

RCRA Inspection Report

1) Inspector and Author of Report

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2) Facility Information

Sonoco Hickory EPA ID# NCD003224235
1246 Main Avenue SE
Hickory, North Carolina 28602

3) Responsible Officials

Justin Seidel, Maintenance Manager

4) Inspection Participants

Justin Seidel, Sonoco Hickory	Paul Douglas, Sonoco Hickory
Bill Green, Sonoco Hickory	Nick Guglielmi, NCDEQ
Brandi Surratt, Sonoco Hickory	Laurie Benton DiGaetano, USEPA

5) Date of Inspection

March 18, 2021

6) Applicable Regulations

Resource Conservation and Recovery Act (RCRA) Sections 3002 (42 U.S. Code – Annotated U.S.C.A. 6925 and 6927), Title 15A of the North Carolina Administrative Code (NCAC), Chapter 13; and 40 Code of Federal Regulation (C.F.R.), Parts 260 - 270, 273, 278, & 279.

Pursuant to 15A NCAC 13A .0106 [40 C.F.R. § 261.4(a)(8)], secondary materials that are reclaimed and returned to the original process or processes in which they were generated where they are reused in the production process are not solid wastes provided that the conditions listed in 15A NCAC 13A .0106 [261.4(a)(8)] are met (hereinafter referred to as the “Closed-Loop Recycling Exemption”).

Pursuant to 15A NCAC 13A .0106 [40 C.F.R. § 261.4(a)(26)], solvent-contaminated wipes that are sent for cleaning and reuse are not solid wastes from the point of generation, provided that the conditions listed in 15A NCAC 13A .0106 [40 C.F.R. § 261.4(a)(26)] are met (hereinafter referred to as the “Solvent-Contaminated Reusable Wipe Exclusion”).

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”).

7) **Purpose of Inspection**

The purpose of this inspection was to conduct an unannounced compliance evaluation inspection to determine Sonoco Hickory’s compliance with the applicable requirements of RCRA and the corresponding NCDEQ regulations. This was an EPA lead inspection.

8) **Previous Inspection History**

NCDEQ has conducted two RCRA CEIs at the subject facility since Sonoco first notified as the operator at this location in 2016. A Ticket Notice of Violation was issued to the facility on 06/23/2017 for violations observed during a CEI conducted on 06/06/2017, and the facility resolved those violations on or before 07/21/2017.

NCDEQ conducted the most recent RCRA CEI at the subject facility on 10/30/2019 and found no apparent violations of RCRA’s requirements during that CEI.

9) **Facility Description**

Sonoco Products Company is a global provider of consumer packaging, industrial products, and packaging supply chain services. The company has 185 facilities in 85 countries worldwide, and company headquarters are located in South Carolina. The subject facility in Hickory, North Carolina is one of fifteen facilities within this division of the Sonoco Products Company. The Sonoco Hickory plant (“Sonoco” or “the facility”) operates four flexographic printing lines for polyethylene, poly propylene, and polyester film roles used in packaging of such items as packaged foods, tobacco products, specialty products and other consumer goods. Finished products may be shipped to customers as a roll of printed plastic, or they may be converted into bags or pouches here before they are shipped to customers. The facility operates under the

NAICS Codes 326112 for Plastics Packaging Film and Sheet (Including Laminated) Manufacturing and 323111 for Commercial Printing (except Screen and Books). Sonoco has approximately 128 employees at this location, and operations run 24 hours per day, five days per week using three work shifts.

The physical layout of the subject facility includes three levels. The upper level houses office space, manufacturing operations, and warehousing for hazardous materials and work in progress. The middle level houses warehousing of raw materials such as unprinted plastic film and non-flammable adhesives, and finished goods. Manufacturing operations on the upper level include one 8-color printing press, three 10-color printing presses, one solvent-based laminating machine, one solvent-less laminating machine, four slitting machines and eighteen bagging machines. Warehouse space on this level is used to store hazardous materials such as inks, solvents, flammable adhesives, and waste.

Sonoco generates waste solvents and inks in the cleanup and / or changeover of inks in the printing press lines and generates waste solvents and adhesives in the cleanup and / or changeover of laminator units. These wastes have been identified as D001 / F003 ignitable hazardous waste. While in operation, the printing press units generate D001 / F003 hazardous waste ink sludge, which drains onto a tray within each printing press unit. Employees routinely drain the contents of these trays into 5-gallon buckets, and then transfer the waste ink sludge into a 55-gallon drum. This waste is managed as D001 / F003 hazardous waste ink sludge. Spent solvents and inks are also generated as employees manually clean the printing presses using a 5-gallon bucket of solvent and shop rags. After cleaning, the spent solvents remaining in these 5-gallon buckets are poured into another 55-gallon drum. The spent solvents generated at the printing presses are managed as D001 / F003 hazardous waste inks and solvents.

As the solvent-based laminator unit is running, solvent and adhesive is continuously recirculated from a storage vessel through the laminator system and back to the vessel. At the end of each run, any excess solvent and adhesive in the vessel is removed and accumulated in a 55-gallon drum. Spent solvents and adhesives are also generated as employees manually clean both laminator units using a 5-gallon bucket of solvent and shop rags. After cleaning, the spent solvents remaining in these 5-gallon buckets are poured into the 55-gallon drum with the spent solvents and adhesives. The waste generated at the laminator units and accumulated in this 55-gallon drum is managed as D001 / F003 hazardous waste solvents and adhesives.

