RCRA Inspection Report

1) Inspector and Author of Report

Laurie Benton DiGaetano
Environmental Engineer
Phone: 404-562-8948
benton-digaetano.laurie@epa.gov

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

2) Facility Information

Ameresco Palmetto, LLC
251 New Hope Road
Wellford, South Carolina 29385-9467

EPA ID#: SCR000783787
NAICS #: 486990 All Other Pipeline Transportation

3) Responsible Officials

Andrew McClelland
Environmental Compliance Manager
amcclelland@ameresco.com

Bill Rossi
Plant Specialist
wrossi@ameresco.com

4) Inspection Participants

Bill Rossi, Ameresco Palmetto
Tom Richmond, SCDHEC
Robin Duffy, SCDHEC
Laurie Benton DiGaetano, USEPA

5) Date of Inspection

May 31, 2023

6) Applicable Regulations[1]

The Resource Conservation and Recovery Act (RCRA) Sections 3002 (42 U.S. Code – Annotated U.S.C.A. 6925 and 6927), and 40 Code of Federal Regulation (C.F.R.) Parts 260 - 270, 273, 278, & 279; the South Carolina Hazardous Waste Management Act, S.C. Code Ann. § 44-56-10 *et seq*., and the South Carolina Hazardous Waste Management Regulations (SCHWMR), S.C. Code Ann. Regs. 61-79.260-270, 61-79.273 and 61-79.279.

Pursuant to S.C. Code Ann. Regs. 61-79.260.10 [40 C.F.R. § 260.10], a large quantity generator of hazardous waste (LQG) is a generator who generates greater than or equal to 1,000 kilograms (2,200 pounds) of non-acute hazardous waste in a calendar month.

Pursuant to S.C. Code Ann. Regs. 61-79.273.9 [40 C.F.R. § 273.9], a small quantity handler of universal waste (SQHUW) is a universal waste handler who does not accumulate 5,000 kilograms or more of universal waste (batteries, pesticides, mercury-containing equipment, lamps, or aerosol cans, calculated collectively) at any time.

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

Pursuant to S.C. Code Ann. Regs. 61-79.262.15(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 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 44-56-60(a)(2) and (b)(3) of the SCHWMA, S.C. Code Ann. § 44-56-60(a)(2) and (b) [Section 3005 of RCRA, 42 U.S.C. § 6925], and without complying with S.C. Code Ann. Regs. 61-79.262.16(b) or R.61-79.262.17(a) [40 C.F.R. § 262.16(b) or §262.17(a)], except as required in S.C. Code Ann. Regs. 61-79.262.15(a)(7) and (8) [40 C.F.R. § 262.15(a)(7) and (8)], provided that the generator complies with the satellite accumulation area conditions listed in S.C. Code Ann. Regs. 61-79.262.15 [40 C.F.R. § 262.15] (hereinafter referred to as the "SAA Permit Exemption").

Pursuant to S.C. Code Ann. Regs. 61-79.262.17 [40 C.F.R. § 262.17], a large quantity generator may accumulate hazardous waste on-site for 90 days or less without a permit or without having interim status, as required by Section 44-56-60(a)(2) and (b)(3) of the SCHWMA, S.C. Code Ann. § 44-56-60(a)(2) and (b) [Section 3005 of RCRA, 42 U.S.C. § 6925], provided that the generator complies with the conditions listed in S.C. Code Ann. Regs. 61-79.262.17 [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 Ameresco Palmetto, LLC's compliance with the applicable requirements of RCRA and the corresponding South Carolina regulations. This was an EPA lead inspection.

8) Facility Description

Ameresco Palmetto, LLC (Ameresco) compresses methane gas that is generated by Waste Management's Palmetto Landfill and conveys the compressed gas via a 9.5-mile pipeline to the BMW Manufacturing facility in Greer, South Carolina. Ameresco began operations at this location in 2003, and Waste Management stopped accepting waste at the Palmetto Landfill in 2016. Ameresco's operations continue to run 24-hours per day, seven days per week, and the compressor and chiller operations, including the gas temperature and pressure readings, are electronically monitored by the Control Room. The subject facility operates under the NAICS Code 486990 for All Other Pipeline Transportation, and the company has only one employee assigned to this location. The Facility employee (or an alternate) is on-call 24-hours per day when not physically on-site.

Ameresco's website indicates that BMW purchases the equivalent of 4,000 cubic feet per minute (cfm) of landfill gas from the subject facility and uses the compressed gas in four turbines at the BMW Manufacturing facility. According to Ameresco's contingency plan, excess landfill gas that is not sent to BMW through the pipeline is combusted in one of two candlestick flares, which are owned by Waste Management and operated under their Palmetto Landfill Title V Air Permit.

Before Ameresco prepares it for transfer to the BMW facility, the landfill gas is collected under vacuum pressure, brought to ambient temperature, and separated from landfill leachate. Leachate that is separated from the landfill gas is accumulated in an underground knock-out tank before it

is pumped to Waste Management's wastewater pretreatment system. The dry landfill gas enters Ameresco's compressor units at ambient temperature with a pressure of six pounds per square inch (psi), and it is discharged from the units at a temperature of between 195 and 205º F and a pressure of 60 psi. Ameresco then routes the compressed gas through a chiller bundle, where the temperature of the gas is reduced to 40º F. The cooled and compressed gas flows continuously from the Ameresco chiller bundle through the pipeline to the BMW facility at a rate of 2,300 standard cubic feet per minute (SCFM).

The cooling step in the chiller bundle generates landfill gas condensate, and the waste profile analysis provided by Pace Analytical on February 11, 2022, identifies the landfill gas condensate as a hazardous waste exhibiting the hazardous waste characteristics associated with hazardous waste numbers D004 (arsenic), and D027 (1,4-dichlorobenzene). Until 2016, Ameresco pumped this landfill gas condensate to Waste Management's wastewater pretreatment system. In 2016, the Waste Management Palmetto Landfill stopped accepting waste, and Ameresco installed the 6,000-gallon stainless steel, single walled storage tank for accumulating landfill gas condensate as hazardous waste. The hazardous waste tank appears to be located approximately 40-feet from one of the Waste Management candlestick flares. The company has been operating as a large quantity generator (LQG) of hazardous waste since they first notified in January 2017.

According to the available hazardous waste manifest records, it appears that landfill gas condensate is pumped from the 6,000-gallon hazardous waste tank and shipped to Vickery Environmental (OHD020273819) ("Vickery Environmental") once every one-to-three months. Bill Rossi explained that Vickery Environmental first rejected one these shipments, which was sent on May 18, 2020, using hazardous waste manifest number 014105367FLE, because the concentration of oil found in the landfill gas condensate exceeded the acceptable levels for that waste profile. The shipment of landfill gas condensate was returned to Ameresco on May 22, 2020, under hazardous waste manifest number 012648518FLE. Bill Rossi stated that the tanker-truck containing the returned shipment remained on-site so that the oil layer could separate from the landfill gas condensate liquid layer and be removed from the tanker truck. On June 16, 2020, the tanker truck containing the landfill gas condensate liquid was shipped back to Vickery Environmental under hazardous waste manifest number 014105149FLE. The oil layer (oily liquid waste), a hazardous waste, was sent it to Tradebe Treatment and Recycling of Tennessee (TND000772186) ("Tradebe") on July 17, 2020, under hazardous waste manifest 014105470FLE.

As a result of the rejected load of landfill gas condensate, Ameresco equipped the hazardous waste tank with a skimmer system. The skimmer is used to remove excess oil from the landfill gas condensate liquid before it is shipped offsite. The skimmed oily liquid waste is removed from the tank and accumulated in a 300-gallon polyethylene tote. The waste profile analysis provided by Pace Analytical on February 15, 2022, identifies the oily liquid waste that is skimmed from Ameresco's landfill gas condensate liquid as a hazardous waste exhibiting the hazardous waste characteristics associated with hazardous waste numbers D001 (ignitable), D009 (mercury), and D027 (1,4-dichlorobenzene).

According to Bill Rossi and the Ameresco contingency plan, Ameresco also intermittently generates hazardous waste filters, which are used to remove debris from landfill gas during the compression process. Bill Rossi stated that the filters were most recently changed a couple years ago when it appeared that the gas was not flowing properly through the system. The filters are

approximately 10-inches wide by 24-inches tall, and used filters were accumulated as hazardous waste in a 55-gallon drum. The waste profile index included as part of the Facility's quarterly reporting indicates that landfill gas condensate filters were shipped offsite with the hazardous waste numbers D004 (arsenic) and D009 (mercury).

