

RCRA Inspection Report

1) Inspector and Author of Report

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U.S. Environmental Protection Agency, Region 4
Enforcement and Compliance Assurance Division
Chemical Safety and Land Enforcement Branch
RCRA Enforcement Section
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Atlanta, Georgia 30303

2) Facility Information

Boston Gear
701 Carrier Drive
Charlotte, North Carolina 28216

EPA ID#: NCD083673590
NAICS #: 333613 Mechanical Power
Transmission Equipment Manufacturing

3) Responsible Officials

Tyler Kielman
Plant Manager
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4) Inspection Participants

Tyler Kielman, Boston Gear
Jeff Nichols, Boston Gear
Terry Jones, Boston Gear

Nick Guglielmi, NCDEQ
Ryan Mayette, NCDEQ
Laurie Benton DiGaetano, EPA

5) Date of Inspection

January 8, 2024, 9:00 AM – 4:45 PM

6) Applicable Regulations¹

Resource Conservation and Recovery Act (RCRA) Sections 3002 (42 U.S. Code – Annotated U.S.C.A. 6925 and 6927), and 40 Code of Federal Regulation (C.F.R.) Parts 260 - 270, 273, 278, & 279; and the North Carolina Solid Waste Management Law, N.C.G.S. § § 130A-17 to -28 and 130A-290 to - 310.22, and North Carolina Hazardous Waste Management Rules, 15A NCAC 13A .0101 to .0119.

Pursuant to 15A NCAC 13A .0107(a) [40 C.F.R. § 262.13(e)], the generator must meet the applicable independent generator category requirements listed in 15A NCAC 13A .0107(a) [40

¹ As the State's authorized hazardous waste program operates in lieu of the federal RCRA program, the citations of those authorized provisions will be to the authorized State program. However, for ease of reference, the federal citations will follow in brackets.

C.F.R. § 262.10]. A generator's category also determines which of the provisions of 15A NCAC 13A .0107(a) [40 C.F.R. §§ 262.14, 262.15, 262.16 or 262.17] must be met to obtain an exemption from the storage facility permit, interim status, and operating requirements when accumulating hazardous waste.

Pursuant to 15A NCAC 13A .0107(a) [40 C.F.R. § 262.15(a)], a generator may accumulate as much as 55 gallons of non-acute hazardous waste in containers at or near any point of generation where wastes initially accumulate, which is under the control of the operator of the process generating the waste, without a permit or without having interim status, as required by Sections 130A-294(c) and (g) of the NCSWML, N.C.G.S. § 130A-294(c) to (g) [Section 3005 of RCRA, 42 U.S.C. § 6925], and without complying with 15A NCAC 13A .0107(a) [40 C.F.R. § 262.16(b) or § 262.17(a)], except as required in 15A NCAC 13A .0107(a) [40 C.F.R. § 262.15(a)(7) and (8)], provided that the generator complies with the satellite accumulation area conditions listed in 15A NCAC 13A .0107(a) [40 C.F.R. § 262.15] (hereinafter referred to as the "SAA Permit Exemption").

Pursuant to 15A NCAC 13A .0102(b) [40 C.F.R. § 260.10], a small quantity generator of hazardous waste (SQG) is a generator who generates greater than 100 kilograms (220 pounds) but less than 1,000 kilograms (2,200 pounds) of non-acute hazardous waste in a calendar month.

Pursuant to 15A NCAC 13A .0107(a) [40 C.F.R. § 262.16)], an SQG may accumulate hazardous waste on-site for 180 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) to (g) [Section 3005 of RCRA, 42 U.S.C. § 6925], provided that the generator complies with the conditions listed in 15A NCAC 13A .0107(a) [40 C.F.R. § 262.16] (hereinafter referred to as the "SQG Permit Exemption").

Pursuant to 15A NCAC 13A .0107(h) [40 C.F.R. § 262.232(b)], an SQG may maintain its existing generator category during an episodic event provided that the generator complies with the conditions listed in 15A NCAC 13A .0107(h) [40 C.F.R. § 262.232(b)(1)-(6)].

Pursuant to 15A NCAC 13A .0102(b) [40 C.F.R. § 260.10], a large quantity generator of hazardous waste (LQG) is a generator who generates greater than or equal to 1,000 kilograms (2,200 pounds) of non-acute hazardous waste in a calendar month.

Pursuant to 15A NCAC 13A .0107(a) [40 C.F.R. § 262.17], an LQG may accumulate hazardous waste on-site 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) to (g) [Section 3005 of RCRA, 42 U.S.C. § 6925], provided that the generator complies with the conditions listed in 15A NCAC 13A .0107(a) [40 C.F.R. § 262.17] (hereinafter referred to as the "LQG Permit Exemption").

Pursuant to 15A NCAC 13A .0119(a) [40 C.F.R. § 273.9], a small quantity handler of universal waste (SQHUW) is a universal waste handler who does not accumulate 5,000 kilograms or more of universal waste (batteries, pesticides, mercury-containing equipment, lamps, or aerosol cans, calculated collectively) at any time.

7) Purpose of Inspection

The purpose of this inspection was to conduct an unannounced compliance evaluation inspection to determine Boston Gear's compliance with the applicable requirements of RCRA and the corresponding North Carolina regulations. This was an EPA lead inspection.

8) Facility Description

Historical records show that, between 1990 and 1998, Allied Signal/Bendix HVS notified as a large quantity generator (LQG) of hazardous waste operating under NAICS Code 336399 for All Other Motor Vehicle Systems at the subject Boston Gear Facility in Charlotte, North Carolina. On January 23, 2002, Bendix Commercial Vehicle Systems, LLC, requested that the EPA ID# NCD083673590 be deactivated because the Facility had been closed since April 17, 1998.

Boston Gear first notified as a SQG at the subject Facility after three manufacturing plant locations consolidated operations into the 193,000 square foot building in 2003. In its initial notification, Boston Gear identified Olds Properties Corp. as the legal owner of the facility, and Boston Gear as the legal operator. On April 28, 2020, the company updated Facility records to identify Catamount Enterprises, LLC as the legal owner of the facility. When Regal Rexnord Corporation (Regal Rexnord) acquired Altra Industrial Motor Corporation in March 2023, Boston Gear joined the Regal Rexnord family of brands. Regal Rexnord is a corporation headquartered in Beloit, Wisconsin, with over 80 manufacturing, sales, and service facilities across all continents. Boston Gear is currently one of the fifty brands of automation sub-systems, industrial powertrain solutions, automation and power transmission components, electric motors and electronic controls, air moving products, and specialty electrical components and systems that are engineered and manufactured by Regal Rexnord.

Boston Gear manufactures products under the brand names Boston Gear, Bauer, and Micron at the subject facility, which currently specializes in the manufacture of power transmission components. Raw materials, which are used to produce large gear motors, precision gear motors and loose gearing products, include metal bar stock, cast iron products and bronze. Components that are manufactured onsite may be sold directly to customers or they may be used with purchased items to assemble complete units for customer sale. The facility's primary manufacturing operations are machining, painting, and assembly. According to facility personnel, machining operations generate metal chips and scrap components, which are sent offsite for recycling; grinding fines, which are sent offsite for disposal as hazardous waste; and used cutting oils and coolant, which are sent offsite as nonhazardous wastewater. Facility operations also generate used paint thinner, waste paint related materials, and spent paint booth filters.

The subject Facility accumulates hazardous waste onsite in four designated satellite accumulation areas (SAAs) and accumulates containers of hazardous waste onsite in one designated central accumulation area (CAA). The Main Paint Booth and the Flow Line Paint Booth each have one designated SAA for accumulating hazardous waste paint related liquids, and one designated SAA for accumulating D007, D035, F005 hazardous waste solids (methyl ethyl ketone, chromium). Dirty mop water is transferred into a 2,000-gallon vertical storage tank, where it is stored as nonhazardous wastewater, and used cutting oils are transferred into

a 2,500-gallon metal fabricated storage tank, where it is also stored as nonhazardous wastewater.

Boston Gear first notified as a small quantity generator (SQG) at the subject Facility on January 28, 2004, and indicated that the Facility was generating hazardous wastes that are identified with one or more of the following EPA hazardous waste codes: D001 (ignitable), D009 (mercury), F003 (spent nonhalogenated solvents), and F005 (spent nonhalogenated solvents). On April 28, 2020, Boston Gear submitted notification of an unplanned episodic event that was expected to generate approximately 20,000 pounds of D008 (lead) hazardous waste oily water between April 27, 2020, and June 19, 2020.

According to the most recent notification, which was submitted on July 27, 2021, the subject Facility is currently operating as an SQG and generates hazardous wastes that are identified with one or more of the following EPA hazardous waste codes: D001 (ignitable), D008 (lead), D009 (mercury), F003 (spent nonhalogenated solvents), and F005 (spent nonhalogenated solvents). This location has approximately 200 employees, and operations run five days per week using three shifts.

