

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
61 Forsyth Street, S.W.
Atlanta, Georgia 30303

2) Facility Information

Ardagh Metal Beverage USA
4000 Old Milwaukee Lane
Winston-Salem, NC 27107

EPA ID#: NCD000827493
NAICS #: 332431 - METAL CAN
MANUFACTURING

3) Responsible Officials

Venus Womble
Quality Supervisor
venus.womble@ardaghgroup.com

4) Inspection Participants

Malcolm Edwards, Ardagh
Venus Womble, Ardagh
Tracie Sorbillo, Ardagh
Latrice Fulton, Ardagh

Andrew Martin, NCDEQ
Tarin Tischler, US EPA

5) Date of Inspection

December 6, 2023 9:15 AM

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.

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.

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.

Pursuant to 15A NCAC 13A .0107(a) [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. § 262.15(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 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], 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(a)] (hereinafter referred to as the “SAA Permit Exemption”).

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 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(a) [40 C.F.R. § 262.17] (hereinafter referred to as the “LQG Permit Exemption”).

Pursuant to 15A NCAC 13A .0119 [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 Ardagh Metal Beverage USA’s compliance with the applicable requirements of RCRA and the corresponding North Carolina regulations. This was an EPA lead inspection.

8) Facility Description

Ardagh Metal Beverage Company (hereinafter “Ardagh” or the “facility,”) is a manufacturing company that produces metal cans for commercial beverages. Ardagh cuts sheets of aluminum to shape and form beverage cans in multiple sizes. These newly formed cans are washed, printed with product labels, and sprayed with an interior varnish coating. Excess inside coating material and ink used in printing are disposed of as nonhazardous waste. The chemicals used during the washing stage include sulfuric and hydrofluoric acid. This cleaning solution is reused, and overflow is treated in the on-site wastewater treatment plant (WWTP). The WWTP operates in a 2-stage process pulling out contaminants via gravity and removing visible pollutants with a filter press. The acid is then separated, removed, and the water is discharged to the POTW. The facility’s permit to discharge to the POTW specifies the pH range required for

discharge. Cake from the filter press is nonhazardous and is sent to a landfill for disposal. The facility performs biannual TCLP testing on the filter cake.

Ardagh is a very small quantity generator of hazardous waste (VSQG), but the facility notified as a large quantity generator in early 2022 due to an administrator error. This event occurred because a facility personnel who is no longer with the company incorrectly classified and shipped multiple totes of the nonhazardous inner spray coating as hazardous waste. The facility intends to renotify as a very small quantity generator of hazardous waste. Inspectors informed facility representatives that Ardagh should still submit a biennial report in 2024 as the facility notified as a LQG for all of 2023 and was therefore required to submit a biennial report.

The Ardagh facility occupies 400,000 square feet and employs 280-300 staff. The facility operates 24 hours a day, 7 days a week. The facility originally opened in 1976 under different ownership and was bought by Ardagh in 2015. The facility holds a Title V air permit. Hazardous waste generated at the facility is primarily isopropyl alcohol used in equipment cleaning.

9) Previous Inspection History

North Carolina Department of Environmental Quality (NCDEQ) has conducted two RCRA CEIs at the subject facility between 2015 and 2018 and found no violations during those inspections.

10) Opening Conference

On December 6, 2023, EPA inspector, Tarin Tischler accompanied by North Carolina Department of Environmental Quality (NCDEQ) inspector Andrew Martin, arrived at Ardagh Beverage Company at approximately 10:15 am. Malcolm Edwards, Assistant Plant Manager, received the inspectors. Malcolm Edwards and the inspectors were joined Venus Womble, Quality Supervisor, for the opening conference. The inspectors introduced themselves, showed their credentials to facility representatives and explained the purpose of the visit.