Andrew McClelland provided the inspectors with an EPA Method 25 D analytical report, which was provided to Ameresco by Enthalpy Analytical, LLC on July 5, 2023, in an email that same day. According to that report, samples taken from the hazardous waste tank contained volatile organic concentrations between 746 and 2,453 parts per million (ppm). The waste profile analysis provided by Pace Analytical on February 11, 2022, indicates that Ameresco's landfill gas condensate liquid contains 0.17 milligram per liter (mg/L) 1,4-dichlorobenzene, 0.18 mg/L 2-methyl phenol (o-cresol), 1.4 mg/L pyridine, and 15.9 mg/L 2-butanone (MEK); and that the concentration of total organic halides in the landfill gas condensate liquid is 312 mg/L. The waste profile analysis provided by Pace Analytical on February 15, 2022, indicates that the oily liquid waste contains 2,990 milligram per kilogram (mg/kg) 1,4-dichlorobenzene and that the concentration of total organic halides in the oily liquid waste is 1,290 mg/kg. Because the profiles indicate that the concentration of total organic halides found in the oily liquid waste is approximately four times the concentration found in the landfill gas condensate, and the average volatile organic concentration of samples taken from the hazardous waste tank is over 500 ppm, it appears that the 6,000-gallon hazardous waste tank and the 300-gallon hazardous waste tote are each subject to the regulations found in 40 C.F.R. Part 265 Subpart CC.

The equipment used to transfer this landfill gas condensate for storage in the 6,000-gallon tank appears to be subject to the regulations found in 40 C.F.R. Part 265 Subpart BB, because it contains or contacts hazardous waste that appears to have an organic concentration of at least 10 percent by weight.

9) Previous Inspection History

The SCDHEC has conducted one RCRA CEI at the subject facility since they first notified as an LQG in 2017. On April 1, 2019, the SCDHEC conducted a RCRA CEI at the subject facility, and determined that the facility was a significant non-complier. As a result, the SCDHEC and Ameresco entered into a formal enforcement agreement to resolve the violations of RCRA on September 30, 2019.

10) Opening Conference

On May 31, 2023, EPA inspector Laurie Benton DiGaetano, accompanied by SCDHEC inspectors Tom Richmond and Robin Duffy, arrived at Ameresco Palmetto, LLC at approximately 10:00 AM. Bill Rossi, Plant Specialist, immediately received the inspectors. The inspectors introduced themselves, showed their credentials to Bill Rossi, and explained the purpose of the visit.

The inspectors described the anticipated use of equipment (digital camera) during the inspection and provided a request for records. The Small Business Regulatory Enforcement Fairness Act's classification of a "small business" is generally set by the Small Business Administration using the business' SIC/NAICS code and annual receipts or number of employees. The EPA inspector explained that the EPA has an information sheet for small businesses, which can be found at https://www.epa.gov/sites/production/files/2017-06/documents/smallbusinessinfo.pdf. The EPA

inspector also discussed the company's ability, pursuant to 40 C.F.R. § 2.203, to assert a business confidentiality claim for information submitted to EPA. The company did not assert a business confidentiality claim.

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

11) Inspection Observations

Compressor Room:

The Facility tour began in the Compressor Room, where the inspectors observed one 600-gallon double walled tank for accumulating used oil generated from general maintenance activities (Photo 1). The tank was labeled with the words "used oil."

The inspectors observed one empty box, which was labeled to accumulate universal waste fluorescent lamps.

Bill Rossi stated that spent aerosol cans are placed into the municipal solid waste stream for disposal as empty containers. The inspectors did not observe any used aerosol cans at the time of the inspection but explained that aerosol cans have been added to the universal waste program under RCRA, which is found at S.C. Code Ann. Regs. 61-79.273 [40 C.F.R. Part 273].

Chiller Bundle:

Next, the inspection participants observed the Chiller Bundle Area, which includes the vertical filter housing unit. Bill Rossi explained that hazardous waste landfill gas condensate accumulates at the bottom of the filter housing until it reaches the depth necessary to trigger the high-level switch. Once triggered, the high-level switch opens valves in the system and the landfill gas condensate flows through a line to the 6,000-gallon hazardous waste storage tank. When the landfill gas condensate in the filter housing reaches the depth of the low-level switch, the valves close and landfill gas condensate resumes accumulation in the filter housing until it reaches the high-level switch again. Although, it does not have a leak detection system, Bill Rossi explained that the entire line was totally encased in double piping, which was welded solid from the filter housing to the storage tank.

6,000-gallon Hazardous Waste Tank:

The inspectors observed the 6,000-gallon hazardous waste storage tank (Photo 2) in a covered concrete containment area outside of the facility building. The containment area is equipped with 30-inch high concrete dike walls and the floor is sloped towards a small sump. Bill Rossi stated that the roof cover, which was added in 2022, has reduced the amount of rainwater that accumulates in the secondary containment area. The inspectors observed a garden hose attached to the pump and leading outside of the secondary containment sump (Photo 3) to a nearby ditch (Photo 4). Although, the secondary containment sump is equipped with a float switch designed to trigger an automatic pump (Photo 5), Bill Rossi explained that the pump and switch are not operated as they were designed. Instead, the float switch is connected to an indicator alarm, which alerts personnel that liquid has accumulated in the sump. According to Bill Rossi, personnel must evaluate liquids in the sump to determine how they should be managed. If

personnel determine that the sump contains rainwater, the pump is engaged, and the liquid is released to the ditch. If personnel determine that the sump contains hazardous waste, the liquid would be pumped back into the tank or into a hazardous waste container. The inspectors verified that the pump was not connected to a power source and would need to be plugged in before it could be engaged.

The inspectors observed that the 6,000-gallon hazardous waste storage tank was labeled with the words "hazardous waste" and marked with an accumulation start date of May 30, 2023 (Photo 6). Marks have been placed on the side of the tank next to the level indicator line to identify when the contents of the tank reach a level that is approximately six days away from "full", a level that is approximately three days away from "full", and a level that is "full." The tank was labeled as D001, D004, D009, D027 hazardous waste condensate and oil, and it was identified with a Class 9 DOT hazard placard (Photo 2). However, the tank was not clearly marked with an indication of the hazards of its contents.

Pursuant to S.C. Code Ann. Regs. 61-79.262.17(a)(5)(ii) [40 C.F.R. § 262.17(a)(5)(ii)], which is a condition of the LQG Permit Exemption, a generator must mark or label its tank with an indication of the hazards of the contents.

300-gallon Tote in Central Accumulation Area (CAA):

The 6,000-gallon hazardous waste tank is equipped with an oil skimmer. Bill Rossi explained that the skimmer is used to remove the layer of oil on top of the landfill gas condensate liquid before the landfill gas condensate is sent offsite. The skimmer is operated once every couple of days during the week leading up to the shipment of landfill gas condensate, and the removed oily liquid waste is accumulated in a 300-gallon tote until it is pumped into 55-gallon drums for transport off-site. According to the hazardous waste manifest records, it appears that Ameresco first shipped the oily liquid waste as a separate hazardous waste stream on March 24, 2022. Records indicate that the Facility has initiated a total of four shipments of the oily liquid waste to Tradebe, and each shipment contained between 55 and 530 gallons.

The inspectors observed the 300-gallon oily liquid waste accumulation tote outside of the tank's secondary containment area (Photo 7). Based on the waste accumulation description provided by Bill Rossi and the hazardous waste manifest records, it appears that the Facility is accumulating over 55-gallons of oily liquid waste in the tote of the period of at least one week. Therefore, it appears that the tote should be managed in a hazardous waste central accumulation area (CAA). The inspectors observed a sign which read, "Danger, No Smoking" on the post next to the 300-gallon tote.

The Facility has only one employee dedicated to this location, and the employee carries a cellular phone, which will be used to summon emergency assistance from local police departments, fire departments, or state or local emergency response teams; the Facility maintains portable fire extinguishers in outside locations; the control and compressor rooms are equipped with portable fire extinguishers and fire control equipment; the compressor room is equipped with spill control and decontamination equipment; and a water supply hose connection is located on the interior and exterior of the compressor building.

The 300-gallon tote was labeled D001, D004, D027 hazardous waste, identified with an indication that its contents are flammable and toxic, and marked with an accumulation start date of March 13, 2023 (Photo 8). The inspectors observed that this tote contained a small volume of

oily liquid waste, and it was being stored at an angle. Bill Rossi explained that the O-ring on the container was broken, and the tote was being stored at an angle to prevent liquid from leaking out of the container.

Pursuant to S.C. Code Ann. Regs. 61-79.262.17(a)(1)(ii) [40 C.F.R. § 262.17(a)(1)(ii)], which is a condition of the LQG Permit Exemption, if a container holding hazardous waste is not in good condition, or if it begins to leak, the generator must immediately transfer the hazardous waste from this container to a container that is in good condition, or immediately manage the waste in some other way that complies with the LQG Permit Exemption.

RCRA Subpart BB Air Emissions Standards for Equipment Leaks:

It appears that the equipment used to transfer this landfill gas condensate for storage in the 6,000-gallon tank may contain or contact hazardous waste with an organic concentration of at least 10 percent by weight and may be subject to the regulations found in 265 Subpart BB. At the time of the inspection, Ameresco had not determined if the equipment used to transfer landfill gas condensate to the 6,000-gallon hazardous waste storage tank contains or contacts a hazardous waste with an organic concentration that equals or exceeds 10 percent by weight.

Pursuant to S.C. Code Ann. Regs. 61-79.262.17(a)(2) [40 C.F.R. § 262.17(a)(2)], which incorporates S.C. Code Ann. Regs. 61-79.265.1063(d) [40 C.F.R. § 265.1063(d)] and is a condition of the LQG Permit Exemption, an owner or operator of a facility must determine, for each piece of equipment, whether the equipment contains or contacts a hazardous waste with an organic concentration that equals or exceeds 10 percent by weight.

