Region 2 Caribbean Environmental Protection Division
Multimedia Permits and Compliance Branch

CAA Inspection Report

Inspection Date: 2/12/2024

Facility Name: Safetech Corporation

Facility Address: Lot #30, Santana Industrial Park, Arecibo, Puerto Rico 00612

ICIS-Air ID #: PR0000007201300094

EPA Lead Inspector: Alex Rivera, Enforcement Officer, rivera.alex@epa.gov, 787-977-5845

EPA Asst. Inspector: Gloria Diaz-Galarza, Enforcement Officer, diaz-galarza.gloria@epa.gov, 787-977-5882

Katherine Marmanides, Enforcement Officer, marmanides.katherine@epa.gov, 212-637-4063

Facility Contact(s): Alex Saldaña, Plant Manager, alex.saldana@safetechcorp.com

Doris Alvarez, Administrative Assistant, dorisalvarez@safetechcorp.com

State Inspector(s): None

Other Inspector(s): Elizabeth Hubbard, ERG inspector, elizabeth.hubbard@erg.com, 919-468-7894

This report is a summary of observations and information gathered from the facility at the time of the inspection. The information provided does not constitute a final decision on compliance with Clean Air Act ("CAA") regulations or applicable permits, nor is it meant to be a comprehensive summary of all activities and processes conducted at the facility.

Summary of Onsite Observations

A. Opening Conference

The representatives of the United States Environmental Protection Agency (USEPA), Alex Rivera, Gloria Diaz-Galarza, and Katherine Marmanides, and Elizabeth Hubbard from Eastern Research Group, Inc. (ERG), arrived at the Safetech Corporation facility located at Lot #30, Santana Industrial Park in Arecibo, PR ("Safetech," or "the facility") at approximately 9:30 am. Prior to entering the facility, the inspectors observed visible emissions coming from an open incinerator bypass stack (see images 1 and 2). The list of digital images taken during the inspection are included in Appendix A.

The EPA and ERG representatives ("the inspectors") were met upon arrival by Alex Saldaña, Plant Manager for Safetech. Mr. Saldaña hesitated to allow the inspectors to access the site, claiming among other things that the Puerto Rico Department of Natural and Environmental Resources ("DNER") inspectors should be the ones inspecting the site and not EPA. Inspector Rivera explained the purpose of the inspection to Mr. Saldaña, presented his inspector credentials and addressed his concerns. Mr. Saldaña agreed to allow the inspectors to access the facility, and at approximately 9:50 am, the inspectors and Mr. Saldaña met in a conference room for

the opening conference. The inspectors formally presented their identification credentials and provided an overview and scope of the inspection.

The inspectors asked Mr. Saldaña to describe the facility's operations and history. Mr. Saldaña informed the inspectors that the facility is owned by a Puerto Rican company and operates an incinerator 24 hours a day, Monday through Wednesday. The facility has eight (8) employees on site, with two (2) people working per shift. Mr. Saldaña told the inspectors that the facility began operating in 1998 and was originally built to provide incineration services to the local pharmaceutical industry and hospitals. According to Mr. Saldaña, the facility uses a thermal oxidation process with propane as a secondary fuel; ashes from the combustion process are sent to an industrial waste landfill in Ponce, PR.

The inspectors asked Mr. Saldaña what types of materials are combusted at the facility. Mr. Saldaña told the inspectors that Safetech combusts solid non-hazardous waste from pharmaceutical facilities; material is combusted in boxes received from the pharmaceutical facilities. Mr. Saldaña said that Safetech maintains books of all products received at the facility. Materials are received in cardboard boxes, plastic containers, and on pallets.

The inspectors noted that the most recent Title V permit for the facility that was available to them prior to the inspection was issued in 2010 and expired in 2015. The inspectors asked Mr. Saldaña if the facility has a more recent permit. Mr. Saldaña informed the inspectors that the facility is still using the 2010 permit and complying with its limits. He told the inspectors that a permit shield was issued in 2015.

The inspectors noted that EPA had not received a Title V Annual Compliance report from the facility since 2018. Mr. Saldaña told the inspectors that around that time, his previous EPA contact had left the Agency without providing another contact. He continued to send his reports to DNER, but he did not know how to submit the reports to EPA since his previous contact had left.

The inspectors asked whether the facility submits emission reports to DNER. Mr. Saldaña confirmed that the facility submits emission reports annually and pays the required fees. The inspectors asked how the facility calculates its emissions. Mr. Saldaña informed the inspectors that Safetech hires a third-party company, Stack Analysis, to perform emissions analyses every three (3) years. Mr. Saldaña said these performance tests were originally performed annually, but the facility complied with its emission limitations long enough that the test frequency was reduced to every three (3) years based on the facility's permit requirements. Mr. Saldaña said that the facility maintains daily records of the amount and types of material burned, and he calculates emissions each year based on the facility's performance test results and these material records. The inspectors asked when the most recent performance test was performed. Mr. Saldaña informed the inspectors that the most recent performance test was performed in March 2021, and that an upcoming performance test is scheduled for March 2024.