Employees at Sonoco use both lint-free paper rags and reusable cloth rags during cleaning activities. After use, the lint-free paper rags are disposed of as D001 / F003 hazardous waste, and the cloth rags are managed under the Solvent-Contaminated Reusable Wipe Exclusion. Used cloth rags are primarily accumulated in containers with a capacity of 20-gallons or less, which are staged in multiple locations throughout the production areas of the plant. These solvent-soaked used rags are transferred from the accumulation containers into one of two 55-gallon draining drums, which are equipped with a metal mesh screen positioned approximately 24-inches above the bottom of each container. The rags remain in this first drum for a total of eight hours, while liquid solvent drains from the rags into the bottom of the drum beneath the mesh screen. After eight hours, the rags are transferred into the second 55-gallon draining drum, where they remain for an additional eight hours so that any remaining liquid can continue to drain from

the rags. At the end of the total sixteen hours, the rags should no longer contain free liquids, and they are placed into containers for transport to a laundry facility as excluded solvent-contaminated reusable wipes. The accumulation containers, the draining drums, and the shipping containers are all managed under the Solvent-Contaminated Reusable Wipes Exclusion. In 2015, Pace Analytical performed a paint liquid filter test on a sample of the solvent rags and determined that the sample did not contain any free liquids.

Spent solvents and inks are also generated during an automated cleaning cycle used to clean the printing presses. Between print jobs that use different color inks, a blend of clean propanol and ethyl acetate solvent is pumped to the printing press and circulated through the unit to flush-out press equipment and to clean / purge the ink lines. Employees estimated that some printing jobs may last a few hours, and others may last a week. Each cleaning cycle takes approximately 3-6 minutes to complete; and each printing press generates approximately 50 gallons of spent solvents and inks per cycle. Spent solvents and inks generated in the automated cleaning cycle are pumped into a 2,000-gallon tank and stored as hazardous waste until it is recycled.

The facility operates a solvent distillation system on-site to recycle spent solvents and inks generated in manual and automated cleaning activities. Spent solvents and inks generated in manual cleaning activities are stored in 55-gallon drums before they are pumped into the 2,000-gallon hazardous waste storage tank, and spent solvents and ink generated in automated cleaning activities are pumped directly from the printing presses to this storage tank. Neither spent solvents and adhesives generated at the laminator units nor ink sludge are recycled in the distillation system. Spent solvents and inks are pumped from the 2,000-gallon hazardous waste storage tank into the 400-gallon distillation unit approximately once (sometimes twice) each week for recycling. Distillation occurs using a batch process, which takes approximately 16 hours to complete. The clean solvent generated during the distillation process is transferred to a 60-gallon clean solvent holding tank and is then transferred to one of three 600-gallon clean solvent tanks for storage until it is reused on-site. After the process is complete, hazardous waste still bottoms generated during the distillation process are pumped from the distillation unit into a 4,000-gallon hazardous waste storage tank. Personnel estimated that the contents of the sludge tank are pumped out and shipped offsite as hazardous waste approximately once every 4-6 weeks.

Sonoco Hickory has been operating as a large quantity generator (LQG) of hazardous waste at this location since November 1, 2016. Prior to that, Plastic Packaging, Inc. operated as an LQG here for over 25 years. Sonoco Hickory most recently notified as an LQG of hazardous waste as part of the biennial report on February 24, 2020. Hazardous wastes identified in the report include: D001 / F003 liquid still bottoms, D001 sludge, D001 / F003 solvent and adhesive, D001 / F003 solvents, inks and absorbents, and D001 obsolete material.

10) Opening Conference

On March 18, 2021, EPA inspector Laurie Benton DiGaetano, accompanied by NCDEQ inspector Nick Guglielmi, arrived at the Sonoco Hickory facility at approximately 9:55 a.m. Paul Douglas, Quality Assurance Manager, immediately received the inspectors. The inspectors introduced themselves, showed their credentials to Mr. Douglas, and explained the purpose of

the visit. Mr. Douglas and the inspectors were joined by Justin Seidel, Bill Green, and Brandi Surratt for the opening conference.

Facility representatives provided an overview of the facility's history and current operations during the opening conference. The company does not appear to meet the Small Business Regulatory Enforcement Fairness Act's classification of a "small business," which is generally set by the Small Business Administration using the business' SIC/NAICS code and annual receipts or number of employees. Therefore, the EPA inspector did not provide a copy of the agency's information sheet for small businesses, which can be found at <https://www.epa.gov/sites/production/files/2017-06/documents/smallbusinessinfo.pdf>.

The inspectors described the anticipated use of equipment (digital camera) during the inspection and provided a request for records. The inspectors 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. The inspection participants also discussed health and safety protocols and required personal protective equipment before Mr. Seidel, Mr. Green and Ms. Surratt led the inspectors on a tour of the Facility operations.

11) **Observations**

Solvent-Based Laminator: Sonoco manages two satellite accumulation areas (SAAs) near the Solvent-Based Laminator unit. The first SAA (SAA #1) is used to manage hazardous waste solvent and adhesive that is generated by the solvent-based laminator. The inspectors observed one 55-gallon drum in this SAA. As the laminator unit is running, solvent and adhesive is continuously recirculated from a storage vessel through the laminator system and back to the vessel. At the end of the run, any excess solvent and adhesive in the vessel is scooped out and transferred into the 55-gallon drum. The drum was located near the storage vessel, and it was equipped with a latched lid. The drum was labeled hazardous waste adhesive and identified with a flammable liquid DOT hazard placard. Facility personnel estimated that the laminator unit generates approximately one quart of hazardous waste at the end of each run.

The second SAA (SAA #3) near the Solvent-Based Laminator unit is used to manage hazardous waste aerosol cans generated throughout the facility. The inspectors observed one 55-gallon drum in this SAA. The drum was equipped with a latched lid; it was labeled hazardous waste aerosol cans; and it was identified with a flammable liquid DOT hazard placard.

Solvent-Less Laminator: Sonoco manages one SAA (SAA #2) near the Solvent-Less Laminator unit. This SAA is used to manage disposable solvent contaminated rags generated from cleaning the laminator units between runs. The inspectors observed one 55-gallon drum in this SAA. The drum was equipped with a latched lid; it was labeled hazardous waste flammable solids; and it was identified with a flammable solid DOT hazard placard.

