

RCRA Inspection Report

1) Inspector and Author of Report

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2) Facility Information

Formulated Solutions, LLC
11775 Starkey Road
Largo, Florida 33773-4799
Pinellas County

EPA ID No.: FLR000031153

3) Responsible Officials

Mr. Matthew Hall
Environmental Health & Safety Manager
Formulated Solutions, LLC
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4) Inspection Participants

Matthew Hall, Formulated Solutions, LLC
Martha Worland, Formulated Solutions, LLC
Eric Dann, Formulated Solutions, LLC
Trevor Lewis, Formulated Solutions, LLC
Abigail Bridges, Florida Department of Environmental Protection, Southwest District
Shannon Lenhart, Florida Department of Environmental Protection, Southwest District
William Kappler, U. S. EPA, Region 4

5) **Date and Time of Inspection**

March 30, 2021, at 9:22 a.m.

6) **Applicable Regulations**

Chapter 403 of the Florida Statutes, Fla. Stat. § 403.702 *et seq.*, [Resource Conservation and Recovery Act Sections 3002 - 3005, (42 U.S. Code - Annotated U.S.C.A. 6925 and 6927)], the Florida Hazardous Waste Regulations 62.710.210 -.901, and 62-730 *et seq.* of the Florida Administrative Code Annotated (Fla. Admin. Code Ann.) [40 Code of Federal Regulations (C.F.R.) Parts 260-270, 273, and 279].

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

7) **Purpose of Inspection**

On March 26, 2021, the U.S. Environmental Protection Agency, Region 4, and the Florida Department of Environmental Protection, Southwest District (FDEP) contacted Formulated Solutions, LLC, for an opening conference to discuss a RCRA compliance evaluation inspection (CEI). The inspectors introduced themselves and the EPA explained the purpose of the RCRA CEI, including notification procedures due to the Covid-19, the date and time of the RCRA inspection, the EPA health and safety procedures, general areas for inspection, the EPA equipment to be used, RCRA records needed for review, confidential business information (CBI), and small business resources information. Formulated Solutions, LLC, explained their operational status, health and safety procedures, and record review information. A face mask, social distancing, hand-washing practices, small groups, and self-assessment protocols were observed at the facility.

On March 26, 2021, the EPA sent an email to Formulated Solutions, LLC to confirm the date and time of the RCRA inspection, the EPA inspector business card, and a list of the RCRA records needed for review. Formulated Solutions, LLC, submitted RCRA records in an email to the EPA on March 29, 2021. The records included three years of hazardous waste and universal waste manifests, the 2019 biennial report, an integrated contingency plan, a hazardous waste minimization plan, a facility process flow chart, and a facility site plan.

On March 30, 2021, inspectors from the EPA and the FDEP conducted an announced CEI at Formulated Solutions, LLC, (hereinafter, "Formulated" or the "facility") to determine the compliance status of the facility with the RCRA and the State of Florida regulations. This was an EPA-lead inspection. Inspectors arrived at Formulated and were greeted by facility representatives. The inspectors introduced themselves, showed credentials, exchanged business cards, and explained the purpose of the visit during an entrance briefing.

8) **Facility Description**

Formulated is located at 11775 Starkey Road, Largo, Pinellas County, Florida. The facility has

been at this location since 2010 and located on 14 acres of property. The property is owned by Paradigm Investments Properties. The facility employs approximately 600 people and operates seven days per week, 24 hours per day, on two 12-hour shifts. The facility closes twice a year: once in June for a midterm shutdown and once in December for an end-of-the-year shutdown. The facility has added approximately 30,000 square feet of space since the last CEI. The facility currently has over 220,000 square feet of space. Pinellas County Utilities provides potable water service and domestic waste service. The primary NAICS code for the facility is 325620.

Formulated notified of its regulated waste activity (8700-12) to FDEP on February 25, 2020, as a large quantity generator of hazardous waste (LQG) and a small quantity handler of universal waste (SQHUW).

9) **General Process Description**

Formulated is a contract formulator and packager of cosmetic preparations, sun care products and over-the-counter medications. The products include creams, liquids, and aerosols. Products are packaged in aerosol cans, bottles, jars, and tubes. Products are also packaged in “bag-over-valve” cans, constructed as compressed air contained in an outer can that surrounds an inner flexible package with the product to be dispensed.