In addition, the Facility had not identified each piece of equipment used to transfer the landfill gas condensate from the chiller bundle to the 6,000-gallon storage tank or to offload the landfill gas condensate from the storage tank to tanker truck. The equipment was not identified in a manner to distinguish it readily from other pieces of equipment, and the operating record did not include an equipment identification number and hazardous waste management unit identification; the approximate locations within the facility; the type of equipment; the percent-by-weight total organics in the hazardous waste stream at the equipment; the hazardous waste state at the equipment; and the method of compliance with the standard for each piece of equipment to which Subpart BB applies.

Pursuant to S.C. Code Ann. Regs. 61-79.262.17(a)(2) [40 C.F.R. § 262.17(a)(2)], which incorporates S.C. Code Ann. Regs. 61-79.265.1050(c) [40 C.F.R. § 265.1050(c)] and is a condition of the LQG Permit Exemption, each piece of equipment that contains or contacts hazardous wastes with organic concentrations of at least 10 percent by weight that are managed in a unit that is exempt from permitting under the LQG Permit Exemption and is not a recycling unit under the provisions of S.C. Code Ann. Regs. 61-79.261.6 [40 C.F.R. § 261.6] 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 S.C. Code Ann. Regs. 61-79.262.17(a)(2) [40 C.F.R. § 262.17(a)(2)], which incorporates S.C. Code Ann. Regs. 61-79.265.1064(b) [40 C.F.R. § 265.1064(b)] and is a condition of the LQG Permit Exemption, for each piece of equipment to which subpart BB applies, the generator must record (i) the equipment identification number and hazardous

waste management unit identification; (ii) the approximate locations within the facility; (iii) the type of equipment; (iv) the percent-by-weight total organics in the hazardous waste stream at the equipment; (v) the hazardous waste state at the equipment; and (vi) the method of compliance with the standard in the facility operating record.

RCRA Subpart CC Air Emissions Standards for Tanks, Surface Impoundments, and Containers:

At the time of the inspection, Ameresco had not determined the maximum organic vapor pressure for each hazardous waste placed in the 6,000-gallon hazardous waste tank, or for the hazardous waste placed in the 300-gallon hazardous waste tote.

Pursuant to S.C. Code Ann. Regs. 61-79.262.11(e) [40 C.F.R. §262.11(e)], a person who generates a solid waste must make an accurate determination as to whether that waste is a hazardous waste in order to ensure wastes are properly managed according to applicable RCRA regulations. If the waste is determined to be hazardous, the generator must refer to parts 261, 264, 265, 266, 267, 268, and 273 of this chapter for other possible exclusions or restrictions pertaining to management of the specific waste. Pursuant to S.C. Code Ann. Regs. 61-79.265.1083(b) and (c)(1) [40 C.F.R. § 265.1083(b) and (c)(1)], a generator must control air pollutant emissions from each hazardous waste management unit in accordance with standards specified in §§ 265.1085 through 265.1088 of this subpart, except a tank or container that is exempt because all hazardous waste entering the unit has an average VO concentration at the point of waste origination of less than 500 ppmw. The average VO concentration shall be determined using the procedures specified in 265.1084(a) of this Subpart, and the generator shall review and update, as necessary, this determination at least once every 12 months following the date of the initial determination for the hazardous waste streams entering the unit.

Pursuant to S.C. Code Ann. Regs. 61-79.262.17(a)(2) [40 C.F.R. §262.17(a)(2)], which incorporates S.C. Code Ann. Regs. 61-79.265.1084(c)(1) [40 C.F.R. § 265.1084(c)(1)] 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, the requirement to determine the maximum organic vapor pressure for each hazardous waste placed in a tank using Tank Level 1 controls in accordance with the standards specified in S.C. Code Ann. Regs. 61-79.265.1085(c) [40 C.F.R. § 265.1085(c)] of this subpart.

The inspectors observed that the 300-gallon tote contained a small volume of oily liquid waste, and it was being stored at an angle (Photo 7). Bill Rossi explained that the O-ring on the container was broken, and the tote had not been repaired and was being stored at an angle to prevent liquid from leaking out of the container.

Pursuant to S.C. Code Ann. Regs. 61-79.262.17(a)(1)(i) [40 C.F.R. § 262.17(a)(1)(i)], which incorporates S.C. Code Ann. Regs. 61-79.265.1087(c)(4)(iii) [40 C.F.R. § 265.1087(c)(4)(iii)] and is a condition of the LQG Permit Exemption, a generator accumulating hazardous waste in containers must comply with the RCRA Subpart CC organic air emission standards for containers, including, but not limited to the requirement to make first efforts at repair of the defect no later than 24 hours after a defect is detected for the container, cover, or closure devices, and repair shall be completed as soon as possible but no later than 5 calendar days after detection. If a repair cannot be completed within 5 calendar

days, the hazardous waste shall be removed from the container and the container shall not be used to manage hazardous waste until the defect is repaired.

Ameresco's 6,000-gallon tank has a capacity of approximately 22.7 cubic meters. Pursuant to S.C. Code Ann. Regs. 61-79.262.17(a)(2) [40 C.F.R. § 262.17(a)(2)], which incorporates S.C. Code Ann. Regs. 265.1085(b)(1)(i)(C) [40 C.F.R. § 265.1085(b)(1)(i)(C)] 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 the requirement to control air pollutant emissions from a tank with a design capacity of less than 75 cubic meters that manages hazardous waste with a maximum organic vapor pressure which is less than 76.6 kPa in accordance with the Tank Level 1 controls.

The inspectors observed several potential sources of volatile air emissions from the tank and its ancillary equipment. First, the tank is equipped with a liquid level indication system which consists of a level marker attached with a line to a floating level indicator inside the tank. The inspectors observed that this level indicator line passes through a port in the top of the tank that is open to the atmosphere (Photo 9). Second, the inspectors observed an open port on the top of the tank (Photo 10). Bill Rossi explained that this port was used to physically measure the thickness of the oil layer on top of the landfill gas condensate before the oil skimmer was installed. Third, the inspectors observed an overflow pipe along the side of the tank (Photos 10 and 11). Bill Rossi explained that this is an open pipe, which is designed to direct excess liquid from the tank down through the pipe to the secondary containment system if the tank were to overflow. The inspection participants observed vapors in the atmosphere in the area where the level indicator enters the top of the tank, where the oil measurement port was open on top of the tank, and where the oil skimmer system is installed on top of the tank. The inspectors also observed visual staining and liquid dripping at the input line on the top of the tank. Bill Rossi explained that the landfill gas condensate is chilled to a temperature of 40º F before it flows through the transfer line, and that the observed liquid and staining was likely condensate that had formed on the waste transfer line.

According to the API-653 Engineering Inspection Report for the 6,000-gallon hazardous waste tank, which was provided by prepared by InterSpec, LLC on November 29, 2016, the flanged mating connections for the level alarm switches on the tank were different sizes, which allowed for a gap between the connections. The inspectors did not review any records indicating that the gap between the connections for the level alarm switches had ever been sealed, and the Facility did not provide records of visual inspections of the fixed roof and closure devices at least once every year after the date that the tank was placed into service.

Pursuant to S.C. Code Ann. Regs. 61-79.262.17(a)(2) [40 C.F.R. § 262.17(a)(2)], which incorporates S.C. Code Ann. Regs. 61-79.265.1085(c)(2) [40 C.F.R. § 265.1085(c)(2)] 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, the requirement for a tank to be equipped with (i) a fixed roof and closure devices designed to form a continuous barrier over the entire surface area of the hazardous waste in the tank; and (iii) each opening in the fixed roof, and any manifold system associated with the fixed roof, shall be (A) equipped with a closure device designed to operate such that when the closure devices is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the opening and the closure device.

Pursuant to S.C. Code Ann. Regs. 61-79.262.17(a)(2) [40 C.F.R. §262.17(a)(2)], which incorporates S.C. Code Ann. Regs. 61-79.265.1085(c)(3) [40 C.F.R. § 265.1085(c)(3)] 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, the requirement to install a fixed roof with each closure device secured in the closed position whenever a hazardous waste is in the tank.

Pursuant to S.C. Code Ann. Regs. 61-79.262.17(a)(2) [40 C.F.R. § 262.17(a)(2)], which incorporates S.C. Code Ann. Regs. 61-79.265.1085(c)(4) [40 C.F.R. § 265.1085(c)(4)] 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, the requirement to inspect the air emission control equipment in accordance with the following requirements: (i) the fixed roof and its closure devices shall be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. (ii) the owner or operator shall perform an initial inspection of the fixed roof and its closure devices on or before the date that the tank becomes subject to this section. Thereafter, the owner or operator shall perform the inspections at least once every year.

12) Records Review

Contingency Plan and Quick Reference Guide (QRG):

The actions that Facility personnel should take in response to an emergency are described in the Facility's Hazardous Waste Contingency Plan, which was last updated on May 13, 2022. The plan describes actions Facility personnel must take in response to fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water at the facility; it describes arrangements agreed to with the Wellford Police Department, the Poplar Springs Fire Department, the Spartanburg County Emergency Management Agency, the Spartanburg Medical Center, and the South Carolina Emergency Management Division; and it lists the names and emergency telephone numbers for persons identified as the primary and secondary emergency coordinators. The plan also includes a list of emergency equipment at the facility and an evacuation plan for personnel. The list of emergency equipment includes fire extinguishing systems, spill control equipment, communications and alarm systems, and decontamination equipment; and the evacuation plan includes a signal to be used to begin evacuation, evacuation routes, and alternate evacuation routes.

