



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029**

Report Title: Clean Air Act Inspection of PQ Corporation
Inspection Date(s): 11/29/2021
Regulatory Program(s): Title V, MACT, NSPS
Company Name: PQ Corporation
Facility Name: PQ Corporation - Chester
Facility Location: 1201 W Front St.
Chester, PA 19013
Latitude: 39.840401 **Longitude:** -75.372368
County/Parish: Delaware County
AFS Number: 42-045-00028
Permit Number: 23-00016
NAICS Code: 325180 **SIC:** 2819
Unique Project #: 3E22CA031A

Facility Representatives:	Point of Contact
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EPA Lead Inspector

Signature

Erin Willard
1650 Arch Street (3ED21)
Philadelphia, PA 19103-2029

Date

Supervisor

Signature

Kristen Hall
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Date

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I. Introduction

The United States Environmental Protection Agency (EPA) conducted a Clean Air Act (CAA) inspection at PQ Corporation (PQ or Facility) to verify compliance with applicable State and Federal regulations on November 29, 2021. The Pennsylvania Department of Environmental Protection (PADEP) was notified of the inspection on November 16, 2021, via email. On November 24, 2021, EPA notified the Facility of the planned inspection via phone and email. EPA emailed a list of records for review to Deric Edwards, PQ's plant manager, prior to the inspection (see Attachment 1). These records are listed in the Records Review section of the report.

II. Summary of the Facility

The Facility is located at 1201 W. Front Street, Chester, PA 19013. PQ was originally named "Philadelphia Quartz". The first location was in Philadelphia. PQ is a supplier of silicates and derivative products. Applications for these silicates include surface coatings, detergents, tire manufacturing, clarifying agents for beverages such as beer, and oil and gas fracking.

PQ Corporation's facility in Chester was constructed in 1905 and is located on 13 acres of property. PQ's headquarters is located in Malvern, Pennsylvania and the Conshohocken PQ facility operates the research and development lab. The Chester facility operates 24/7 in two shifts, dayshift and nightshift. There are 29 employees at the Chester location.

PQ's main operation is combining soda ash and sand in a natural gas-fired glass furnace to form sodium silicate (Na_2SiO_3), or "water glass", which is then molded into small cubes. Once the water glass has been manufactured, PQ conveys all the raw material into a set of dissolvers with steam and water, which then dissolves the solid completely into a liquid form. PQ then utilizes two additional manufacturing processes to create different products: spray dry, which results in a dry sodium silicate powder; and the addition of lithium or potassium to produce various grades of liquid silicate. PQ also stores and sells solid sodium silicates directly from the furnace.

PQ has silos that store the soda ash and sand, and storage tanks for liquid products (liquid sodium silicate (N-CLEAR and STIXSO)), lithium silicate (Lithisil), and potassium silicate (KASIL). PQ maintains three aboveground storage tanks for #2 fuel oil, that is combusted in the back-up process heat boilers during periods of natural gas curtailment.

The facility currently operates one glass furnace (Furnace #4) for Na_2SiO_3 production. There were previously four furnaces on-site, numbered as 1-4. Furnaces 1 and 3 have been demolished and removed from the permit. Furnace #2 was removed from service (but not completely demolished) in roughly 2010 and will be removed from the permit in the next iteration. The only furnace currently in operation is Furnace #4. PQ has five dissolvers and one natural gas-fired

spray dryer. Combustion sources at facility include the glass furnace, two dual-fuel back-up boilers, and a diesel-fuel fired emergency generator.