The inspectors noted that the facility's 2010 Title V permit indicates that allowable emissions were calculated based on emission factors included in the State Plan for Commercial and Industrial Solid Waste Incineration (CISWI). The inspectors informed Mr. Saldaña that they reviewed the emission factors, which are listed in Table 6 of the permit, prior to the inspection, and were unable to determine the source of some of these emission factors. Mr. Saldaña was asked if he could tell where the emission factors came from. Mr. Saldaña told the inspectors that he does not know exactly where the emission factors are from and said that the facility uses the emission factors listed in the Multi Chamber column of the table and that the facility has a wet scrubber. Mr. Saldaña explained that the facility was told they are required to have a wet scrubber for the incinerator even though the combustion process is already 99.9% clean.

The inspectors asked if the facility has monitoring records available for the wet scrubber. Mr. Saldaña responded that the facility does not have monitoring records on site but said that he uses a spreadsheet to calculate facility emissions and could share that spreadsheet with the inspectors.

The inspectors inquired about the frequency of malfunctions and whether the facility has records available to document those malfunctions. Mr. Saldaña told the inspectors that the facility has not had any recent malfunction events. He explained that the facility performs preventative maintenance, so malfunctions are not common. The inspectors asked whether the facility has a formal preventative maintenance program. Mr. Saldaña responded that the facility follows a standard operating procedure (SOP) for preventative maintenance and informed the inspectors that the facility also has an SOP for startup and shutdown of the incinerator and wet scrubber.

The inspectors asked about the number of incinerator operators at the site and how the operators are trained. Mr. Saldaña said that there are six (6) trained incinerator operators at the facility and that there is always a trained operator on site when the incinerator is operating. He informed the inspectors that training is provided by an outside company, Primex, every three (3) years and that a yearly refresher is conducted internally, led by a supervisor.

The inspectors asked whether the facility has a waste management plan. Mr. Saldaña responded that the facility has an operating permit for the local environmental agency which includes a waste management plan. He explained that an outside company, Easy Waste, visited the facility to develop the waste management plan requirements. Mr. Saldaña indicated that he was not aware of a waste management plan required by DNER.

The inspectors asked if the facility maintains a copy of its final control plan. Mr. Saldaña told the inspectors that the final control plan was developed as part of an enforcement action taken in 2015. He said he did not have a copy of the control plan because it was developed so long ago.

The following documents were requested during the opening conference and on a later day, via email, for review:

- Facility process diagram
- Emission reports submitted to DNER
- Emission calculations
- Performance test reports for performance test performed in March 2021, and for upcoming performance test in March 2024, when available
- Records of materials burned (types and amounts of materials)
- Propane/fuel reports – amounts consumed and supplier certifications
- Waste Management Plan
- Local operating permit
- Emergency generator operating hours and fuel use records
- Manufacturer specifications for the emergency generator
- Incinerator startup/shutdown SOP
- Maintenance SOP
- Training records
- Title V permit shield

B. Facility Tour

At approximately 11:00 am, Mr. Saldaña led the inspectors on a tour of the facility. The inspectors explained that during the facility tour, they would capture digital images of the facility's processes and emission points

using a digital point and shoot camera that is not intrinsically safe. Initially, Mr. Saldaña expressed concerns with photos due to the possibility of confidential business information (CBI) being captured and said that he was only comfortable with the inspectors taking photos from outside of the facility. The inspectors explained to Mr. Saldaña that they would likely need to capture photos inside the facility but that they would let him know prior to taking each photo and informed Mr. Saldaña that he would have the opportunity to claim CBI on the photos, if needed. Mr. Saldaña agreed.

The group started at the facility's materials receiving and storage area. Mr. Saldaña informed the inspectors that materials are received on pallets via truck. The inspectors observed a truck that was in the process of being unloaded. Mr. Saldaña told the inspectors that the facility also stores spare parts in case they need to perform maintenance on any of the equipment. The inspectors noted that some of the boxes of waste material appeared to have hazard labels and took a photo of one of these boxes (see image 10). The inspectors asked Mr. Saldaña about the hazard labels, and he explained that the facility does not have control over the boxes in which their clients place the product to be incinerated. He said that the product within the boxes is certified by the client as non-hazardous.

The group then proceeded to the incinerator and wet scrubber. Mr. Saldaña pointed out the incinerator waste bin, which is used to collect ash. In addition to ash, the inspectors observed what were apparently paint chips in the incinerator waste bin, which Mr. Saldaña said had peeled off the building walls.

The group then stepped outside of the building to observe the scrubber stack (see images 4-5) and scrubber wastewater sediment tank (see image 3). The inspectors observed a white vapor cloud coming from the wet scrubber stack, which Mr. Saldaña informed them was mostly water vapor. The inspectors noticed black droplets of water landing on their skin while walking close to the scrubber stack.