A copy of the Hazardous Waste Contingency Plan (and its quick reference guide) was most recently submitted to the South Carolina Emergency Management Division, the South Carolina Department of Health and Environmental Control, the Wellford Police Department, the Spartanburg Medical Center, the Poplar Springs Fire Department, and the Spartanburg County Emergency Management on May 13, 2022.

The quick reference guide includes the types/names of hazardous waste in layman's terms; the estimated maximum amount of each hazardous waste that may be present at any one time; 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). However, the quick reference guide did not include an identification of the ignitable hazard associated with the oily liquid waste.

Pursuant to S.C. Code Ann. Regs. 61-79.262.17(a)(6) [40 C.F.R. § 262.17(a)(6)], which incorporates S.C. Code Ann. Regs. 61-79.262.262(b)(1) [40 C.F.R. § 262.262(b)(1)] and is a condition of the LQG Permit Exemption, an LQG that is amending its contingency plan must at that time submit a quick reference guide of the contingency plan to the local emergency responders. The quick reference guide must include the types/names of hazardous wastes in layman's terms and the associated hazard associated with each hazardous waste present at any one time.

Training Records:

The inspectors reviewed the Facility job description that was provided for the Plant Specialist. The description included the requisite skill, education, or other qualifications, and duties of Facility personnel assigned to that position; and it included the name of the employee assigned to the position. The inspectors reviewed records of hazardous waste training completed by the Plant Specialist on April 7, 2021, May 13, 2022, and May 30, 2023. Andrew McClelland provided hazardous waste training records for alternate employees in one email on June 2, 2023, and in two emails on July 5, 2023. The records included hazardous waste training for four employees during 2019 and 2020; for three employees in 2021 (one employee left the position); and for two employees in 2022 and 2023.

According to the daily hazardous waste tank inspection records, another employee (T. Ramond) also performed hazardous waste management duties at this location when the Plant Specialist was unavailable. Hazardous waste training records were not provided for T. Ramond (2021, 2022 and 2023) or T. Fischer (2022 and 2023).

Pursuant to S.C. Code Ann. Regs. 61-79.262.17(a)(7)(iv)(D) [40 C.F.R. § 262.17(a)(7)(iv)(D)], which is a condition of the LQG Permit Exemption, an LQG must maintain records that document that the training or job experience, required under this section, has been given to, and completed by, facility personnel.

Waste Manifest and Land Disposal Restriction (LDR) Records:

The inspectors reviewed available hazardous waste manifest records and land disposal restriction forms for shipments of hazardous waste sent since January 2020. Hazardous waste manifest records show that between 3,700 and 5,800 gallons of D004, D027 hazardous waste liquid (arsenic and copper) are routinely shipped to Vickery Environmental once every one-to-three months; that between 465 and 3,134 pounds D001, D009, D027, F003, F005 hazardous waste flammable liquids (xylene, 1,4 dichlorobenzene) are routinely sent to Tradebe once every three-to-five months; and that three (3) shipments of between 1,700 and 6,000 pounds of D001, F003, F005 waste flammable liquids (xylene, 1,4-dichlorobenzene) and one (1) shipment of D004, D027 environmentally hazardous substance, liquid (arsenic and copper) were sent to Tradebe.

The inspectors identified three (3) hazardous waste manifest records in which more than 35 days passed between the date that the waste shipment was sent off-site and the date that it reached the designated facility. For one of these three shipments, more than 45 days passed between the date that the waste was sent off-site and the date that it reached the designated facility. Bill Rossi stated that he had not made contact with the transporter or designated facility to enquire about

the shipments, and that he had not submitted an exception report for the shipment that exceeded 45 days.

- 147 gallons of D001, D009, D027, F003, F005 hazardous waste was in transit for 47 days under manifest 014105701FLE. The waste was accepted by the initial transporter on September 24, 2021, and it was accepted by Tradebe on November 10, 2021.
- 1,684 pounds of D001, F003, F005 hazardous waste was in transit for 42 days under manifest 014105687FLE. The waste was accepted by the initial transporter on November 18, 2021, and it was accepted by Tradebe on December 31, 2021.
- 707 pounds of D001, D009, D027, F003, F005 hazardous waste was in transit for 43 days. It was accepted by the initial transporter on October 19, 2022, and it was accepted by Tradebe on December 1, 2022.

Pursuant to S.C. Code Ann. Regs. 61-79.262.42(a)(1) [40 C.F.R. § 262.42(a)(1)], an LQG who does not receive a copy of the manifest with the handwritten signature of the owner or operator of the designated facility within 35 days of the date the waste was accepted by the initial transporter must contact the transporter and/or the owner or operated or the designated facility to determine the status of the hazardous waste.

Pursuant to S.C. Code Ann. Regs. 61-79.262.42(a)(2) [40 C.F.R. § 262.42(a)(2), an LQG must submit an Exception Report if he has not received a copy of the manifest with the handwritten signature of the owner or operator of the designated facility within 45 days of the date the waste was accepted by the initial transporter.

Based on the Pace Analytical laboratory analysis reports, it appears that shipments of oily liquid waste to Tradebe should have been identified on the corresponding manifest record as D001, D009, D027 hazardous waste flammable liquids (xylene, 1,4-dichlorobenzene). However, the following shipments were missing one or more of these hazardous waste numbers:

- Manifest 014105598FLE for 2,000 pounds of D001, F003, F005 waste flammable liquids (xylene, 1,4-dichlorobenzene) sent on May 19, 2021;
- Manifest 014105647FLE for 5,942 pounds of D001, F003, F005 waste flammable liquids (xylene, 1,4-dichlorobenzene) sent on July 26, 2021; and
- Manifest 014105687FLE for 1,684 pounds of D001, F003, F005 waste flammable liquids (xylene, 1,4-dichlorobenzene) sent on November 18, 2021.

Pursuant to S.C. Code Ann. Regs. 61-79.262.20(a)(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, must prepare a Manifest on EPA Form 8700-22. According to the Hazardous Waste Manifest Instructions, generators must enter the U.S. DOT proper shipping name, hazardous class or division, identification number (UN/NA) and packing group for each waste as identified in 49 C.F.R. 172 in Item 9b. Include technical name(s) and reportable quantity references, if applicable.

Similarly, it appears that the shipment total for oily liquid waste sent to Tradebe on each of the following quarterly reports was missing one or more of the D001, D009, D027 hazardous waste numbers associated with the hazardous waste:

- 2021 Quarter 2 report of 2,000 pounds of D001, F003, F005 waste flammable liquids (xylene, 1,4-dichlorobenzene) sent under manifest 014105598FLE on May 19, 2021;

- 2021 Quarter 3 report of 5,942 pounds D001, F003, F005 waste flammable liquids (xylene, 1,4-dichlorobenzene) sent under manifest 014105647FLE on July 26, 2021, and 1,058 pounds F003, F005 waste flammable liquids (xylene, 1,4-dichlorobenzene) sent under manifest 014105701FLE on September 24, 2021; and
- 2021 Quarter 4 report of 1,684 pounds of D001, F003, F005 waste flammable liquids (xylene, 1,4-dichlorobenzene) sent under manifest 014105687FLE on November 18, 2021.

Pursuant to S.C. Code Ann. Regs. 61-79.262.41(a)(5) and (6), an authorized State requirement that is mor stringent than the federal biennial reporting requirement found in 40 C.F.R. § 262.41, each LQG who ships any hazardous waste offsite to a treatment, storage or disposal facility within the United States must prepare and, no later than thirty days after the end of each calendar quarter, submit a written report to the Department including, but not limited to, the following information unless otherwise indicated. A description, the EPA hazardous waste number, DOT hazard class, and quantity of each hazardous waste shipped offsite for shipments to a treatment, storage, or disposal facility within the United States. This information must be listed by the EPA identification number of each such facility to which waste was shipped. The types and quantities of such wastes shipped for offsite treatment and disposal.

The following quarterly reports did not include records of shipments to Tradebe that were identified on the referenced hazardous waste e-manifest records:

- 2020 Quarter 3 report did not include records of the shipment of 3,134 pounds of D001, D009, D027, F003, F005 waste flammable liquids (xylene, 1,4-dichlorobenzene), which was sent on July 17, 2020, under manifest 014105470FLE;
- 2022 Quarter 2 report did not include records of the shipment of 465 pounds of D001, D009, D027, F003, F005 waste flammable liquids (xylene, 1,4-dichlorobenzene), which was sent on June 13, 2022, under manifest 016969347FLE; and
- 2022 Quarter 4 report did not include records of the shipment of for 4,412 pounds of D004, D027 environmentally hazardous substance (contains arsenic and copper), which was sent on December 27, 2022, under manifest 016969148FLE.

