leaks

NOPF 5 – 40 CFR Part 265, Subpart BB, et. seq.: Facility does not implement Subpart BB requirements. 10 CSR 25-5.262(1) → 40 CFR 262.34(c)(1)(ii)

The EPA promulgated requirements for the control of air emissions from equipment leaks at 40 CFR Part 265, Subpart BB (hereafter “Subpart BB”). The provisions of Subpart BB apply to equipment such as valves, pumps, connectors, etc., that are in contact with hazardous waste with a total organic concentration at least ten percent by weight. The State of Missouri has adopted by reference the EPA’s requirements for owners and operators of hazardous waste treatment, storage, and disposal facilities found at 40 CFR Part 265⁹. The State of Missouri has adopted by reference the EPA’s requirements for generators of hazardous waste found at 40 CFR Part 262. The regulations at 40 CFR 262.34, Accumulation Time, allow generators to accumulate hazardous waste on site for 90 days or less without a permit as long as the generator complies with certain applicable requirements. 40 CFR 262.34(a)(1)(i) requires compliance with Subpart BB for hazardous waste managed in containers and 40 CFR 262.34(a)(1)(ii) for hazardous waste managed in tanks.

Subpart BB requires the establishment of a program to identify equipment (and records of same) subject to the section, periodic visual inspection and/or monitoring of the equipment for leaks with EPA Method 21, repair of leaks identified within specified timeframes, and records of leaks and repairs.

⁹ See 10 CSR 25-7.265(1) which incorporates by reference 40 CFR Part 265, Subpart BB– Air Emission Standards for Equipment Leaks. Missouri has adopted the provisions of 40 CFR Part 265, as in effect on July 1, 2013.

I asked Messrs. Ulrich, Micich and Schuenemeyer for records of equipment subject to Subpart BB required by 40 CFR 265.1050(c) in the opening conference. Those assembled were not aware of such records. I visually inspected the appliance used for pumping Flammable Liquid Wastes from containers to the Hazardous Waste Tank in the South Mixing Room in Building C for possible Subpart BB equipment. At a minimum, I observed one pump, flexible hose, two valves, connectors (undetermined number of piping couplings and unions) and one open ended line. I visually inspected Hazardous Waste Tank and it's ancillary piping outside of Building C and observed connectors in piping (undetermined number of piping couplings and unions), seven valves and two open-ended lines (photographs 34 – 37). I observed one pump in the North Mixing room used to transfer Waste Flammable Liquids from mixing tanks into a 350-gallon intermediate bulk container. I reviewed the waste profile for Liquid Flammable Wastes managed in the Hazardous Waste Tank and it appears that the Subpart BB equipment would be "in Light Liquid Service."¹⁰ I asked for a process instrumentation diagram of the Hazardous Waste Tank showing the Subpart BB equipment during my records review. Mr. Micich provided a generic 9,000-gallon tank design in response to my request (attachment 14).

I asked Messrs. Ulrich, Micich and Schuenemeyer to describe the monitoring of Subpart BB equipment for leaks in the opening conference. Those assembled were not aware of monitoring conducted using Method 21 but did describe daily visual inspection of the Hazardous Waste Tank piping. Method 21 monitoring of Subpart BB equipment (valves and pumps) in Light Material Service is required monthly for pumps (40 CFR 265.1052(a)(1) and valves (40 CFR 265.1057(a)). Subpart BB also requires weekly inspections of pumps in Light Material Service for indications of liquids dripping from the pump seal (40 CFR 265.1052(a)(2)). I asked those assembled if Plaze had monitoring equipment with which to conduct Method 21 monitoring to which Mr. Ulrich described a "Four-gas Meter" used for monitoring for flammable gases in conjunction with their hot work permit procedure. A "Four-gas Meter" combustion gas monitor would not meet the requirements for Method 21 monitoring equipment in 40 CFR 265.1063.

I asked Messrs. Ulrich, Micich and Schuenemeyer to repair records required by 40 CFR 265.1064 for any identified leaks in Subpart BB equipment in the opening conference. Mr. Schuenemeyer stated that visual inspections are conducted daily for the Hazardous Waste Tank and piping and that in the approximately 1.5 years in his position no leaks had been identified during the visual inspections.