When the group went back inside, they visited the facility's emergency generator. Mr. Saldaña told the inspectors that maintenance on the emergency generator is performed twice per year. The inspectors noted that the emergency generator appeared to have an exhaust pipe that was routed toward the window, but the pipe seemed to dead-end prior to passing to the other side of the window (see image 9). Mr. Saldaña explained that the generator is rarely operated, but when it is, they open the window and add a corrugated tube to the fixed pipe to extend it out the window as a means of venting emissions from the generator. The inspectors captured additional photos of the plates on the emergency generator (see image 6-8).

The group then returned to the incinerator area where the inspectors observed the monitoring devices for the incinerator and wet scrubber. The inspectors observed that the digital scrubber monitoring screen and pressure drop meters for both the venturi and the scrubber all indicated pressure drops of 0 inches of water column (see images 11 and 12). When they pointed this out to Mr. Saldaña, he informed the inspectors that the scrubber was not operating because incinerator had not been burning any waste since the inspectors arrived earlier that morning. The incinerator was on standby, meaning it was running only on propane. Ms. Hubbard recorded the following temperatures shown on the incinerator control while the incinerator was on standby:

- Secondary Chamber Temperature Control – Present Value (PV): 1184°F, Set Value (SV): 1650°F
- Secondary Air Temperature Control – PV: 1180°F, SV: 1650°F
- Primary Chamber Temperature Control – PV: 891°F, SV: 1400°F

The inspectors asked Mr. Saldaña if he could have the operators burn some waste material so that they could see the incinerator in normal operation, and Mr. Saldaña indicated that he had directed the operators to restart the incinerator operation after the inspection concluded. Inspector Rivera explained to Mr. Saldaña that observing the incinerator in operation was essential for completing the inspection. Mr. Saldaña then agreed and

ordered one of the operators to operate the incinerator. The operators placed cardboard boxes that appeared to be empty into the incinerator chamber to burn.

Two (2) of the inspectors (Inspector Diaz-Galarza and Inspector Marmanides) stepped outside so that they could observe the scrubber stack while the incinerator was in operation. The other two (2) inspectors (Inspector Rivera and Inspector Hubbard) remained inside to observe the waste being loaded into the incinerator (see images 15-17) and watch the incinerator and scrubber monitoring devices. It is noted that Inspector Diaz-Galarza and Inspector Marmanides did not observe any visible emissions while outside. Inspector Hubbard recorded the following temperatures shown on the incinerator control box after waste was loaded:

- Secondary Chamber Temperature Control – Present Value (PV): 1360-1370°F, Set Value (SV): 1650°F
- Secondary Air Temperature Control – PV: 1340-1350°F, SV: 1650°F
- Primary Chamber Temperature Control – PV: 1265°F, SV: 1400°F

The temperatures slowly declined from those noted above. Inspector Rivera and Inspector Hubbard noted that the circular temperature chart recorders for the scrubber and incinerator appeared to be malfunctioning and were recording outside of the valid range of temperatures. Additionally, the inspectors observed that even while the incinerator was burning waste, the pressure monitors still indicated pressure drops of 0 inches of water column across both the venturi and the wet scrubber (see images 18 and 19). The scrubber monitoring screen also showed an inaccurate date and time of November 16, 2023 and 19:22:50. Mr. Saldaña told the inspectors that the scrubber monitoring screen was showing inaccurate information because the memory card was full but said that the memory card would be changed the next week.

At approximately 12:30 pm, the group returned to the conference room for a closing conference.

C. Closing Conference

The inspectors informed Mr. Saldaña that they had follow-up questions related to observations made during the facility tour. The following is a summary of the discussion.

- The inspectors noted that there was another stack next to the scrubber stack that they observed to be open that morning and told Mr. Saldaña they had seen visible emissions coming from the stack. They asked Mr. Saldaña what this stack was. Mr. Saldaña told the inspectors that this is the incinerator bypass stack, which is opened during incinerator startup when it is running on propane to get up to temperature. He told the inspectors that the stack is closed when the incinerator is burning waste.
- The inspectors asked Mr. Saldaña if the facility often observes black smoke coming from the incinerator stack. Mr. Saldaña responded that there is usually a brief puff of black smoke when they start up the incinerator.

The inspectors went over the documents that were requested during the opening conference and informed Mr. Saldaña that they would be following up via email with his administrative assistant with the list of documents[1].

The inspectors explained to Mr. Saldaña that EPA would provide Safetech with an inspection report in approximately 60 days.

[1] As agreed during the inspection closing meeting, on February 23, 2024 EPA's Katherine Marmanides sent email to Mr. Alex Saldaña with the list of documents that EPA needed for further evaluation, and provided a deadline of March 8, 2024. An additional email was sent on February 26, 2024 to include the correct email address of Safetech's administrative assistant, Ms. Alvarez. As of April 2, 2024, Mr. Saldaña and/or Ms. Alvarez have not responded to any emails that EPA have sent.

