

RCRA Inspection Report

1) Inspector and Author of Report

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2) Facility Information

FMC Lithium USA Corp DBA Livent EPA ID# NCD000771964
1115 Bessemer City - Kings Mountain Highway
PO Box 795
Bessemer City, NC 28016

3) Responsible Officials

Mr. Dave Haley Email: dave.haley@livent.com
Environmental & Sustainability Manager

4) Inspection Participants

Dave Haley, Livent Corp Nick Guglielmi, NCDEQ
Rodney Willis, Livent Corp Laurie Benton DiGaetano, USEPA

5) Date of Inspection

July 28, 2020

6) Applicable Regulations

Resource Conservation and Recovery Act (RCRA) Sections 3002 (42 U.S. Code – Annotated U.S.C.A. 6925 and 6927), Title 15A of the North Carolina Administrative Code (NCAC), Chapter 13; North Carolina Hazardous Waste Permit No NCD000771964 R-2; and 40 Code of Federal Regulation (C.F.R.), Parts 260-270, 273, 278, & 279.

7) Purpose of Inspection

The purpose of this inspection was to conduct an unannounced compliance evaluation inspection to determine FMC Lithium USA Corp. DBA Livent's compliance with the applicable requirements of RCRA, the corresponding NCDEQ regulations, and the North Carolina Hazardous Waste Permit No. NCD000771964.

8) **Facility Description**

In October 2018, FMC Corporation, a diversified chemical company serving global agricultural, consumer and industrial markets, spun off its Lithium Division as a separate publicly traded company called Livent Corporation. Prior to the spinoff, the subject facility in Bessemer City, North Carolina, was owned by FMC Corporation and operated by its Lithium Division. As a result of the spinoff, FMC Lithium USA Corp. (FMC), a wholly owned subsidiary of Livent Corporation, is now the owner and operator of the subject facility and the named permittee under the facility's NPDES, Title V Air, Industrial Pretreatment, and Hazardous Waste Management permits. The facility operates under the NAICS Code 325180 for Other Basic Inorganic Chemical Manufacturing. The manufacturing process begins by extracting and refining lithium from lithium compounds such as sodium and lithium chloride brine, which are primarily imported from mining facilities in Argentina. The extracted and refined lithium is then processed on-site into various grade (catalyst grade and technical grade) lithium products for use in industries such as pharmaceutical and battery manufacturing.

The entire subject facility occupies approximately 900-acres, which is bisected by Highway 161. The company produces organic lithium products at the "Specialty Organics Plant" (SO), which is located on a small portion of the 200-acre piece of property west of the highway, and produces inorganic lithium products at the "Main Plant," which is located on a small portion of the 700-acre piece of property east of the highway. The SO Plant operated as a large quantity generator (LQG) of hazardous waste with a separate EPA ID number (NCD986166429) for over twenty years, but the plants were combined in 2017. They currently operate as a single hazardous waste LQG and permitted storage facility under FMC's Hazardous Waste Permit with the EPA ID number NCD000771964, and the EPA ID number for the SO Plant was deactivated in 2017. In addition, the existing Solid Waste Landfill Permit #36-05, which includes several capped landfills and multiple onsite monitoring wells, was transferred to the NC Hazardous Waste Section to consolidate onsite monitoring activities.

Through manufacturing and processing of inorganic and organic lithium chemicals, lithium metals, intermediates, and derivatives, FMC creates products such as lithium chloride, lithium carbonate, lithium hydroxide, lithium bromide, lithium metal, lithium hypochlorite, battery quality lithium metal products (e.g. foils, ingots and rods), lithium phosphate, lithium acetate, and other organic lithium chemicals (e.g. butyllithium). Operations run 24-hours per day, seven days per week. The various lithium processing operations generate lithium contaminated wastes that carry D003 and various other hazardous characteristic waste codes. The facility also generates hazardous waste spent solvents and other waste chemicals from QA/QC and R&D laboratory operations, and various non-hazardous waste streams, which include sludge/mud that contain non-reactive lithium and bag-house dust generated from the lithium hypochlorite production process.