PADEP issued PQ a Title V Permit (23-00016) on April 19, 2016. PQ is classified as a major source for particulate matter (PM₁₀, PM_{2.5}), nitrogen oxides (NO_x), and carbon monoxide (CO). The Facility is subject to, or potentially subject to, the following federal regulations:

- 40 CFR Part 60 Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units
- 40 CFR Part 63 Subpart JJJJJ - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources
- 40 CFR Part 63 Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines
- 40 CFR Part 60 Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

B. Inspection Opening Conference

At 9:05 AM on November 29, 2021, EPA inspectors arrived at the Facility for a CAA Inspection and conducted a brief opening conference. PQ was represented by Deric Edwards, Joseph Lala, Bill Clauhs, Frank Gillespie, Hassan Akhtor, and Paul DeChristopher. Also, Heather Henry, from PADEP, was present. EPA inspectors, Erin Willard and Isabella Powers, presented their credentials and explained the purpose of the visit was to conduct a full compliance evaluation (FCE) to determine compliance with the permit and any applicable regulations. PQ asked why EPA is conducting the inspection and EPA inspectors explained PQ was targeted as a part of a National Compliance Initiative (NCI), Creating Cleaner Air for Communities (CCAC). PQ has previously been on PADEP's list of High Priority Violations (HPV) and EPA gave an overview of the HPV policy and criteria. At the time of inspection, PQ was no longer on PADEP's HPV list and the HPV had been resolved. Additionally, EPA informed the facility representatives of their right to claim any material obtained during the inspection as confidential business information (CBI). At that time, Mr. Edwards did not claim any photos or documentation as CBI, but later asked EPA inspectors to avoid capturing photos where the PQ name was visible.

II. Site Activity/Process Description

PQ manufactures a variety of silicate products including sodium silicate (Na₂SiO₃), lithium silicate (Li₂SiO₃), and potassium silicate (K₂O₃Si). PQ's primary customers are Evonik and WR Grace and PQ has several smaller customers as well. Evonik is located directly adjacent to PQ and WR Grace is located in Maryland.

The facility's main raw materials are sand and soda ash, and PQ manufactures roughly 460 million pounds of products annually. PQ adds lithium or potassium to manufacture several different finished products. PQ receives the sand and soda ash via rail from US Silica, which is

located in West Virginia. Sand is also occasionally transported to the facility by truck. The sand and soda ash are transferred from railcars and trucks to the dedicated storage silos via batch elevators. The silos do not have baghouses or other means of controlling particulate matter (PM).

PQ operates two boilers that work to provide supplemental heat and steam to the glass furnace and dissolver processes. The Cleaver-Brooks boiler is used as a source of back-up heat and steam when the glass furnace's waste heat exchanger is not operating at maximum capacity. The Donlee boiler is also a back-up boiler, providing heat and steam for the glass furnace and dissolver processes, in support of the Cleaver-Brooks. Both boilers are fired using natural gas except during periods of natural gas curtailment, when the fuel is #2 fuel oil. PQ also operates a 600 horsepower (hp) Caterpillar emergency diesel engine, used during public utility power outages to provide power to the facility for lighting and other basic functions. The engine does not provide power for any manufacturing process.

All of the tanks on-site, apart from the #2 fuel oil tanks, are product tanks or raw material tanks. None of the tanks onsite are heated.

The production of water glass begins with soda ash and sand. The raw soda ash and sand are mixed in the ratio of approximately 1300 lbs. of sand to approximately 700 lbs. of soda ash in a mixer. The combined raw materials are conveyed into the glass furnace in batches. The furnace combusts natural gas and operates on a continuous basis, with very little downtime unless maintenance is being performed.

The glass furnace has a dedicated stack, which is monitored by a Continuous Emissions Monitoring System (CEMS) for NO_x and CO emissions; and a Continuous Opacity Monitoring System (COMS). The furnace also has a baghouse to reduce emissions of particulate matter to the atmosphere. The furnace is rebuilt every 5 years. Glass is poured out of the furnace continuously onto a moving chain mold that forms small cubes of glass. The glass has a slight blue tint, caused by the various trace metals in the feedstock sand. The molds dump into a bunker, which feeds glass cubes into a set of five dissolvers.

The dissolvers use water and steam to dissolve the water glass into a liquid solution. After the glass is dissolved, it can be stored at ambient temperatures without precipitating back to a solid. Because the only ingredients are soda ash and sand, water glass is different than flat or container glass in that it will dissolve into liquid state (standard glass is a solid and will not dissolve due to various additives to the raw ingredients). The product is stored in a holding tank before being distributed for sale as-is or undergoing further processing to make various specialty products. A portion of the product is filtered with diatomaceous earth. This process filters out any solids from the liquid water glass. The solids from this filtering process are landfilled.

