

RCRA INSPECTION REPORT

1) **Inspector and Author of Report**

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2) **Facility Information**

Specialty Appliances Works LLC
4890 Hammond Industrial Drive, Suite J
Cumming, Georgia 30041
Phone number: (678) 513-4408
County: Forsyth
Latitude: 34.258016
Longitude: -84.065139
EPA ID Number: GAR000092452
Primary NAICS: 339116–Dental Laboratories
SIC Code: 8072–Dental Laboratories

3) **Responsible Official**

Mr. Shane Jordan
Production Manager, Specialty Appliances Works LLC

4) **Inspection Participants**

Parvez Mallick, U.S. Environmental Protection Agency (EPA), Region 4
Sara Porter, Georgia Environmental Protection Division (GA EPD)
Shane Jordan, Specialty Appliances Works LLC
Carolyn Thomas, Specialty Appliances Works LLC
Heather McNeil, Specialty Appliances Works LLC

5) **Date and Time of Inspection**

December 2, 2021, 9:15 a.m.

6) **Applicable Statutes and Regulations**

Resource Conservation and Recovery Act (RCRA), 42 United States Code §§ 6901 *et. seq.*, and 40 Code of Federal Regulations (C.F.R.) Parts 260-270, 273, 279 Georgia Hazardous Waste Management Act, Official Code of Georgia Annotated §§12-8-60, *et. seq.*, and Rules of Georgia Department of Natural Resources Environmental Protection Division, Chapter 391-3-11

7) **Purpose of Inspection**

The purpose of the site visit was to conduct an unannounced EPA RCRA compliance evaluation inspection (CEI) to assess the facility's compliance with applicable RCRA regulations. Upon arriving at the facility, the EPA and GA EPD inspector presented inspector credentials to the facility representatives Shane Jordan, Carolyn Thomas, and Heather McNeil of Specialty Appliances Works LLC. The inspectors explained the purpose of the visit and a description of the facility's process was discussed. The inspectors described the anticipated use of digital camera during the inspection. The inspectors briefly discussed the company's ability, pursuant to 40 C.F.R. § 2.203, to assert a business confidentiality claim for information submitted to the 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 the facility representatives led the inspectors on a tour of the facility operations.

8) **Facility Description**

Specialty Appliances Works LLC is a full-service orthodontic laboratory, producing dental products such as retainers, aligners, positioner appliances, indirect bonding, functional appliances, splint appliances. The facility has been developing and manufacturing orthodontic appliances for children and adults since 1983 in Georgia. The site consists of two buildings across the street from each other that house facility offices, laboratories, and manufacturing and packaging areas. The 25,000-square foot facility began operations in 2002 and employs 188 personnel. The facility operates from 8:00 a.m. to 4:30 p.m. on Mondays through Fridays. Forsyth county utilities provides potable water and sanitary sewer services.

Specialty Appliances Works LLC notified as a large quantity generator (LQG) of hazardous waste on 4/1/2021. The notifications were made as a result of the facility generating hazardous wastes including D001, D002, and F003 hazardous waste.

9) **Findings**

The facility offers two separate methods to make dental appliances, stone model ("analog") impression and digital image impressions. The facility receives models or images of an orthodontic patient's teeth from the orthodontists. Upon receipt of a stone model, the production process called the "analog" method is carried out by hand and involves a gypsum material similar to plaster of paris. This production process generates no hazardous waste. Upon receipt of an image, the image specifications will be input into a Carbon 3D Printing System and the model will be 3D-printed using spools of acrylonitrile butadiene styrene (ABS) and polypropylene filaments as raw materials. The filaments are melted and poured layer by layer, or "photo-cured", according to the image specifications into resin models. These resin models are then rinsed in two separate baths of isopropyl alcohol (IPA) to remove any excess resin and are air-dried in a UV box. The excess resin

and IPA are collected and reused until spent and no longer serve their intended function. Once dried, the resin models are shipped to the orthodontists who deliver the models to the patients they are intended for. The facility mainly generates waste isopropyl alcohol (D001), generated during the rinsing stage in the production of the resin models.

A walk-through inspection of the facility was performed following these discussions. Observations made during the walk-through inspection are discussed below.

Printing Area

Two 5-gallon containers of spent IPA were located in separate satellite accumulation areas (SAAs) in the resin printing room. Both containers had an indication of the hazards of the contents but were not marked “Hazardous Waste” and one container was open during the inspection (Photographs 1 and 2). The inspectors informed the facility that all hazardous waste containers must be marked “Hazardous Waste” and be closed while not in use. Mr. Jordan provided photos on December 16, 2021, that showed containers marked with the words “Hazardous Waste” in this SAA, as well as both containers being closed.