The inspectors described the anticipated use of equipment (digital camera) during the inspection and provided a request for records. The EPA inspector explained that the Small Business Regulatory Enforcement Fairness Act's classification of a "small business" is generally set by the Small Business Administration using the business' SIC/NAICS code and annual receipts or number of employees. A copy of the EPA's information sheet for small businesses can be found at <https://www.epa.gov/sites/production/files/2017-06/documents/smallbusinessinfo.pdf>. The EPA inspector also discussed the company's ability, pursuant to 40 C.F.R. § 2.203, to assert a business confidentiality claim for information submitted to EPA. The company did not assert a business confidentiality claim.

Malcolm Edwards 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 Facility representative led the inspectors on a tour of the Facility operations.

11) Inspection Observations

Production Line:

The facility process begins at the front end, where the aluminum sheets are cut and shaped into cans (Photo 1). Ardagh operates a large conveyor belt that cuts open ended cylinders from the sheet. The aluminum cylinders are oily after the shaping and are then moved to the washer stage. Ardagh maintains seven washers on site which spray the open cylinders with nozzles. The cans are then flipped and put on another conveyor belt to be sprayed with the inside varnish and dried in a high temperature oven. Excess inside varnish is accumulated in a tray underneath the spray area as nonhazardous waste. The tray is emptied into a 10-gallon drum near the point of generation which is then brought consolidated in a 55-gallon drum outside the equipment area. Finally, cans are brought to the printing area where they are printed with the appropriate product label and dried again. The printer on-site first prints a blanket white image onto the metal can and a second layer on top displays the full image. The cans are then brought on the conveyor belt to be palletized and loaded onto a truck via forklift. The final product is shipped as aluminum cylinders with one open end and product labels on the outside. The can will be filled with product, closed, and tabbed when it reaches the customer. With all 10 production lines running, Ardagh can produce up to 18 million cans a day.

Malcolm Edwards informed inspectors that Ardagh can produce thousands of different can sizes and labels for specific products. Waste generated in the process area includes nonhazardous inside spray waste and process oil used throughout the production area for equipment lubrication. The process oil used on production machinery is brought to the on-site wastewater treatment plant. There, the oil and water are separated, and the water is discharged to the POTW after treatment and the oil is shipped for disposal as used oil. Nonhazardous ink waste is also generated here. Inspectors observed two 55-gallon drums labeled as nonhazardous ink waste and nonhazardous spray waste in the production area. Inspectors observed eye wash stations, fire extinguishers, and fire alarms throughout the production lines.

Inspectors observed several 5-gallon containers labeled “reusable excluded solvent contaminated wipes” (Photo 2). Malcolm Edwards informed inspectors that isopropyl alcohol is used in spray bottles to clean the machinery throughout the production area. Empty spray bottles are put in red 5-gallon containers observed throughout the process area to be rinsed and refilled. Solvent contaminated wipes are wrung out before disposing to prevent free liquids in the wipes container. The wipes are wrung out into a 200-gallon portable box container labeled, “isopropyl alcohol – keep closed when not in use” (Photo 3). Facility representatives informed inspectors that the isopropyl alcohol in this container is used to fill the empty spray bottles and is not a waste. The container holds product isopropyl alcohol as well as alcohol wrung out from used wipes.

Inspectors observed two 55-gallon drums inside a flammable cabinet against the wall of the production area. The left drum in the cabinet held product isopropyl alcohol and the right drum held waste alcohol. The waste drum was labeled “Hazardous waste, flammable liquid, 3/21/23.” Malcolm Edwards informed inspectors that this drum is managed as an SAA and accumulates isopropyl alcohol that has become saturated with ink and can no longer be reused. Inspectors requested that the facility establish another SAA on the other side of the production

area as this drum was further from the point of generation for that side and not under the control of the owner or operator generating the 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 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], 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(a)]

Inspectors observed liquid at the bottom of the secondary containment and liquid on the lid of the waste container (Photo 4). Inspectors requested the facility improve housekeeping in this area and to be able to attend to spills of hazardous waste immediately.

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. § 262.251], and is a condition of the LQG Permit Exemption, a generator is required to maintain and operate its facility to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment.