9) Previous Inspection History

The NCDEQ conducted a RCRA compliance assistance visit (CAV) at the subject Facility on November 4, 2003, just before Boston Gear submitted its initial hazardous waste notification. Since that initial notification, the NCDEQ has conducted one RCRA compliance evaluation inspection (CEI), which occurred on February 18, 2004. No violations were noted during the 2003 CAV or the 2004 CEI.

10) Opening Conference

On January 8, 2024, EPA inspector Laurie Benton DiGaetano, accompanied by NCDEQ inspectors Nick Guglielmi and Ryan Mayette, arrived at the Boston Gear Facility at approximately 9:00 AM. Jeff Nichols, Production Manager, immediately received the inspectors. The inspectors introduced themselves, showed their credentials, and explained the purpose of the visit. Jeff Nichols and the inspectors were joined by Tyler Kielman, Plant Manager, for the opening conference.

The inspectors described the anticipated use of equipment (digital camera) during the inspection and provided a request for records. The EPA inspector discussed the company's ability, pursuant to 40 C.F.R. § 2.203, to assert a business confidentiality claim for information submitted to EPA. Facility personnel requested that the inspectors avoid taking photographs containing trade secrets or employees, but they did not assert a business confidentiality claim.

The EPA inspector also noted that the EPA has specific information available for small businesses, a classification within the Small Business Regulatory Enforcement Fairness Act that is generally set by the Small Business Administration using the business' SIC/NAICS code and annual receipts or number of employees. A copy of the EPA's information sheet for small businesses can be found at <https://www.epa.gov/sites/production/files/2017-06/documents/smallbusinessinfo.pdf>.

Jeff Nichols and Tyler Kielman provided an overview of the facility's history and current operations during the opening conference. The inspection participants also discussed health and safety protocols and required personal protective equipment before Jeff Nichols and Tyler Kielman led the inspectors on a tour of the Facility operations.

11) Generator Status and Waste Determination

Generator Status:

As noted in the Facility Description, Boston Gear submitted notification of an unplanned episodic event that would generate approximately 20,000 pounds of D008 (lead) hazardous waste oily water between April 27, 2020, and June 19, 2020. It appears that the waste associated with this notification was shipped from Boston Gear on August 5, 2020, using manifest number 013147062FLE. This manifest was used to track a shipment of 4,580 gallons (an estimated 38,200 pounds) of D008 hazardous waste liquid that was sent to Chemical Waste Management (ALD000622464) for landfill disposal (with prior treatment and/or stabilization).

15A NCAC 13A .0107(h) [40 C.F.R. § 262.232(b)] provides alternative standards for an SQG when managing episodic generation of hazardous waste. These standards allow an SQG to maintain its existing generator category during an episodic event, so long as the SQG meets the conditions found in 15A NCAC 13A .0107(h) [40 C.F.R. § 262.232(b)(1)-(6)]. Pursuant to 15A NCAC 13A .0107(h) [40 C.F.R. § 262.232(b)(5)], an SQG must treat hazardous waste generated from the episodic event onsite or manifest and ship such hazardous waste offsite to a designated Facility within 60 days of the start of the episodic event. Boston Gear's hazardous waste shipment was sent one hundred (100) calendar days after the start of the episodic event.

According to the records of all hazardous waste manifests found in the eManifest system, Boston Gear initiated six shipments with a total of over 60,000 kilograms of hazardous waste during calendar year 2021, and four shipments with a total of over 22,000 kilograms of hazardous waste during calendar year 2022. These shipments included the following shipments of D008 (lead) hazardous waste oily water to Chemical Waste Management (ALD000622464) for landfill disposal (with prior treatment and/or stabilization):

- 5,025 gallons shipped on March 26, 2021, using manifest number 014999089FLE;
- 5,430 gallons shipped on June 18, 2021, using manifest number 016067979FLE;
- 4,820 gallons shipped on November 2, 2021, using manifest number 016068089FLE; and
- 5,000 gallons shipped on March 11, 2022, using manifest number 016068219FLE.

Boston Gear far exceeded the minimum quantity of hazardous waste generation of an LQG during one or more months in calendar years 2020, 2021 and 2022. In 2020, the Facility submitted a notification of an unplanned episodic event, but exceeded the maximum number of days to manifest and ship hazardous waste off site to a designated Facility following the date that the unplanned episodic event began; in 2021 the Facility did not submit notification of any planned or unplanned episodic event, and also exceeded the maximum number of allowable planned and unplanned potential episodic events during the calendar year; in 2022, the Facility did not submit notification of any planned or unplanned episodic event during the calendar year. Therefore, it appears that Boston Gear was operating as an LQG of hazardous waste for

one or more months during calendar years 2020, 2021 and 2022. However, Boston Gear did not notify as a large quantity generator (LQG) of hazardous waste at any time during calendar years 2020, 2021 or 2022 and did not submit a biennial report for calendar year 2021.

- Pursuant to 15A NCAC 13A .0107(a) [40 C.F.R. § 262.13(a)], a generator must determine its generator category by counting the total amount of hazardous waste generated in the calendar month; subtracting from the total any amounts of waste except from counting; and determining the resulting generator category for the hazardous waste.
- Pursuant to 15A NCAC 13A .0107(a) [40 C.F.R. § 262.13(c)(8)], when making the monthly quantity-based determinations required by this part, the generator must include all hazardous waste that it generates, except hazardous waste that is managed as part of an episodic event in compliance with the conditions of Subpart L of this Part.
- Pursuant to 15A NCAC 13A .0107(a) [40 C.F.R. § 262.18(d)(2)], an LQG must re-notify by March 1 of each even-numbered year using EPA Form 8700-12.
- Pursuant to 15A NCAC 13A .0107(d) [40 C.F.R. § 262.41], a generator who is an LQG for at least one month of an odd-numbered year (reporting year) who ships any hazardous waste off-site to a treatment, storage or disposal facility within the United States must complete and submit EPA Form 8700-13 A/B to the Secretary of the Department of Environmental Quality by March 1 of the following even-numbered year and must cover generator activities during the previous year.

Waste Determination:

Facility records from calendar year 2020 until the date of the inspection indicate that waste management services for the Facility were provided by HAZ-MAT Environmental Services (HAZ-MAT) until Boston Gear entered into a new Profiled Waste Treatment and Disposal Agreement with Covanta Environmental Solutions (Covanta) on May 10, 2022. Boston Gear's records of daily logs provided by HAZ-MAT during calendar years 2020 and 2021 indicate that HAZ-MAT routinely pumped liquids from the tanks under the chip bins and from the trench in front of the tanks and transferred those liquids into totes (typically 7-9 totes), which were then stored on-site. The logs also indicated that HAZ-MAT provided services to pick up hazardous waste, nonhazardous waste, and universal waste.

During calendar years 2020 through 2022, Boston Gear sent a total of nearly 25,000 gallons of oily wastewater to Chemical Waste Management (ALD000622464) as D008 hazardous waste, but no shipments of D008 (lead) hazardous waste oily water have been initiated since Boston Gear entered into the new agreement with Covanta. Instead, Boston Gear routinely ships the oily wastewater to Covanta Environmental Solutions (NCR000135384) for disposal as nonRCRA, nonDOT regulated oily wastewater. Records of oily wastewater shipments that were initiated after Boston Gear entered into the new agreement with Covanta indicate that approximately 20,000 gallons of oily wastewater were shipped as nonRCRA, nonDOT regulated oily wastewater over six months during calendar year 2022, and another 20,000 gallons were shipped as nonRCRA, nonDOT regulated oily wastewater over six months during calendar year 2023.

During the inspection, Boston Gear personnel did not clearly identify the way in which the Facility first became aware that the oily wastewater was contaminated with lead. However, it appears that concerns may have been raised by the destination facility, which led Boston Gear to request lead analysis on the waste stream. The inspectors reviewed an invoice from HAZ-MAT (invoice 203764), which included the following line-item charges for lead analysis:

- March 17, 2020,
- April 22, 2020,
- May 5, 2020,
- May 14, 2020,
- May 27, 2020,
- May 29, 2020, and
- May 29, 2020 (TCLP).

The inspectors also reviewed HAZ-MAT's November 17, 2021, proposal (21-100-2381) to conduct TCLP analysis for RCRA metals on used coolant. In an email dated December 9, 2021, a HAZ-MAT employee transmitted a Pace Analytical sampling and analysis report (WL03088) to Boston Gear. The email stated that the coolant liquid is hazardous for lead and should be pumped with the totes going to Alabama (Chemical Waste Management).