PQ operates one spray dryer to manufacture sodium silicate powder. Liquid water glass is conveyed into a large spinning bowl dryer, where the velocity forces it through holes around the perimeter of the bowl, creating small particles which fall inside the dryer as a fine dry powder.

The spray dryer operates on natural gas and has a baghouse and a wet scrubber to control PM emissions. The facility holds an industrial wastewater permit that allows it to utilize the public system, Delaware County Regional Water Authority (DELCORA). PQ wastes liquid out of the scrubber, settles the solids for landfilling, and adjusts the pH before conveying it to DELCORA.

Lithium and potassium silicates are manufactured by adding either lithium hydroxide or potassium powder into a mix tank and blending. Both mixing processes are located indoors and vent indoors during mixing. The lithium and potassium silicates are stored in small tanks in the liquid shipping building until they are shipped offsite. Companies can use precipitated silicas to replace carbon black in tires, as additives to drilling fluids and stabilizers in the oil and gas industry, beer clarification, oral care products, and surface coatings.

The opening conference concluded at 10:20 am.

III. Observations

EPA inspectors were led on a tour of the Facility at 10:50 am by Deric Edwards and Joseph Lala of PQ, Heather Henry (PADEP) was also present for the walkthrough. EPA inspectors noted photos would be taken during the Facility walkthrough (Attachment 2).

Upon exiting the PQ office, EPA inspectors asked about the pallets adjacent to the office building. Mr. Lala answered the pallets were for the spray dry product bags. Mr. Edwards led the inspection team to the rail that brings in the raw materials by rail car. These materials include sand, soda ash, and liquid sodium silicate. PQ staff indicated that there are no milling units at the facility, and that the spray dryer creates a powdered product that has no further processing requirements.

The spray dryer is located adjacent to the rail and several tanks that are no longer in use. The spray dryer has a scrubber which PQ employees monitor for visible emissions and record operations in a logbook for informational purposes. There are requirements in PQ's permit to monitor scrubber parameters, but there are no permit requirements for the scrubber such as flow or pressure drop. Mr. Edwards explained that the dried sodium silicate powder either falls to the bottom of the dryer or is entrained in the gas from the dryer, which then is conveyed through the duct work to the cyclone, which acts to further capture product. The gas stream then moves through the scrubber countercurrent to scrubber liquid flow in order to remove PM. Collected powdered product proceeds along a screw conveyor and the finished product is bagged. A portion of the product is lost through the scrubber and is removed from the scrubber as liquid. EPA inspectors inquired about the loss of product through the scrubber and if PQ could install a filter bag to reclaim any lost product. Mr. Edwards explained PQ does not attempt to capture the product lost through the scrubber, however, if they did, it would have to re-dried.

After the spray dryer, Mr. Lala showed EPA inspectors the Caterpillar Tier III certified 400kV emergency generator. On the way to the emergency generator, the inspection team passed

through a storage building. EPA observed the hour meter on the Caterpillar generator with a total runtime of 78.6 hours.

The inspection team moved into the boiler room, which holds the Donlee boiler. This boiler is used as a back-up boiler to the Cleaver Brooks and was in operation at the time of inspection. The Donlee boiler operates when the waste heat boiler for the glass furnace is not operating at maximum capacity. The boiler is rated at 10.043 mmBTU/hr.

The next location the inspection team observed after the boiler room was the liquid shipping area. The liquid shipping building contains tanks with liquid sodium silicate, lithium silicate, and potassium silicate. EPA inspectors asked about where the lithium comes from and Mr. Edwards explained it arrives in powder form as lithium hydroxide, which is combined in a mixer with the sodium silicate. Trucks are also filled at liquid shipping for transport. There are no floor drains or other discharge points from the liquid shipping building to DELCORA due to the toxicity to aquatic life from the products.