The facility's most recent biennial report was received on 02/26/2020. In it, the facility reported generating the following hazardous waste streams:

- D002 / D007 caustic wastewater, corrosive, with metals from manufacturing processes
- D001 waste mineral oil with solvents, flammable, from production of organolithiums
- D001 / F003 waste solvents, flammable, from production of organolithiums

- D001 / D002 / D007 high pH wastewater from tank and process cleaning
- D002 waste aqueous sodium hypochlorite
- D002 / D004 / D005 / D006 / D007 / D008 caustic sludges and sludges with residual metals from process cleaning and maintenance activities
- D001 filter aid with organics, flammable, from production of organolithiums
- D001 / D003 floor sweepings from clean-up of lithium process areas
- D001 / D003 lithium alloys, off-spec reactive waste, containing lithium, aluminum, copper, magnesium phosphorus
- D001 / D002 / F003 flammable water from manufacturing and associated equipment clean-out
- D001 / D003 mineral oil with lithium, reactive waste from production processing
- D001 / D002 / D003 mixed organolithium from off-spec product, reactive waste, intermediates, samples and equipment
- D001 / D002 / D003 / D004 / D005 / D007 / D008 / D009 / D011 / D021 / F002 / F003 / U134 / U218 lab packs and lab waste from laboratory activities
- D002 / D004 / D008 / D009 wastewater containing various metal from laboratory reagents
- D001 off-spec product, oxidizer, unused raw material
- D002 acidic waste raw material
- D001 / D003 solvent / organolithiums filter tubes, reactive waste from filtering of product
- D001 flammable spill clean-up

9) **Previous Inspection History**

NCDEQ has conducted at least one RCRA CEI at the subject facility during every fiscal year for over 25 years and has found very few violations during those inspections.

On August 28, 2019, NCDEQ conducted the most recent RCRA CEI at the subject facility and found no apparent violations of RCRA's requirements during that inspection. The most recent EPA RCRA CEI was conducted on March 21, 2013, and no apparent violations were noted during that inspection.

10) **Findings**

The two portions of the FMC Lithium USA Corp. (FMC) site are each enclosed with a seven-foot-high chain link fence topped by three strands of barbed wire. According to the permit, the fence has three remote controlled gates. "No Trespassing" signs are located near the main entrance and shipping gate and on the perimeter fence. The gate at the main entrance/exit is electronic card access controlled, enabling site employees to enter the plant site. Other visitors or contractors are required to contact the guard and sign a log sheet to gain entry/exit. According to the permit, a uniformed guard is on duty at the guard shack 24-hours per day, 7-days per week. The facility is also equipped with video surveillance at plant entrances and in key plant areas.

On July 28, 2020, EPA inspector Laurie Benton DiGaetano, accompanied by NCDEQ inspector Nick Guglielmi, arrived at the FMC facility at approximately 9:15 a.m. The inspectors entered

the guard shack, completed a COVID-questionnaire, had their temperature checked using a non-contact forehead thermometer, and reviewed the facility's safety information binder. The guards then provided the inspectors with visitor badges and Mr. Dave Haley, Environmental & Sustainability Manager, received the inspectors from the security guard shack. The inspectors introduced themselves, showed their credentials to Mr. Haley, and explained the purpose of the visit. Mr. Haley and Mr. Rodney Willis, Environmental Manager, took the inspectors on a tour of the Facility operations.

Central Accumulation Area (CAA) at SO Plant: The inspection participants began the facility tour at the hazardous waste CAA on the SO Side of the facility. The area is located in a covered, three-sided metal structure with a concrete base surrounded with a 6-inch concrete berm. The secondary containment structure was equipped with a concrete sump located in the middle of the floor. The area was identified with signs reading "hazardous waste storage" and "no smoking," and it was equipped with multiple fire extinguishers. Due to the water-reactive nature of the wastes stored in this area, no emergency eyewash or shower stations are located here. A spill response kit for the area is kept in the nearby reactor building, and personnel carry walkie-talkies and/or intrinsically safe cellular telephones for emergency communication when working in this area.