Pursuant to S.C. Code Ann. Regs. 61-79.262.41(a)(5) and (6), an authorized State requirement that is more stringent than the federal biennial reporting requirement found in 40 C.F.R. § 262.41, each LQG who ships any hazardous waste offsite to a treatment, storage or disposal facility within the United States must prepare and, no later than thirty days after the end of each calendar quarter, submit a written report to the Department including, but not limited to, the following information unless otherwise indicated. A description, the EPA hazardous waste number, DOT hazard class, and quantity of each hazardous waste shipped offsite for shipments to a treatment, storage, or disposal facility within the United States. This information must be listed by the EPA identification number of each such facility to which waste was shipped. The types and quantities of such wastes shipped for offsite treatment and disposal.

According to the manifest records, oily liquid waste is routinely shipped in portable tanks or metal drums to Tradebe for fuel blending or for storage, bulking and/or transfer offsite, and landfill gas condensate is routinely shipped in cargo tanks to Vickery Environmental for

deepwell or underground injection. On December 27, 2022, Ameresco shipped 4,412 pounds of D004, D027 environmentally hazardous substance (contains arsenic and copper) in portable tanks to Tradebe for fuel blending using manifest 016969148FLE. This is the only manifest on record in which D004, D027 hazardous waste was transported in portable tanks, was shipped to Tradebe, or was sent for fuel blending. Therefore, it appears that there may be an error on this manifest record.

Tank Certification Records:

In an email to Robin Duffy on June 2, 2023, Andrew McClelland provided the API-653 Engineering Inspection Report for the 6,000-gallon hazardous waste tank, which was provided by prepared by InterSpec, LLC on November 29, 2016. The report indicates that the 6,000-gallon vertical tank is operated under atmospheric pressure and is equipped with High and High-High level alarm switches on the roof. The tank was installed with a concrete pad and concrete dike, and the report states that this secondary containment is of sufficient size to contain a total tank loss.

The reported service life indicated that the tank shell had a remaining service life of over 30 years under the current conditions, and the report prescribed the following scheduled inspections:

- A visual external inspection conducted by a certified API-653 inspector prior to November 2021 (the inspectors did not see a record of this inspection);
- An ultrasonic thickness measurement inspection conducted by a certified API-653 inspector prior to November 2031; and
- An internal inspection conducted by a certified API-653 inspector prior to November 2036.

Daily Tank and Weekly Container Inspection Records:

The 6,000-gallon hazardous waste storage tank is equipped with a high-level alarm which will trigger a facility shut-down if it is not addressed, but it does not have an electronic monitoring or leak detection system. Bill Rossi stated that the ½-inch transfer line between the filter housing and the hazardous waste tank is also not equipped with a leak detection system. Instead, the line has been enclosed in a second line that has been welded solid from one end to the other.

The inspectors reviewed Ameresco's available records of the hazardous waste tank and CAA since January 2021. The records include the date, time, and weekday of the inspection, and the name and signature of the person conducting the inspection. The inspection log includes a checklist to record observations about the tank overfill control equipment; evidence of corrosion on the tank, container, piping and gas filler equipment; evidence of a leak from the tank, container, piping, and gas filler equipment; evidence of a leak in the area surrounding the containment and piping; the absence of trash and debris in the containment area; observations of labels and dates on the tank and container; verification that the contents of the tank and container were on-site for less than 90 days; and observations about the sheen and odor of liquid in the containment sump, determination of whether the liquid was rainfall, where the liquid was disposed, how the liquid was evacuated, and reinspection of the tank. Records indicate that daily inspections of the tank were not being conducted on most weekends and some weekdays. No inspections were conducted on the shaded dates found on the January 1, 2021, through May 31, 2023, calendar found in Attachment 2. The records indicate that container inspections were

conducted at least once each week during this timeframe, but daily tank inspections were not conducted for a total of 255 days between January 1, 2021, and May 31, 2023.

Pursuant to S.C. Code Ann. Regs. 61-79.262.17(a)(5)(i) [40 C.F.R. §262.17(a)(5)(i)], which incorporates S.C. Code Ann. Regs. 61-79.265.195(b) [40 C.F.R. § 265.195(b)] and is a condition of the LQG Permit Exemption, a generator accumulating hazardous waste in tanks must conduct inspections at least once each operating day: (1) overfill/spill control equipment (e.g., waste-feed cutoff systems, bypass systems, and drainage systems) to ensure that it is in good working order; (2) above-ground portions of the tank system, if any, to detect corrosion or releases of waste; and (3) the construction materials and the area immediately surrounding the externally accessible portion of the tank system, including the secondary containment system to detect erosion or signs of releases of hazardous waste.

13) Closing Conference

The inspectors conducted the exit meeting at 4:15 PM with Bill Rossi. During this meeting, the inspectors stated their preliminary conclusions of the inspection, and requested that additional records be submitted via email by June 5, 2023. On June 1, 2023, Robin Duffy sent an email to Bill Rossi with a written request for the following records:

- A copy of the most recent subsequent notification form;
- Documentation that the contingency plan (and quick reference guide) was sent to local emergency response entities;
- Records of hazardous waste training completed since 2020 for alternate personnel who have worked at the site;
- The Pace Analytical waste profile analysis provided for the landfill gas condensate (dated February 11, 2022) and for the oily liquid waste that is skimmed from the landfill gas condensate (dated February 15, 2022);
- Assessment and maintenance records for the 6,000-gallon hazardous waste tank; and
- The organic concentration of hazardous wastes managed in the 6,000-gallon hazardous waste tank.

In an email to Robin Duffy on June 2, 2023, Andrew McClelland stated that Ameresco did not have a record of an analysis for the concentration of organics for the contents of the tank, and that the analysis was being organized. Andrew McClelland provided the following records with the email:

- A copy of the subsequent notification form, dated June 27, 2019;
- A copy of the cover letters used to transmit the contingency plan (and quick reference guide) to local emergency response entities on May 13, 2022;
- Records of hazardous waste training completed during 2022 and 2023 by one alternate employee who has worked at the site;
- The Pace Analytical waste profile analysis provided for the landfill gas condensate (dated February 11, 2022) and for the oily liquid waste that is skimmed from the landfill gas condensate (dated February 15, 2022), and Ameresco's associated waste profile records;
- An API-653 Engineering Inspection Report for the 6,000-gallon hazardous waste tank, which was prepared by InterSpec, LLC on November 29, 2016; and
- Records of a welding repair to the tank on November 15, 2017.

In an email exchange between Andrew McClelland and Robin Duffy on June 14, 2023, Robin Duffy requested the job description for the Plant Specialist, and Andrew McClelland provided the job description.

In two emails to Andrew McClelland on July 5, 2023, Laurie Benton DiGaetano requested RCRA training records for additional personnel who have worked at the site; identification of emergency equipment that is available near the tank; and copies of revised 2020, 2021; and 2022 quarterly reports; and asked for clarification about waste shipped on December 27, 2022, under hazardous waste manifest 016969148FLE. Andrew McClelland responded the same day and provided the following records:

- Hazardous waste training records for a total of four employees who have covered operations at the facility;
- The May 13, 2022 hazardous waste contingency plan;
- Quarterly reports; and
- An EPA Method 25 D analytical report, which was provided by Enthalpy Analytical, LLC on July 5, 2023, for samples taken from the hazardous waste tank.

14) Summary of Observations

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

- **Pursuant to S.C. Code Ann. Regs. 61-79.262.17(a)(5)(ii) [40 C.F.R. § 262.17(a)(5)(ii)], which is a condition of the LQG Permit Exemption, a generator must mark or label its tank with an indication of the hazards of the contents.**

  The 6,000-gallon hazardous waste tank was labeled as D001, D004, D009, D027 hazardous waste condensate and oil, marked with an accumulation start date, and identified with a Class 9 DOT hazard placard, but it was not clearly marked with an indication of the hazards of its contents.

- **Pursuant to S.C. Code Ann. Regs. 61-79.262.17(a)(1)(ii) [40 C.F.R. § 262.17(a)(1)(ii)], which is a condition of the LQG Permit Exemption, if a container holding hazardous waste is not in good condition, or if it begins to leak, the generator must immediately transfer the hazardous waste from this container to a container that is in good condition, or immediately manage the waste in some other way that complies with the LQG Permit Exemption.**

  The 300-gallon tote, which contained D001, D009, D027 oily liquid waste, was stored on an angle to prevent liquid from leaking from the container through the broken O-ring.

- **Pursuant to S.C. Code Ann. Regs. 61-79.262.17(a)(2) [40 C.F.R. § 262.17(a)(2)], which incorporates S.C. Code Ann. Regs. 61-79.265.1063(d) [40 C.F.R. § 265.1063(d)] and is a condition of the LQG Permit Exemption, an owner or operator of a facility must determine, for each piece of equipment, whether the equipment contains or contacts a hazardous waste with an organic concentration that equals or exceeds 10 percent by weight.**

  Ameresco had not determined if the equipment used to transfer landfill gas condensate to the 6,000-gallon hazardous waste storage tank contains or contacts a hazardous waste with an organic concentration that equals or exceeds 10 percent by weight.