When the inspectors asked what caused the oily coolant liquids to be identified as D008 hazardous waste in 2020, Boston Gear personnel stated that they did not identify the exact source of the contamination but believed that it may have come from incoming brass or bronze raw material stock that was contaminated with lead. The inspectors requested waste profile records, including sampling and analysis data, for the wastes generated on-site, including the oily water. Boston Gear provided available waste profile records but did not provide any sampling and analysis data. The inspectors reviewed the following waste profile records that were provided by Boston Gear during the inspection:

- Annual hazardous waste profile certifications, dated February 17, 2021, provided for Ecoflo (NCD980842132):
 - 167AAW-01 – Paint Thinner D001, D035, F005,
 - 167AAW-02 – Paint Filters Rags Debris D007, D035, F005,
 - 167AAW-06 – Paint Related Material D001, D007, D035,
 - 167AAW-07 – Lead impacted filter D008, and
 - 167AAW-08 – aerosol cans D001;
- Hazardous waste profile certifications, dated July 26, 2023, provided for GRR Sumter (SCD036275626):
 - Paint Thinner D001, F003, F005, and
 - Paint Filters Rags Debris D007, D035, F005; and
- Hazardous waste profile certification, dated August 2, 2023, provided for Ecoflo (NCD980842132):
 - Lead dust generated from brakes and shoes formed to brake pads D008.

Personnel were unable to provide any waste sampling or analytical data to demonstrate that shipments of oily wastewater sent as nonRCRA, nonDOT regulated oily wastewater have not exhibited the hazardous waste characteristic of toxicity due to elevated concentrations of lead. In addition, Facility personnel did not provide any examples of standard operating procedures that have been enacted by the Facility to ensure that lead contamination is detected or prevented in the waste oily coolant liquids generated on-site. Boston Gear did not provide records to support its determination that oily wastewater sent to Covanta Environmental Solutions (NCR000135384) since March 2022 is nonRCRA, nonDOT regulated oily wastewater and not D008 hazardous waste.

- **Pursuant to 15A NCAC 13A .0107(a) [40 C.F.R. § 262.11], a person who generates a solid waste, as defined in 15A NCAC 13A .0106(a) [40 C.F.R. § 261.2], must make an accurate determination as to whether that waste is a hazardous waste in order to ensure wastes are properly managed according to applicable RCRA regulations articulated in 15A NCAC 13A .0107(a) [40 C.F.R. § 262.11]. A small or large quantity generator must maintain records supporting its hazardous waste determinations, including records that identify whether a solid waste is a hazardous waste.**

Generator Permit Exemption:

Although, Boston Gear has notified as an SQG, records indicate that the Facility operated as an LQG for one or more months during calendar years 2020, 2021 and 2022. During calendar year 2023, the eManifest records indicate that Boston Gear initiated four shipments with a combined total of just over 5,000 kilograms of hazardous waste. According to the eManifest records, it does not appear that the Facility exceeded the maximum quantity of hazardous waste generation of an SQG during any calendar month since March 2022. Therefore, for the purposes of this report, the EPA will apply the LQG regulatory requirements between April 2020 and March 2022, and will apply the SQG regulatory requirements beginning March 2022.

Please note, however, that Boston Gear has not provided any records to demonstrate that the oily wastewater no longer exhibits the hazardous waste characteristic of toxicity due to elevated concentrations of lead. If an accurate hazardous waste determination on the oily wastewater indicates that it is regulated as hazardous waste, then the LQG regulatory requirements will continue to apply at the Boston Gear Facility.

12) Inspection Observations

Machining Area and Large Gear Cut Cell Area:

The inspection participants observed one of many similar manufacturing units in the Machining Area and another in the Large Gear Cut Cell Area. Each unit uses either water or oil as a cutting fluid to shape steel or bronze metal blanks into the desired gear shape. This process generates scrap metal chips or shavings which are accumulated in a straining basket at each unit (Photo 1). The cutting fluid drains from the scrap metal into a reservoir that recirculates cutting fluids

through the manufacturing unit. Facility personnel stated that additional cutting fluids are routinely added to each manufacturing unit to make-up for lost liquids, but that the cutting fluids are not routinely removed from the manufacturing units. The metal chips and shavings are transferred from the straining basket to the Chip Dock.

Open Gear Area (Pillar P4):

At Pillar P4 in the Open Gear Area, the inspection participants observed one 110-gallon container labeled “Waste Water Tank” (Photo 2). Facility personnel stated that this container is primarily used to accumulate used mop water generated during cleaning activities. Personnel stated that the contents of the 110-gallon container are transferred into the on-site wastewater tank and estimated that this transfer occurs approximately once every two weeks.

Records show that the Facility initiated at least five shipments of D008 hazardous waste liquid (wastewater) from the Facility between August 4, 2020, and March 11, 2022. Facility personnel stated that these wastewater shipments included a combination of the contents of a 2,500-gallon metal fabricated tank, which is used to store used cutting fluids that drain from metal chips and shavings, and the contents of a 2,000-tank, which is used to store dirty mop water. Although, the Facility used sampling and analysis to determine that the combined contents of these tanks exhibited the hazardous waste characteristic of toxicity due to elevated levels of lead, no sampling or analysis data was provided for the used mop waters in the 110-gallon container to determine if it exhibits any hazardous waste characteristics, including the characteristic of toxicity due to elevated levels of lead (D008) at the point of generation.

- **Pursuant to 15A NCAC 13A .0107(a) [40 C.F.R. § 262.11], a person who generates a solid waste, as defined in 15A NCAC 13A .0106(a) [40 C.F.R. § 261.2], must make an accurate determination as to whether that waste is a hazardous waste in order to ensure wastes are properly managed according to applicable RCRA regulations articulated in 15A NCAC 13A .0107(a) [40 C.F.R. § 262.11].**

Assembly Area:

The inspection participants walked through the Assembly Area where components that are manufactured on-site are assembled with purchased items to create complete units for customer sale. Facility personnel stated that employees dispense oil into some units during the assembly process. No wastes were observed in this area.

Main Paint Booth:

Both water-based and solvent-based primers and top-coats are applied to larger parts in the Facility’s Main Paint Booth. Facility personnel stated that they minimize the generation of paint waste by tracking each paint lot and using it before the paint reaches its expiration date. The inspectors observed four 5-gallon containers of product materials on an elevated platform next to the paint booth. Each container was connected to paint booth equipment for use in the process. The inspectors also observed solvent liquids inside three containers (two 5-gallon containers and one 10-gallon container), which were all stored on a mobile cart next to the

elevated platform (Photo 3). Although one of the 5-gallon containers of solvent liquids was labeled as hazardous waste, Facility personnel explained that the solvents in these containers are still in use. Dirty paint guns and covers that are used in the Main Paint Booth are placed into these containers where they are cleaned by soaking in the solvent liquids. When it becomes necessary to refresh the cleaning solvents in these containers, the spent solvents are disposed of as hazardous waste.

Liquid wastes that are generated when working with solvent-based paints and cleaning solvents have been identified as hazardous waste paint related material with the EPA codes D001, F003 and F005. Boston Gear manages one SAA at the Main Paint Booth for accumulating hazardous waste paint related material that is generated in this area. The inspectors observed one 5-gallon container in this SAA (Photo 4). The container, which was located on the elevated platform next to the four 5-gallon product containers, was identified with a flammable liquid DOT hazard placard, but it was not labeled with the words “hazardous waste” or marked with an indication that its contents are also toxic. The container was equipped with an open-top funnel fitted into the open bung.

- **Pursuant to 15A NCAC 13A .0107(a) [40 C.F.R. § 262.15(a)(5)], which is a condition of the SAA Permit Exemption, a generator is required to mark or label its containers (i) with the words “Hazardous Waste” and (ii) with an indication of the hazardous of the contents.**
- **Pursuant to 15A NCAC 13A .0107(a) [40 C.F.R. § 262.15(a)(4)], which is a condition of the SAA Permit Exemption, a generator is required to keep containers of hazardous waste closed at all times during accumulation, except when adding, removing, or consolidating waste; or when temporary venting of a container is necessary for the proper operation of equipment, or to prevent dangerous situations, such as build-up of extreme pressure.**

Liquid wastes that are generated when working with water-based coatings are managed as nonhazardous waste. Boston Gear disposes of these liquids in a sink that discharges to the local POTW.

Used paint booth filters, contaminated rags, and floor sweepings have been identified as hazardous waste solids (methyl ethyl ketone/chromium) with the EPA waste codes D007, D035 and F005. Boston Gear manages one SAA at the Main Paint Booth for accumulating hazardous waste solids that are generated in and around this area. The inspectors observed one 20-gallon container (Photo 5) and one 55-gallon container (Photo 6) in this SAA. The 20-gallon container was located next to the wall just outside of the Main Paint Booth, and the 55-gallon container was located next to the sink just outside the opposite side of the Main Paint Booth. Neither container was labeled as hazardous waste or marked with an indication of the hazards of its contents.