Press #15: Sonoco manages two SAAs near Press #15. The first SAA (SAA #10) is used to manage hazardous waste disposable rags generated from cleaning Press #15. The inspectors observed one 55-gallon drum in this SAA. The drum was equipped with a latched lid; it was labeled hazardous waste disposable rags; and it was identified with a flammable solid DOT

hazard placard. The inspectors also observed one 35-gallon drum and one 55-gallon drum in this area for accumulating excluded solvent-contaminated reusable wipes. These drums were closed and labeled excluded solvent contaminated rags.

The second SAA (SAA #6) near Press #15 is used to manage spent solvents generated during the manual cleaning of this press. The inspectors observed one 55-gallon drum in this SAA. Personnel explained that employees dip parts from the press into a 5-gallon bucket of clean solvent to clean the parts. After cleaning the parts, employees pour dirty solvent from the 5-gallon bucket into the 55-gallon drum, which was equipped with a latched lid. The drum was labeled hazardous waste dirty solvent and it was identified with a flammable liquid DOT hazard placard.

Press Room: Sonoco manages three SAAs in the Press Room. The first SAA (SAA #5) is used to manage spent solvents generated from cleaning the presses. This includes dirty solvents generated from dipping parts from the press into a 5-gallon bucket of solvent and from draining excluded solvent-contaminated reusable wipes. The inspectors observed one 55-gallon drum in this SAA. The drum was equipped with a raised, latched lid; it was labeled hazardous waste dirty solvent; and it was identified with a flammable liquid DOT hazard placard.

The second SAA (SAA #4) in the Press Room is used to manage waste ink sludge generated within the print press. The inspectors observed one 55-gallon drum in this SAA. Waste ink sludge accumulates on a tray inside the print press, and employees periodically drain the material from the tray into a 5-gallon bucket, which is then emptied into this 55-gallon drum. The drum was equipped with a latched lid; it was labeled hazardous waste ink sludge; and it was identified with a flammable liquid DOT hazard placard.

The third SAA (SAA #11) in the Press Room is used to manage hazardous waste disposable rags generated from cleaning the presses. The inspectors observed one 55-gallon drum in this SAA. The drum was equipped with a latched lid; it was labeled hazardous waste disposable rags; and it was identified with a flammable solid DOT hazard placard.

The inspectors also observed two 55-gallon drums for draining excluded solvent-contaminated reusable wipes and mop heads in the Press Room. Each drum is equipped with a metal rack at the bottom to drain liquid solvents from the used rags. Employees transfer dirty rags and mop heads from accumulation containers into the first drum and allow the rags and mop heads to remain in that container for eight hours. At the end of eight hours, the rags and mop heads are transferred from the first 55-gallon drum into the second one, where they are kept for another eight hours. Spent solvent liquids that drain from the used rags and mop heads accumulate at the bottom of these 55-gallon drums. The accumulated liquids are transferred from these drums into the dirty solvent drum at SAA #5. Both drums were equipped with a latched lid and labeled excluded solvent contaminated rags.

Ink Room: Sonoco manages two SAAs in the Ink Room. The first SAA (SAA #7) is used to manage hazardous waste spent solvents generated from cleaning equipment in the Ink Room. The inspectors observed one 55-gallon drum in this SAA. The drum was equipped with a latched lid; it was labeled hazardous waste dirty solvent; and it was identified with a flammable liquid

DOT hazard placard.

The second SAA (SAA#8) in the Ink Room is used to manage hazardous waste ink sludge, which includes the dredges at the end of an ink drum or other thicker waste that is not suitable for distillation. The inspectors observed one 55-gallon drum in this SAA. The drum was equipped with a latched lid; it was labeled hazardous waste ink sludge; and it was identified with a flammable liquid DOT hazard placard.

Temporary Hazardous Waste Storage Central Accumulation Area (CAA): Sonoco manages a temporary CAA in an area along the wall near the door leading out to the Main CAA. Facility representatives explained that containers of hazardous waste are brought from the SAAs located throughout the facility and staged in this area until an employee with the proper training is able to transfer the containers into the Main CAA. Because 15A NCAC 13A .0107(a) [40 C.F.R. 262.15(a)(6)(ii)(A)-(C)] requires that a generator removing excess waste from a SAA move it to either (A) a CAA, (B) an on-site interim status or permitted treatment, storage, or disposal facility, or (C) an off-site facility, this temporary staging area must be managed as a CAA.

Sonoco manages ignitable waste in this CAA, and the inspectors observed a “No Smoking” sign on the wall. The area is equipped with an air horn and a portable fire extinguisher. Personnel working in this area carry cell phones which can summon emergency assistance from local police departments, fire departments, or state or local emergency response teams. The inspectors observed one 55-gallon drum in this temporary CAA. The drum was closed; it was labeled hazardous waste dirty solvent; it was identified with a flammable liquid DOT hazard placard; and it was dated 03/17/2021.

Main Central Accumulation Area (CAA): Sonoco manages its main hazardous waste CAA in the area just outside of the distillation area. This area is equipped with a curbed secondary containment dike; it is covered with a metal roof; and it is enclosed on two sides by the outer wall of the facility building. The area was identified with signs which read “danger, flammable liquids,” “no smoking, matches or open flame,” and “no smoking.” The area is equipped with an emergency telephone capable of alerting the facility’s internal PA system and summoning emergency assistance from local police departments, fire departments, or state or local emergency response teams; it is equipped with portable fire extinguishers, fire control equipment, and spill control equipment; and it is equipped with automatic sprinklers.