- **Pursuant to S.C. Code Ann. Regs. 61-79.262.17(a)(2) [40 C.F.R. § 262.17(a)(2)], which incorporates S.C. Code Ann. Regs. 61-79.265.1050(c) [40 C.F.R. § 265.1050(c)] and is a condition of the LQG Permit Exemption, each piece of equipment that contains or contacts hazardous wastes with organic concentrations of at least 10 percent by weight that are managed in a unit that is exempt from permitting under the LQG Permit Exemption and is not a recycling unit under the provisions of S.C. Code Ann. Regs. 61-79.261.6 [40 C.F.R. § 261.6] to which this subpart applies shall be marked in such a manner that it can be distinguished readily from other pieces of equipment.**

  Ameresco had not identified each piece of equipment used to transfer the landfill gas condensate from the Chiller Bundle to the 6,000-gallon storage tank or to offload the landfill gas condensate from the storage tank to tanker truck, and the equipment was not identified in a manner to distinguish it readily from other pieces of equipment.

- **Pursuant to S.C. Code Ann. Regs. 61-79.262.17(a)(2) [40 C.F.R. § 262.17(a)(2)], which incorporates S.C. Code Ann. Regs. 61-79.265.1064(b) [40 C.F.R. § 265.1064(b)] and is a condition of the LQG Permit Exemption, for each piece of equipment to which subpart BB applies, the generator must record (i) the equipment identification number and hazardous waste management unit identification; (ii) the approximate locations within the facility; (iii) the type of equipment; (iv) the percent-by-weight total organics in the hazardous waste stream at the equipment; (v) the hazardous waste state at the equipment; and (vi) the method of compliance with the standard in the facility operating record.**

  Ameresco's operating record did not include an equipment identification number and hazardous waste management unit identification; the approximate locations within the facility; the type of equipment; the percent-by-weight total organics in the hazardous waste stream at the equipment; the hazardous waste state at the equipment; and the method of compliance with the standard for each piece of equipment to which Subpart BB applies.

- **Pursuant to S.C. Code Ann. Regs. 61-79.262.11(e) [40 C.F.R. §262.11(e)], a person who generates a solid waste must make an accurate determination as to whether that waste is a hazardous waste in order to ensure wastes are properly managed according to applicable RCRA regulations. If the waste is determined to be hazardous, the generator must refer to parts 261, 264, 265, 266, 267, 268, and 273 of this chapter for other possible exclusions or restrictions pertaining to management of the specific waste. Pursuant to S.C. Code Ann. Regs. 61-79.265.1083(b) and (c)(1) [40 C.F.R. § 265.1083(b) and (c)(1)], a generator must control air pollutant emissions from each hazardous waste management unit in accordance with standards specified in §§ 265.1085 through 265.1088 of this subpart, except a tank or container that is exempt because all hazardous waste entering the unit has an average VO concentration at the point of waste origination of less than 500 ppmw. The average VO concentration shall be determined using the procedures specified in 265.1084(a) of this Subpart, and the generator shall review and update, as necessary, this determination at least once every 12 months following the date of the initial determination for the hazardous waste streams entering the unit.**

Ameresco had not determined the maximum organic vapor pressure for each hazardous waste placed in the 6,000-gallon hazardous waste tank, or for the hazardous waste placed in the 300-gallon hazardous waste tote.

- **Pursuant to S.C. Code Ann. Regs. 61-79.262.17(a)(2) [40 C.F.R. §262.17(a)(2)], which incorporates S.C. Code Ann. Regs. 61-79.265.1084(c)(1) [40 C.F.R. § 265.1084(c)(1)] 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, the requirement to determine the maximum organic vapor pressure for each hazardous waste placed in a tank using Tank Level 1 controls in accordance with the standards specified in S.C. Code Ann. Regs. 61-79.265.1085(c) [40 C.F.R. §265.1085(c)] of this subpart.**

  Ameresco had not determined the maximum organic vapor pressure for each hazardous waste placed in the 6,000-gallon hazardous waste tank.

- **Pursuant to S.C. Code Ann. Regs. 61-79.262.17(a)(1)(i) [40 C.F.R. § 262.17(a)(1)(i)], which incorporates S.C. Code Ann. Regs. 61-79.265.1087(c)(4)(iii) [40 C.F.R. § 265.1087(c)(4)(iii)] and is a condition of the LQG Permit Exemption, a generator accumulating hazardous waste in containers must comply with the RCRA Subpart CC organic air emission standards for containers, including, but not limited to the requirement to make first efforts at repair of the defect no later than 24 hours after a defect is detected for the container, cover, or closure devices, and repair shall be completed as soon as possible but no later than 5 calendar days after detection. If a repair cannot be completed within 5 calendar days, the hazardous waste shall be removed from the container and the container shall not be used to manage hazardous waste until the defect is repaired.**

  No efforts at repair had been made for the broken O-ring on the 300-gallon tote, which contained D001, D009, D027 oily liquid waste.

- **Pursuant to S.C. Code Ann. Regs. 61-79.262.17(a)(2) [40 C.F.R. § 262.17(a)(2)], which incorporates S.C. Code Ann. Regs. 61-79.265.1085(c)(2) [40 C.F.R. § 265.1085(c)(2)] 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, the requirement for a tank to be equipped with (i) a fixed roof and closure devices designed to form a continuous barrier over the entire surface area of the hazardous waste in the tank; and (iii) each opening in the fixed roof, and any manifold system associated with the fixed roof, shall be (A) equipped with a closure device designed to operate such that when the closure devices is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the opening and the closure device.**

  The inspectors observed openings in the tank where the level indicator line passes through a port in the top of the tank; where the oil measurement port was located on top of tank; and at the overflow pipe along the side of the tank. In addition, the API-653 Engineering Inspection Report indicated that a gap existed between the flanged mating connections for the level alarm switches.

- **Pursuant to S.C. Code Ann. Regs. 61-79.262.17(a)(2) [40 C.F.R. §262.17(a)(2)], which incorporates S.C. Code Ann. Regs. 61-79.265.1085(c)(3) [40 C.F.R. § 265.1085(c)(3)] 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, the requirement to install a fixed roof with each closure device secured in the closed position whenever a hazardous waste is in the tank.**

  The inspectors observed openings in the tank where the level indicator line passes through a port in the top of the tank; where the oil measurement port was located on top of tank; and at the overflow pipe along the side of the tank. The inspection participants also observed vapors in the atmosphere in the area where the level indicator enters the top of the tank, where the oil measurement port was open on top of the tank, and where the oil skimmer system is installed on top of the tank. In addition, the API-653 Engineering Inspection Report indicated that a gap existed between the flanged mating connections for the level alarm switches.

- **Pursuant to S.C. Code Ann. Regs. 61-79.262.17(a)(2) [40 C.F.R. § 262.17(a)(2)], which incorporates S.C. Code Ann. Regs. 61-79.265.1085(c)(4) [40 C.F.R. §265.1085(c)(4)] 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, the requirement to inspect the air emission control equipment in accordance with the following requirements: (i) the fixed roof and its closure devices shall be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. (ii) the owner or operator shall perform an initial inspection of the fixed roof and its closure devices on or before the date that the tank becomes subject to this section. Thereafter, the owner or operator shall perform the inspections at least once every year.**

  Ameresco did not provide records of visual inspections of the fixed roof and closure devices at least once every year after the date that the tank was placed into service.

- **Pursuant to S.C. Code Ann. Regs. 61-79.262.17(a)(6) [40 C.F.R. § 262.17(a)(6)], which incorporates S.C. Code Ann. Regs. 61-79.262.262(b)(1) [40 C.F.R. § 262.262(b)(1)] and is a condition of the LQG Permit Exemption, an LQG that is amending its contingency plan must at that time submit a quick reference guide of the contingency plan to the local emergency responders. The quick reference guide must include the types/names of hazardous wastes in layman's terms and the associated hazard associated with each hazardous waste present at any one time.**

  The quick reference guide did not include an identification of the ignitable hazard associated with the oily liquid waste.

- **Pursuant to S.C. Code Ann. Regs. 61-79.262.17(a)(7)(iv)(D) [40 C.F.R. § 262.17(a)(7)(iv)(D)], which is a condition of the LQG Permit Exemption, an LQG must maintain records that document that the training or job experience, required under this section, has been given to, and completed by, facility personnel.**

  Hazardous waste training records were not provided for one employee in 2021 and for two employees in 2022 and 2023.

- **Pursuant to S.C. Code Ann. Regs. 61-79.262.42(a)(1) [40 C.F.R. § 262.42(a)(1)], an LQG who does not receive a copy of the manifest with the handwritten signature of the owner or operator of the designated facility within 35 days of the date the waste was accepted by the initial transporter must contact the transporter and/or the owner or operated or the designated facility to determine the status of the hazardous waste.**

  Ameresco did not make contact with the transporter or designated facility to enquire about three hazardous waste shipments, in which more than 35 days passed between the date that the waste shipment was sent off-site and the date that it reached the designated facility.

- **Pursuant to S.C. Code Ann. Regs. 61-79.262.42(a)(2) [40 C.F.R. § 262.42(a)(2)], an LQG must submit an Exception Report if he has not received a copy of the manifest with the handwritten signature of the owner or operator of the designated facility within 45 days of the date the waste was accepted by the initial transporter.**

  Ameresco did not submit an exception report for one hazardous waste shipment, in which more than 45 days passed between the date the waste shipment was sent off-site and the date that it reached the designated facility.