- **Pursuant to 15A NCAC 13A .0107(a) [40 C.F.R. § 262.15(a)(5)], which is a condition of the SAA Permit Exemption, a generator is required to mark or label its containers (i) with the words “Hazardous Waste” and (ii) with an indication of the hazardous of the contents.**

Although Boston Gear may manage more than one container in the same SAA, please note that the SAA Permit Exemption limits the total volume of waste accumulated in this area at any

given time to be no more than 55 gallons. An employee working in the Main Paint Booth area was in the process of placing used paint booth filters and floor sweepings into the open 55-gallon drum, and it appeared that the combined volume of waste in both containers had reached or exceeded 55-gallons as a result of this activity. The employee stated that they can typically change the paint booth filters twice before filling the 55-gallon drum. Note that, with respect to any volume of hazardous waste that exceeds the 55-gallon limit for an SAA, 15A NCAC 13A .0107(a) [40 C.F.R. § 262.15(a)(6)] requires Boston Gear to mark or label the container(s) holding the excess hazardous waste with the date the excess amount began accumulating and to comply with 15A NCAC 13A .0107(a) [40 C.F.R. § 262.17(a)] or remove the excess hazardous waste within three consecutive calendar days.

Flow Line Paint Booth:

Employees apply both water-based and solvent-based primers and top-coats to smaller parts in the facility's Flow Line Paint Booth. Facility personnel explained that this paint booth is used to coat a higher volume of smaller parts using a process that is similar to the one used in the Main Paint Booth, and that both paint booths use the same product materials and generate the same waste streams. The inspectors observed five 5-gallon containers of product materials, and two 5-gallon containers of solvent liquids. Each 5-gallon container of product material was connected to paint booth equipment for use in the process. The two containers of solvent liquids observed are used to clean dirty paint guns and covers used in the Flow Line Paint Booth.

Boston Gear manages one SAA at the Flow Line Paint Booth for accumulating hazardous waste paint related material that is generated in this area. The inspectors observed one 55-gallon container inside a wheeled secondary containment caddy in this SAA (Photo 7). The container was equipped with a latched funnel, but it was not labeled with the words "hazardous waste" or marked with an indication of the hazards of its contents.

- **Pursuant to 15A NCAC 13A .0107(a) [40 C.F.R. § 262.15(a)(5)], which is a condition of the SAA Permit Exemption, a generator is required to mark or label its containers (i) with the words "Hazardous Waste" and (ii) with an indication of the hazardous of the contents.**

Boston Gear manages another SAA at the Flow Line Paint Booth for accumulating hazardous waste solids that are generated in and around this area. The inspectors observed one 55-gallon container on a wheeled base in this SAA (Photo 8). The container was closed, but it was not labeled with the words "hazardous waste" or marked with an indication of the hazards of its contents.

- **Pursuant to 15A NCAC 13A .0107(a) [40 C.F.R. § 262.15(a)(5)], which is a condition of the SAA Permit Exemption, a generator is required to mark or label its containers (i) with the words "Hazardous Waste" and (ii) with an indication of the hazardous of the contents.**

Chip Dock:

Metal chips and shavings generated by machining operations are transferred to the Chip Dock, where they are stored before being shipped off-site for recycling. The inspectors observed a

large open vat labeled “waste water” in this area (Photo 9). Facility personnel explained that dirty mop water, including the dirty mop water that is accumulated in the 110-gallon container that was observed at Pillar P4 in the Open Gear Area, is poured into this vat. The dirty mop water is then transferred via hard-piping into a 2,000-gallon vertical storage tank, which is located on the other side of the cinderblock wall behind the vat. The inspectors observed several empty mop buckets on the floor next to the vat, and dirty liquids inside of the vat (Photo 10).

The inspectors entered the room on the opposite side of the cinderblock wall and observed the 2,000-gallon vertical storage tank on an elevated concrete pad (Photo 11). The tank was not labeled. The inspectors observed liquids on the floor surrounding the concrete pad (Photo 12) and in a sump in the corner of the room. This sump is one of two blind sumps that are connected to another. The second sump is located just outside of this building next to the 2,500-gallon metal fabricated tank under the chip bins. Personnel explained that, when the transporter comes to transport liquids from the 2,000-gallon and 2,500-gallon tanks, liquids are also pumped from the sumps. Terry Jones stated that the liquid was rainwater that had entered the room through the damaged roof, but the inspectors observed discoloration indicating contamination of the liquids inside the 2,000-gallon tank room.

- **Pursuant to 15A NCAC 13A .0107(a) [40 C.F.R. § 262.11], a person who generates a solid waste, as defined in 15A NCAC 13A .0106(a) [40 C.F.R. § 261.2], must make an accurate determination as to whether that waste is a hazardous waste in order to ensure wastes are properly managed according to applicable RCRA regulations articulated in 15A NCAC 13A .0107(a) [40 C.F.R. § 262.11].**

In addition to the large open “waste water” vat, the inspectors observed three bins along the wall at the far end of the Chip Dock (Photo 13). Signs on the wall above the bins identified two bins for storing brass chips and the third for storing brass and stainless-steel solids. To the left of these bins, the inspectors observed three large hoppers just off the edge of the loading dock floor (Photo 14). Facility personnel explained that the company always keeps two hoppers onsite for accumulating and storing metal chips and shavings that do not contain brass. One of the three hoppers observed during the inspection was empty, another was full, and the last one was in use. The empty hopper had just been delivered and placed at the Chip Dock, and the inspection participants observed the full hopper being taken away during the inspection.

The large hoppers described above are staged on a 2,500-gallon metal fabricated storage tank which is used to accumulate and store cutting fluids that drain from the metal chips and shavings inside the hoppers (Photos 15 and 16). Facility personnel stated that the chip bins and metal fabricated storage tank were installed by the scrap metal vendor in 2003. Cutting fluids from the brass chips and from the brass and stainless-steel solids also drain from those three smaller bins onto a secondary containment tray that is connected through a pipe into the 2,500-gallon metal fabricated storage tank. On the loading dock, the inspectors also observed a funnel that is connected through PVC piping into the 2,500-gallon metal fabricated storage tank (Photo 17). The inspectors observed used cutting fluids in the secondary containment tray beneath the three smaller chip bins, on the metal fabricated tank beneath the larger chip

hoppers, and in and around the blind sump (Photo 18), which is connected to the sump inside the room with the 2,000-gallon storage tank.

Although the Facility used sampling and analysis to determine that the combined contents of these tanks exhibited the hazardous waste characteristic of toxicity due to elevated levels of lead, no sampling or analysis data was provided for the used cutting fluids alone to determine if it exhibits any hazardous waste characteristics at the point of generation, including the characteristic of toxicity due to elevated levels of lead (D008).

- **Pursuant to 15A NCAC 13A .0107(a) [40 C.F.R. § 262.11], a person who generates a solid waste, as defined in 15A NCAC 13A .0106(a) [40 C.F.R. § 261.2], must make an accurate determination as to whether that waste is a hazardous waste in order to ensure wastes are properly managed according to applicable RCRA regulations articulated in 15A NCAC 13A .0107(a) [40 C.F.R. § 262.11].**

Central Accumulation Area (CAA) Shed:

Boston Gear manages a hazardous waste CAA in a caged, covered area outside of the production building. The area was identified with signs which read “restricted area,” “flammable liquids” and “no smoking.” The inspectors observed spill response materials and portable fire extinguishers, and Facility personnel stated that employees carry two-way radios when working in this area. Facility personnel also stated that the sprinkler system in the CAA is equipped with audible and visual alarms and that it contacts the local fire department upon activation. The inspectors observed emergency response information and emergency contact information (Photo 19) posted on the wall behind a cardboard box of universal waste lamps. However, the emergency contact information was out of date because the individual that was identified as the emergency coordinator is no longer an employee at the Facility.

- **Pursuant to 15A NCAC 13A .0107(a) [40 C.F.R. § 262.16(b)(9)(ii)(A)], which is a condition of the SQG Permit Exemption, a generator is required to post the name and emergency telephone number of the emergency coordinator next to telephones or in areas directly involved in the generation and accumulation of hazardous waste.**

The inspectors observed four 55-gallon drums next to a drum compactor unit in the center of the CAA (Photo 20). Two drums were labeled D007, D035, F005 hazardous waste solid (methyl ethyl ketone, chromium) paint filters and rags (Photo 21); one drum was labeled hazardous waste paint related material; and the last drum was not labeled. Facility personnel stated that these drums all contained hazardous waste solids, and immediately placed new hazardous waste labels on the incorrectly identified drum and the unlabeled drum (Photo 22). None of the drums were marked with an accumulation start date, and none were marked with an indication of the hazards of its contents.

- **Pursuant to 15A NCAC 13A .0107(a) [40 C.F.R. § 262.16(b)(6)(i)], which is a condition of the SQG Permit Exemption, a generator must mark or label its containers with the following: (A) the words “Hazardous Waste”; (B) an indication of the hazards of the contents; and (C) the date upon which each period of accumulation begins clearly visible for inspection on each container.**

The inspectors observed two 55-gallon drums of used oil near the entrance of the CAA (Photo 23) and 55-gallon drums labeled nonhazardous grinding fines and filter paper along the left wall inside the CAA. The two drums of used oil were closed, and each was identified with the words “used oil” written on a non-regulated waste label. Because used oil is regulated under 40 C.F.R. Part 279, the EPA recommends using “used oil” labels for containers of used oil rather than “non-regulated waste” labels marked with the words “used oil”.