Inspectors observed a horizontal 30-gallon container labeled “Waste Oil” with Deminimus oil spills underneath the container (Photo 5-6). Inspectors requested that facility representatives clean the oil around this area and relabel the container with the words “Used Oil.” Facility representatives submitted a photo of the corrected container via email on December 27, 2023.

Pursuant to [15A NCAC 13A .0118(c)] [40 C.F.R. § 279.22(c)(1)], containers and aboveground tanks used to store used oil at generator facilities must be labeled or marked clearly with the words “Used Oil.”

Pursuant to [15A NCAC 13A .0118(c)] [40 C.F.R. § 279.22(d)], upon detection of a release of used oil to the environment, the facility must clean up and manage properly the released used oil and other materials.

During production, scrap metal pieces drop down from a shoot when cans are cut and shaped. Scrap metal from the production area is separated into metals with and without printed labels. The metal is put into the facility’s Baylor and crushed into bricks, then palletized and shipped back to the supplier of aluminum sheets for recycling. Facility representatives informed inspectors that the sheets are made of 98% pure aluminum and 2% recycled aluminum. The facility has a separate on-site Baylor for cardboard and plastic recycling. Ardagh also recycles paper and e-waste. Inspectors also observed a 55-gallon drum labeled “universal waste, aerosol cans, 1/5/2023.”

Wash Area:

Inspectors observed drums of the following cleaning products used in the wash area:

- Bonderite C-1C 120 WN Acid Cleaner
- Sulfuric Acid 93% 66B
- Caustic Soda 50% (Sodium Hydroxide Solution)
- Bonderite M-PT ME-SO Mobility Enhancer Nonhazardous

QC Laboratory:

The QC Laboratory is located in a room adjacent to the wash area. The laboratory conducts chemical process checks for material used and generated throughout the production process, including washer solution and wastewater checks. Inspectors observed a 10-gallon container labeled "oily waste." No hazardous waste was observed in this area. Facility representatives informed inspectors that hydrofluoric acid used in the laboratory is put through the facility's on-site wastewater treatment plant.

Inspectors observed the following containers of universal waste batteries stored on or near a cabinet in the laboratory area:

- One 5-gallon drum labeled "universal waste, lithium batteries, 5/9/23."
- One 2-foot cylinder container labeled "universal waste, dry cell batteries, 10/12/2023."
- Two cardboard boxes of batteries labeled "lithium batteries, dry cell battery Recycle." These containers were dated 8/5/2022 and 12/8/2022 (Photo 7). One of these containers had exceeded the one-year accumulation time limit for universal waste and one container was two days from the one year time limit (Photo 6).

Pursuant to [15A NCAC 13A .0119(b)] [40 C.F.R. § 273.15(a) and (c)], a SQHUW may accumulate universal waste no longer than one year and must to be able to demonstrate the length of time that the universal waste has accumulated from the date that it became a waste or was received.

Wastewater Treatment Plant:

The on-site wastewater treatment plant receives wastewater from the production areas of the facility including the front end, wash area, and QC Laboratory. Inspectors observed a wastewater treatment tank with a rotating rod inside to remove contaminants from the wastewater and thicken the wastewater sludge.

CAA:

Ardagh operates a central accumulation area near the facility's wastewater treatment plant. Inspectors observed the following containers in this area:

- Fifteen 55-gallon drums of product IC resin.

- One 55-gallon drum labeled “UN1950, hazardous waste, aerosols, flammables, 10/19/2023.” This drum contained spray paint aerosol cans. Other aerosol cans generated at the facility are managed as universal waste.

The waste drum in the central accumulation area sat in a secondary containment area. The facility operates a paging system and alarm system. Inspectors observed a fire extinguisher and eye wash station in this area.

Inspectors observed two approximately 275-gallon hoppers in a covered and fenced in area outside of the central accumulation area. One hopper was designated for recycled materials and one hopper for oily absorbents, used oil filters, and oily containers.