The inspectors thanked Mr. Saldaña for his time and cooperation during the inspection.

At approximately 1:00 pm, the inspectors departed from the facility.

Appendices

A. Digital Image Log

End of Report

Lead Inspector's Name: Alex Rivera

ALEX RIVERA

Digitally signed by ALEX RIVERA
Date: 2024.04.08 17:59:04 -04'00'

Assisting Inspector's Name: Katherine Marmanides

Katherine G. Marmanides

Digitally signed by Katherine G. Marmanides
Date: 2024.04.10 08:02:06 -04'00'

Supervisor's Name: Nancy Rodríguez

NANCY RODRIGUEZ

Digitally signed by NANCY RODRIGUEZ
Date: 2024.04.10 13:28:32 -04'00'

Appendix A: Digital Image Log for Safetech Corporation, Arecibo, PR		
Facility Address: **Lot #30, Santana Industrial Park, Arecibo, PR 00612**	**Inspectors:** **Alex Rivera, EPA,** **Gloria Diaz-Galarza, EPA,** **Katherine Marmanides, EPA,** **Elizabeth Hubbard, ERG**	**Image numbers:** **DSC01225.JPG, DSC01226.JPG, DSC01228.JPG - DSC01230.JPG, DSC01233.JPG, DSC01234.JPG, DSC01236.JPG - DSC01247.JPG**

File name: Appendix A Digital Image Log Safetech_2024-03-27

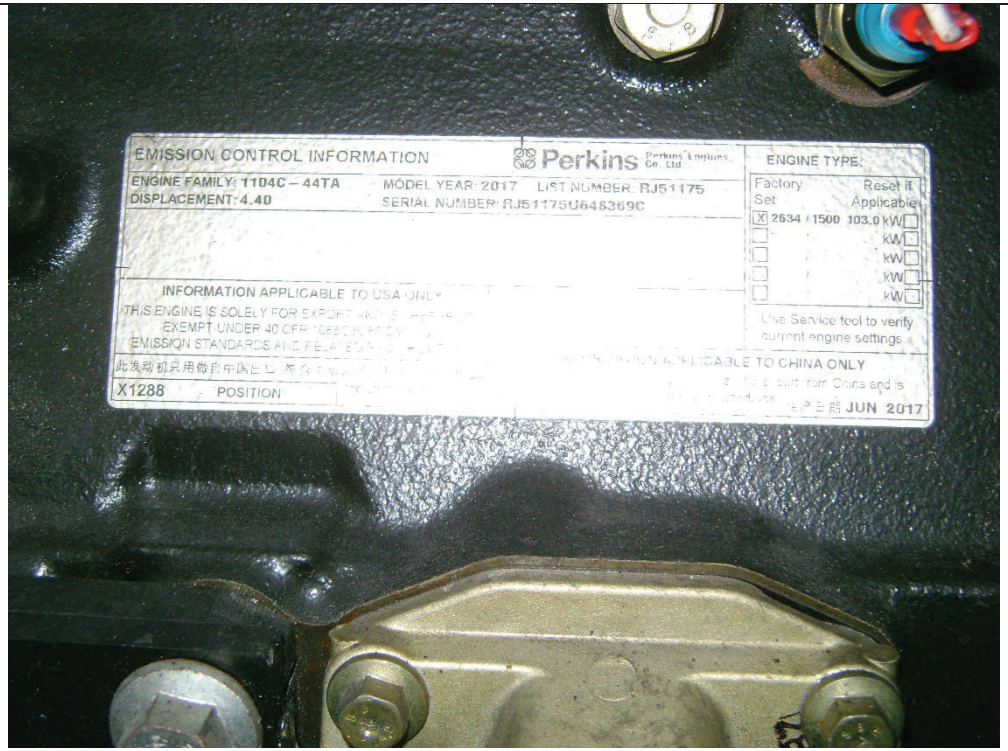
Image Number	File Name	Description	Date Taken	Time taken
1	**DSC01225.JPG**	 View of open incinerator bypass stack from street outside of facility.	**2/12/2024**	**9:30 am**

2	**DSC01226.JPG**	 View of open incinerator bypass stack from street outside of facility.	**2/12/2024**	**9:40 am**

3	**DSC01228.JPG**	 Scrubber wastewater sediment tank.	**2/12/2024**	**11:12 am**

4	**DSC01229.JPG**	 White vapor cloud from scrubber stack.	**2/12/2024**	**11:13 am**

5	**DSC01230.JPG**	 White vapor cloud from scrubber stack.	**2/12/2024**	**11:17 am**