In the production and blending rooms the facility mixes and blends the raw products, fills, and packages consumer cosmetics in tubes and bottles and prints product labels using ink jet printers. The smaller production room is used for filling and packaging of small or manual orders. The larger production room consists of several large filling and packaging lines designed to package bag-over-valve aerosols. The bag-over-valve uses air compression for dispersal without propellant. A separate blending room is used for blending consumer cosmetics. Ethanol used to manufacture the cosmetic is piped into this room from an outdoor tank farm. Production water and manufacturing vessel wash down water is discharged to the sanitary sewer with no pretreatment to the wastewater. The facility has a quality assurance (QA) laboratory and a research and development (R&D) laboratory. Product testing and product research is conducted in the laboratories. Waste generated from the laboratory operation is accumulated in several satellite accumulation areas (SAA) located at points of generations. General facility maintenance and repair is conducted in the maintenance area. Parts are cleaned using a Safety Kleen model 16/30 parts washer. Raw materials and finished products are stored in the warehouse area.

The facility also operates a filling room, a gas house, a packaging area, and a warehouse. The gashouse is an exterior room that injects chemical propellant from any of the exterior tanks into aerosol containers.

Located outside of the aerosol packaging room is a unit designed for the outgassing of aerosol. The unit has safety features capable of sealing off the aerosol packaging room and opening a large airway to the outdoors if an aerosol leak is detected. The unit is also capable of monitoring for sparks, depressurizing the room in the event of a fire/explosion, and expelling fire suppressant. It is tested every three months.

Formulated stores raw products in eight aboveground storage tanks constructed within a tank

farm. Chemical products consisting of solvents and propellants are stored in two 2,549-gallon tanks, one 11,500-gallon tank, one 12,000-gallon tank, one 5,500-gallon tank, one 12,000-gallon tank, one 3,000-liter tank, and one 500-gallon tank.

10) **Previous Inspection History**

Formulated was last inspected by the FDEP on February 16, 2018. The facility was cited for not labeling two containers with the words hazardous waste in the QA Laboratory satellite accumulation area, not maintaining and operating the 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 and a container of used oil was labeled with the words used oil and universal waste. The facility corrected the violations.

Formulated has not been previously inspected by EPA Region 4 for compliance with the federal and the State of Florida hazardous waste regulations.

11) **Findings**

The information in this RCRA inspection report is based on the EPA's March 30, 2021, RCRA CEI.

90-Day or Less Accumulation Area – Waste Shed

The 90-Day or Less Accumulation Area – Waste Shed (90-Day) is used to centralize hazardous waste generated at the facility. The 90-Day is constructed with metal exterior walls and metal roof on a concrete pad with a sloped concrete ramp. The entrance to the 90-Day is secured by a gate that is operated by an automatic key-pad function for access. Signs with the words “Danger Chemical Storage”, “Danger No Smoking”, “No Open Flame”, and “No Sparks” were posted. It is constructed with an overhead fire suppression system and fire extinguishers, spill control and personnel protective equipment. Communication is conducted by cell phone and radio.

The 90-Day contained several containers accumulating hazardous waste, nonhazardous waste and universal waste. Several 55-gallon and three 30-gallon containers were observed accumulating hazardous waste. The containers were closed, in good condition, labeled with the words hazardous waste, labeled with corrosive and flammable hazard indicators and marked with the dates in March 2021.

Two 55-gallon containers were observed accumulating hazardous waste that were closed, in good condition, labeled with the words hazardous waste, labeled with corrosive and flammable hazard indicators, but not marked with accumulation start dates. The facility marked the containers with a start date correcting the finding at the time of this inspection.

¹Pursuant to Florida Administrative Code (F.A.C.) Chapter 62-730.160(1) [40 C.F.R. § 262.17 (2016)], a LQG may accumulate hazardous waste on-site for 90 days or less

¹ “FDEP’s newly adopted Generator Improvements Rule (GIR) regulations have been authorized by EPA, effective May 10, 2019. For ease of reference and for consistency with the State Inspection Report, this CEI Report will cite to the Florida and federal hazardous waste regulations as amended by the GIR.

without a permit or without having interim status, as required by Chapter 403 of the Florida Statutes, Fla. Stat. § 403.702 et seq., [Section 3005 of RCRA, 42 U.S.C. § 6925], provided that the generator complies with the conditions listed in F.A.C. Chapter 62-730.160(1) [40 C.F.R. § 262.17 (2016)] (hereinafter referred to as the “LQG Permit exemption”).