4.7 Method 21 Monitoring

I calibrated a Thermo Fisher Scientific TVA-2020 (EPA FID) (attachment 17) used for Method 21¹¹ monitoring the morning of November 8, 2022, prior to my arrival at the facility. The EPA FID has a flame ionization detector and a photoionization detector to measure organic vapor concentrations. Only the flame ionization detector was calibrated and operated for the Method 21 monitoring, i.e., the photoionization detector was switched off.

4.8 Subpart CC Air Emissions

The EPA promulgated requirements for the control of air emissions from tanks, surface impoundments, and containers at 40 CFR Part 265, Subpart CC (hereafter "Subpart CC"). Plaze is subject to Subpart CC for containers and tanks used to store or accumulate hazardous waste with a volatile organic concentration of 500

¹⁰ In Light Liquid Service is defined at 40 CFR 265.1051→40 CFR 264.1031 as "...the piece of equipment contains or contacts a waste stream where the vapor pressure of one or more of the organic components in the stream is greater than 0.3 kilopascals (kPa) at 20 °C, the total concentration of the pure organic components having a vapor pressure greater than 0.3 kilopascals (kPa) at 20 °C is equal to or greater than 20 percent by weight, and the fluid is a liquid at operating conditions."

¹¹ Method 21 – Determination of Volatile Organic Compound Leaks is found at 40 CFR Part 60, Appendix A.

parts per million (ppm) or greater. The required air emission controls are specified in 40 CFR Part 265, Subpart CC.

4.8.1 Level 1 Containers

NOPF 3 – 40 CFR 265.1087(c)(3)/40 CFR 265.173(a): Level 1 containers of hazardous waste not closed. 10 CSR 25-5.262(1) → 40 CFR 262.34(a)(1)(i)

[Note the discussion of this NOPF in Section 4.4.1 regarding the open container citation of 40 CFR 265.173(a)]

The EPA promulgated requirements for the control of air emissions from containers at 40 CFR Part 265, Subpart CC (hereafter “Subpart CC”). The State of Missouri has adopted by reference the EPA’s requirements for owners and operators of hazardous waste treatment, storage, and disposal facilities found at 40 CFR Part 265¹². The State of Missouri has adopted by reference the EPA’s requirements for generators of hazardous waste found at 40 CFR Part 262. The regulations at 40 CFR 262.34, Accumulation Time, allow generators to accumulate hazardous waste on site for 90 days or less without a permit as long as the generator complies with certain applicable requirements. 40 CFR 262.34(a)(1)(i) requires compliance with Subpart CC for hazardous waste managed in containers. Controls in Subpart CC for air emissions of hazardous waste apply to containers where the hazardous waste accumulated has a volatile organic content greater than 500 million parts per million by weight. Subpart CC provides for two levels of control (Level 1 and Level 2) that are dependent on the size of the container and the composition of the hazardous waste being accumulated.

Messrs. Backus, Fanter and I visually inspected the Container Storage Area at Building B on November 8, 2022, accompanied by Messrs. Micich and Schuenemeyer (page 4, attachment 3). The Container Storage Area is an extension of Building B that is open on the south end to a paved area at the rear of the building. I observed four 55-gallon containers of Waste Flammable Solids at the Container Storage Area. Containers with a capacity between 100 to 460 liters are subject to Level 1 controls. The requirement at 40 CFR 265.1087(c)(3), in pertinent part requires “*Whenever a hazardous waste is in a container using Container Level 1 controls, the owner or operator shall install all covers and closure devices for the container, as applicable to the container, and secure and maintain each closure device in the closed position...*”

Three of the observed containers of Waste Flammable Solids were not closed as required by 40 CFR 265.1087(c)(3). Please refer to photograph 12, attachment 1 for the following discussion. The two containers in the foreground were filled and the container in the rear on the right was one-quarter filled. The container in the rear on the left with the metal lid was both filled and compacted. The plastic lids on the two containers on the right were upside down and did not cover the contents of the Waste Flammable Solids in the containers. The plastic lid on the container in the lower left was not completely in place as it was not “snapped” down.