12) Records Review

Latrice Fulton, Environmental Health and Safety Supervisor, and Venus Womble joined the inspection during the records review.

Contingency Plan and Quick Reference Guide (QRG):

The actions that facility personnel should take in response to an emergency are described in the facility’s Emergency Action Plan which was published on March 23, 2023 and last revised on October 11, 2023.

The plan describes actions facility personnel must take in response to fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water at the facility.

The plan describes arrangements agreed to with the local police department, fire department, other emergency response teams, emergency response contractors, equipment suppliers, local hospitals or the Local Emergency Planning Committee.

The plan lists the names and emergency telephone numbers for persons identified as emergency coordinators.

The plan includes a list of all emergency equipment at the facility. The list includes fire extinguishing systems, spill control equipment, communications and alarm systems, and decontamination equipment. The list appears to be up to date. The plan includes the location and a physical description of each item on the list, and a brief outline of its capabilities.

The plan includes an evacuation plan for personnel. This plan describes signals to be used to begin evacuation, evacuation routes, and alternate evacuation routes.

A copy of the Emergency Action Plan (and its quick reference guide) had not been submitted to local authorities.

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)] a large quantity generator that first becomes

subject to these provisions after May 30, 2017 or a large quantity generator that is otherwise amending its contingency plan must at that time submit a quick reference guide of the contingency plan to local emergency responders.

Training Records:

Ardagh provided a written description of the type and amount of both introductory and continuing training to be given to each person filling the positions listed above. The inspectors reviewed records of employee hazardous waste training completed in 2022 and 2023. Ardagh conducts annual hazardous waste training for all employees on Ardagh's internal database training system.

Ardagh could not provide job descriptions and employee names filling each position including the introductory and continued training required for that position.

Pursuant to [15A NCAC 13A .0107(a)] [40 C.F.R. § 262.17(a)(7)(iv)], which is a condition of the LQG Permit Exemption, a large quantity generator must maintain (A) The job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job; (B) A written job description for each position listed under paragraph (a)(7)(iv)(A) of this section. This description may be consistent in its degree of specificity with descriptions for other similar positions in the same company location or bargaining unit, but must include the requisite skill, education, or other qualifications, and duties of facility personnel assigned to each position; (C) A written description of the type and amount of both introductory and continuing training that will be given to each person filling a position listed under paragraph (a)(7)(iv)(A) of this section; (D) Records that document that the training or job experience, required under paragraphs (a)(7)(i), (ii), and (iii) of this section, has been given to, and completed by, facility personnel.

Waste Manifest and Land Disposal Restriction (LDR) Records:

The inspectors reviewed available hazardous waste manifest records and land disposal restriction forms for shipments of hazardous waste sent since 2022. Hazardous waste manifest records show that D001 hazardous waste paint is routinely shipped as hazardous waste from the facility. Land Disposal Restrictions accompanied all uniform hazardous waste manifests. Manifests are signed by Randy Marshall and T.S. Andrews. Manifest records demonstrate that Ardagh operates as a very small quantity generator of hazardous waste.

The facility informed inspectors Ardagh intended to renotify as a very small quantity generator of hazardous waste. The facility submitted its updated renotification form on January 25, 2023. Inspectors informed facility representatives that Ardagh should still submit a biennial report in 2024 as the facility was notified as an LQG for all of 2023 and was therefore required to submit a biennial report.

Other Waste Shipment Records:

Inspectors reviewed documentation for the laundering and returning of excluded solvent contaminated wipes by Absorb Tech. Facility representatives informed inspectors that Absorb Tech picks up rags weekly. Inspectors requested the facility maintain a log for their excluded wipes to better demonstrate compliance with the 180-day accumulation time limit for excluded wipes.

Weekly Inspection Records:

Weekly inspections of Ardagh's CAA were not available at the time of the inspection. Following the inspection, the facility submitted three monthly inspection records for September, October, and November 2023 to inspectors via email. These records documented the date of the inspection, condition of containers, secondary containment, and labels, cleanliness of storage area, signs of leaks, availability of spill kits, and the name of the inspector.