Pursuant to F.A.C. Chapter 62-730.160(1), [40 C.F.R. § 262.17(a)(5)(i)], which is a condition of the LQG Permit Exemption, a generator must mark or label its containers with the date upon which each period of accumulation begins clearly visible for inspection on each container.

Also observed were five wooden pallets accumulating cardboard boxes of aerosol cans ranging from nine boxes to approximately 75 to 100 boxes on the pallets. The cardboard boxes contained either 12 or 36 aerosol cans per box. The boxes were not properly marked or labeled as universal waste at the time of the inspection (Photographs 1 and 2).

Pursuant to F.A.C. Chapter 62-730.185(1), [40 C.F.R. § 273.9], a “Small Quantity Handler of Universal Waste” (SQHUW) means a universal waste handler who does not accumulate 5,000 kilograms or more total of universal waste (batteries, pesticides, mercury-containing equipment, or lamps, calculated collectively) at any time.

Pursuant to F.A.C. Chapter 62-730.185(1), [40 C.F.R. § 273.14(f)], a SQHUW must label or mark universal waste aerosol cans (i.e. each aerosol can) or a container in which the aerosol cans are contained clearly with any of the following phrases: “Universal Waste - Aerosol Can(s)”, “Waste Aerosol Can(s),” or “Used Aerosol Can(s)”.

All other containers of hazardous waste and universal waste in the 90-Day were closed, in good condition, labeled, and marked with dates.

Maintenance Area

In the maintenance area one Safety Kleen model 16/30 parts washer was observed. The parts washer is serviced by Safety Kleen every six months. A 55-gallon container was observed next to the parts washer accumulating ignitable waste ink. The container was closed, in good condition, labeled with the words hazardous waste and with an indication of the hazard. An empty 30-gallon container was also observed labeled with the words used oil.

A small grit blaster was observed in this area. Waste grit has not been generated from the grit blaster to date.

Warehouse Area

The warehouse area primarily contains raw materials and finished products. One 55-gallon container accumulating hazardous waste was observed in this area. The container was closed, in good condition, labeled with the words hazardous waste and labeled with an indication of the hazard. Two 55-gallon drums of nonhazardous waste and four containers that were marked with a sticker indicating that they were pending analysis were also observed in this area.

QA Laboratory

Quality assurance testing is conducted in this laboratory.

Fume Hood Near the Laboratory Entrance

One 5-gallon container accumulating waste hydrochloric, sulfuric, and phosphoric acid and one 5-gallon container accumulating waste chromic acid was observed inside a cabinet under the fume hood. The containers were closed, in good condition, and labeled with an indication of the hazard. The container of chromic acid was marked with the words “chromic acid”, but not marked or labeled with the words hazardous waste (Photograph 3).

Atomic Absorption Spectroscopy Area

One 5-gallon container accumulating waste solvent, acids and hydrogen peroxide was observed on the floor in this area. Waste is discharged from the instrument through a tube threaded into a nozzle on the containers’ cap. The container was closed, in good condition, and labeled with an indication of the hazard. The container was not marked or labeled with the words hazardous waste (Photograph 4).

High-Performance Liquid Chromatography (HPLC) Area

Two 5-gallon containers accumulating waste IPA, acetone and methanol were observed in this area. Waste is discharged from the instruments through a tube threaded into each containers’ cap. The containers were closed, in good condition, and labeled with an indication of the hazard. The containers were not marked or labeled with the words hazardous waste.

Fume Hood

Three 1 to 2-gallon red safety containers accumulating waste IPA, methanol, ethanol and nitric acid were observed in the fume hood. The containers were closed, in good condition, and labeled with an indication of the hazard. The containers were not marked or labeled with the words hazardous waste (Photograph 5).

Hazardous waste labels were placed on the containers. Formulated submitted photographs of the hazardous waste labels on the containers to FDEP and EPA by email on April 16, 2021.