In addition to the 2,000-gallon hazardous waste solvent tank and the 4,000-gallon hazardous waste sludge tank in the designated CAA, the inspectors observed a total of approximately twenty-five 55-gallon drums of hazardous wastes staged along the walls and along the tanks in this area. Four drums were labeled hazardous waste disposable rags and identified with flammable solid DOT hazard placards; eleven drums were labeled hazardous waste dirty solvent and identified with flammable liquid DOT hazard placards; five drums were labeled hazardous waste ink sludge and identified with flammable liquid DOT hazard placards; one drum was labeled hazardous waste and identified with a flammable solid DOT hazard placard; two drums were labeled hazardous waste solvent adhesive and identified with flammable liquid DOT hazard placards; and two drums were labeled hazardous waste lamination adhesive and identified with flammable liquid DOT hazard placards. All of the drums were closed, in good condition and

marked with an accumulation start date. The oldest drum was dated 02/17/2021.

Sonoco manages one SAA (SAA #9) within the hazardous waste CAA. This SAA is used to manage hazardous waste solvents and inks, solvents and adhesives, and absorbents that are generated from cleaning activities that occur in the CAA. The inspectors observed one 55-gallon drum in this SAA. The drum was equipped with a latched lid; it was labeled hazardous waste solvent ink and absorbents; and it was identified with a flammable solid DOT hazard placard.

Hazardous Waste Storage Tanks – Subpart J: The facility operates a solvent distillation system to recycle spent solvents and inks on-site. The entire solvent system includes the 2,000-gallon dirty solvent storage tank, the distillation unit, the 4,000-gallon sludge storage tank, one 60-gallon clean solvent holding tank, three 600-gallon clean solvent storage tanks, and the associated piping, pumps and secondary containment dike. The system previously appeared to meet the criteria of the Closed-Loop Recycling Exemption. Under this exemption, the spent solvents contained within the solvent system were not solid wastes because they were reclaimed and returned to the original process or processes in which they were generated where they were reused in the production process according to the conditions listed in the Closed-Loop Recycling Exemption. As a result of this exemption, the 2,000-gallon dirty solvent storage tank would not have been storing a solid waste or a hazardous waste at that time.

The solvent system ceased meeting the criteria for the Closed-Loop Recycling Exemption approximately two years ago, when Press #15 was added using an open system. In addition, facility personnel explained that some spent solvents enter the recycling system by transfer from 55-gallon drums into the 2,000-gallon storage tank and that some clean solvents leave the system by transfer from the 600-gallon storage tanks into containers. These procedures also do not meet the criteria for the Closed-Loop Recycling Exemption. Therefore, the spent solvents generated by both manual and automatic cleaning activities are a solid waste as defined by 15A NCAC 13A .0106 [40 C.F.R. 261.2] and a hazardous waste as defined by 15A NCAC 13A .0106 [40 C.F.R. 261.3]. Pursuant to 15A NCAC 13A .0106 [40 C.F.R. 261.6(a)(1) and (b)], hazardous wastes that are recycled (“recyclable materials”) are subject to the requirements for generators, transporters, and storage facilities, and generators of recyclable materials are subject to the applicable requirements of part 262 of this chapter. As a result, the 2,000-gallon dirty solvent storage tank is now storing a hazardous waste, and it is subject to the conditions listed in 15A NCAC 13A .0107(a) [40 C.F.R. § 262.17(a)(2)].

Sonoco is currently managing two hazardous waste storage tanks at the facility: the 2,000-gallon hazardous waste dirty solvent storage tank, and the 4,000-gallon hazardous waste distillation bottoms storage tank. On May 28, 2008, Brittain Engineering, Inc. provided a P.E. certification that the 4,000-gallon double walled tank and its piping / ancillary equipment and secondary containment meet the integrity requirements of 15A NCAC 13A .0110 [40 C.F.R. 265 Subpart J], as incorporated by 15A NCAC 13A .0107(a) [40 C.F.R. § 262.17(a)(2)]. On April 4, 2020, Kleinfelder, Inc. provided a P.E. certification that the 2,000-gallon carbon steel aboveground double walled atmospheric vent tank and ancillary equipment not previously certified including piping, fittings, flanges, valves and pumps used to control the flow of hazardous waste spent solvents from the point of generation at the press collection vat to the dirty solvent hazardous waste storage tank meet the integrity requirements found in 15A NCAC 13A .0110 [40 C.F.R.

265 Subpart J] as incorporated by 15A NCAC 13A .0107(a) [40 C.F.R. § 262.17(a)(2)].

Hazardous Waste Storage Tanks – Subparts BB and CC: In 2014, Kleinfelder, Inc. performed waste sampling and regulatory applicability review for Sonoco’s equipment potentially subject to 15A NCAC 13A .0107(a) [40 C.F.R. § 262.17(a)(2)], which incorporates 15A NCAC 13A .0110 [40 C.F.R. 265 Subparts BB and CC] air emission regulations, at that time. The final report, dated March 20, 2014, provided a summary of the applicability of 15A NCAC 13A .0110 [40 C.F.R. 265 Subparts BB and CC], as incorporated by 15A NCAC 13A .0107(a) [40 C.F.R. § 262.17(a)(2)], at time of the review, and it serves as documentation for recordkeeping requirements of each Subpart.

At the time of Kleinfelder, Inc.’s review, the portion of the solvent distillation system which included the process units, the 2,000-gallon dirty solvent storage tank, the distillation unit, the 60-gallon clean solvent holding tank, three 600-gallon clean solvent storage tanks, and the equipment transferring solvent between these units appeared to meet the conditions of the Closed-Loop Recycling Exemption. As a result, the spent solvents generated in the printing presses were not solid wastes, and the equipment from the point of generation through the distillation unit (including the 2,000-gallon dirty solvent storage tank) were not managing a solid waste or a hazardous waste at that time. However, the distillation bottoms (“sludge”) leaving the distillation unit were no longer contained in the portion of the recycling system that appeared to meet the Closed-Loop Recycling Exemption. Therefore, the sludge was a solid waste and a hazardous waste when it left the distillation unit, when it was stored in the 4,000-gallon sludge tank, and when it was transferred from the distillation unit to the storage tank and from the storage tank to a tanker truck for off-site transport. All of the equipment used to transfer or store hazardous waste sludge after leaving the distillation unit was referred to as the “regulated portion” of the recycling system.