Pursuant to [15A NCAC 13A .0107(a)] [40 C.F.R. § 262.17(a)(7)(iv)], which is a condition of the LQG Permit Exemption, at least weekly, the large quantity generator must inspect central accumulation areas.

Waste Determination records:

Inspectors reviewed the most recent TCLP and totals analysis was conducted in 2022 on the filter cake, used oil, inside spray waste, and filter resin. The documentation for the analysis demonstrated that the filter cake and inside spray were under the TCLP limit for chromium. The totals analysis demonstrated that the filter cake contains 4.56 ppm chromium, and the inside spray contains 4.37 ppm chromium. Inspectors observed that previous TCLPs for the material were conducted in 2010, 2011, 2012, 2013, 2014, 2016, 2017, 2018, 2019, 2020 and 2022.

Inspectors also reviewed the safety data sheets (SDS) for the inside spray varnishes WB Epoxy and PPG Inside Spray. WB Epoxy has a flashpoint of 129 degrees Fahrenheit and the PPG Inside spray has a flash point of 158 degrees Fahrenheit. Inspectors informed facility representatives that the inside spray exhibits the hazardous characteristic of ignitability and should be managed as hazardous waste.

Tracie Sorbillo, Ardagh Corporate Director of Environmental Compliance, joined the records review via phone call. Tracie Sorbillo informed inspectors that the inside spray varnish is not a hazardous waste because it is not flammable at the point of generation. The combination of inside varnish chemicals and wash chemical residuals is not ignitable at the point it accumulates in a paste form in the tray. Inspectors requested a laboratory analysis that included a flash point test on the inside spray waste generated in the production area. Venus Womble submitted the analytical results for the inside spray waste collected from the tray in April 2020 and December 2023. The documentation demonstrated that the inside spray waste has a flash point greater than 200 degrees Fahrenheit and is does not exhibit the hazardous characteristic of ignitability or toxicity.

13) Closing Conference

The inspectors conducted the exit meeting at 3:00 pm with Malcolm Edwards, Venus Womble, and Latrice Fulton. During this meeting, the inspectors stated their preliminary conclusions of the inspection. Ardagh agreed to provide the requested records by January 10, 2024. On December 27, 2023, Venus Womble provided the monthly inspections, inside spray SDS's and analytical results, photos of the relabeled oil container, and records of the most recent used oil shipment in an email to inspectors.

14) List of Attachments

Attachment 1 – Photo Log:

15) Signed

TARIN TISCHLER Digitally signed by TARIN TISCHLER
Date: 2024.03.08 06:46:25 -05'00'

Tarin Tischler
Life Scientist

16) Concurrence

ARACELI CHAVEZ Digitally signed by ARACELI CHAVEZ
Date: 2024.03.08 10:40:41 -05'00'

Araceli B. Chavez
RCRA Enforcement Section

Attachment 1 – Photo Log

8 Photos taken on: 12/6/2023

Photos taken by: Tarin Tischler

Photos taken with: Kodak PIXPRO Fz53

EPA Property Tag: SX9089



Photo 1 – Aluminum sheet used to cut cylinders for can production.



Photo 2 – Container of excluded solvent contaminated wipes in the production area.



Photo 3 – Container of isopropyl alcohol used for equipment cleaning in process area.



Photo 4 – Spills observed in secondary containment of flammable cabinet storing drums of hazardous waste.



Photo 5 – Container labeled "waste oil" in production area.



Photo 6 - Oil spills observed underneath the used oil container in the production area.



Photo 7 – two boxes of universal waste lithium batteries in the QC laboratory. One of these boxes was past the one-year accumulation time limit for universal waste and one was within days of the one year mark.



Photo 8 – Hazardous waste aerosol container holding used spray paint cans in Ardagh CAA.