Upon exiting liquid shipping, EPA inspectors inquired about tanks adjacent to the building. Mr. Lala explained these were the #2 fuel oil tanks. Fuel oil is only used when the public natural gas utility (PECO) curtails the facility, which does not occur often. During typical operations, PQ uses natural gas for all its combustion units.

Across from the fuel oil tanks were the sand and soda ash silos and the building that contains the glass furnace, dissolvers, and Cleaver-Brooks boiler. EPA inspectors asked about the emissions monitors on the glass furnace and Mr. Lala said the furnace has a CEMS and COMS unit for monitoring NO_x, CO and opacity that were installed approximately in 2014.

Mr. Edwards and Mr. Lala led the inspection team into the building that houses the glass furnace and the dissolvers. The glass furnace is a regenerative furnace, with two regeneration chambers that are comprised of refractory brick (“checkers”) that act as a heat sink. Hot gas from the furnace is conveyed to one regenerative chamber, heating up the brick, while recovered gas fed to the furnace is pulled through the other chamber, which acts as a preheater for the gas. Prior to the hot gas being discharged to the atmosphere, it is conveyed through a waste heat boiler, which produces steam in support of the dissolver process. The furnace periodically “switches”, so that gas is then conveyed to the chamber that was previously acting as the preheater.

The inspection team observed the control room, where the CEMS display monitors are located, and the operators work to fine tune furnace operations based on the NO_x values being emitted from the furnace. Mr. Lala explained a mechanic keeps the CEMS unit functioning correctly.

The inspection team then walked to the Cleaver-Brooks boiler, which is used as a back-up when the glass furnace is not operating at maximum capacity so that the regenerators are able to

provide enough supplemental heat. The Cleaver-Brooks boiler was operating at the time of inspection. The boiler is rated at 14.288 mmBTU/hr.

From the boiler, the inspection team moved to observe the glass being poured onto the moving chain molds, and then into the hopper that feeds into the dissolvers. PQ has five dissolvers which dissolve the water glass from the furnace to make it a liquid once again. The dissolvers use steam and water to melt the solid water glass and put it back into solution.

After viewing the dissolvers, the inspection team observed the adjacent area where the liquid sodium silicate is filtered by diatomaceous earth. The filters presses were open for a rebuild and not in-use at the time. The diatomaceous earth filters solids leftover in the dissolved water glass to manufacture a colorless product called “N-clear”.

Mr. Lala and Mr. Edwards guided the inspectors into the office space where PQ’s employees monitor the furnace processes and controls on computers. EPA inspectors were able to view a video feed of the burners inside the furnace. PQ’s furnace has 16 burners.

The facility carefully monitors the air to fuel (A/F) ratio on the glass furnace because it has identified a range that is necessary to prevent the furnace from emitting NO_x at levels that violate the facility’s Title V permit limits. EPA inspectors inquired about the A/F ratio and the PQ employee monitoring the screens explained it is manually set and the monitors display the set A/F ratio, as well as the ratio on an instantaneous basis. The A/F ratio has two designators, east and west that denote the burner position. During the inspection the A/F ratios were set to approximately 10. The PQ employee stated that this ratio must stay between 9 and 12. This screen also allows PQ employees to monitor opacity from the COMS which, at the time, was approximately 8.20. EPA inspectors asked for a capture of the screens showing all the variables.

	Title V Permit Requirement	Reading at Time of Inspection
A/F Ratio (East)	9 – 12	10.00
A/F Ratio (West)	9 – 12	9.92
Opacity	Not to exceed 20% for any three minutes in one hour OR 60% on an instantaneous basis	8.20%
NO _x	69.6 lbs/hr (4-hour average, rolling by 1 hr)	48.66 lbs/hr
CO	20.0 lbs/hr (4-hour average, rolling by 1 hr)	7.43 lbs/hr

Table 1. Comparison of PQ’s Title V requirements for Furnace #4 to the display readings at the time of inspection.