Signs on the wall inside the CAA indicate that one small area has been designated for storing scrap lead and dust. Terry Jones stated that these materials are generated about once every two years. No containers were observed in this area during the inspection.

The inspectors observed several 55-gallon drums containing either A or B components of SmartFOAM Foam-in-Place packaging product materials. These A and B components are combined to produce a packaging foam to protect final products during shipment. In addition to the product drums, the inspectors also observed one open container of SmartFOAM A (Part #474806), which was not empty (Photo 24). Facility personnel explained that the contents of this container had reacted and could not be used to produce the packaging foam. Although Terry Jones stated that the material would be sent off-site as hazardous waste, the container was not closed, labeled as hazardous waste, or marked with an indication of the hazardous of its contents.

- **Pursuant to 15A NCAC 13A .0107(a) [40 C.F.R. § 262.11], a person who generates a solid waste, as defined in 15A NCAC 13A .0106(a) [40 C.F.R. § 261.2], must make an accurate determination as to whether that waste is a hazardous waste in order to ensure wastes are properly managed according to applicable RCRA regulations articulated in 15A NCAC 13A .0107(a) [40 C.F.R. § 262.11].**

Universal Waste in the CAA:

The inspectors observed one cardboard box of universal waste lamps near the chain link fence in the far-right corner just inside the CAA (Photo 25). The container was open (Photo 26), and it was not labeled as universal waste lamps. Records show that Boston Gear shipped universal waste bulbs to Covanta on March 20, 2023, and December 18, 2023.

- **Pursuant 15A NCAC 13A .0119(b) [40 C.F.R. § 273.13(d)(1)], a SQHUW must contain any lamp in containers or packages that are structurally sound, adequate to prevent breakage, and compatible with the contents of the lamps. Such containers and packages must remain closed and must lack evidence of leakage, spillage or damage that could cause leakage under reasonably foreseeable conditions.**
- **Pursuant to 15A NCAC 13A .0119(b) [40 C.F.R. § 273.14(e)], a SQHUW must label or mark each lamp or container of lamps clearly with one of the following phrases: “Universal Waste-Lamp(s),” or “Waste Lamp(s),” or “Used Lamps.”**

13) Records Review

Contingency Plan and Quick Reference Guide (QRG):

During the time in calendar years 2020, 2021 and 2022 when Boston Gear was operating as an LQG, the Facility did not have a contingency plan, which describes the actions that Facility personnel should take in response to an emergency, or a quick reference guide.

Pursuant to 15A NCAC 13A .0107(a) [40 C.F.R. § 262.17(a)(6)], which incorporates 15A NCAC 13A .0107(i) [40 C.F.R. § 262.260], and is a condition of the LQG Permit Exemption, a generator must have a contingency plan for the Facility.

- **Pursuant to 15A NCAC 13A .0107(a) [40 C.F.R. § 262.17(a)(6)], which incorporates 15A NCAC 13A .0107(i) [40 C.F.R. § 262.262(b)], and is a condition of the LQG Permit Exemption, a generator must submit a quick reference guide of the contingency plan to the local emergency responders.**

Similarly, Boston Gear did not have emergency information posted at or near the SAAs on-site, and the emergency information described in the CAA portion of the Inspection Observations above was out of date.

- **Pursuant to 15A NCAC 13A .0107(a) [40 C.F.R. § 262.16(b)(9)(ii)(A)], which is a condition of the SQG Permit Exemption, a generator is required to post the name and emergency telephone number of the emergency coordinator next to telephones or in areas directly involved in the generation and accumulation of hazardous waste.**

In addition, the Facility did not have documentation of any attempts to make arrangements with the local police department, fire department, other emergency response teams, emergency response contractors, equipment suppliers, local hospitals or the Local Emergency Planning Committee during the times that the Facility was operating as an LQG or an SQG.

- **Pursuant to 15A NCAC 13A .0107(a) [40 C.F.R. § 262.17(a)(6)], which incorporates 15A NCAC 13A .0107(i) [40 C.F.R. § 262.256], and is a condition of the LQG Permit Exemption, a generator must: (a) attempt to make arrangements with the local authorities identified, as appropriate for the type of waste handled at the facility and the potential need for the services of these authorities, and (b) maintain records documenting the arrangements made.**
- **Pursuant to 15A NCAC 13A .0107(a) [40 C.F.R. § 262.16(b)(8)(vi)], which is a condition of the SQG Permit Exemption, a generator is required to (A) attempt to make arrangements with the local authorities identified, as appropriate for the type of waste handled at his facility and the potential need for the services of these authorities, and (B) maintain records documenting the arrangements made.**

Training Records:

The inspectors requested records related to hazardous waste management training at the Facility, and personnel provided information about the 2023 Safety Training program. Although

the 2023 Safety Training program included three modules that included vague references to hazardous waste management requirements, no records of specific hazardous waste training were provided for calendar years 2020, 2021 and 2022 when Boston Gear was operating as an LQG. In addition, Boston Gear did not provide records of job descriptions with a written description of required training for each position at the Facility related to hazardous waste management.

- **Pursuant to 15A NCAC 13A .0107(a) [40 C.F.R. § 262.17(a)(7)], which is a condition of the LQG Permit Exemption, (i) Facility personnel must successfully complete a program of classroom instruction or on-the-job training that teaches them to perform their duties in a way that ensures the facility's compliance with the regulations; (ii) Facility personnel must complete personnel training within six months of being hired or of being assigned to a new position at the Facility; (iii) Facility personnel must take part in an annual review of the initial training required by this section; and (iv) the generator must maintain training records that include, among others: the job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job; a written job description for each position; a written description of the type and amount of both introductory and continuing training that will be given to each person filling a position; and records documenting that the training required has been given to and completed by Facility personnel.**

Waste Manifest and Land Disposal Restriction (LDR) Records:

According to the eManifest records, Boston Gear initiated three shipments with a total of nearly 20,000 kilograms of hazardous waste during calendar year 2020; six shipments with a total of over 60,000 kilograms of hazardous waste during calendar year 2021; four shipments with a total of over 22,000 kilograms of hazardous waste during calendar year 2022; and four shipments with a total of over 5,000 kilograms of hazardous waste during calendar year 2023.

The inspectors requested all available hazardous waste manifest records and land disposal restriction forms for shipments of hazardous waste sent since calendar year 2020. Records for three hazardous waste shipments did not include the final, signed return copy of the associated hazardous waste manifest record. The shipment associated with hazardous waste manifest number 023924854JJK was sent on December 18, 2023, which is within the timeframe for receiving the final, signed return copy of the manifest. The shipments associated with hazardous waste manifest numbers 02759447JJK and 020759355JJK, were sent on March 20, 2023, and October 26, 2022, respectively. Although well over sixty days had passed since each of these shipments was initiated, Boston Gear had no records to show that a legible copy of each manifest, with some indication that the Facility had not received confirmation of delivery, had been submitted to the EPA Regional Administrator for EPA Region 4.

- **Pursuant to 15A NCAC 13A .0107(d) [40 C.F.R. § 262.42(b)], a SQG who does not receive a copy of the manifest with the handwritten signature of the owner or operator of the designated facility within 60 days of the date the waste was accepted by the initial transporter must submit a legible copy of the manifest, with some indication that the**

generator has not received confirmation of delivery, to the EPA Regional Administrator for the Region in which the generator is located.

According to the eManifest system, Boston Gear shipped 685 pounds of D008 waste environmentally hazardous substance, solid (lead) to Ecoflo, Inc. (NCD980842132) on August 8, 2023, using Manifest number 023924989JJK. This manifest document was not included with the available hazardous waste manifest records on-site at the time of the inspection.

- **Pursuant to 15A NCAC 13A .0107(d) [40 C.F.R. § 262.40(a)], a generator must keep a copy of each manifest signed in accordance with 15A NCAC 13A .0107(b) [40 C.F.R. § 262.23(a)] for three years or until he receives a signed copy from the designated facility which received the waste. This signed copy must be retained as a record for at least three years from the date the waste was accepted by the initial transporter.**

Weekly Inspection Records:

The inspectors reviewed Boston Gear's available records of inspections of the hazardous waste CAA since calendar year 2020. The inspection log includes a checklist to record observations about the condition of the containers, evidence of spills or leaks, labels on the containers, closure of the containers, accumulation start dates on the containers, the presence of spill control equipment, and the presence of a communication device. The records include the date of the inspection and the name, signature and initials of the employee conducting the inspection, and a space for the inspector to record notes on the inspection.