- **Pursuant to S.C. Code Ann. Regs. 61-79.262.20(a)(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, must prepare a Manifest on EPA Form 8700-22. According to the Hazardous Waste Manifest Instructions, generators must enter the up to six federal and state waste codes to describe each waste stream in Item 13.**

  The shipments of oily liquid waste sent to Tradebe using manifest numbers 014105598FLE, 014105647FLE, and 014105687FLE did not include one or more of the EPA hazardous waste numbers associated with that waste.

- **Pursuant to S.C. Code Ann. Regs. 61-79.262.41(a)(5) and (6), an authorized State requirement that is more stringent than the federal biennial reporting requirement found in 40 C.F.R. § 262.41, each LQG who ships any hazardous waste offsite to a treatment, storage or disposal facility within the United States must prepare and, no later than thirty days after the end of each calendar quarter, submit a written report to the Department including, but not limited to, the following information unless otherwise indicated. A description, the EPA hazardous waste number, DOT hazard class, and quantity of each hazardous waste shipped offsite for shipments to a treatment, storage, or disposal facility within the United States. This information must be listed by the EPA identification number of each such facility to which waste was shipped. The types and quantities of such wastes shipped for offsite treatment and disposal.**

  The shipments of oily liquid waste sent to Tradebe using manifest numbers 014105598FLE, 014105647FLE, 014105701FLE, and 014105687FLE did not include one or more of the EPA hazardous waste numbers associated with that waste on the associated quarterly report; and the shipments of oily liquid waste sent to Tradebe using manifest numbers 014105470FLE, 016969347FLE, and 016969148FLE were not included on the associated quarterly report.

- **Pursuant to S.C. Code Ann. Regs. 61-79.262.17(a)(5)(i) [40 C.F.R. §262.17(a)(5)(i)], which incorporates S.C. Code Ann. Regs. 61-79.265.195(b) [40 C.F.R. § 265.195(b)] and is a condition of the LQG Permit Exemption, a generator accumulating hazardous waste in tanks must conduct inspections at least once each operating day: (1) overfill/spill control equipment (e.g., waste-feed cutoff systems, bypass systems, and drainage systems) to ensure that it is in good working order; (2) above-ground portions of the tank system, if any, to detect corrosion or releases of waste; and (3) the construction materials and the area immediately surrounding the externally accessible portion of the tank system, including the secondary containment system to detect erosion or signs of releases of hazardous waste.**

  The records indicate that tank inspections were not conducted for a total of 255 days between January 1, 2021, and May 31, 2023.

15) List of Attachments

Attachment 1 – Photo Log: Eleven Photos taken on May 31, 2023
Photos taken by: Laurie Benton DiGaetano
Photos taken with: Panasonic DMC TS-5
EPA Property Tag: S09533

Attachment 2 – Daily Tank Inspection Calendar

16) Signed

LAURIE DIGAETANO Digitally signed by LAURIE DIGAETANO
Date: 2023.08.08 14:32:09 -04'00'

Laurie Benton DiGaetano
Environmental Engineer

17) Concurrence

ARACELI CHAVEZ Digitally signed by ARACELI CHAVEZ
Date: 2023.08.08 14:52:53 -04'00'

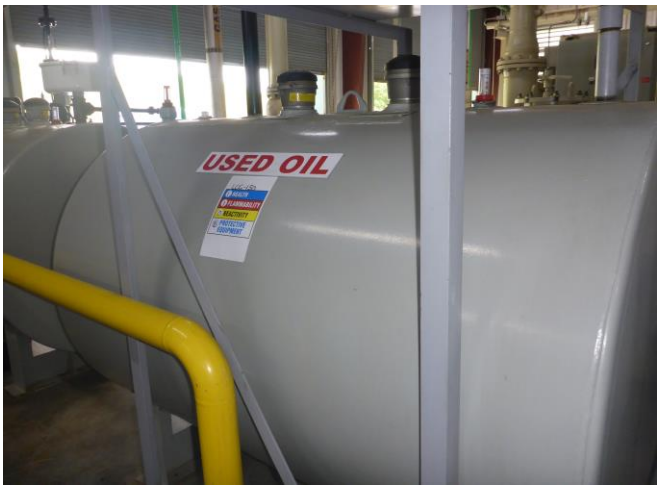
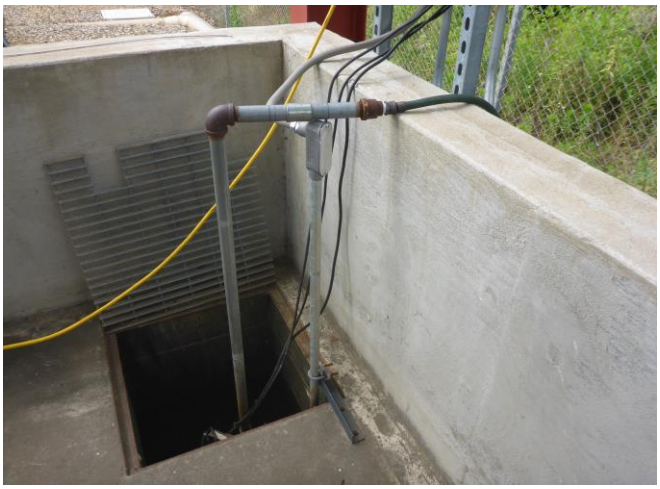
Araceli B. Chavez

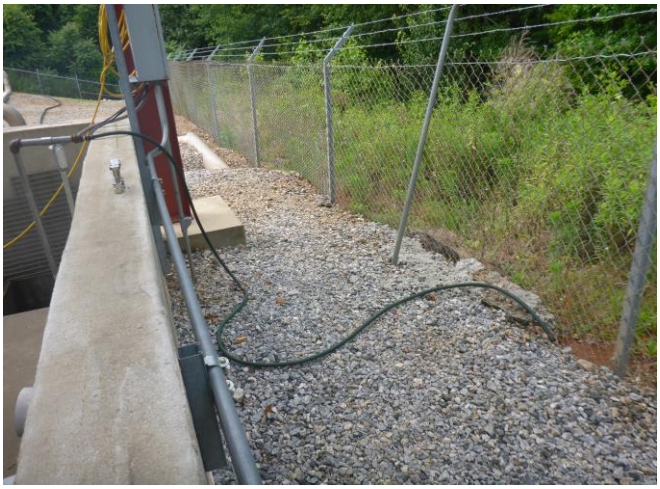
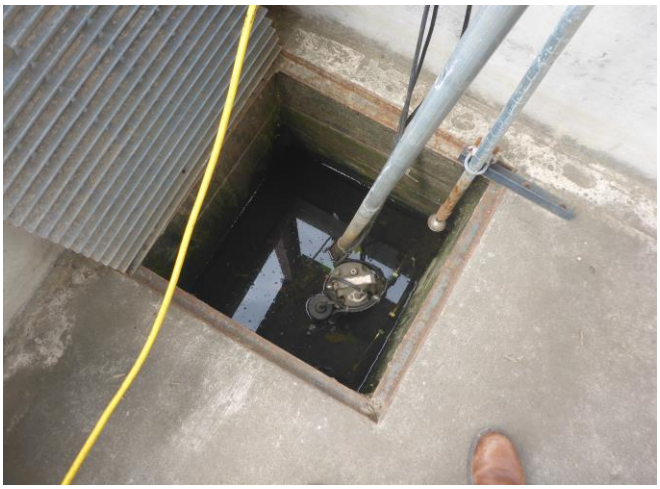
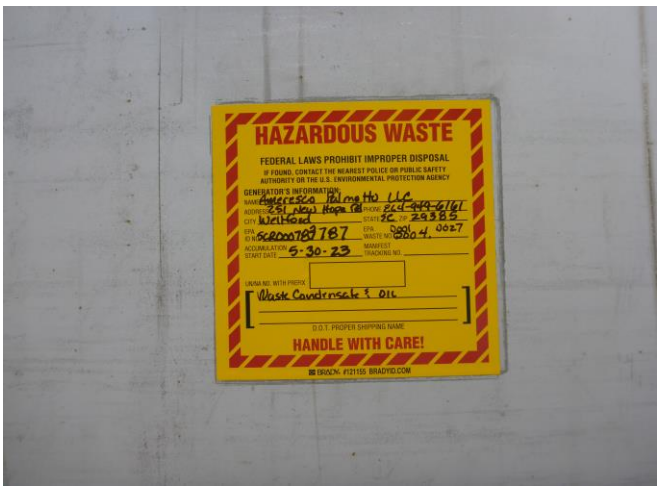
Chief