The inspectors observed ten 55-gallon drums and four 5-gallon containers of hazardous waste arranged on pallets forming two rows in this area during the inspection. The 55-gallon drums contained hazardous wastes such as lithium dispersion in mineral oil, empty plastic lithium metal bags, used drum liners with lithium in mineral oil, used filter aid, mineral oil bubbler, WMOS/decant, and acetone and water. The 5-gallon containers contained hazardous wastes such as lithium dispersion in mineral oil, and waste acetone and acetic. Each of the containers was marked with an accumulation start date, and the oldest container was dated 06/02/2020. The drums were all closed, in good condition, and labeled with the words "hazardous waste." With one exception, the containers were all labeled to identify the hazards of their contents. One 55-gallon drum of hazardous waste used filter aid, dated 07/24/2020, was not labeled to identify the hazards of its contents. Mr. Haley and Mr. Willis immediately added a hazard label to this drum during the inspection.

Pursuant to 15A NCAC 13A .0107 [40 C.F.R. § 262.17], a generator may accumulate hazardous waste onsite for 90 days or less without a permit or without having interim status, as required by Sections 130A-294(c) and (g) of the NCSWML, N.C.G.S. § 130A-294(c) and (g) [Section 3005 of RCRA, 42 U.S.C. § 6925], provided that the generator complies with the conditions listed in 15A NCAC 13A .0107 [40 C.F.R. § 262.17] (hereinafter referred to as the "LQG Permit Exemption").

Pursuant to 15A NCAC 13A .0107 [40 C.F.R. § 262.17(a)(5)(i)(B)], which is a condition of the LQG Permit Exemption, a generator is required to mark or label containers with an indication of the hazards of the contents.

BuLi Satellite Accumulation Area (SAA) at SO Plant: FMC maintains a SAA for accumulating SBL/Cyclo filters from Tank 920 in the SO area. The designated SAA is equipped with a clam-shell storage unit which is labeled as a hazardous waste SAA. The inspectors observed one 55-

gallon drum inside the clam shell during the inspection. The drum was closed and in good condition. It was labeled hazardous waste SBL/Cyclo filter from TK920 and marked with a DOT flammable hazard label and a DOT dangerous when wet hazard label.

Hazardous Waste Solvent SAA at SO Plant: FMC maintains a SAA for accumulating hazardous waste solvents from tanker truck loading/unloading activities in the SO area. Solvent drips are captured in a 5-gallon bucket, and then poured through a funnel into a 55-gallon SAA container. The designated SAA is equipped with a clam-shell storage unit which is labeled as a hazardous waste SAA. The inspectors observed one 55-gallon drum inside the clam shell during the inspection. The drum was closed and in good condition. It was labeled hazardous waste solvent and marked with a DOT flammable hazard label.

Hazardous Waste Storage Tank 301-TK-502 at SO Plant: The inspectors observed hazardous waste storage tank 502, which was labeled with the words “hazardous waste” and “waste solvents,” and was marked with the National Fire Protection Association hazard diamond. The tank was in good condition, with no evidence of leaks or spills. The inspectors also noted piping identified for the transfer of hazardous waste. This piping was painted a terra-cotta color, and a number of metal tags were visible on piping connections identifying the fixtures as subject to air monitoring under RCRA.

Hazardous Waste Storage Tank WMOS TK 503 at SO Plant: The inspectors observed hazardous waste storage tank 503, which was labeled with the words “hazardous waste” and was marked with the National Fire Protection Association hazard diamond. The tank was in good condition, with no evidence of leaks or spills. The inspectors also noted piping identified for the transfer of hazardous waste. This piping was painted a terra-cotta color, and a number of metal tags were visible on piping connections identifying the fixtures as subject to air monitoring under RCRA.

Hazardous Waste WMOS SAA at SO Plant: FMC maintains a SAA for accumulating filters from the WMOS Tank in the SO area. The designated SAA is equipped with a clam-shell storage unit which is labeled as a hazardous waste SAA. The inspectors observed one 55-gallon drum inside the clam shell during the inspection. The drum was covered with a plastic sheet; it was closed; and it was in good condition. The drum was labeled hazardous waste filter bags and marked with a DOT flammable hazard label and a DOT dangerous when wet hazard label.

Hazardous Waste Solvent SAA at SO Plant: FMC maintains a SAA for accumulating material that is flushed from transfer lines in the cylinder filling room. The designated SAA is equipped with a clam-shell storage unit which is labeled as a hazardous waste SAA. The inspectors observed one 55-gallon drum inside the clam shell during the inspection. The drum was closed and in good condition. It was labeled hazardous waste solvent and marked with a DOT flammable hazard label.