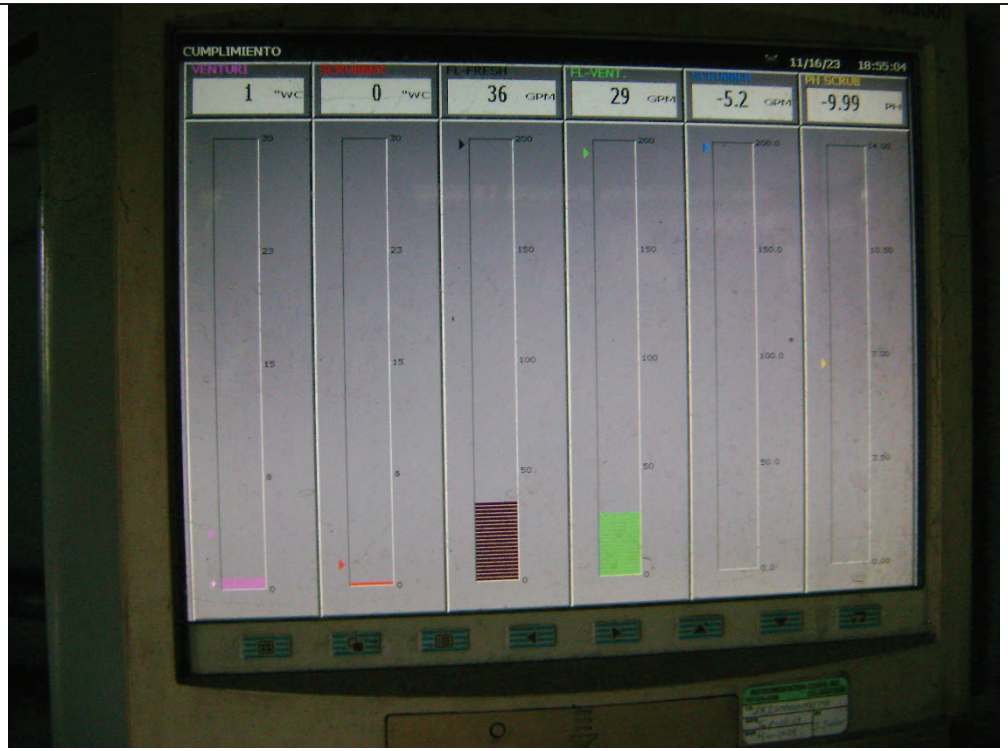
6	**DSC01233.JPG**	 Plate on emergency generator engine.	**2/12/2024**	**11:25 am**

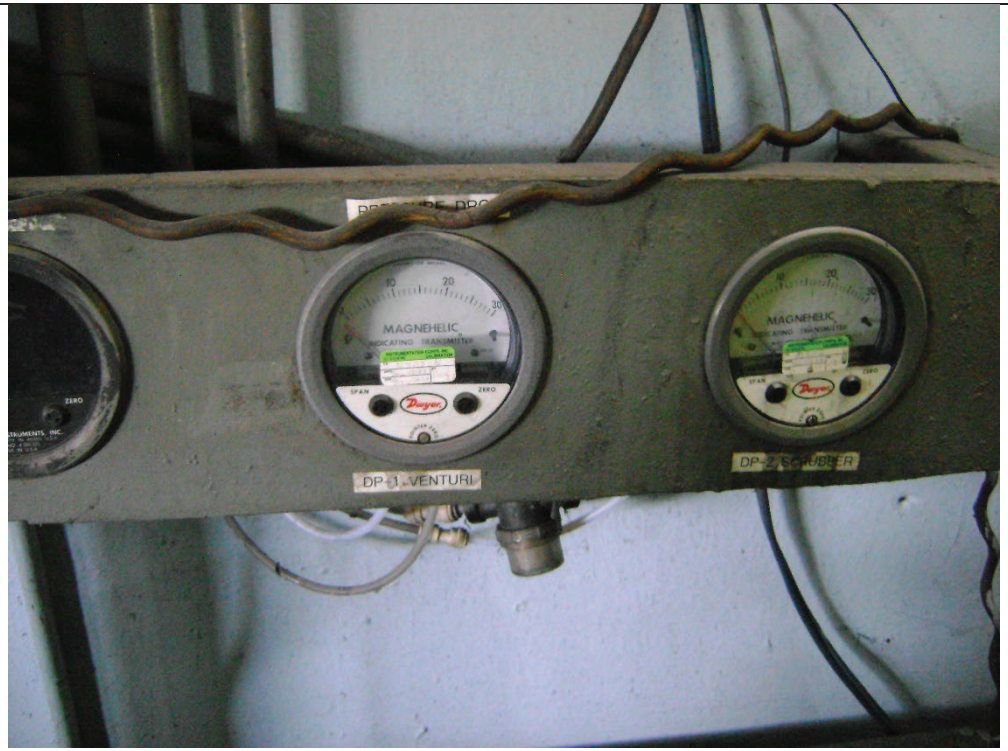
7	**DSC01234.JPG**	 Plate on emergency generator engine.	**2/12/2024**	**11:25 am**