Pursuant to Ga. Comp. R. and Regs. 391-3-11-.08(1), [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 the 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 Section 12-8-66 of the GHWMA, Ga. Code Ann. § 12-8-66, [Section 3005 of RCRA, 42 U.S.C. § 6925], and without complying with Ga. Comp. R. and Regs. 391-3-11-.08(1), [40 C.F.R. § 262.16(b) or §262.17(a)], except as required in Ga. Comp. R. and Regs. 391-3-11-.08(1), [40 C.F.R. § 262.15(a)(7) and (8)], provided that the generator complies with the satellite accumulation area conditions listed in Ga. Comp. R. and Regs. 391-3-11-.08(1), [40 C.F.R. § 262.15(a)] (hereinafter referred to as the “SAA Permit Exemption”).

Pursuant to Ga. Comp. R. and Regs. 391-3-11-.08(1), [40 C.F.R. § 262.15(a)(5)(i)], which is a condition of the SAA Permit Exemption, a generator must mark or label its container with the following words “Hazardous Waste.”

Pursuant to Ga. Comp. R. and Regs. 391-3-11-.08(1), [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.

Pursuant to Ga. Comp. R. and Regs. 391-3-11-.08(1), [40 C.F.R. § 262.15(a)(7)], which is a condition of the SAA Permit Exemption, all satellite accumulation areas operated by a small quantity generator must meet the preparedness and prevention regulations of 40 C.F.R. § 262.16(b)(8) and emergency procedures at 40 C.F.R. § 262.16(b)(9).

180-Day Storage Area - Central Accumulation Area (CAA)

The facility has one CAA located outside next to the loading dock on the back side of Building 2. During the inspection, the CAA had four 55-gallon containers of spent IPA (D001) waste and three

55-gallon empty containers. All containers were closed and marked with indications of the hazards of its' contents, but the hazardous waste containers were not marked with the words "Hazardous Waste", or the accumulation start dates (Photographs 3, 4 and 5). The inspector observed that the CAA area was missing "No Smoking" precautions to prevent accidental ignition of the ignitable IPA wastes (Photograph 3).

Pursuant to Ga. Comp. R. and Regs. 391-3-11-.08(1), [40 C.F.R. § 262.16], a SQG may accumulate hazardous waste on-site for 180 days or less without a permit or without having interim status, as required by Section 12-8-66 of the GHWMA, Ga. Code Ann. § 12-8-66 [Section 3005 of RCRA, 42 U.S.C. § 6925], provided that the generator complies with the conditions listed in Ga. Comp. R. and Regs. 391-3-11-.08(1) [40 C.F.R. § 262.16] (hereinafter referred to as the "SQG Permit Exemption").

Pursuant to Ga. Comp. R. and Regs. 391-3-11-.08(1), [40 C.F.R. § 262.16(b)(6)(i)(a) and (c)], which is a condition of the SQG Permit Exemption, a generator must mark or label its container with the following words "Hazardous Waste" and the date upon which each period of accumulation begins clearly visible for inspection on each container.

Pursuant to Ga. Comp. R. and Regs. 391-3-11-.08(1), [40 C.F.R. § 265.17(a)], which is a condition of the SQG Permit Exemption, the owner or operator must take precautions to prevent accidental ignition or reaction of ignitable or reactive waste. This waste must be separated and protected from sources of ignition or reaction including but not limited to open flames, smoking, cutting and welding, hot surfaces, frictional heat, sparks (static, electrical, or mechanical), spontaneous ignition (e.g., from heat-producing chemical reactions), and radiant heat. While ignitable or reactive waste is being handled, the owner or operator must confine smoking and open flame to specially designated locations. "No Smoking" signs must be conspicuously placed wherever there is a hazard from ignitable or reactive waste.

On December 16, 2021, Mr. Jordan provided photos that indicated accumulation start dates and the words "Hazardous Waste" added to the containers in the CAA. Additional photos submitted on January 20, 2022, showed addition of a containment shed that will be used to hold containers of hazardous waste stored in the CAA.

Record Review

The inspectors requested the following records for review: Hazardous Waste Manifests, Land Disposal Restrictions, Bills of Lading, Waste Profiles, CAA Weekly Inspection Logs, Contingency Plan, and Employee Hazardous Waste Training Records. The hazardous waste generated by Specialty Appliances Works LLC is transported by MCF Environmental Services, Inc. (GAR000061564). It is disposed of by GRR Atalla Inc. (ALD070513767). No Universal Waste was present at the facility at the time of the inspection. Universal waste batteries are recycled by 400 Waste & Scrap LLC of Cumming, Georgia.

At the time of the inspection, the CAA Weekly Inspection Logs, Contingency Plan, and Employee Hazardous Waste Training Records were unavailable for review. Proof of arrangements with local authorities was also unavailable at the time of the inspection.

Pursuant to Ga. Comp. R. and Regs. 391-3-11-.08(1), [40 C.F.R. § 262.16(b)(2)(iv)], which is a condition of the SQG 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. The small quantity generator must look for leaking containers and for deterioration of containers caused by corrosion or other factors. See paragraph (b)(2)(i) of this section for remedial action required if deterioration or leaks are detected.