Permitted Container Storage Corral at Main Plant: FMC’s permitted hazardous waste container storage area is surrounded by six-foot high chain link fence, which encloses and controls access to an area measuring 110-feet by 120-feet. The permitted container storage area consists of a reinforced concrete slab measuring 90-feet by 90-feet with sloped floor, six-inch high curbing, vehicle access, and sumps for liquid collection. A single skin, metal-frame structure measuring

40-feet by 50-feet, occupies a portion of the total permitted storage area. The framed structure is equipped with a flat roof which slopes away from the pad and extends beyond the bounds of the concrete containment. Thus, the structure is used to store containers of water reactive waste, and rain which falls on the roof of the framed structure is not discharged into the pad containment area.

The inspectors observed an emergency eyewash station, a spill kit, and several fire extinguishers in this area. Mr. Haley and Mr. Willis stated that employees carry hand-held two-way radios and/or cellular phones for emergency communication when working in this area. Hazardous waste containers were observed inside the framed structure, forming five rows on the left side of the structure and five rows on the right. According to the Permit, containers of water reactive wastes must be stored on pallets within the framed structure to prevent contact with precipitation. However, cylinders that are equipped with an affixed base for lifting and carrying via forklift are not required to be stored on pallets. The cylinder base provides for elevation of the water reactive waste material above the floor and eliminates the potential for contact of the container bottom with precipitation.

The inspectors observed four wooden pallets holding a total of seven 55-gallon drums of hazardous waste in the first row of containers on the left side of the building. Four of the drums were labeled as floor sweepings from the metal building and three were labeled as mineral oil with lithium flakes. The drums were all closed and in good condition. Each drum was labeled with the words "hazardous waste" and marked with an accumulation start date. The oldest drum was dated 06/10/2020. The four drums of hazardous waste floor sweepings and one drum of mineral oil with lithium flakes were all labeled with the "dangerous when wet" DOT hazard placard. The two remaining drums of mineral oil with lithium flakes were not labeled to indicate the hazards of the drums' contents. Mr. Haley and Mr. Willis immediately added the "dangerous when wet" DOT hazard placard to these hazardous waste storage drums, which were dated 07/01/2020 and 07/28/2020.

Pursuant to Hazardous Waste Permit No. NCD000771964 R-2, Section X.A.1. General Restrictions, which references 15A NCAC 13A .0112 [40 C.F.R. § 268], each container of hazardous waste restricted from land disposal that is stored by an owner/operator of a hazardous waste treatment, storage, or disposal facility must be clearly marked with an indication of the hazards of the contents as described by 15A NCAC 13A .0112 [40 C.F.R. § 268.50(a)(2)(i)(C)].

The inspectors observed four wooden pallets holding a total of eleven 55-gallon drums of hazardous waste in the second row of containers on the left side of the building. Six of the drums were labeled as floor sweepings from the metal building and five were labeled as mineral oil with lithium flakes. The drums were all closed and in good condition. Each drum was labeled with the words "hazardous waste," labeled with the "dangerous when wet" DOT hazard placard and marked with an accumulation start date. The oldest drum was dated 05/27/2020.

The inspectors observed three wooden pallets holding approximately twelve 25-gallon drums and eleven 5-gallon buckets of hazardous waste in the third row of containers on the left side of the building. The containers were labeled as hazardous waste rags and oil pads with lithium

flakes. The containers were all closed and in good condition. Each container was labeled with the words “hazardous waste,” labeled with the “dangerous when wet” DOT hazard placard and marked with an accumulation start date.

The inspectors observed one wooden pallet holding a total of three 55-gallon drums of hazardous waste in the fourth row of containers on the left side of the building. Two of the drums were labeled as mineral oil with lithium flakes and one was labeled as floor sweepings from the metal building. The drums were all closed and in good condition. Each drum was labeled with the words “hazardous waste,” labeled with the “dangerous when wet” DOT hazard placard and marked with an accumulation start date. The oldest drum was dated 07/20/2020.