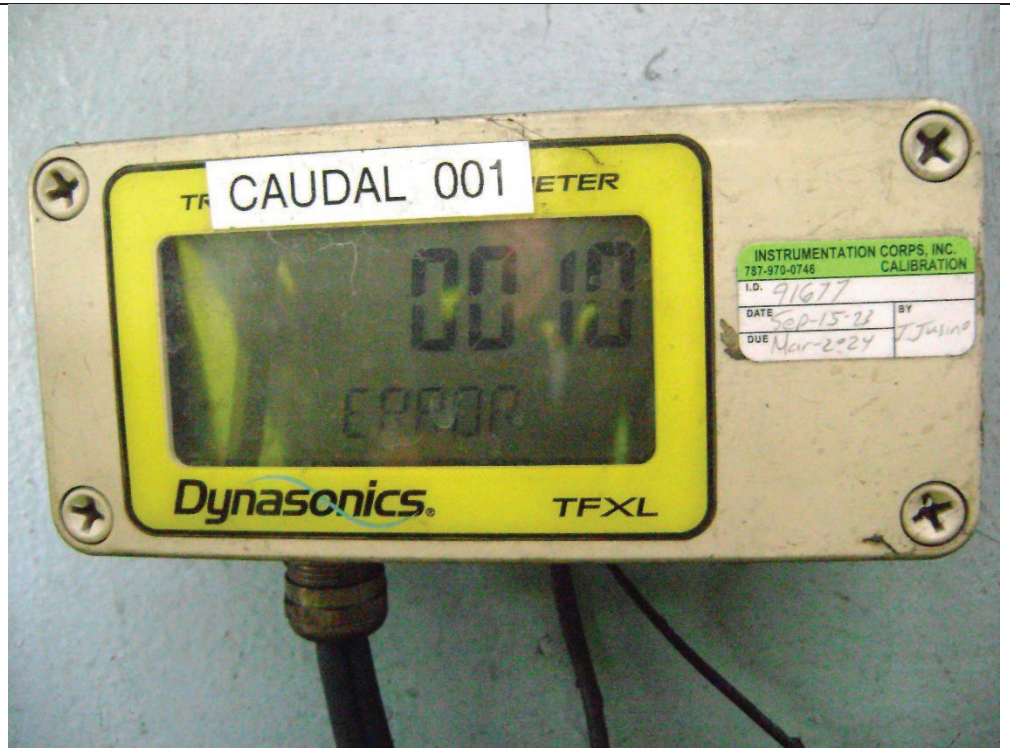
8	**DSC01236.JPG**	 Plate on emergency generator engine.	**2/12/2024**	**11:26 am**

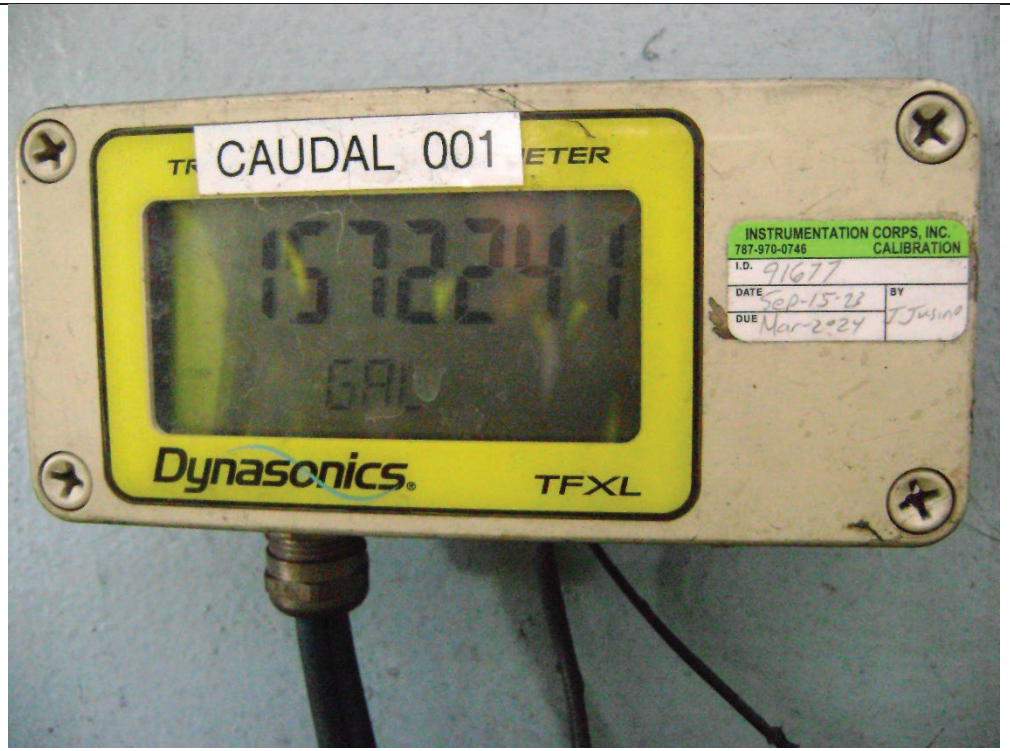
9	**DSC01237.JPG**	 Emergency generator with vent routed through window on right side of photo.	**2/12/2024**	**11:28 am**