The Kleinfelder report indicated that the D001 distillation still bottom sludge has a volatile organic concentration of greater than 10% total organics, and that the regulated portion of the recycling system is regulated under 15A NCAC 13A .0110 [40 C.F.R. 265 Subpart BB]. This equipment includes galvanized piping with threaded connections, valves and one pneumatic pump. On November 15, 2013, Mr. Douglas submitted a certification letter, which included calculations, to demonstrate that hazardous waste still bottoms are in contact with equipment in the regulated portion of the recycling system and listed in 15A NCAC 13A .0110 [40 C.F.R. 265 Subpart BB] for a period of 15.4 hours per year. The facility also maintains a schematic of all applicable equipment that comes into contact with hazardous waste still bottoms as required by 15A NCAC 13A .0110 [40 C.F.R. 265.1064(g)(6)]. Therefore, Kleinfelder determined that the regulated portion of the recycling system was excluded from the requirements of 15A NCAC 13A .0110 [40 C.F.R. 265.1052 - 1060] for having hazardous waste in contact with 15A NCAC 13A .0110 [40 C.F.R. 265 Subpart BB] listed equipment for less than 300-hours per year, as stated at 15A NCAC 13A .0110 [40 C.F.R. 265.1050(e)].

According to facility personnel, the calculations for demonstrating that hazardous waste still bottoms are in contact with the regulated equipment for less than 300-hours per year were based on the assumption that the equipment is void of hazardous waste between uses because the waste drains from the equipment via gravity flow. However, personnel noted that the pneumatic pump

is not void of hazardous waste or hazardous waste residues between uses, because gravity will cause some hazardous waste still bottoms to drain back into the pump. Therefore, the pump is not excluded from the requirements of 15A NCAC 13A .0110 [40 C.F.R. 265.1052 - 1060]. Sonoco had not marked the pneumatic pump in a manner to distinguish it from other pieces of equipment, had not conducted any air monitoring of the pump, and did not have all of the required information for the pump in the facility records.

Pursuant to 15A NCAC 13A .0107(a) [40 C.F.R. § 262.17(a)(2)], which incorporates 15A NCAC 13A .0110(t) [40 C.F.R. § Part 265.1050(c)], and is a condition of the LQG Permit Exemption, each piece of equipment to which this subpart applies shall be marked in such a manner that it can be distinguished readily from other pieces of equipment.

Pursuant to 15A NCAC 13A .0107(a) [40 C.F.R. § 262.17(a)(2)], which incorporates 15A NCAC 13A .0110(t) [40 C.F.R. § Part 265.1052(a)], and is a condition of the LQG Permit Exemption, each pump in light liquid service shall be monitored monthly to detect leaks by the methods specified in 15A NCAC 13A .0110(t) [40 C.F.R. § 265.1063(b)], and each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal.

Pursuant to 15A NCAC 13A .0107(a) [40 C.F.R. § 262.17(a)(2)], which incorporates 15A NCAC 13A .0110(t) [40 C.F.R. § Part 265, Subpart BB], and is a condition of the LQG Permit Exemption, a generator accumulating hazardous waste in tanks must comply with the RCRA Subpart BB organic air emission standards for tanks, including, but not limited to the recordkeeping requirements associated with identifying equipment to which subpart BB of Part 265 applies as specified in 15A NCAC 13A .0110(t) [40 C.F.R. § 265.1064(b), (g) and (k)].

Because the solvent system no longer meets the criteria for the Closed-Loop Recycling Exemption, the spent solvents contained in the equipment that transfers spent solvents from the point of generation at the process units to the 2,000-gallon storage tank and from the 2,000-gallon storage tank to the distillation unit are now a solid waste as defined by 15A NCAC 13A .0106 [40 C.F.R. 261.2] and a hazardous waste as defined by 15A NCAC 13A .0106 [40 C.F.R. 261.3]. Sonoco had not identified or marked any equipment in this portion of the solvent system, had not conducted any air monitoring or inspections of this equipment, and did not provide the following records for this equipment: equipment identification number and hazardous waste management unit identification, approximate locations within the facility, type of equipment, percent-by-weight total organics in the hazardous waste stream at the equipment, hazardous waste state at the equipment, method of compliance with the standard for each piece of equipment to which subpart BB of part 265 applies.

Pursuant to 15A NCAC 13A .0107(a) [40 C.F.R. § 262.17(a)(2)], which incorporates 15A NCAC 13A .0110(t) [40 C.F.R. § Part 265.1050(c)], and is a condition of the LQG Permit Exemption, each piece of equipment to which this subpart applies shall be marked in such a manner that it can be distinguished readily from other pieces of

equipment.

Pursuant to 15A NCAC 13A .0107(a) [40 C.F.R. § 262.17(a)(2)], which incorporates 15A NCAC 13A .0110(t) [40 C.F.R. § Part 265, Subpart BB], and is a condition of the LQG Permit Exemption, a generator accumulating hazardous waste in tanks must comply with the RCRA Subpart BB organic air emission standards for tanks, including, but not limited to monitoring standards specified in 15A NCAC 13A .0110(t) [40 C.F.R. § 265.1052-1060].

Pursuant to 15A NCAC 13A .0107(a) [40 C.F.R. § 262.17(a)(2)], which incorporates 15A NCAC 13A .0110(t) [40 C.F.R. § Part 265, Subpart BB], and is a condition of the LQG Permit Exemption, a generator accumulating hazardous waste in tanks must comply with the RCRA Subpart BB organic air emission standards for tanks, including, but not limited to the recordkeeping requirements associated with identifying equipment to which subpart BB of Part 265 applies as specified in 15A NCAC 13A .0110(t) [40 C.F.R. § 265.1064(b) and (g) - (k)].