The inspectors observed one wooden pallet holding a total of four 5-gallon buckets of hazardous waste in the fifth row of containers on the left side of the building. The containers were all closed and in good condition. Each container was labeled with the words “hazardous waste,” labeled with the “dangerous when wet” DOT hazard placard and marked with an accumulation start date.

The inspectors observed two secondary containment pallets holding one 25-gallon drum, two 5-gallon buckets and five 5-gallon carboys of hazardous waste in the first row of containers on the right side of the building. The 25-gallon drum was labeled as butyllithium and DMB; the two 5-gallon buckets were labeled as hazardous waste; three 5-gallon carboys were labeled as quench solvents; one 5-gallon carboy was labeled as mineral oil and toluene; and one 5-gallon carboy was labeled as CAT phosphate waste. The containers were all closed and in good condition. Each container was labeled with the words “hazardous waste,” labeled with the “dangerous when wet,” “flammable,” and/or “toxic” DOT hazard placard(s) and marked with an accumulation start date.

The inspectors observed two secondary containment pallets holding a total of two 55-gallon drums, seven 5-gallon buckets and one 5-gallon carboy of hazardous waste in the second row of containers on the right side of the building. The containers were all closed and in good condition. Each container was labeled with the words “hazardous waste,” labeled with a DOT hazard placard, and marked with an accumulation start date.

The inspectors observed a stack of empty wooden pallets in the third row on the right side of the building. No waste containers were observed in this row.

The inspectors observed one wooden pallet holding a 55-gallon drum of hazardous waste in the fourth row on the right side of the building. The drum was labeled as traces of lithium metal hexane and mineral oil. The drum was closed and in good condition. It was labeled with the words “hazardous waste,” labeled with the “dangerous when wet” and “flammable” DOT hazard placards and marked with an accumulation start date of 06/11/2020.

The inspectors observed two wooden pallets holding a total of eight 55-gallon drums of hazardous waste in the fifth row of containers on the right side of the building. The drums were all closed and in good condition. Each drum was labeled with the words “hazardous waste,” labeled with a DOT hazard placard, and marked with an accumulation start date.

SWMUs 5, 6, 8 and 12 at Main Plant: The inspection participants drove to a spot near SWMUs 5, 6, 8 and 12 and viewed the caps of these mixed industrial waste landfill caps from a distance. Mr. Haley and Mr. Willis stated that the caps are typically mowed in the fall.

Battery Metal Area at Main Plant: FMC manages a hazardous waste CAA for accumulating and managing hazardous waste residues generated from the lithium metal distillation process in the Battery Metal Area at the Main Plant. These waste residues initially accumulate in one of two approximately 200-gallon containers, labeled 400 TK112 and 460 TK107. Typically, one of these two containers is connected to the distillation process unit to accumulate hazardous waste residues, and the other is connected to the Casting Box to transfer the waste into 5-gallon buckets. When the full container is disconnected from the distillation system, it is replaced with the empty container that has been disconnected from the Casting Box. The full container is then moved from the distillation process unit and connected to the Casting Box. Heat is applied to the full container in order to melt the waste residue and pump it into the 5-gallon buckets staged inside the Casting Box. Mr. Haley and Mr. Willis explained that the Casting Box is designed to control the humidity surrounding the buckets in order to prevent the waste from reacting with moisture in the air. The buckets remain open inside the Casting Box until the waste has cooled and hardened. Employees then secure the lid on each 5-gallon bucket and transfer the containers to the permitted hazardous waste storage corral. The empty 200-gallon container is then ready for reuse accumulating hazardous waste residue from the lithium distillation system.

At the time of the inspection, the 400 TK 112 container, which was located next to the Casting Box, was labeled with the words “hazardous waste,” marked with an indication of the hazards, and dated 06/10/2020. The inspectors observed five 5-gallon buckets inside the Casting Box. The Casting Box was labeled with the words “hazardous waste,” and each bucket was labeled with the words “hazardous waste” and an indication of the hazards of its contents. The buckets appeared to be dated, and they were open to allow for the waste to harden and cool. The 460 TK 107 container, which was connected to the distillation system, was also labeled with the words “hazardous waste,” marked with an indication of the hazards, and dated 06/24/2020.