Pursuant to Ga. Comp. R. and Regs. 391-3-11-.08(1), [40 C.F.R. § 262.16(b)(9)(i-ii)], which is a condition of the SQG Permit Exemption, the small quantity generator complies with the following conditions for those areas of the generator facility where hazardous waste is generated and accumulated: (i) At all times there must be at least one employee either on the premises or on call (*i.e.*, available to respond to an emergency by reaching the facility within a short period of time) with the responsibility for coordinating all emergency response measures specified in paragraph (b)(9)(iv) of this section. This employee is the emergency coordinator, (ii) The small quantity generator must post the following information next to telephones or in areas directly involved in the generation and accumulation of hazardous waste: (A) the name and emergency telephone number of the emergency coordinator; (B) location of fire extinguishers and spill control material, and, if present, fire alarm; and (C) the telephone number of the fire department, unless the facility has a direct alarm.

Pursuant to Ga. Comp. R. and Regs. 391-3-11-.08(1), [40 C.F.R. § 262.16(b)(9)(iii)], which is a condition of the SQG Permit Exemption, the small quantity generator must ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures, relevant to their responsibilities during normal facility operations and emergencies.

Pursuant to Ga. Comp. R. and Regs. 391-3-11-.08(1), [40 C.F.R. § 262.16(b)(8)(vi)(A-B)], which is a condition of the SQG Permit Exemption, (A) The small quantity generator must attempt to make arrangements with the local police department, fire department, other emergency response teams, emergency response contractors, equipment suppliers and local hospitals, taking into account the types and quantities of hazardous wastes handled at the facility. Arrangements may be made with the Local Emergency Planning Committee, if it is determined to be the appropriate organization with which to make arrangements. (1) a small quantity generator attempting to make arrangements with its local fire department must determine the potential need for the services of the local police department, other emergency response teams, emergency response contractors, equipment suppliers and local hospitals. (2) as part of this coordination, the small quantity generator shall attempt to make arrangements, as necessary, to familiarize the above organizations with the layout of the facility, the properties of hazardous waste handled at the facility and associated hazards, places where facility personnel would normally be working, entrances to roads inside the facility, and possible evacuation routes as well as the types of injuries or illnesses that could result from fires, explosions, or releases at the facility. (3) where more than one police or fire department might respond to an emergency, the small quantity generator shall attempt to make arrangements designating primary emergency authority to a specific fire or police department, and arrangements with any others to provide support to the primary emergency authority. (B) A small quantity generator shall maintain records documenting the arrangements with the local fire department as well as any other organization necessary to respond to an emergency. This documentation must include documentation in the operating record that either confirms such arrangements actively exist or, in cases where no arrangements exist, confirms that attempts to make such arrangements were made.

The inspectors informed the facility representatives that pursuant to 40 C.F.R. § 262.13, a generator must determine its generator category. A generator's category is based on the amount of hazardous waste generated each month and may change from month to month. Section § 262.13 sets forth procedures to determine whether a generator is a very small quantity generator, a small quantity generator, or a large quantity generator for a particular month, as defined in § 260.10 of this chapter.

Following the inspection, the EPA and the GAEPD provided compliance assistance to Specialty Appliances Works with generator category determination, container management, contingency plan, employee hazardous waste trainings, and preparedness and prevention regulations.

10) **Conclusion**

Based on observations during the inspection, IPA purchase records and hazardous waste manifests, it was determined that the facility was operating as a small quantity generator of hazardous waste. The findings of the inspection were presented at the end of the inspection to Mr. Shane Jordan, Ms. Carolyn Thomas, and Ms. Heather McNeil. The deficiencies cited in the inspection report were based on a small quantity generator status.

11) **Signature**

PARVEZ MALLICK Digitally signed by PARVEZ
MALLICK
Date: 2022.01.26 13:02:23 -05'00'

Parvez Mallick
Environmental Engineer
RCRA Enforcement Section

Date

12) **Concurrence**

ARACELI CHAVEZ Digitally signed by ARACELI CHAVEZ
Date: 2022.01.26 14:41:42 -05'00'

Araceli Chavez
Chief
RCRA Enforcement Section

Date

CEI photos were taken by Sara Porter of GAEPD



Site: Specialty Appliances
LLC

Photographs 1 and 2 of
5

County: Forsyth

Date: December 2, 2021

Photographer: Sara Porter

Observation: Two (2) 5-gallon containers of spent isopropyl alcohol were observed at the time of the inspection. Both containers had an indication of the hazards of the contents, but neither container was labeled with the words "Hazardous Waste", and neither container was properly closed.



Site: Specialty Appliances LLC	Photograph 3 of 5	County: Forsyth
Date: December 2, 2021	Photographer: Sara Porter	
Observation: At the time of the inspection, the CAA was missing “No Smoking Signs” and protection from the elements (particularly radiant heat).		



Site: Specialty Appliances LLC	Photographs 4 and 5 of 5	County: Forsyth
Date: December 2, 2021	Photographer: Sara Porter	
Observation: At the time of the inspection, all containers in the CAA were closed and marked with indications of the hazards of its contents, however, none of the containers were marked with the words “Hazardous Waste” or the accumulation start dates.		