The Kleinfelder report indicated that the VO concentration of the spent solvent waste at the point of origination was determined to be 85,000 ppmw, and that the 4,000-gallon hazardous waste tank was subject to 15A NCAC 13A .0110 [40 C.F.R. 265 Subpart CC]. The vapor pressure for waste accumulated within that tank was determined to be 14-mmHG (1.8 PA) based on the solvent safety data sheet information. The report indicated that the 4,000-gallon tank is subject to Level 1 controls and is equipped with a fixed roof, which forms a continuous barrier over the surface of the waste. The closure devices on the 4,000-gallon tank are being inspected annually with the most recent inspection documented for March 4, 2021. Prior inspections were performed on March 5, 2020, and March 4, 2019.

Because the solvent system no longer meets the criteria for the Closed-Loop Recycling Exemption, the spent solvents contained in the 2,000-gallon storage tank are now a solid waste as defined by 15A NCAC 13A .0106 [40 C.F.R. 261.2] and a hazardous waste as defined by 15A NCAC 13A .0106 [40 C.F.R. 261.3]. The Kleinfelder report indicated that the VO concentration of the spent solvent waste at the point of origination was determined to be 85,000 ppmw, however, Sonoco did not provide any records of annual visual inspections of the fixed roof or closure devices for the 2,000-gallon storage tank.

Pursuant to 15A NCAC 13A .0107(a) [40 C.F.R. § 262.17(a)(2)], which incorporates 15A NCAC 13A .0110(u) [40 C.F.R. § Part 265, Subpart CC], and is a condition of the LQG Permit Exemption, a generator accumulating hazardous waste in tanks must comply with the RCRA Subpart CC organic air emission standards for tanks, including, but not limited to visually inspecting the fixed roof and its closure devices to check for defects that could result in air pollutant emissions on or before the date that the tanks becomes subject to this section and at least once every year thereafter as specified in 15A NCAC 13A .0110(u) [40 C.F.R. § 265.1085(c)(4)(i) and (ii)].

The inspectors observed the recycling unit, the 4,000-gallon sludge tank, and the 2,000-gallon spent solvent tank during the inspection. The 2,000-gallon and 4,000-gallon tanks are located at

the hazardous waste storage pad area, which is equipped with a curbed secondary containment pad. The 4,000-gallon tank was labeled “hazardous waste” and “sludge tank,” and it was identified with a flammable liquid DOT hazard placard. The 2,000-gallon tank was labeled “dirty solvent tank” and it was identified with a flammable liquid DOT hazard placard, but it was not labeled “hazardous waste.” According to facility personnel, the tanks are equipped with a high-level probe and a high-high level probe wired to the distillation unit control panel for alert and alarm.

Pursuant to 15A NCAC 13A .0107 [40 C.F.R. § 262.17(a)(5)(ii)(A)], which is a condition of the LQG Permit Exemption, a generator is required to mark or label hazardous waste storage tanks with the words “Hazardous Waste.”

Contingency Plan: The actions that facility personnel should take in response to an emergency are described in the facility’s Emergency Contingency Plan. The plan describes actions facility personnel must take in response to a fire / explosion inside, to a fire / explosion outside, to an incidental release of hazardous waste, to a major release of hazardous waste, to a natural disaster, to a medical emergency, or to an intruder. The plan identifies the NRC, City of Hickory Police Department, City of Hickory Fire Department, Catawba County EMS, STAT Inc., Catawba Valley Medical Center, Frye Regional Medical Center, City of Hickory Public Utilities, Duke Power, and Piedmont Natural Gas as entities that may provide emergency assistance. The plan lists the names and emergency telephone numbers for persons identified as emergency coordinators, and these individuals are listed in the order in which they will assume responsibility as alternates. The plan includes a list of all emergency equipment at the facility. The list includes firefighting equipment, spill control equipment, communication devices, and service cut off systems. The plan includes a map with the location of fire extinguishers, fire suppression equipment, fire alarm pull-stations, first aid stations, defibrillator, eyewash stations, emergency telephones, and spill control drums. The plan includes an evacuation map for personnel with primary and alternate evacuation routes.

The Emergency Contingency Plan was last updated on 10/30/2019, and a copy of the plan (and its quick reference guide) was submitted to the Hickory Fire Department, the Catawba Valley Medical Center, Catawba County, STAT, Inc., the Hickory Police Department, and Frye Regional Medical Center on 11/21/2019.

The quick reference guide includes the types/names of hazardous waste in layman’s terms and the associated hazard associated with each hazardous waste present at any one time; the estimated maximum amount of each hazardous waste that may be present at any one time; the identification of any hazardous wastes where exposure would require unique or special treatment by medical or hospital staff; a map of the facility showing where hazardous wastes are generated, accumulated and treated and routes for accessing these wastes; a street map of the facility in relation to surrounding businesses, schools and residential areas; the locations of water supply; the identification of on-site notification systems; and the name of the emergency coordinator(s) and emergency telephone number(s).

Training Records: The inspectors reviewed facility job descriptions and employee names that were provided for the Safety Coordinator, Pre-Press Manager, Slitting Manager, Laminating

Manager, Printing Manager, Maintenance Manager, Shift Supervisor, Press Operator, Press Assistant, Ink Technician Coordinator, Ink Technician, Laminator Operator, Maintenance Technician, and Anilox Cleaner positions. Each description included the requisite skill, education, or other qualifications, and duties of facility personnel assigned to that position.

Sonoco 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 the month of November during calendar years 2017, 2018, 2019 and 2020. In addition, the inspectors reviewed records of outside hazardous waste training completed by Brandi Surratt in August 2019 and 2020 and by Bill Grane in August 2020.