FMC manages a SAA for accumulating hazardous waste floor sweepings and refuse generated in the battery metal area. The inspectors observed one 55-gallon drum in this SAA. The drum was closed and in good condition. It was labeled as hazardous waste floor sweepings and refuse (battery) and it was identified with the “dangerous when wet” DOT hazard placard.

Dry Room at Main Plant: FMC manages a SAA for accumulating hazardous waste floor sweepings and refuse generated in the dry room. The inspectors observed two 25-gallon drums in this SAA. The drums were closed and in good condition. They were labeled as hazardous waste floor sweepings and refuse and identified with the “dangerous when wet” DOT hazard placard. The inspectors observed another 55-gallon drum next to the SAA. The 55-gallon drum was labeled “filters / parts contaminated with lithium metal in mineral oil.” Mr. Haley and Mr. Willis explained that this material will be processed to recover lithium metal inside the dry room.

UHW Caged Storage Area at Main Plant: The inspectors observed a number of containers for accumulating universal waste in the designated caged storage area inside the Hydroxide Building. Mr. Haley and Mr. Willis stated that the company recently shipped universal waste

from the facility on 07/20/2020. The inspectors observed one cardboard box for accumulating 4-foot used fluorescent lamps, one cardboard box for accumulating 8-foot used fluorescent lamps, one fiber drum for accumulating used ballasts, one fiber drum for accumulating used HID lamps, and two plastic containers for accumulating various used batteries. Although many of the containers were empty, they were closed, labeled as universal waste, and in good condition.

SWMU 34 at Main Plant: SWMU 34 is located beneath the floor of the Lithium Hydroxide Processing Area. Groundwater flow and quality in this area is managed using a hydraulic control system which includes six manholes covering groundwater extraction wells in the processing area. Groundwater is extracted from these wells and accumulated in T-341 before it is pumped to T-342 for pH adjustment. Treated groundwater is then pumped to an outdoor tank for storage before it is shipped offsite as nonhazardous wastewater. The inspectors observed Tanks 341 and 342 during the inspection.

Tanks Near Fuel Filling Station at Main Plant: The inspectors observed a used oil storage tank in a small tank farm located next to the fuel filling station. The tank was labeled “used oil” and it was in good condition.

Inspectors also observed hazardous waste storage Tank 830, which is used to store lithium hydroxide wastewater from Tank 140. The 16,294-gallon storage tank was in good condition. It was labeled with the words “hazardous waste” and it was identified with the National Fire Protection Association hazard diamond.

Metal Cells Area at Main Plant: FMC manages two SAAs in the metal cells area. One SAA is used to accumulate hazardous waste mineral oil with lithium flakes generated in the metal cell dipping process, and the other is used to accumulate floor sweepings generated in this area. The inspectors observed one 55-gallon drum in each of these SAAs, which were located right next to one another. The drums were closed and in good condition. One was labeled as hazardous waste floor sweepings and the other was labeled as hazardous waste mineral oil with lithium flakes. Each was identified with the “dangerous when wet” DOT hazard placard. Although the SAAs were located next to one another, FMC placed signage on the wall and painted a circle on the floor in order to define and separate the areas.

Container Storage Area Inspections: FMC conducts daily inspections of the facility’s CAAs and Permitted hazardous waste container storage corral. The inspectors reviewed daily inspection logs of the SO CAA from 01/27/2020 through the date of the inspection. Records include the name of the person conducting the inspection; the date and time of the inspection; and observations of the area’s containment system, containers, labels, and sumps.

The inspectors reviewed daily inspection logs of the permitted hazardous waste container storage corral from July 2019 through the date of the inspection. Records include the name of the person conducting the inspection; the date and time of the inspection; and observations of the area’s containers (leaks, deterioration, lids, “hazardous waste”), hang tags, age of container, and general observations.

The inspectors reviewed daily inspection logs of the battery metal – casting area CAA from July

2019 through the date of the inspection. Records include the name of the person conducting the inspection; the date and time of the inspection; and observations of the area's containers (leaks, deterioration, lids, "hazardous waste"), hang tags, age of container, and general observations.