For each month of inspections, the weekly inspections conducted during the entire month are recorded on a single sheet of paper. Boston Gear provided only two pages of records for inspections conducted between April 27, 2020, and March 11, 2022, and four pages of records for inspections conducted prior to April 27, 2020, and after March 11, 2022. According to these records inspections were conducted on the following dates:

- October 2, 9, 16, 23, and 30, 2020;
- May 7, 14, 21, and 28, 2021;
- August 5, 12, 19, and 26, 2022;
- October 2, 9, 16, 23, and 30, 2023;
- November 3, 10, 17, 22, and 30, 2023; and
- January 2, 2024.
- **Pursuant to 15A NCAC 13A .0107(a) [40 C.F.R. § 262.17(a)(1)(v)], which is a condition of the LQG Permit Exemption, a generator is required to, at least weekly, inspect central accumulation areas looking for leaking containers and for deterioration of containers caused by corrosion or other factors.**
- **Pursuant to 15A NCAC 13A .0107(a) [40 C.F.R. § 262.16(b)(2)(iv)], which is a condition of the SQG Permit Exemption, a generator must, at least weekly, inspect central accumulation areas looking for deterioration of containers caused by corrosion or other factors.**

Tank Records:

The 2,500-gallon metal fabrication tank and the 2,000-gallon storage tank each stored material that was shipped as D008 hazardous waste liquid (wastewater) during calendar years 2020, 2021 and 2022. Boston Gear did not provide a written tank integrity assessment, records of daily inspections for either tank, or records of daily inspections of ancillary equipment for either tank. In addition, the Facility did not provide a notification for closure of either tank when the units ceased accumulating hazardous waste because the oily wastewaters were re-classified as nonhazardous waste.

- Pursuant to 15A NCAC 13A .0107(a) [40 C.F.R. § 262.17(a)(2)], which incorporates 15A NCAC 13A .0110(j) [40 C.F.R. § 265.192(a)], and is a condition of the LQG Permit Exemption, a generator accumulating hazardous waste in tanks must obtain a written tank assessment reviewed and certified by a qualified Professional Engineer, attesting that the system has sufficient structural integrity and is acceptable for the storing and treating of hazardous waste.
- Pursuant to 15A NCAC 13A .0107(a) [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 inspections at least once each operating day: (1) Overfill/spill control equipment (e.g., waste-feed cutoff systems, bypass systems, and drainage systems) to ensure that it is in good working order; (2) Above ground portions of the tank system, if any, to detect corrosion or releases of waste; and (3) The construction materials and the area immediately surrounding the externally accessible portion of the tank system, including the secondary containment system (e.g., dikes) to detect erosion or signs of releases of hazardous waste (e.g., wet spots, dead vegetation).
- Pursuant to 15A NCAC 13A .0107(a) [40 C.F.R. § 262.17(a)(2)], which incorporates 15A NCAC 13A .0110(j) [40 C.F.R. § 265.195(e)], and is a condition of the LQG Permit Exemption, a generator accumulating hazardous waste in tanks must conduct daily inspections of tank ancillary equipment that is not provided with secondary containment.
- Pursuant to 15A NCAC 13A .0107(a) [40 C.F.R. § 262.17(a)(8)(i)], which is a condition of the LQG Permit Exemption, an LQG must place a notice in the operating record within 30 days after closing a waste accumulation unit identifying the location of the unit within the facility.

14) Closing Conference

The inspectors conducted the exit meeting at 4:35 PM with Tyler Kielman, Jeff Nichols and Terry Jones. During this meeting, the inspectors stated their preliminary conclusions of the inspection. Facility personnel agreed to provide information and supporting documentation related to the determination that the oily wastewaters were identified as a hazardous waste and later identified as a nonhazardous waste. However, no information or supporting documentation has been provided to date.

15) Summary of Observations

During the inspection, observations were made concerning the following RCRA requirements:

- **Pursuant to 15A NCAC 13A .0107(a) [40 C.F.R. § 262.13(a)], a generator must determine its generator category by counting the total amount of hazardous waste generated in the calendar month; subtracting from the total any amounts of waste exempt from counting; and determining the resulting generator category for the hazardous waste.**

It appears that Boston Gear was operating as an LQG of hazardous waste for one or more months during calendar years 2021 and 2022. However, Boston Gear did not notify as an LQG at any time during calendar years 2021 or 2022.

- **Pursuant to 15A NCAC 13A .0107(a) [40 C.F.R. § 262.13(c)(8)], when making the monthly quantity-based determinations required by this part, the generator must include all hazardous waste that it generates, except hazardous waste that is managed as part of an episodic event in compliance with the conditions of subpart L of this part.**

In 2020, the Facility submitted a notification of an unplanned episodic event, but exceeded the maximum number of days to manifest and ship hazardous waste off site to a designated Facility following the date that the unplanned episodic event began. Therefore, it appears that Boston Gear was operating as an LQG of hazardous waste for one or more months during calendar year 2020 but did not notify as an LQG of hazardous waste.

- **Pursuant to 15A NCAC 13A .0107(a) [40 C.F.R. § 262.18(d)(2)], an LQG must re-notify by March 1 of each even-numbered year using EPA Form 8700-12.**

Boston Gear far exceeded the minimum quantity of hazardous waste generation of an LQG during one or more months in calendar years 2020, 2021 and 2022, but did not notify as an LQG of hazardous waste at any time during calendar years 2020, 2021 or 2022.

- **Pursuant to 15A NCAC 13A .0107(d) [40 C.F.R. § 262.41], a generator who is an LQG for at least one month of an odd-numbered year (reporting year) who ships any hazardous waste off-site to a treatment, storage or disposal facility within the United States must complete and submit EPA Form 8700-13 A/B to the Secretary of the Department of Environmental Quality by March 1 of the following even-numbered year and must cover generator activities during the previous year.**

Boston Gear operated as an LQG of hazardous waste for one or more months and shipped hazardous waste off-site for treatment, storage or disposal during calendar year 2021. However, Boston Gear did not submit a biennial report for calendar year 2021.

- **Pursuant to 15A NCAC 13A .0107(a) [40 C.F.R. § 262.11], a person who generates a solid waste, as defined in 15A NCAC 13A .0106(a) [40 C.F.R. § 261.2], must make an accurate determination as to whether that waste is a hazardous waste in order to ensure wastes are properly managed according to applicable RCRA regulations articulated in 15A NCAC 13A .0107(a) [40 C.F.R. § 262.11]. A small or large quantity generator must maintain records supporting its hazardous waste determinations, including records that identify whether a solid waste is a hazardous waste.**

Boston Gear did not provide records to support its waste determinations for:

- oily wastewater sent to Covanta Environmental Solutions (NCR000135384) since March 2022 as nonRCRA, nonDOT regulated oily wastewater and not D008 hazardous waste;
 - used mop waters transferred to the 2,000-gallon storage tank;
 - liquids on the floor surrounding the 2,000-gallon storage tank;
 - used cutting fluids draining from three smaller chip bins containing brass chips and brass and stainless-steel solids and into the 2,500-gallon metal fabricated storage tank;
 - used cutting fluids draining from three larger hoppers containing metal chips and shavings and into the 2,500-gallon metal fabricated storage tank; and
 - reacted contents of SmartFOAM Part A container in the CAA.
- **Pursuant to 15A NCAC 13A .0107(a) [40 C.F.R. § 262.15(a)(5)], which is a condition of the SAA Permit Exemption, a generator is required to mark or label its containers (i) with the words “Hazardous Waste” and (ii) with an indication of the hazardous of the contents.**

The following containers of hazardous waste were not labeled with the words “hazardous waste” and with one or more indications of the hazards of its contents: one 5-gallon container in the hazardous waste paint related material SAA at the Main Paint Booth; one 20-gallon container and one 55-gallon container in the hazardous waste solids SAA at the Main Paint Booth; one 55-gallon container in the hazardous waste paint related material SAA at the Flow Line Paint Booth; and one 55-gallon container in the hazardous waste solids SAA at the Flow Line Paint Booth.

- **Pursuant to 15A NCAC 13A .0107(a) [40 C.F.R. § 262.15(a)(4)], which is a condition of the SAA Permit Exemption, a generator is required to keep containers of hazardous waste closed at all times during accumulation, except when adding, removing, or consolidating waste; or when temporary venting of a container is necessary for the proper operation of equipment, or to prevent dangerous situations, such as build-up of extreme pressure.**

One 5-gallon container in the hazardous waste paint related material SAA at the Main Paint Booth was equipped with an open funnel in an open bung.

- **Pursuant to 15A NCAC 13A .0107(a) [40 C.F.R. § 262.16(b)(6)(i)], which is a condition of the SQG Permit Exemption, a generator must mark or label its containers with the following: (A) the words “Hazardous Waste”; (B) an indication of the hazards of the contents; and (C) the date upon which each period of accumulation begins clearly visible for inspection on each container.**

Four 55-gallon containers of hazardous waste in the CAA were not marked with an indication of the hazards of their contents or with an accumulation start date. One of these four 55-gallon containers was also not labeled with the words “hazardous waste.”