The inspection team exited the room to view the glass furnace, which is located directly across from the office space. The sand and soda ash are combined in a mixing drum and enter the furnace from the feed end. The furnace was operating at the time of the inspection and the inspection team was able to observe the water glass moving along the chain conveyor and the glass unloading into the holding bins before the dissolving process. EPA inspectors viewed the solid water glass collected in the bins near the furnace and noted its light blue color.

Mr. Edwards and Mr. Lala escorted EPA inspectors out of the furnace building towards the meeting room. Erin Willard noticed one of the tanks had a large dent that almost appeared something had fallen against it. Mr. Edwards explained the tank was collapsing due to a vacuum relief issue during use, and PQ has already almost completely emptied the tank to prevent spills. On the plot plan, this tank is listed as out of service.

The walkthrough concluded at 12:35 PM.

IV. Records Review

The records review commenced after the plant walkthrough and lunch at 1:25 pm. EPA inspectors reviewed documents requested in the November 24, 2021, email to Deric Edwards (see Attachment 1). PQ provided an explanation as to how they calculate their emissions and how those emissions are reported to PADEP via the AIMS system. PQ also explained that it previously had issues with opacity exceedances; however, it had identified excessive steam pressure as the issue and had worked to reduce steam pressure to prevent excess opacity. Records requested were not provided at the time of the inspection but were provided by PQ after the inspection. PQ submitted the following requested records through EPA's GoAnywhere system on 12/6/2021. Below are the records requested and a short discussion of the documents provided after the inspection:

1. *A plot plan of the facility, including each process area and the location of each emissions source including combustion sources (boilers, furnaces, heaters and engines), storage tank or vessel.*

PQ has plot plans on-hand and submitted them on December 6, 2021.

2. *Provide a copy of each Initial Notification, Notification of Compliance Status, Title V annual reports, malfunction reports, and deviation reports as submitted to PADEP or EPA, in accordance with the permit and each applicable state or federal rule.*

PQ has annual Title V reports from 2016 – 2021, malfunction reports, and AIMS reports and submitted these on December 6, 2021.

3. *A list of each combustion source at the facility. For boilers, engines, and furnaces include the following pieces of information, along with which rule the unit is subject:*

- a. *the size in mmBTU, brake horsepower or tons/hr*
- b. *the fuel type(s)*
- c. *monthly fuel consumption*
- d. *fuel sulfur content records, as provided by fuel suppliers, or as completed by PQ*
- e. *monthly operating hours*
- f. *NOx and CO emission values, as recorded, for each fuel type, on a ppm-based value*
- g. *NOx, CO, SOx, VOC, and PM emissions, expressed on a lb/hour and rolling 12-month basis, for the time frame beginning in January 2016*
 - i. *For silicate furnaces, provide emissions expressed as both lbs/ton produced and lbs/hour*
- h. *SOx emission values expressed as lb/mmBTU and ppm*
- i. *the construction date, and where applicable for engines, the model year and associated Tier certification data*
- j. *maintenance records, including tune-ups, oil, filter and/or belt changes*
- k. *a discussion of the designated uses for each unit*
- l. *an indication of which rule(s) apply to each unit*
- m. *provide emissions calculations by unit*
- n. *a list and discussion of the emissions control unit(s) for each combustion unit*

PQ submitted these records via the GoAnywhere application December 6, 2021.

- 4. *For each silicate furnace, provide the following records and reports:*
 - a. *operating dates and hours of operation*
 - b. *feed rates into furnaces on an hourly or daily basis*
 - c. *records of crown temperature, oxygen levels and flame pattern, air to fuel ratio, burner tip cooling air pressure settings*
 - d. *operating parameters set during any source tests*
 - e. *operation and maintenance plans for each unit*
 - f. *average weight percentage of water used in the Batch Wetting System versus furnace feed*
 - g. *records of start-up, shutdown and maintenance events*
 - h. *emissions calculations based on times each unit is idling*

PQ maintains a spreadsheet with all of the furnace data and submitted it via the GoAnywhere application December 6, 2021.

- 5. *A list of all federal rules the facility is subject to.*

At the time of inspection, PQ did not have a list of federal rules the facility is subject to.