Pursuant to Florida Administrative Code Annotated (F.A.C.) Chapter 62-730.160(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 Chapter 403 of the Florida Statutes, Fla. Stat. § 403.702 et seq., [Section 3005 of RCRA, 42 U.S.C. § 6925], and without complying with F.A.C. Chapter 62-730.160(1), [40 C.F.R. § 262.16(b) or § 262.17 (a)], except as required in F.A.C. Chapter 62-730.160(1), [40 C.F.R. § 262.15(a)(7) and (8)], provided that the generator complies with the satellite accumulation area conditions listed in F.A.C. Chapter 62-730.160(1), [40 C.F.R. § 262.15(a)] (hereinafter referred to as the “SAA Permit Exemption”).

Pursuant to F.A.C. Chapter 62-730.160(1), [40 C.F.R. § 262.15(a)(5)], which is a condition of the SAA Permit Exemption, a generator is required to mark or label its containers with the words “Hazardous Waste”.

Also observed in the QA laboratory was one 55-gallon container accumulating hazardous waste flammable liquid fitted with a funnel with a latching lid, one 55-gallon container accumulating waste HPLC vials, one 20-gallon container accumulating waste mixed bases, one 30-gallon container accumulating atomic absorption spectroscopy waste, one 55-gallon container accumulating scrap metal and one 55-gallon container accumulating nonhazardous waste. The containers were closed, in good condition, labeled with the words hazardous waste, labeled with an indication of the hazard and near the point of waste generation. Containers of excluded solvent contaminated wipes with foot-operated lids were observed in several areas of the QA Laboratory.

R&D Laboratory

This laboratory generates non-hazardous waste. The laboratory occasionally generates hazardous waste when purging waste materials that are no longer needed.

12) Waste Management Practices

Formulated operates approximately 10 SAA and one 90-Day or Less Accumulation Area. Waste solvents (D001, D022, F003), waste corrosives (D002), waste HPLC Vials (D001, D022, F003) and excluded solvent contaminated wipes are generated in the QA laboratory. Flammable inks (D001, D035), flammable liquids (D001), and flammable liquids with pentane propellant (D001) are generated in the production rooms. Production water and manufacturing vessel wash down water is discharged to the sanitary sewer with no pretreatment applied to the wastewater. Waste aerosol cans are shipped as Consumer Commodities to Giant Resource Recovery in Attalla, Alabama for fuel blending on a hazardous waste manifest. Empty aerosol cans are shipped to Metal Industries, Inc., in Connecticut. Ignitable waste ink (D001) is generated in the maintenance room. Part washing fluid also generated in the maintenance room is shipped using Safety Kleen Systems, Inc. Waste fluorescent lamps are generated from replacing lamps in the warehouse. The facility is in the process of replacing the lamps with light emitting diode (LED) lighting. Used oil is also generated by the facility.

The facility ships out hazardous waste approximately weekly. The facility prepares the hazardous waste for packaging and on-site management, prior to shipping the hazardous waste using the manifest system to a treatment, storage, or disposal facility (TSDF).

Formulated used the following transporters in 2018 through 2021.

Univar Solutions USA, Inc - TXR000084869

Univar Solutions USA, Inc – GAD980845077

Dupre Logistics LLC – LAR000045963

EQ Industrial Services - MIK435642742

Freehold Cartage, Inc. – NJD004126164

Robbie D. Wood – ALD067138891

Safety Kleen Systems, Inc. – TXR000081205

A.R. Parquette – FLD982105884

Formulated used the following TSDF in 2018 through 2021.

Tradebe Millington - TND000772186 in Millington, Tennessee.

US Ecology Tampa – FLD981932494, Tampa FL
Safety Kleen Systems, Inc. – FLD980847271
GRR Attalla, AL – ALD070513767
US Ecology Tampa, Inc. - FLD981932494
VLS Recovery Services, Inc. – GAD109263467
Veolia ES Technical Solutions, LLC – FLD000207409

13) **Record Review**

Manifests

Hazardous waste manifests for the shipment of hazardous waste were reviewed from January 2018 to March 2021.