10	**DSC01238.JPG**	 Box of waste received from supplier to be incinerated. Hazard labels indicate “Suspected of damaging the unborn child” and “Harmful to aquatic life.”	**2/12/2024**	**11:29 am**

11	**DSC01239.JPG**	 Monitoring screen indicating pressure drop across the venturi and the scrubber, flow rates through the incinerator and scrubber, and scrubber water pH. Photo taken when incinerator was on standby. Date and time shown on screen are inaccurate.	**2/12/2024**	**11:46 am**

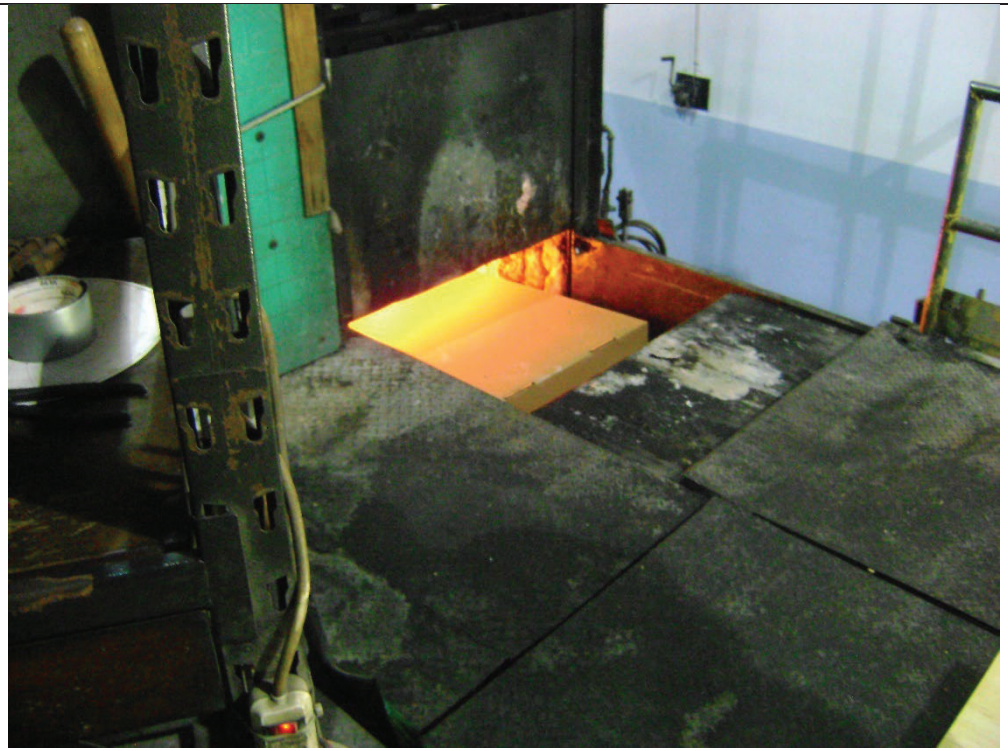
12	**DSC01240.JPG**	 Differential pressure gauges for venturi and scrubber. Both gauges read 0 inches of water. Photo taken when incinerator was on standby.	**2/12/2024**	**11:47 am**