- **Pursuant 15A NCAC 13A .0119(b) [40 C.F.R. § 273.13(d)(1)], a SQHUW must contain any lamp in containers or packages that are structurally sound, adequate to prevent breakage, and compatible with the contents of the lamps. Such containers and packages must remain closed and must lack evidence of leakage, spillage or damage that could cause leakage under reasonably foreseeable conditions.**

One cardboard box of universal waste lamps in the CAA was not closed.

- Pursuant to 15A NCAC 13A .0119(b) [40 C.F.R. § 273.14(e)], a SQHUW must label or mark each lamp or container of lamps clearly with one of the following phrases: “Universal Waste-Lamp(s),” or “Waste Lamp(s),” or “Used Lamps.”

One cardboard box of universal waste lamps in the CAA was not labeled.

- Pursuant to 15A NCAC 13A .0107(a) [40 C.F.R. § 262.17(a)(6)], which incorporates 15A NCAC 13A .0107(i) [40 C.F.R. § 262.260], and is a condition of the LQG Permit Exemption, a generator must have a contingency plan for the Facility.

During the time in calendar years 2020, 2021 and 2022 when Boston Gear was operating as an LQG, the Facility did not have a contingency plan.

- Pursuant to 15A NCAC 13A .0107(a) [40 C.F.R. § 262.17(a)(6)], which incorporates 15A NCAC 13A .0107(i) [40 C.F.R. § 262.262(b)], and is a condition of the LQG Permit Exemption, a generator must submit a quick reference guide of the contingency plan to the local emergency responders.

Boston Gear did not submit a quick reference guide of the contingency plan to the local emergency responders when the Facility first became subject to the LQG provisions.

- Pursuant to 15A NCAC 13A .0107(a) [40 C.F.R. § 262.16(b)(9)(ii)(A)], which is a condition of the SQG Permit Exemption, a generator is required to post the name and emergency telephone number of the emergency coordinator next to telephones or in areas directly involved in the generation and accumulation of hazardous waste.

At the time of the CEI, Boston Gear did not have emergency information posted at or near the SAAs, and the emergency information posted in the CAA was out of date.

- Pursuant to 15A NCAC 13A .0107(a) [40 C.F.R. § 262.17(a)(6)], which incorporates 15A NCAC 13A .0107(i) [40 C.F.R. § 262.256], and is a condition of the LQG Permit Exemption, a generator must: (a) attempt to make arrangements with the local authorities identified, as appropriate for the type of waste handled at the Facility and the potential need for the services of these authorities, and (b) maintain records documenting the arrangements made.

The Facility did not have documentation of any attempts to make arrangements with the local police department, fire department, other emergency response teams, emergency response contractors, equipment suppliers, local hospitals or the Local Emergency Planning Committee during the times that the Facility was operating as an LQG.

- Pursuant to 15A NCAC 13A .0107(a) [40 C.F.R. § 262.16(b)(8)(vi)], which is a condition of the SQG Permit Exemption, a generator is required to (A) attempt to make arrangements with the local authorities identified, as appropriate for the type of waste handled at his facility and the potential need for the services of these authorities, and (B) maintain records documenting the arrangements made.

The Facility did not have documentation of any attempts to make arrangements with the local police department, fire department, other emergency response teams, emergency response contractors, equipment suppliers, local hospitals or the Local Emergency Planning Committee during the times that the Facility was operating as an SQG.

- **Pursuant to 15A NCAC 13A .0107(a) [40 C.F.R. § 262.17(a)(7)], which is a condition of the LQG Permit Exemption, (i) Facility personnel must successfully complete a program of classroom instruction or on-the-job training that teaches them to perform their duties in a way that ensures the facility's compliance with the regulations; (ii) Facility personnel must complete personnel training within six months of being hired or of being assigned to a new position at the Facility; (iii) Facility personnel must take part in an annual review of the initial training required by this section; and (iv) the generator must maintain training records that include, among others: the job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job; a written job description for each position; a written description of the type and amount of both introductory and continuing training that will be given to each person filling a position; and records documenting that the training required has been given to and completed by Facility personnel.**

Boston Gear did not provide records of specific hazardous waste training for calendar years 2020, 2021 and 2022 when Boston Gear was operating as an LQG. In addition, Boston Gear did not provide records of job descriptions with a written description of required training for each position at the Facility related to hazardous waste management.

- **Pursuant to 15A NCAC 13A .0107(d) [40 C.F.R. § 262.42(b)], a SQG who does not receive a copy of the manifest with the handwritten signature of the owner or operator of the designated facility within 60 days of the date the waste was accepted by the initial transporter must submit a legible copy of the manifest, with some indication that the generator has not received confirmation of delivery, to the EPA Regional Administrator for the Region in which the generator is located.**

Although well over sixty days had passed since the shipments associated with hazardous waste manifest numbers 02759447JJK and 020759355JJK were sent, Boston Gear had no records to show that a legible copy of each manifest, with some indication that the Facility had not received confirmation of delivery, had been submitted to the EPA Regional Administrator for EPA Region 4.

- **Pursuant to 15A NCAC 13A .0107(d) [40 C.F.R. § 262.40(a)], a generator must keep a copy of each manifest signed in accordance with 15A NCAC 13A .0107(b) [40 C.F.R. § 262.23(a)] for three years or until he receives a signed copy from the designated facility which received the waste. This signed copy must be retained as a record for at least three years from the date the waste was accepted by the initial transporter.**

Manifest number 023924989JJK was not included with the available hazardous waste manifest records on-site at the time of the inspection.

- Pursuant to 15A NCAC 13A .0107(a) [40 C.F.R. § 262.17(a)(1)(v)], which is a condition of the LQG Permit Exemption, a generator is required to, at least weekly, inspect central accumulation areas looking for leaking containers and for deterioration of containers caused by corrosion or other factors.

Boston Gear provided only two pages of records for inspections conducted between April 27, 2020, and March 11, 2022. According to these records, Boston Gear conducted only nine of ninety-seven required weekly inspections.

- Pursuant to 15A NCAC 13A .0107(a) [40 C.F.R. § 262.16(b)(2)(iv)], which is a condition of the SQG Permit Exemption, a generator must, at least weekly, inspect central accumulation areas looking for deterioration of containers caused by corrosion or other factors.

Boston Gear provided only four pages of records for inspections conducted after March 11, 2022. According to these records, Boston Gear conducted only fifteen of ninety-five required weekly inspections.

- Pursuant to 15A NCAC 13A .0107(a) [40 C.F.R. § 262.17(a)(2)], which incorporates 15A NCAC 13A .0110(j) [40 C.F.R. § 265.192(a)], and is a condition of the LQG Permit Exemption, a generator accumulating hazardous waste in tanks must obtain a written tank assessment reviewed and certified by a qualified Professional Engineer, attesting that the system has sufficient structural integrity and is acceptable for the storing and treating of hazardous waste.

The 2,500-gallon metal fabrication tank and the 2,000-gallon storage tank each stored material that was shipped as D008 hazardous waste liquid (wastewater) during calendar years 2020, 2021 and 2022. Boston Gear did not provide a written tank integrity assessment for either tank.

- Pursuant to 15A NCAC 13A .0107(a) [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 inspections at least once each operating day: (1) Overfill/spill control equipment (e.g., waste-feed cutoff systems, bypass systems, and drainage systems) to ensure that it is in good working order; (2) Above ground portions of the tank system, if any, to detect corrosion or releases of waste; and (3) The construction materials and the area immediately surrounding the externally accessible portion of the tank system, including the secondary containment system (e.g., dikes) to detect erosion or signs of releases of hazardous waste (e.g., wet spots, dead vegetation).

The 2,500-gallon metal fabrication tank and the 2,000-gallon storage tank each stored material that was shipped as D008 hazardous waste liquid (wastewater) during calendar years 2020, 2021 and 2022. Boston Gear did not provide records of daily inspections for either tank.

- Pursuant to 15A NCAC 13A .0107(a) [40 C.F.R. § 262.17(a)(2)], which incorporates 15A NCAC 13A .0110(j) [40 C.F.R. § 265.195(e)], and is a condition of the LQG Permit Exemption, a generator accumulating hazardous waste in tanks must conduct daily inspections of tank ancillary equipment that is not provided with secondary containment.

The 2,500-gallon metal fabrication tank and the 2,000-gallon storage tank each stored material that was shipped as D008 hazardous waste liquid (wastewater) during calendar years 2020, 2021 and 2022. Boston Gear did not provide records of daily inspections of ancillary equipment for either tank.

- Pursuant to 15A NCAC 13A .0107(a) [40 C.F.R. § 262.17(a)(8)(i)], which is a condition of the LQG Permit Exemption, an LQG must place a notice in the operating record within 30 days after closing a waste accumulation unit identifying the location of the unit within the facility.

The 2,500-gallon metal fabrication tank and the 2,000-gallon storage tank each stored material that was shipped as D008 hazardous waste liquid (wastewater) during calendar years 2020, 2021 and 2022. Boston Gear did not provide a notification for closure of either tank when the units ceased accumulating hazardous waste because the oily wastewaters were re-classified as nonhazardous waste.