One manifest was observed without the return handwritten signature of the treatment, storage, or disposal facility accepting the shipment of hazardous waste (manifest number 014300664 FLE), signed by the generator on March 13, 2020 for the shipment of waste alcohol/ethanol (D001).

Two manifests (manifest 000261501GRR, dated December 13, 2018 and manifest 012787313 FLE, dated November 13, 2020) were observed not to include waste codes based on profile number 61376. A review of this profile indicated that the waste was DOT Flammable Hazardous Material and had a flash point ranging from 140 to 200 degrees Fahrenheit. The EPA and FDEP explained to the facility to conduct a separate waste determination for each waste stream, to ensure that hazardous waste is accurately determined at the point of generation. FDEP adopted the Universal Waste Aerosol Can rule in October 2020.

The EPA reviewed seven hazardous waste manifests using the EPA's E-Manifest Record System from November 16, 2020 to March 10, 2021.

Pursuant to F.A.C. Chapter 62-730.160(1) [40 C.F.R. § 262.20(a)(1)], a generator that transports, or offers for transport a hazardous waste for offsite treatment, storage, or disposal, or a treatment, storage, or disposal facility that offers for transport a rejected hazardous waste load, must prepare a Manifest (OMB Control number 2050-0039) on EPA Form 8700-22, and, if necessary, EPA Form 8700-22A.

On April 19, 2021, Mr. Hall emailed the EPA and FDEP a copy of the hazardous waste manifest (000261501GRR, dated December 13, 2018) with the handwritten signature of the treatment, storage, or disposal facility, dated March 26, 2020.

Universal Waste Records

Universal waste lamps are shipped to Veolia ES Technical Solutions, LLC. The most recent shipment of universal waste lamps was on April 9, 2020.

Waste Determination/Waste Profile

Inspectors reviewed profile numbers 61379, 61377, 61375, 61376, 68168, 64211, and 68993 for waste aerosols.

Contingency Plan

Inspectors reviewed the facility's contingency plan (Plan). The Plan was revised on October 11, in 2019. The revision included administrative changes, ISO standard updates, spelling, and grammar corrections. Mr. David Waters is the primary emergency coordinator and Mr. Bernard Pickett is the alternate emergency coordinator. The Plan describes emergency procedures, spill procedures, evacuation procedures, information on emergency coordinators, spill control and personnel protective equipment, arrangements with local authorities and maps and diagrams. A Quick Reference Guide was not observed.

Pursuant to F.A.C. Chapter 62-730.160(1) [40 C.F.R. § 262.262(b)(5)], which is a condition of the LQG Permit Exemption, 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 the local emergency responders identified at paragraph (a) of this section or, as appropriate, the Local Emergency Planning Committee. The quick reference guide must include the elements outlined in 40 CFR 262.262.

Arrangements with Local Authorities

The arrangements with the local authorities were reviewed.

Personnel Training

Inspectors reviewed RCRA training given by Regulatory Compliance Associates to employees handling and managing hazardous waste. Training records for hazardous waste and DOT training were reviewed from 2018 to 2020. Records for hazardous waste refresher training given to laboratory staff in 2019 were not observed. Job titles and position descriptions were reviewed.

Pursuant to F.A.C. Chapter 62-730.160(1) [40 C.F.R. § 262.17(a)(7)(i)(A)], which is a condition of the LQG Permit Exemption, Facility personnel must successfully complete a program of classroom instruction, online training (e.g., computer-based or electronic), or on-the-job training that teaches them to perform their duties in a way that ensures compliance with this part. The large quantity generator must ensure that this program includes all the elements described in the document required under paragraph (a)(7)(iv) of this section.

On April 19, 2021, Mr. Hall emailed the EPA and FDEP a copy of the records of the hazardous waste training given to laboratory staff in 2019.

Weekly Container Inspection Records

Inspectors reviewed the weekly inspection records for the 90-Day Accumulation Area from May 2018, to March 2021. Formulated uses an inspection checklist to document the weekly container inspection. Formulated also uses an FS Ticket, which is used on occasion to enter the inspection findings electronically. The FS Ticket has a create date, which is the date the inspection is conducted.

Container inspections for the week between April 6, 2020 and April 20, 2020, the week between June 8, 2020 and June 17, 2020, and the week between July 16, 2020 and July 29, 2020 appear not to have been documented.