4.8.2 Level 2 Containers

Messrs. Backus, Fanter and I visually inspected the North Mixing Room on November 8, 2022, accompanied by Messrs. Micich, Myers, and Schuenemeyer (page 3, attachment 3). I observed a 350-gallon intermediate bulk container (referred to as a “tote” by Plaze) used to manage Waste Flammable Liquids removed from the mixing tanks in the North Mixing Room. The container is moved to the South Mixing Room where a waste transfer appliance is located to transfer the waste from the container to the Hazardous Waste Tank. The container was empty at the time of my visual inspection. The container was identical in design, operation, and condition as the

¹² See 10 CSR 25-7.265(1) which incorporates by reference 40 CFR Part 265, Subpart CC– Air Emission Standards for Equipment Leaks. Missouri has adopted the provisions of 40 CFR Part 265, as in effect on July 1, 2013.

container in the South Mixing Room discussed below. However, since the container was empty at the time of my visual inspection it is not included in the NOPF discussion. I provided compliance assistance regarding the Level 2 requirements for this container during the visual inspection.

NOPF 4 – 40 CFR 265.1087(d)/40 CFR 265.173(a): Level 2 containers not closed and do not meet DOT standards. 10 CSR 25-5.262(1) → 40 CFR 262.34(a)(1)(i)

[Note the discussion of this NOPF in Section 4.4.3 regarding the open container citation of 40 CFR 265.173(a)]

The EPA promulgated requirements for the control of air emissions from containers at 40 CFR Part 265, Subpart CC (hereafter “Subpart CC”). The State of Missouri has adopted by reference the EPA’s requirements for owners and operators of hazardous waste treatment, storage, and disposal facilities found at 40 CFR Part 265. The State of Missouri has adopted by reference the EPA’s requirements for generators of hazardous waste found at 40 CFR Part 262. The regulations at 40 CFR 262.34, Accumulation Time, allow generators to accumulate hazardous waste on site for 90 days or less without a permit as long as the generator complies with certain applicable requirements. 40 CFR 262.34(a)(1)(i) requires compliance with Subpart CC for hazardous waste managed in containers. Controls in Subpart CC for air emissions of hazardous waste apply to containers where the hazardous waste accumulated has a volatile organic content greater than 500 million parts per million by weight. Subpart CC provides for two levels of control (Level 1 and Level 2) that are dependent on the size of the container and the composition of the hazardous waste being accumulated.

Messrs. Backus, Fanter and I visually inspected the South Mixing Room in Building C on November 8, 2022, accompanied by Messrs. Micich, Myers, and Schuenemeyer (page 3, attachment 3). I observed a 350-gallon intermediate bulk container (referred to as a “tote” by Plaze) used to manage Waste Flammable Liquids removed from the mixing tanks in the South Mixing Room. I reviewed the waste profile for Liquid Flammable Wastes managed in the container and it appears that waste would be “in Light Material Service.”¹³ Containers in Light Material Service greater than 460 liters are required to have Level 2 controls using one of three methods found at 40 CFR 265.1087(d). The observed container did not meet the requirements of any of the three prescribed methods.

The first method at 40 CFR 265.1087(d)(1)(i) specifies the use of “...a container that meets the applicable U.S. Department of Transportation (DOT) regulations on packaging hazardous materials for transportation as specified in paragraph (f)¹⁴ of this section.” The observed container had been modified to include an additional opening without a closure in the top of the container (photograph 28, attachment 1).

The second method at 40 CFR 265.1087(d)(1)(ii) specifies a “...container that operates with no detectable organic emissions as defined in § 265.1081 of this subpart and determined in accordance with the procedure specified in paragraph (g)¹⁵ of this section.” I monitored the container with the EPA FID in accordance with Method 21 and observed volatile organic emissions from the gap opening in the container lid of 10,200 parts per million by volume (ppmv) with a background concentration of 371 ppmv exceeding the no detectable emissions limit of 500 ppmv above background.

¹³ In Light Material Service is defined at 40 CFR 265.1081 as “...a material for which both of the following conditions apply: The vapor pressure of one or more of the organic constituents in the material is greater than 0.3 kilopascals (kPa) at 20 °C; and the total concentration of the pure organic constituents having a vapor pressure greater than 0.3 kPa at 20 °C is equal to or greater than 20 percent by weight.”

¹⁴ United States Department of Transportation (US DOT) regulations on packaging hazardous materials for transportation found at 49 CFR Part 178, Specifications for Packaging.