- 6. *Monitoring records for visible emissions, odors and particulate matter.*

PQ maintains records of daily visible emissions and odor checks, and EPA viewed the records on site for the time frame 2020 and 2021; this data was submitted via GoAnywhere on December 6, 2021.

7. *Records of total silicate produced, by furnace on a lb/hour and ton/month basis.*

This information is available on the emissions spreadsheet and PQ submitted this via GoAnywhere on December 6, 2021.

8. *Provide information on each CEMS and COMS installed on any unit at the facility, including the most recent set of RATAs completed for each monitor.*

PQ did not have the information regarding the analytical specifics for each system on-hand but compiled and submitted this information via GoAnywhere on December 6, 2021.

9. *Pressure drop records (ΔP) for each baghouse, fabric filter and dust collector.*

PQ indicated that these records are not required by the permit.

10. *A copy of each Request for Determination (RFD) and Plan Approval issued by PADEP.*

PQ has copies of all RFDs and plan approvals on-hand and submitted them via GoAnywhere on December 6, 2021.

11. *Copies of any performance testing completed on any unit at the facility.*

PQ has the final reports for performance tests, which are conducted every 5 years and submitted these via GoAnywhere on December 6, 2021.

12. *All MSDS sheets for materials present at the site.*

The only raw materials at the site are sand and soda ash; PQ did not submit MSDS sheets.

13. *A full set of emissions calculations (actual and potential), including those for VOCs, HAPs, NOx, CO, PM and SO₂, on both a monthly and annual basis. Include an example calculation, the emissions factors used and the sources of those factors. Finally, provide a copy of the AIMS reports, as submitted to the state for each year starting with year 2016.*

PQ has an emissions spreadsheet with this data available and submitted it via GoAnywhere on December 6, 2021.

14. *A list of each storage tank or vessel at the facility, including the size, construction date, construction material and roof type, last date of inspection, and the current contents of the unit with the associated vapor pressure data where applicable.*

PQ has a list of all tanks on-hand and submitted the list via GoAnywhere on December 6, 2021.

V. Closing Conference

After the records review, EPA inspectors, Heather Henry (PADEP), Deric Edwards, Joseph Lala, and Bill Clauhs had a brief closing conference to ask additional questions and discuss observations. The EPA inspectors noted that the investigation is on-going, and any areas of concern identified in the final reports do not necessarily reflect a violation or deviation, rather, they are areas that will require further investigation. EPA also noted that they would issue an inspection report within in 60 days, with a copy to the State. Simultaneously, EPA will perform a detailed review of records and may have additional questions. The inspection concluded at 3:12 pm.

The following have been identified as *potential* issues during the inspection. They are issues that require either further investigation by EPA or additional information or explanation by PQ.

1. PQ's Title V permit Monitoring Requirement #012 for the #4 Sodium Silicate Furnace has a monitoring requirement for flame pattern and crown temperature with no required range or suggested value that would demonstrate compliance.
2. EPA will conduct a review of the rules listed below to determine PQ's applicability and compliance with each of the rules listed below:
 - 40 CFR Part 60 Subpart CC - Standards of Performance for Glass Manufacturing Plants
 - 40 CFR Part 60 Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units
 - 40 CFR Part 63 Subpart JJJJJ - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources
 - 40 CFR Part 63 Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines
 - 40 CFR Part 60 Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
 - 40 CFR Part 60 Subpart Db - Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units
 - 40 CFR Part 63 Subpart SSSSS - National Emissions Standards for Hazardous Air Pollutants for Glass Manufacturing Area Sources

VI. List of Attachments

Attachment 1: Email correspondence to Deric Edwards of records requested to review during inspection.

Attachment 2: Photo Log.

Powers, Isabella

From: Deric Edwards (Chester) <Deric.Edwards@pqcorp.com>
Sent: Wednesday, November 24, 2021 2:58 PM
To: Graham Stevenson (Augusta); Willard, Erin
Cc: Powers, Isabella; Henry, Heather; Rebarchak, James; Mclemore, Kevin; jigallaghe; William Clauhs (VF); Joe Lala (Chester); Ryan Macleod(WARR)
Subject: RE: EPA Clean Air Act Inspection November 29 and 30, 2021
Attachments: ATT00001.txt

Erin:

I received your message and look forward to meeting you on Monday.