Tank Inspections: The inspectors reviewed daily inspection logs of the hazardous waste storage Tank 830 from July 2019 through the date of the inspection. Records include the name of the person conducting the inspection; the date and time of the inspection; and observations of the condition of the tank (cracks at joints, leaks or releases, and functioning overflow), the secondary containment (integrity of concrete), the length of storage or turnover of waste (<90 days), and necessary repairs. In calendar year 2020, no daily inspections were conducted on 04/04, 04/05, 06/20, 06/21, 06/27 or 06/28.

Pursuant to 15A NCAC 13A .0107 [40 C.F.R. § 262.17(a)(2)], which incorporates 15A NCAC 13A .0110(j) [40 C.F.R. § 265.195(b)], and is a condition of the LQG Permit Exemption, a generator accumulating hazardous waste in tanks must conduct daily inspections of tank overflow/spill control equipment to ensure that it is in good working order; above ground portions of the tank system to detect corrosion or releases of waste; and the construction materials and the area immediately surrounding the externally accessible portion of the tank system, including the secondary containment system to detect erosion or signs of releases of hazardous waste.

FMC scans records of daily inspections for Tanks 502 and 503 onto the computer and keeps electronic records of those inspections. Records include the name of the person conducting the inspection; the date and time of the inspection; and observations of the condition of the tank (cracks at joints, leaks or releases, and functioning overflow), of the secondary containment (integrity of concrete), of the length of storage or turnover of waste (<90 days), and of necessary repairs. The inspectors reviewed a random selection of those daily inspection records between July 2019 and the date of the inspection.

Air Monitoring Records for Tanks 502 and 503: FMC's most recent air monitoring event for Tank 502 was conducted on 06/29/2020 and most recent air monitoring event for Tank 503 was conducted on 06/30/2020. The inspectors reviewed the facility's P&ID diagram and air monitoring records, which included a calibration log for each day of monitoring. No air monitoring readings were recorded for monitoring points ENV 155, 156, 157, or 158. The records indicated that these points could not be located.

In an email dated 07/30/2020, Mr. Haley stated that his review of the LDAR records from the 2020 monitoring of Tank 502 and 503 found six sampling points that were omitted and one that no longer existed following the 2019 monitoring event. These monitoring points, which included five valves and one pressure indicator in light liquid service, were tested on 07/30/2020. The highest recorded reading for any of the points during this monitoring event was 3.88 ppm.

Pursuant to 15A NCAC 13A .0107(a) [40 C.F.R. § 262.17(a)(2)], which incorporates 15A NCAC 13A .0110(t) [40 C.F.R. Part 265, Subpart BB], and is a condition of the LQG Permit Exemption, a generator accumulating hazardous waste in tanks must

comply with the RCRA Subpart BB organic air emission standards for equipment leaks, including, but not limited to, 15A NCAC 13A .0110(t) [40 C.F.R. Part 265.1062(b)(1)], which requires an owner or operator to comply with the requirements for valves, as described in 15A NCAC 13A .0110(t) [40 C.F.R. Part 265.1057], except if, after five consecutive quarterly leak detection periods with the percentage of valves leaking equal to or less than 2 percent, the owner or operator skips three of the quarterly leak detection periods (i.e., monitor for leaks once every year) for the valves subject to the requirements of 15A NCAC 13A .0110(t) [40 C.F.R. Part 265.1057].

Training: The inspectors identified seven facility employees who had either performed hazardous waste inspections or signed hazardous waste manifests during the past year at the facility and requested the RCRA hazardous waste training records for these individuals. In order to support COVID-19 health and safety protocols by minimizing the time inspectors were inside the office building, Mr. Haley agreed to send the records to the inspectors via email. In an attachment to an email dated 07/30/2020, Mr. Haley provided the inspectors with copies of the job titles and job descriptions for each of the following positions with hazardous waste management duties at the facility: Metals Crew Lead, Material Handler Crew Lead, Material Handler, Shift Supervisor, Operator Mechanic, and Distribution / Shipping / Receiving Operator.

The email also included an attachment with the training records for the employees identified during the inspection and the facility's 2020 site safety/regulatory training schedule. Records showed that the named employees had each completed the 8-hour RCRA refresher training in May or June of 2019. The training schedule identified required training (including RCRA training) for various groups of facility personnel. Annual RCRA training is scheduled for facility personnel in September 2020. Mr. Haley and Mr. Willis explained that the training was originally scheduled to be held in-person during May 2020, but that it was postponed due to the COVID-19 health and safety protocols.