¹⁵ To determine compliance with the no detectable organic emissions requirements of paragraph (d)(1)(ii) of this section, the [Method 21] procedure specified in § 265.1084(d) of this subpart shall be used.

The third method at 40 CFR 265.1087(d)(1)(iii) specifies “A container that has been demonstrated within the preceding 12 months to be vapor-tight by using 40 CFR part 60, appendix A, Method 27 in accordance with the procedure specified in paragraph (h) of this section.” The observed container had been modified to include an additional opening without a closure in the top of the container (photograph 28, attachment 1) with which the container would not be vapor tight. Additionally, the container cover was not in place with the required locking ring and the opening in the top of the cover was not in place such that the container was no longer vapor tight (photograph 28, attachment 1).

At the end of the first day of the inspection, Mr. Myers stated that the container had been emptied and would no longer be used to accumulate hazardous waste and Plaze would instead pump the Waste Flammable Liquids directly from the mixing tank to the Hazardous Waste Tank.

4.8.3 Level 1 Tanks

NOPF 6 – 40 CFR 265.1085(c)(4): No annual Subpart CC tank inspections. 10 CSR 25-5.262(1) → 40 CFR 262.34(a)(1)(ii)

The EPA promulgated requirements for the control of air emissions from tanks at 40 CFR Part 265, Subpart CC (hereafter “Subpart CC”). The State of Missouri has adopted by reference the EPA’s requirements for owners and operators of hazardous waste treatment, storage, and disposal facilities found at 40 CFR Part 265. The State of Missouri has adopted by reference the EPA’s requirements for generators of hazardous waste found at 40 CFR Part 262. The regulations at 40 CFR 262.34, Accumulation Time, allow generators to accumulate hazardous waste on site for 90 days or less without a permit as long as the generator complies with certain applicable requirements. 40 CFR 262.34(a)(1)(ii) requires compliance with Subpart CC for hazardous waste managed in tanks. Controls in Subpart CC for air emissions of hazardous waste apply to tanks where the hazardous waste accumulated has a volatile organic content greater than 500 million parts per million by weight. Subpart CC provides for two levels of control (Level 1 and Level 2) that are dependent on the size of the tank and the composition of the hazardous waste being accumulated.

The Hazardous Waste Tank used by Plaze is a fixed roof tank (with closure devices) and has a nominal capacity of approximately 9,000 gallons. I requested information regarding the contents of all the tanks in the Tank Farm. Inclusive in the information provided by Plaze was the vapor pressures of the raw materials (attachment 18). The maximum vapor pressure of the raw materials stored is 138 millimeters of mercury (18.4 kilopascals) for hexane. Since the hexane vapor pressure is less than 76.6 kilopascals and that the tank capacity is less than 75,000 liters, I evaluated the Hazardous Waste Tank as requiring Level 1 controls.

“The fixed roof and its closure devices shall be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the roof sections or between the roof and the tank wall; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.” is required annually for Level 1 tanks pursuant to 40 CFR 265.1085(c)(4)(i)-(ii). The records of the annual inspections are to be maintained by Plaze. I asked Messrs. Ulrich, Micich and Schuenemeyer to provide copies of the annual Subpart CC inspections of the Hazardous Waste Tank in the opening conference. Those assembled were not aware of the inspections being completed or records of such inspections.

4.9 Universal Waste Lamps

NOPF 8 – 40 CFR 273.14(e): Container of universal waste lamps not labeled “Universal Waste - Lamp(s),” or “Waste Lamp(s),” or “Used Lamp(s).” 10 CSR 25-16.273(1)

The EPA promulgated requirements for the management of universal wastes at 40 CFR 273 – Standards for Universal Waste Management. The State of Missouri has adopted by reference the EPA’s requirements for universal wastes¹⁶. In accordance with 40 CFR 273.14(e), *“Each lamp or a container or package in which such lamps are contained must be labeled or marked clearly with one of the following phrases: “Universal Waste - Lamp(s),” or “Waste Lamp(s),” or “Used Lamp(s).”*

Messrs. Backus, Fanter and I visually inspected the Container Storage Area at Building B on November 8, 2022, accompanied by Messrs. Micich and Schuenemeyer (page 4, attachment 3). The Container Storage Area is an extension of Building B that is open on the south end to a paved area at the rear of the building. Mr. Micich stated that Plaze generates waste fluorescent lamps which are managed as universal waste lamps. I observed one three-quarter filled and three empty 4-foot universal lamp containers. The container filled with was labeled “Universal Waste Light Bulbs” instead of the required wording of either *“Universal Waste - Lamp(s),” or “Waste Lamp(s),” or “Used Lamp(s).”* I provided compliance assistance during the visual inspection and at the exit conference regarding universal waste management.