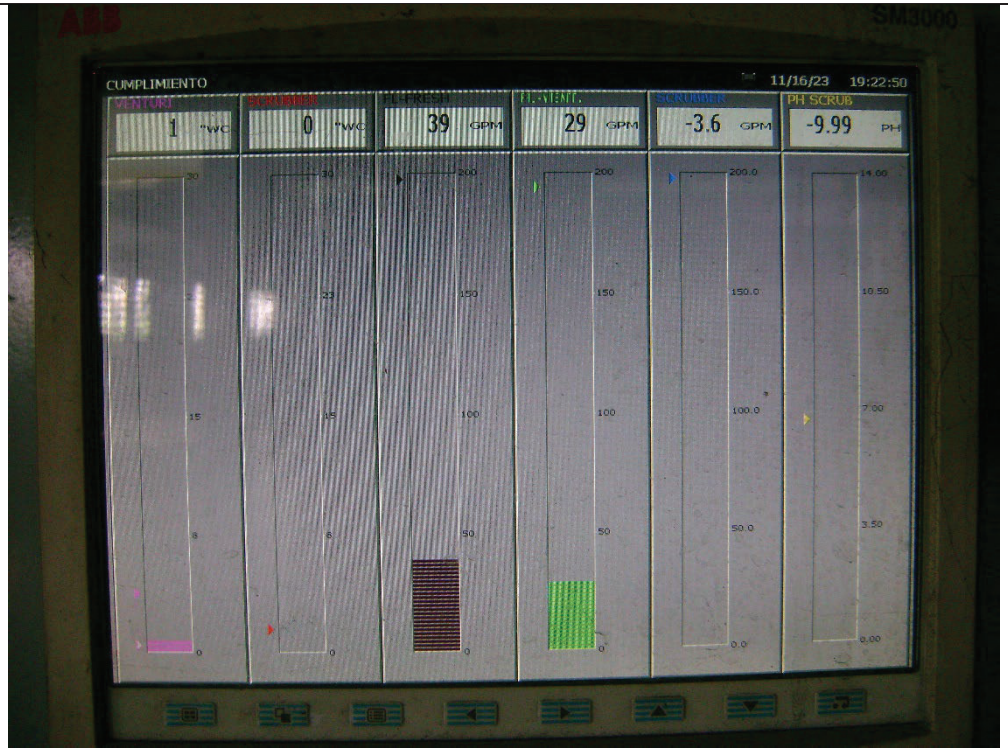
13	**DSC01241.JPG**	 Wet scrubber flow meter.	**2/12/2024**	**11:49 am**

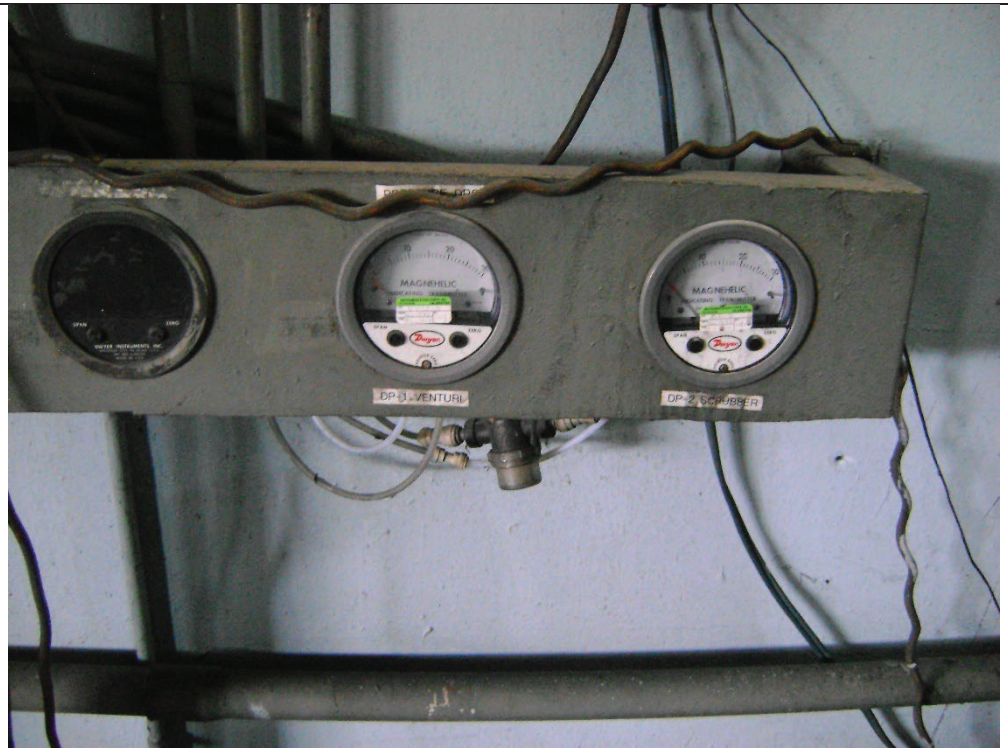
14	**DSC01242.JPG**	 Wet scrubber flow meter.	**2/12/2024**	**11:50 am**

15	**DSC01243.JPG**	 Waste being loaded into incinerator.	**2/12/2024**	**11:54 am**

16	**DSC01244.JPG**	 Waste being loaded into incinerator.	**2/12/2024**	**11:54 am**

17	**DSC01245.JPG**	 Waste being loaded into incinerator.	**2/12/2024**	**12:03 pm**

18	**DSC01246.JPG**	 Monitoring screen indicating pressure drop across the venturi and the scrubber, flow rates through the incinerator and scrubber, and scrubber water pH. Photo taken after waste was added to the incinerator. Date and time shown on screen are inaccurate.	**2/12/2024**	**12:15 pm**

19	**DSC01247.JPG**	 Differential pressure gauges for venturi and scrubber. Both gauges read 0 inches of water. Photo taken after waste was added to the incinerator.	**2/12/2024**	**12:15 pm**