Waste Manifest Records: The inspectors reviewed available hazardous waste manifest records and land disposal restriction forms for shipments of hazardous waste sent since January 2019. Hazardous waste manifest records show that one tanker truck of D001 / F003 hazardous waste flammable liquid (propanol ethyl acetate) is routinely shipped to Geocycle (SCD003368891) approximately once every month, and the most recent shipment was made on 02/17/2021.

Hazardous waste manifest records also show that one to four 55-gallon drums of D001 / F003 hazardous waste liquid, and between eleven and thirty-three 55-gallon drums of D001 hazardous waste ink were shipped about once each month to GRR Sumter (SCD036275626) during calendar year 2019. These shipments also included between one and three 55-gallon drums of D001 hazardous waste solids about once each quarter. The most recent shipment to GRR Sumter (SCD036275626) was sent on 02/02/2021 and contained only D001 hazardous waste solids contaminated with flammable liquid.

One shipment of D001 waste paint related material, D002 waste corrosive liquid (tributyl tetrayl phosphonium chloride), D002 waste corrosive liquid (potassium hydroxide sodium hydroxide), and D002 waste potassium hydroxide was sent to Tradebe (TND000772186) on 09/05/2019; and one shipment of D001 / F003 hazardous waste liquid and D001 hazardous waste ink was sent to AES (KYD985073193) on 06/19/2019.

The inspectors also reviewed copies of the biennial report submitted by Sonoco for calendar years 2017 and 2019.

Solvent Contaminated Wipes: Sonoco provided records for shipments of solvent-contaminated wipes being sent off-site for laundering or dry-cleaning. Shipments of excluded solvent-contaminated reusable wipes are picked up by CINTAS once every week. Sonoco provided documentation of the name and address of the laundry or dry cleaner that is receiving the solvent-contaminated wipes; documentation that the 180-day time limit in 40 C.F.R. § 261.4(a)(26)(ii) is being met; and a description of the process the generator is using to ensure the solvent-contaminated wipes contain no free liquids at the point of being transported off-site for laundering or dry cleaning. Dirty rags are placed into one of two 55-gallon draining drums, which are equipped with a metal rack at the bottom and left inside the drum to drain for eight hours. After that time, the rags are transferred into a second 55-gallon draining drum and left inside that drum for another eight hours. At the end of this time, the rags should no longer

contain free liquids. In 2015, Pace Analytical performed a paint liquid filter test on a sample of the solvent rags and determined that the sample did not contain any free liquids.

Weekly Inspection Records: The inspectors reviewed Sonoco's available records of inspections of the hazardous waste CAAs since 12/28/2019. The inspection log includes a checklist to record observations about leaking containers and for deterioration of containers caused by corrosion or other factors. The inspection log includes a checklist to record observations about fire extinguishers, signage, secondary containment berm, spill kit, telephone, 2,000-gallon dirty solvent tank, 4,000-gallon sludge tank, accumulation dates, condition of drums, number of dirty solvent drums and date of oldest one, number of ink sludge drums and date of oldest one, number of solvent and adhesive drums and date of oldest one, and number of other waste drums. The records include the date of the inspection and the name and signature of the employee conducting the inspection. Each week, the employee records notations of observations and necessary follow-up actions for the inspected areas.

Daily Inspection Records: The inspectors reviewed Sonoco's available records of inspections of the hazardous waste storage tanks since 01/03/2019. The inspections include the overfill/spill control equipment, the above ground portions of the tank system, the construction materials and the area immediately surrounding the externally accessible portion of the tank system, including the secondary containment system. The records included the date and time of the inspection, the level of waste in the tanks, and the inspector's initials and comments. Facility representatives explained that the tanks are also equipped with a level sensor alarm, which will sound if the volume of waste in the tank drops. No daily inspections were recorded on weekends, or several other dates during the period of record review. Facility representatives also explained that security cameras have been installed in the CAA in order to view and inspect the tanks remotely on weekends when production activities are not occurring at the facility. Some of the dates when records of daily inspections were missing included: 12/21-27/2018, 04/18-24/2019, 05/14-20/2019, 12/30/2019-01/04/2020, 04/09-14/2020, 07/15-20/2020, 09/03-08/2020, and 12/22-28/2020.

Pursuant to 15A NCAC 13A .0107(a) [40 C.F.R. § 262.17(a)(2)], which incorporates 15A NCAC 13A .0110 [40 C.F.R. § 265.195(g)], and is a condition of the LQG Permit Exemption, a generator is required to document in the operating record of the facility an inspection of the items in paragraphs (a) and (b) of this section.

12) Closing Conference and Follow-Up

The inspectors conducted the exit meeting with Brad Compton, Plant Manager, Justin Seidel, Brandi Surratt, and Paul Douglas. During this meeting, the inspectors stated their preliminary conclusions of the inspection. Specifically, the inspectors noted that the facility no longer meets the criteria of the Closed-Loop Recycling Exemption. As a result, Mr. Douglas sent a letter to Mr. Guglielmi dated April 16, 2021, in which he calculated the amount of time that the transfer lines and ancillary equipment connecting the press lines to the spent solvent storage tank and connecting the spent solvent storage tank to the distillation unit are in service. Although these calculations indicate that the equipment is in service less than 300 hours per year, they are not sufficient to demonstrate that the equipment is not in contact with hazardous waste or hazardous

waste residues for less than 300 hours per year. In order to be eligible for exemption from the air monitoring requirements set forth in Subpart BB of RCRA, more information is necessary.