4.10 Used Oil

I asked Messrs. Ulrich, Micich and Schuenemeyer if Plaze manages used oil on site to which Mr. Ulrich responded that used oil is generated from maintenance of forklifts and the servicing company removes the used oil so generated.

4.11 Inspections

NOPF 9 – 40 CFR 265.195(a): Missing daily tank inspections. 10 CSR 25-5.262(1) → 40 CFR 262.34(a)(1)(ii)

The State of Missouri has adopted by reference the EPA’s requirements for generators of hazardous waste found at 40 CFR Part 262. The regulations at 40 CFR 262.34, Accumulation Time, allow generators to accumulate hazardous waste on site for 90 days or less without a permit as long as the generator complies with certain applicable requirements. 40 CFR 262.34(a)(1)(ii) requires compliance with, in pertinent part, “...the applicable requirements of subparts J, AA, BB, and CC of 40 CFR part 265...” The requirement in 40 CFR Part 265, Subpart J – Tank Systems, at 40 CFR 265.195(a) requires *“The owner or operator must inspect, where present, at least once each operating day, data gathered from monitoring and leak detection equipment (e.g., pressure or temperature gauges, monitoring wells) to ensure that the tank system is being operated according to its design.”*

Plaze conducts daily inspections of the Container Storage Area at Building B and the Hazardous Waste Tank and ancillary piping. The inspections are recorded on a checklist. I asked to review inspection records dating back three years from the date of my CEI. Mr. Micich provided records for May 30, 2022, through October 30, 2022. Mr. Micich was not able to locate inspection records prior to May 30, 2022, at the time of my records review on November 8, 2022. Based on the provided records, I observed that daily tank inspections were not

¹⁶ See 10 CSR 25-16.273(1), Standards for Universal Waste Management, which incorporates by reference 40 CFR Part 273, as in effect on July 1, 2013.

conducted on September 5, 2022, September 26, 2022, October 18, 2022, and October 22, 2022 (attachment 19).

4.12 Contingency Plan

I asked for and was provided a copy of the Plaze RCRA Contingency Plan (attachment 20). I reviewed the provided contingency plan dated July 2020 while I was on site on November 8, 2022. The plan contained lists and locations of emergency equipment, their descriptions and capabilities and an evacuation plan, emergency services and a current primary emergency coordinator. Mr. Ulrich stated that the plan was being updated to include Mr. Micich and himself, respectively, as secondary, and tertiary emergency coordinators.

4.13 Training Requirements

Mr. Ulrich described Plaze provides in person RCRA training to the personnel managing hazardous waste. Currently Mr. Schuenemeyer and a second chemical handler, Mr. Gavin Parker receive annual RCRA refresher training. I obtained the most recent refresher training records from 2021 (attachment 21). I observed no apparent issues or findings related to my review of personnel training.

4.14 Manifests

I requested hard copy manifests for hazardous waste shipments made in 2022. Mr. Backus and I reviewed the manifest records. I obtained copies of recent shipments of each hazardous waste stream (attachment 22). I observed no apparent issues or findings related to my review of 2022 hazardous waste manifests.