Contingency Plan: The facility's most recent contingency plan was updated on 08/19/2019. The plan names primary and secondary emergency coordinators and describes response procedures to be taken in the event of a hazardous waste release. The plan includes a list of available emergency equipment identifying the location and capabilities of the equipment. It includes an evacuation plan and map and the required Quick Reference Guide.

The plan describes agreements with the first aid team, Concentra, Gaston Memorial Hospital, Kings Mountain Hospital, Ambulance, Bessemer City Fire Department, Crowders Mountain Fire and Rescue, Tryonota Volunteer Fire Department, Gastonia Fire Department, Gastonia HazMat Team, A&D Environmental, STAT Environmental, Shamrock Environmental, Bessemer City Police Department, and Gaston County Police Department. With coordination verification documentation from Gaston Emergency Medical Services, Bessemer City FD, Gaston County FD, Crowders Mountain VF and Rescue, Gaston County EMS, Tryonota VFD, and Bessemer City PD.

Hazardous Waste Manifests: The inspectors reviewed hazardous waste manifest records for shipments sent since the date of the last inspection. The records included required land disposal

restriction notifications, and the required signed manifest returned by the destination facility.

Biennial Report: The facility's most recent biennial report was received on 02/26/2020.

11) Out-Briefing

The inspectors conducted the exit meeting with Mr. Haley and Mr. Willis. During this meeting, the inspectors stated their preliminary conclusions of the inspection.

12) Conclusion

Based on the observations made during the inspection, FMC appeared to be deficient with the following requirements:

- **Pursuant to 15A NCAC 13A .0107 [40 C.F.R. § 262.17(a)(5)(i)(B)], which is a condition of the LQG Permit Exemption, a generator is required to mark or label containers with an indication of the hazards of the contents.**
- **Pursuant to Hazardous Waste Permit No. NCD000771964 R-2, Section X.A.1. General Restrictions, which references 15A NCAC 13A .0112 [40 C.F.R. § 268], each container of hazardous waste restricted from land disposal that is stored by an owner/operator of a hazardous waste treatment, storage, or disposal facility must be clearly marked with an indication of the hazards of the contents as described by 15A NCAC 13A .0112 [40 C.F.R. § 268.50(a)(2)(i)(C)].**
- **Pursuant to 15A NCAC 13A .0107 [40 C.F.R. § 262.17(a)(2)], which incorporates 15A NCAC 13A .0110(j) [40 C.F.R. § 265.195(b)], and is a condition of the LQG Permit Exemption, a generator accumulating hazardous waste in tanks must conduct daily inspections of overfill/spill control equipment to ensure that it is in good working order; above ground portions of the tank system to detect corrosion or releases of waste; and the construction materials and the area immediately surrounding the externally accessible portion of the tank system, including the secondary containment system to detect erosion or signs of releases of hazardous waste.**
- **Pursuant to 15A NCAC 13A .0107(a) [40 C.F.R. § 262.17(a)(2)], which incorporates 15A NCAC 13A .0110(t) [40 C.F.R. Part 265, Subpart BB], and is a condition of the LQG Permit Exemption, a generator accumulating hazardous waste in tanks must comply with the RCRA Subpart BB organic air emission standards for equipment leaks, including, but not limited to, 15A NCAC 13A .0110(t) [40 C.F.R. Part 265.1062(b)(1)], which requires an owner or operator to comply with the requirements for valves, as described in 15A NCAC 13A .0110(t) [40 C.F.R. Part 265.1057], except if, after five consecutive quarterly leak detection periods with the percentage of valves leaking equal to or less than 2 percent, the owner or operator skips three of the quarterly leak detection periods (i.e., monitor for leaks once every year) for the valves subject to the requirements of 15A NCAC 13A .0110(t) [40**

C.F.R. Part 265.1057].

13) Signed

Laurie Benton DiGaetano
Senior Enforcement and Compliance Specialist

Date

Concurrence

Alan A. Annicella
Chief, Land, Asbestos and Lead Section
Chemical Safety and Land Enforcement Branch
Enforcement and Compliance Assurance Division

Date