Pursuant to F.A.C. Chapter 62-730.160(3), which is a condition of the LQG Permit exemption, generators of hazardous waste who accumulate hazardous waste on-site under 40 C.F.R. § 262.16, and 40 C.F.R. § 262.17 [as adopted in subsection 62-730.160(1), F.A.C.], shall maintain written documentation of the inspections required under 40 C.F.R. § 262.16 and 40 C.F.R. § 262.17 [as adopted in subsection 62-730.160(1), F.A.C.]. The generator shall keep the written documentation of the inspections under this section for at least three years from the date of the inspection. At a minimum, this documentation shall include the date and time of the inspection, the legibly printed name of the inspector, the number of containers, the condition of the containers, a notation of the observations made, and the date and nature of any repairs or other remedial actions.

On April 19, 2021, Mr. Hall emailed the EPA and FDEP a copy of the weekly container inspection records mentioned above.

Biennial Report

The 2019 biennial report was reviewed.

Land Disposal Restriction Notice

The land disposal restriction documents were reviewed.

14) **Exit-Briefing**

Upon conclusion of the inspection, an exit briefing was conducted in the presence of Formulated Solutions, LLC representatives. The facility was informed of the findings at the time of the inspection.

15) **Sampling Overview**

Sampling was not conducted at this facility.

16) **Conclusion/Summary of Violations**

Based on the CEI conducted on March 30, 2020, Formulated Solutions, LLC was inspected as a large quantity generator of hazardous waste and a small quantity handler of universal waste.

17) **Signed**

William Kappler
Physical Scientist
Enforcement and Compliance Assurance Division

Date

18) **Concurrence**

Araceli B. Chavez
Chief
RCRA Enforcement Section

Date

Formulated Solutions, LLC
FLR000031153
March 30, 20210
RCRA CEI Photographs
Photographs by William Kappler
Camera Model: Samsung WB250F
Property Tag #: S75917



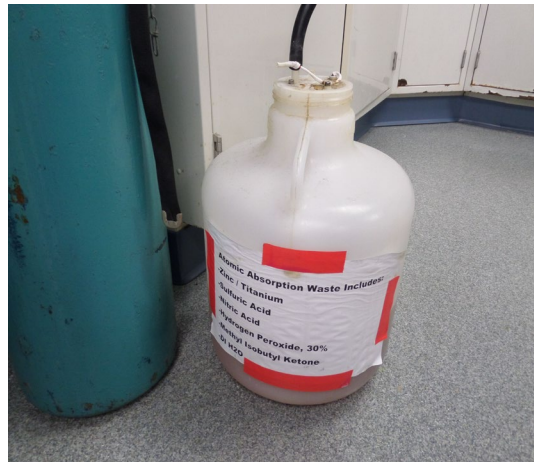
Formulated Solutions, LLC (Formulated). 90-Day or Less Accumulation Area. Observed five pallets each accumulating several boxes of spent aerosols. Observed the boxes were not marked or labeled with the words universal waste. Photograph 1 taken at 10:55 a.m.



Formulated. 90-Day or Less Accumulation Area. Observed five pallets each accumulating several boxes of spent aerosols. Observed the boxes were not marked or labeled with the words universal waste. Photograph 2 taken at 10:55 a.m.



Formulated. QA Laboratory. Fume hood cabinet near laboratory entrance. Observed a white 5-gallon container marked with the words "spent chromic acid". The container was not marked/labeled with the words hazardous waste. The facility emailed a photograph to FDEP and EPA on April 16, 2021, showing the container marked/labeled with the words hazardous waste. Photograph 3 taken at 11:31 a.m.



Formulated. QA Laboratory. AA Area. Observed a 5-gallon container not marked/labeled with the words hazardous waste. The facility emailed a photograph to FDEP and EPA on April 16, 2021, showing the container marked/labeled with the words hazardous waste. Photograph 4 taken at 11:43 a.m.



Formulated. QA Laboratory. Fume Hood. Observed three 1 to 2-gallon containers not marked/labeled with the words hazardous waste. The facility emailed a photograph to FDEP and EPA on April 16, 2021, showing the containers marked/labeled with the words hazardous waste. Photograph 5 taken at 11:48 a.m.