5.0 COMPLIANCE ASSISTANCE

I provided Plaze with the following compliance assistance information:

Section 3007 Inspections Sheet (EPA Handout)

RCRA Facility Access Information Sheet (EPA Handout)

United States Code 1001/1002 Annotated (EPA Handout)

Notice Regarding Proprietary/Confidential Business Information Submitted to or Collected by EPA in Connection with Inspections (EPA Handout)

Compliance Advisory Reduction of Hazardous Waste Air Emissions April 2018 (EPA Handout)

EPA Enforcement Alert National Compliance Initiative Focus on RCRA Air Emissions June 2020 (EPA Handout)

Leak Detection and Repair: A Best Practices Guide (EPA Handout)

Hazardous Waste Generator e-Reporting Guide - PUB2570 February 7, 2021 (MDNR Handout)

Hazardous Waste Generator Registration, Reporting and Waste Fees - PUB2254 February 1, 2020 (MoDNR Handout)

Hazardous Waste Satellite Accumulation - PUB2215 May 1, 2020 (MoDNR Handout)

The Universal Waste Rule in Missouri - PUB2058 December 28, 2020 (MoDNR Handout)

Used Oil Generators and Burners – PUB0134 September 17, 2020 (MoDNR Handout)

Tampering Pollutes Our Air (EPA Handout)

Clean Air Act Vehicle Aftermarket Defeat Devices and Tampering (EPA Handout)

6.0 SUMMARY

I conducted an inspection of Plaze as a large quantity generator of hazardous waste and a small quantity handler of universal waste. The following preliminary finding is noted as discussed above:

NOPF 1 – 40 CFR 265.173(a): Satellite Accumulation containers not closed. 10 CSR 25-5.262(1) → 40 CFR 262.34(c)(1)(i)

NOPF 2 – 40 CFR 265.173(a): Satellite Accumulation container not labeled “Hazardous Waste.” 10 CSR 25-5.262(1) → 40 CFR 262.34(c)(1)(ii)

NOPF 3 – 40 CFR 265.1087(c)(3)/40 CFR 265.173(a): Level 1 containers of hazardous waste not closed. 10 CSR 25-5.262(1) → 40 CFR 262.34(a)(1)(i)

NOPF 4 – 40 CFR 265.1087(d)/40 CFR 265.173(a): Level 2 containers not closed and do not meet DOT standards. 10 CSR 25-5.262(1) → 40 CFR 262.34(a)(1)(i)

NOPF 5 – 40 CFR Part 265, Subpart BB, et. seq.: Facility does not implement Subpart BB requirements. 10 CSR 25-5.262(1) → 40 CFR 262.34(c)(1)(ii)

NOPF 6 – 40 CFR 265.1085(c)(4): No annual Subpart CC tank inspections. 10 CSR 25-5.262(1) → 40 CFR 262.34(a)(1)(ii)

NOPF 7 – 40 CFR 265.31: Manway missing bolts with volatile organic emissions (non-sudden release of hazardous waste). 10 CSR 25-5.262(1) → 40 CFR 262.34(a)(4)

NOPF 8 – 40 CFR 273.14(e): Container of universal waste lamps not labeled “Universal Waste - Lamp(s),” or “Waste Lamp(s),” or “Used Lamp(s).” 10 CSR 25-16.273(1)

NOPF 9 – 40 CFR 265.195(a): Missing daily tank inspections. 10 CSR 25-5.262(1) → 40 CFR 262.34(a)(1)(ii)

Other than the items noted above, no other preliminary findings were noted. However, the EPA may review my findings further after the inspection, which may change or add to my findings.

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Herstowski, Ken

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Ken

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Kenneth Herstowski
Environmental Engineer

Date

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Amber Whisnant
Chief, RCRA Section, Chemical Branch
Enforcement and Compliance Assistance Division

Date

Attachments

1. Inspection [37] Photographs (38 pages)
2. Photograph Log (4 pages)
3. Aerial Photographs (7 pages)
4. Plaze Building B (1 page)
5. Notice of Preliminary Findings (5 pages)
6. Receipt for Documents (1 page)
7. Confidentiality Notice (1 page)
8. Records Request (2 pages)
9. Site Description (1 page)
10. Notification Acknowledgement/Verification Report (1 page)
11. Waste Flammable Liquids Profile (3 pages)
12. Sodium Hydroxide Solutions Profile (2 pages)
13. Sodium Hydroxide Solutions Beneficial Use (1 page)
14. Tank Design (2 pages)
15. Tank Certification (1 page)
16. Tank Assessment (7 pages)
17. EPA FID Calibration (1 page)
18. Tank Storage Inventory (2 pages)
19. Inspection Records (6 pages)
20. Contingency Plan (52 pages)
21. Training Record (1 page)
22. Hazardous Waste Manifests (7 pages)