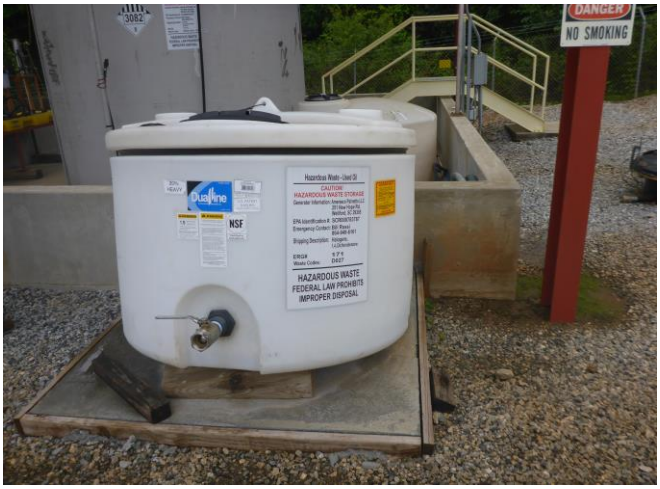
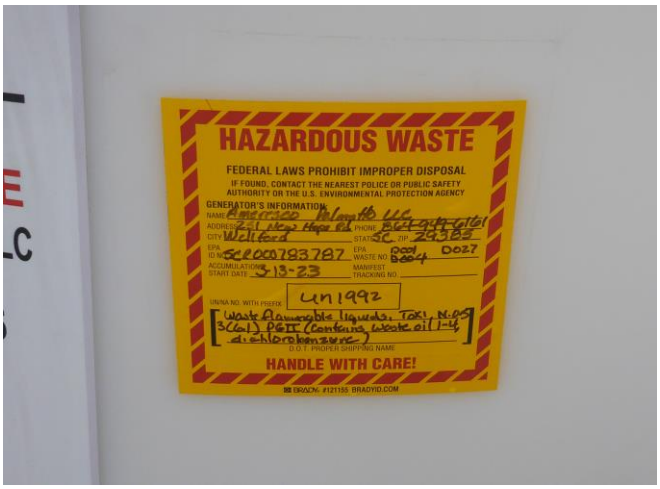
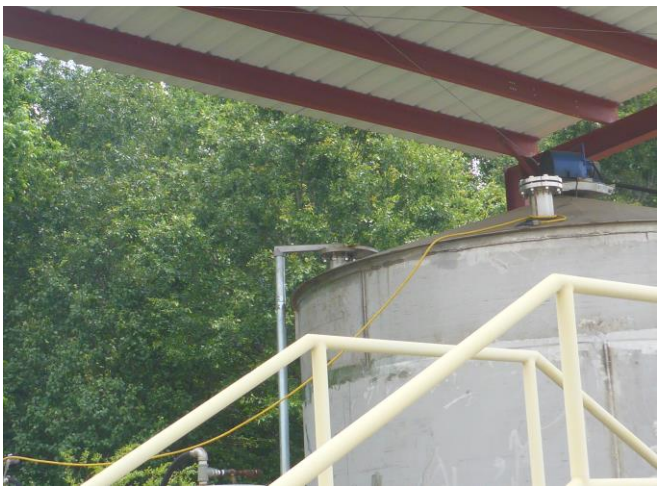
RCRA Enforcement Section

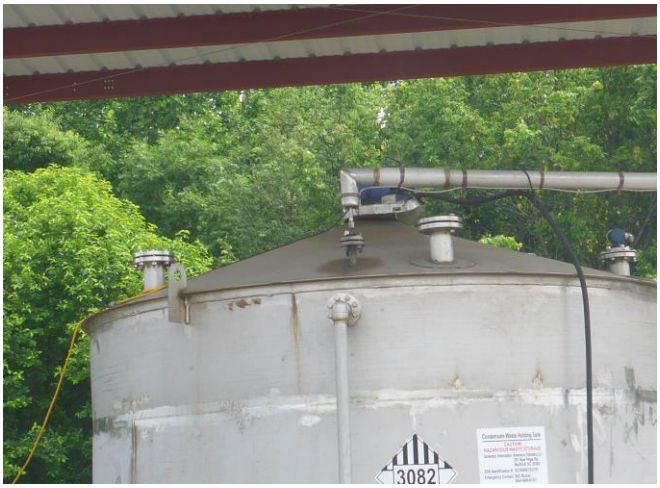
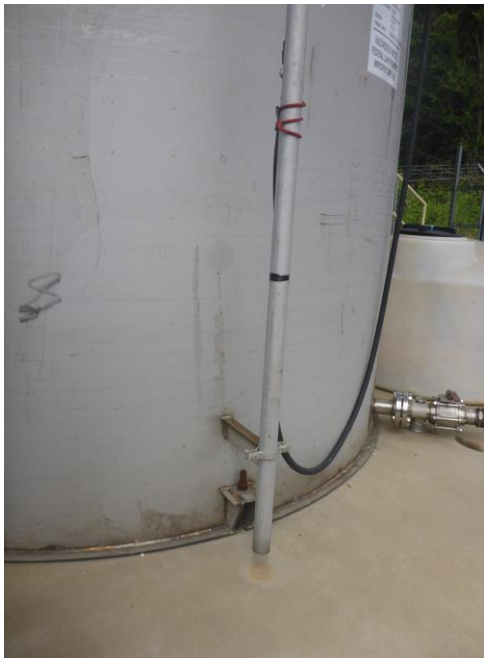
Attachment 1 – Photo Log

Eleven Photos taken on: May 31, 2023
Photos taken by: Laurie Benton DiGaetano
Photos taken with: Panasonic DMC TS-5
EPA Property Tag: S09533

	**Photo 1 – Compressor Room**: 600-gallon double walled tank for accumulating used oil from general maintenance activities.
	**Photo 2 – Hazardous Waste Tank**: 6000-gallon tank used to accumulate landfill gas condensate (D004, D027) and oily liquid waste (D001, D009, D027).
	**Photo 3 – Hazardous Waste Tank**: Small sump in the secondary containment area of the hazardous waste tank.

	**Photo 4 – Hazardous Waste Tank**: Garden hose leading from the small sump in the secondary containment area of the hazardous waste tank to a nearby ditch.
	**Photo 5 – Hazardous Waste Tank**: Small sump in the secondary containment area of the hazardous waste tank.
	**Photo 6 – Hazardous Waste Tank**: Label on 6,000-gallon tank identifying the contents as D001, D004, D009, D027, and marked with an accumulation start date of March 13, 2023. The tank was also labeled with a Class 9 DOT hazard placard, but it was not clearly marked with an indication of the hazards of its contents.

	**Photo 7 – Hazardous Waste Tote**: 300-gallon tote used to accumulate oily liquid waste (D001, D009, D027).
	**Photo 8 – Hazardous Waste Tote**: Label on 300-gallon tote identifying the contents as D001, D004, D027 flammable and toxic hazardous waste, and marked with an accumulation start date of March 13, 2023.
	**Photo 9 – Hazardous Waste Tank**: Pipe on top of the tank is ancillary equipment used to transfer landfill gas condensate to the 6,000-gallon hazardous waste tank. The tank is open to the atmosphere through the port on the top of the tank through which the floating level indicator line passes.

	**Photo 10 – Hazardous Waste Tank**: Pipe on top of the tank is ancillary equipment used to transfer landfill gas condensate to the 6,000-gallon hazardous waste tank. The tank is open to the atmosphere through the overflow pipe down the front of the tank, through a port on the top of the tank used to measure the thickness of the oily liquid waste, and through a port on the top of the tank through which the floating level indicator line passes.
	**Photo 11 – Hazardous Waste Tank**: Bottom of the tank overflow pipe.

Attachment 2 – Daily Inspection Log

2021-2023 Calendar

Shaded dates indicate the days in which inspections were not recorded.

January 2021						
Su	M	T	W	Th	F	Sa
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

February 2021						
Su	M	T	W	Th	F	Sa
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28						

March 2021						
Su	M	T	W	Th	F	Sa
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

April 2021						
Su	M	T	W	Th	F	Sa
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

May 2021						
Su	M	T	W	Th	F	Sa
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

June 2021						
Su	M	T	W	Th	F	Sa
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

July 2021						
Su	M	T	W	Th	F	Sa
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

August 2021						
Su	M	T	W	Th	F	Sa
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

September 2021						
Su	M	T	W	Th	F	Sa
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

October 2021						
Su	M	T	W	Th	F	Sa
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

November 2021						
Su	M	T	W	Th	F	Sa
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

December 2021						
Su	M	T	W	Th	F	Sa
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

January 2022						
Su	M	T	W	Th	F	Sa
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

February 2022						
Su	M	T	W	Th	F	Sa
		1	2	3	1	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28					

March 2022						
Su	M	T	W	Th	F	Sa
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

April 2022						
Su	M	T	W	Th	F	Sa
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10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

May 2022						
Su	M	T	W	Th	F	Sa
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

June 2022						
Su	M	T	W	Th	F	Sa
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

July 2022						
Su	M	T	W	Th	F	Sa
					1	2
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10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

August 2022						
Su	M	T	W	Th	F	Sa
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

September 2022						
Su	M	T	W	Th	F	Sa
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

October 2022						
Su	M	T	W	Th	F	Sa
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2	3	4	5	6	7	8
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16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

November 2022						
Su	M	T	W	Th	F	Sa
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

December 2022						
Su	M	T	W	Th	F	Sa
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

January 2023						
Su	M	T	W	Th	F	Sa
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

February 2023						
Su	M	T	W	Th	F	Sa
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28				

March 2023						
Su	M	T	W	Th	F	Sa
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

April 2023						
Su	M	T	W	Th	F	Sa
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

May 2023						
Su	M	T	W	Th	F	Sa
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		