16) **List of Attachments**

Attachment 1 – Photo Log

17) **Signed**

LAURIE DIGAETANO Digitally signed by LAURIE DIGAETANO
Date: 2024.03.04 09:17:58 -05'00'

Laurie Benton DiGaetano
Environmental Engineer

18) **Concurrence**

ARACELI CHAVEZ Digitally signed by ARACELI CHAVEZ
Date: 2024.03.04 09:40:45 -05'00'

Araceli B. Chavez
RCRA Enforcement Section

Attachment 1 – Photo Log

26 Photos taken on: January 8, 2024
Photos taken by: Laurie Benton DiGaetano
Photos taken with: Panasonic DMC TS-5
EPA Property Tag: S09533



Photo 1: Manufacturing units use either water or oil as a cutting fluid, and each unit is equipped with a reservoir that recirculates the cutting fluids through the manufacturing unit. The process generates scrap metal chips or shavings which are accumulated in a straining basket at each unit.



Photo 2: One 110-gallon container for accumulating used mop water at Pillar P4 in the Open Gear Area.



Photo 3: Three containers (two 5-gallon containers and one 10-gallon container) on a mobile cart next to the elevated platform. Each container is holding solvent liquids used to clean dirty paint guns and covers. One container is identified with a hazardous waste label.



Photo 4: One 5-gallon container in an SAA next to the Main Paint Booth for accumulating waste paint related material generated in and around this area. This container is shown on the left side of the photo on an elevated platform next to four 5-gallon containers of product materials. The container is equipped with an open funnel; it is identified with a flammable liquid DOT hazard placard; it is not labeled with the words “hazardous waste;” and it is not marked with an indication that the contents are toxic.



Photo 5: One 20-gallon container in an SAA next to the Main Paint Booth for accumulating hazardous waste solids generated in and around this area. This container, which was observed in the corner just outside of the Main Paint Booth, was not labeled with the words “hazardous waste” and it was not marked with an indication of the hazards of its contents.



Photo 6: One 55-gallon container in an SAA next to the Main Paint Booth for accumulating hazardous waste solids generated in and around this area. This container was not labeled with the words “hazardous waste;” and it was not marked with an indication of the hazards of its contents. An employee working in the Main Paint Booth area was in the process of placing used paint booth filters and floor sweepings into the open 55-gallon drum.



Photo 7: One 55-gallon container in an SAA next to the Flow Line Paint Booth for accumulating waste paint related material generated in and around this area. The container was equipped with latched funnel, but it was not labeled with the words “hazardous waste” or marked with an indication of the hazards of its contents.



Photo 8: One 55-gallon container in an SAA next to the Flow Line Paint Booth for accumulating hazardous waste solids generated in and around this area. This container was not labeled with the words “hazardous waste,” and it was not marked with an indication of the hazards of its contents.



Photo 9: Large open vat labeled “waste water” in the Chip Dock Area. Dirty mop water, including the dirty mop water that is accumulated in the 110-gallon container shown in Photo 2, is poured into this vat. The dirty mop water is then transferred into a 2,000-gallon vertical storage tank, which is located on the other side of the cinderblock wall behind the vat.



Photo 10: Liquids observed inside the open vat shown in Photo 9.



Photo 11: 2,000-gallon vertical storage tank inside the room on the opposite side of the cinderblock wall shown in Photo 9. Dirty mop water is transferred into this tank from the wastewater vat shown in Photo 9.



Photo 12: Dirty liquids observed on the floor surrounding the concrete pad beneath the 2,000-gallon vertical storage tank.



Photo 13: Three bins along the wall at the far end of the Chip Dock. Signs on the wall identify two bins for storing brass chips and the third for storing brass and stainless-steel solids. Cutting fluids drain from these bins onto a secondary containment tray that is connected through a pipe into the 2,500-gallon metal fabricated storage tank.



Photo 14: The middle one of three large hoppers just off the edge of the loading dock floor in the Chip Dock. This hopper is in use to accumulate and store metal chips and shavings that do not contain brass.



Photo 15: Two of three large hoppers staged above the 2,500-gallon metal fabricated storage tank at the Chip Dock. The funnel and PVC pipe shown in Photo 17 can be seen to the right at the far side of the tank. The blind sump shown in Photo 18 can be seen to the right at the near side of the tank.



Photo 16: The top of the 2,500-gallon metal fabricated storage tank located below the three large hoppers just off the edge of the loading dock at the Chip Dock.



Photo 17: Funnel that is connected through PVC piping into the 2,500-gallon metal fabricated storage tank beneath the three large hoppers at the Chip Dock.



Photo 18: Blind sump located next to the 2,500-gallon metal fabricated storage tank at the Chip Dock. Facility personnel stated that this sump is connected to the sump observed inside the room with the 2,000-gallon storage tank, but that liquids do not drain from the sumps. Instead, when the transporter comes to transport liquids from the 2,000-gallon and 2,500-gallon tanks, liquids are also pumped from the sumps and shipped with the tank contents.

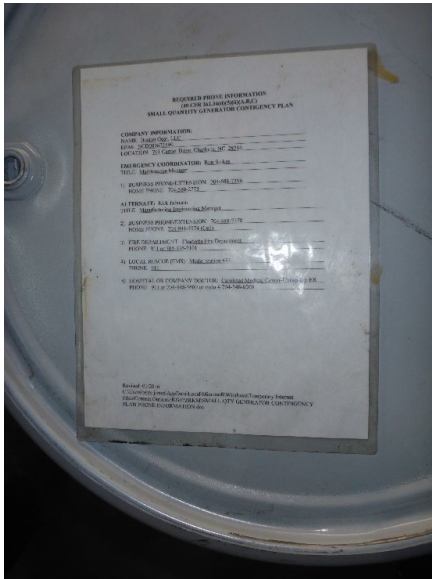


Photo 19: Emergency response information and emergency contact information posted on the wall behind the cardboard box of universal waste lamps shown in Photo 25. The emergency contact information was out of date.



Photo 20: Four 55-gallon drums of hazardous waste next to a drum compactor unit in the center of the CAA.



Photo 21: One of two labels identifying the contents of two 55-gallon drums in the CAA as D007, D035, F005 hazardous waste solid paint filters and rags containing methyl ethyl ketone and chromium. The containers were not marked with an accumulation start date.

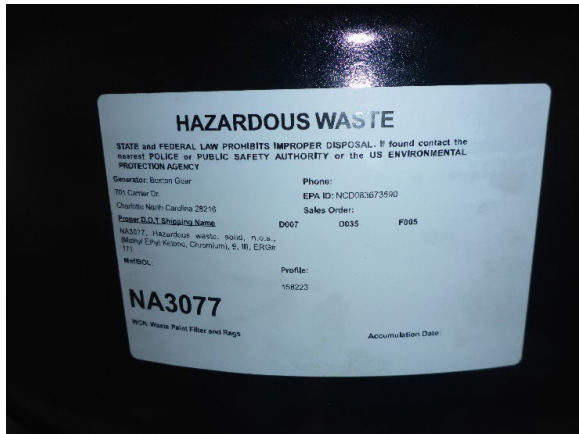


Photo 22: One of two hazardous waste labels that were affixed to two 55-gallon drums in the CAA during the inspection. The new hazardous waste label identifies the contents of each drum as D007, D035, F005 hazardous waste solid paint filters and rags containing methyl ethyl ketone and chromium. The containers were not marked with an accumulation start date.



Photo 23: Two drums of used oil near the entrance of the CAA. The containers were closed and identified with the words “used oil” written on a non-regulated waste label.



Photo 24: One 55-gallon drum containing a small amount of SmartFOAM A, which had reacted and could not be used.



Photo 25: One cardboard box of universal waste lamps near the chain link fence in the far-right corner just inside the CAA. The container was open, and it was not labeled as universal waste lamps.

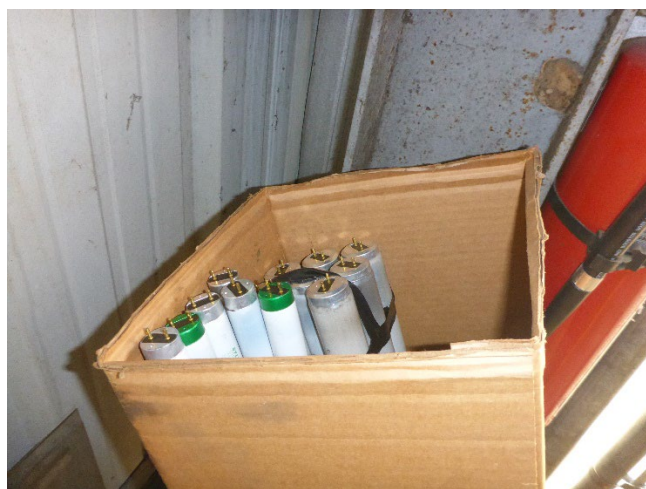


Photo 26: Close-up of the open cardboard box of universal waste lamps shown in Photo 25.