Pursuant to 15A NCAC 13A .0110 [40 C.F.R. § 265.1050(e)], equipment must be void of subpart BB-regulated waste for a minimum of 300 hours per calendar year in order to be excluded from air monitoring requirements found in 15A NCAC 13A .0110 [40 C.F.R. §§ 265.1052 - 1060]. A best practice to ensure that the equipment is no longer containing or contacting hazardous waste residue is to clean or flush the piece of equipment with solvent and dry it with an air or nitrogen purge or other non-hazardous waste material (or water) capable of removing the liquid and gas. The waste that had been present, the times operated, routine methods of cleaning or flushing, and the date and time of cleaning or flushing should be recorded for purposes of recordkeeping and demonstrating the exemption. Utilizing this best practice ensures the operating record can properly document that the requirements for the exemption have been met.

Alternatively, Sonoco may wish to evaluate whether or not the facility could be eligible for the recycling exemption found in 15A NCAC 13A .0106 [40 C.F.R. § 261.4(a)(23)], which states that a hazardous secondary material generated and legitimately reclaimed within the United States or its territories and under the control of the generator is not a solid waste, provided that the material complies with 15A NCAC 13A .0106 [40 C.F.R. § 261.4(a)(23)(i) and (ii)]. Specifically, the hazardous secondary material must be generated and reclaimed at the generating facility; it must be contained as defined in 15A NCAC 13A .0102(b) [40 C.F.R. § 260.10]; it and must not be speculatively accumulated. Furthermore, Sonoco must submit a notice as required by 15A NCAC 13A .0102(b) [40 C.F.R. § 260.42]; must maintain documentation of the legitimacy determination on-site; and must meet the emergency preparedness and response requirements found in 15A NCAC 13A .0107(a) [40 C.F.R. § 262 Subpart M] in order to qualify for this exemption. The legitimacy determination documentation must be a written description of how the recycling meets all three factors in 15A NCAC 13A .0102(b) [40 C.F.R. § 260.43(a)] and how the factor in 15A NCAC 13A .0102(b) [40 C.F.R. § 260.43(b)] was considered.

Sonoco may also wish to evaluate whether or not the facility could be eligible for the reduced tank inspection schedule found in 15A NCAC 13A .0110 [40 C.F.R. § 265.195(c)], which states that owners and operators of tank systems that either use leak detection equipment to alert facility personnel to leaks, or implement established workplace practices to ensure leaks are promptly identified, must inspect at least weekly those areas described in paragraphs (b)(1) through (3) of this section. Use of the alternate inspection schedule must be documented in the facility's operating record, and this documentation must include a description of the established workplace practices at the facility.

13) Inspection Findings

Based on the observations made during the inspection, Sonoco was apparently deficient with the following RCRA requirements:

Pursuant to 15A NCAC 13A .0107(a) [40 C.F.R. § 262.17(a)(2)], which incorporates 15A NCAC 13A .0110 [40 C.F.R. § 265.195(g)], and is a condition of the LQG Permit

Exemption, a generator is required to document in the operating record of the facility an inspection of the items in paragraphs (a) and (b) of this section.

Pursuant to 15A NCAC 13A .0107(a) [40 C.F.R. § 262.17(a)(2)], which incorporates 15A NCAC 13A .0110(t) [40 C.F.R. § Part 265.1050(c)], and is a condition of the LQG Permit Exemption, each piece of equipment to which this subpart applies shall be marked in such a manner that it can be distinguished readily from other pieces of equipment.

Pursuant to 15A NCAC 13A .0107(a) [40 C.F.R. § 262.17(a)(2)], which incorporates 15A NCAC 13A .0110(t) [40 C.F.R. § Part 265.1052(a)], and is a condition of the LQG Permit Exemption, each pump in light liquid service shall be monitored monthly to detect leaks by the methods specified in 15A NCAC 13A .0110(t) [40 C.F.R. § 265.1063(b)], and each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal.

Pursuant to 15A NCAC 13A .0107(a) [40 C.F.R. § 262.17(a)(2)], which incorporates 15A NCAC 13A .0110(t) [40 C.F.R. § Part 265, Subpart BB], and is a condition of the LQG Permit Exemption, a generator accumulating hazardous waste in tanks must comply with the RCRA Subpart BB organic air emission standards for tanks, including, but not limited to monitoring standards specified in 15A NCAC 13A .0110(t) [40 C.F.R. § 265.1052-1060].

Pursuant to 15A NCAC 13A .0107(a) [40 C.F.R. § 262.17(a)(2)], which incorporates 15A NCAC 13A .0110(t) [40 C.F.R. § Part 265, Subpart BB], and is a condition of the LQG Permit Exemption, a generator accumulating hazardous waste in tanks must comply with the RCRA Subpart BB organic air emission standards for tanks, including, but not limited to the recordkeeping requirements associated with identifying equipment to which subpart BB of Part 265 applies as specified in 15A NCAC 13A .0110(t) [40 C.F.R. § 265.1064(b) and (g) - (k)].

Pursuant to 15A NCAC 13A .0107(a) [40 C.F.R. § 262.17(a)(2)], which incorporates 15A NCAC 13A .0110(u) [40 C.F.R. § Part 265, Subpart CC], and is a condition of the LQG Permit Exemption, a generator accumulating hazardous waste in tanks must comply with the RCRA Subpart CC organic air emission standards for tanks, including, but not limited to visually inspecting the fixed roof and its closure devices to check for defects that could result in air pollutant emissions on or before the date that the tanks becomes subject to this section and at least once every year thereafter as specified in 15A NCAC 13A .0110(u) [40 C.F.R. § 265.1085(c)(4)(i) and (ii)].

Pursuant to 15A NCAC 13A .0107 [40 C.F.R. § 262.17(a)(5)(ii)(A)], which is a condition of the LQG Permit Exemption, a generator is required to mark or label hazardous waste storage tanks with the words “Hazardous Waste.”

14) **Signed**

Laurie Benton DiGaetano
Senior Enforcement and Compliance Specialist

Date

Concurrence

Araceli B. Chavez
Chief
RCRA Enforcement Section

Date