Regards,

Deric B. Edwards



Plant Manager
PQ Corporation
Chester Plant
(610) 447-3934 - office
(410) 303-6355 - cell

From: Graham Stevenson (Augusta) <Graham.Stevenson@pqcorp.com>
Sent: Wednesday, November 24, 2021 2:40 PM
To: Willard, Erin <Willard.ErinM@epa.gov>
Cc: Powers, Isabella <Powers.Isabella@epa.gov>; Henry, Heather <hehenry@pa.gov>; Rebarchak, James <jrebarchak@pa.gov>; Mclemore, Kevin <kmcmore@pa.gov>; jigallaghe <jigallaghe@pa.gov>; Deric Edwards (Chester) <Deric.Edwards@pqcorp.com>; William Clauhs (VF) <William.Clauhs@pqcorp.com>; Joe Lala (Chester) <Joe.Lala@pqcorp.com>; Ryan Macleod(WARR) <Ryan.MacLeod@pqcorp.com>
Subject: Re: EPA Clean Air Act Inspection November 29 and 30, 2021

Erin,

I do appreciate you giving us this notice, though it seems you might have reached the wrong division of PQ. I am the plant manager of the Augusta, GA facility.

I have copied the plant manager of the Chester facility (that is in PA) as well as the operations manager, environmental representative, and the VP of EHS.

I'm sure one of these kind folks will reach out to you shortly to confirm.

I hope you have a nice holiday!

Thank you
Graham Stevenson

On Nov 24, 2021, at 2:34 PM, Willard, Erin <Willard.ErinM@epa.gov> wrote:

Good Afternoon Mr. Stevenson,

EPA will be conducting a CAA inspection beginning Monday November 29, 2021 at the Chester Facility. We anticipate arriving at the site between 8:30 and 9:00am, and the inspection team will consist of EPA (Isabella Powers and me), and your PADEP inspector, Heather Henry. We will have standard safety gear (hard hat, safety glasses, steel toes).

Attached to this email is a list of records we would like to review either at the site, or have available to take away on a disc or USB device. I think you will find that the items requested are those already required by your permit; however, if there is anything you are unable to compile before Monday, we can discuss timing for submission during the site visit.

I spoke to Alison at your office, and left my email and cell phone number, which is 215-275-7684. Please feel free to call me today or at any time on Friday with questions. If I don't answer, I'll get back to you as soon as I can.

Have a nice holiday, and see you on Monday.

Erin Willard
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1650 Arch Street – 3ED21
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ATTACHMENT 2: PHOTO LOG

Facility: PQ Corporation

Location: 1201 W Front St, Chester, PA 19013

Inspection Date: 11/29/2021

EPA Inspector(s): Erin Willard, Isabella Powers

Photographer: Erin Willard



Photo Number: 1/16

Photo Description: The Spray Dry scrubber, outside of the Spray Dry building.



Photo Number: 2/16

Photo Description: The Spray Dry tower, inside of the Spray Dry building.



Photo Number: 3/16

Photo Description: Caterpillar engine plate.



Photo Number: 4/16

Photo Description: Caterpillar emergency engine runtime display.



Photo Number: 5/16

Photo Description: Donlee back-up boiler boilerplate.



Photo Number: 6/16

Photo Description: Donlee back-up boiler boilerplate, 2nd angle.



Photo Number: 7/16

Photo Description: Donlee boiler burner boilerplate.



Photo Number: 8/18

Photo Description: Lithium silicate blending tank inside of the liquid shipping building.



Photo Number: 9/18

Photo Description: Fuel oil tanks, holding #2 fuel oil.



Photo Number: 10/16

Photo Description: Silos holding soda ash and sand.



Photo Number: 11/16

Photo Description: Furnace stack (left) and the Cleaver-Brooks boiler stack (with steam visible) (right).

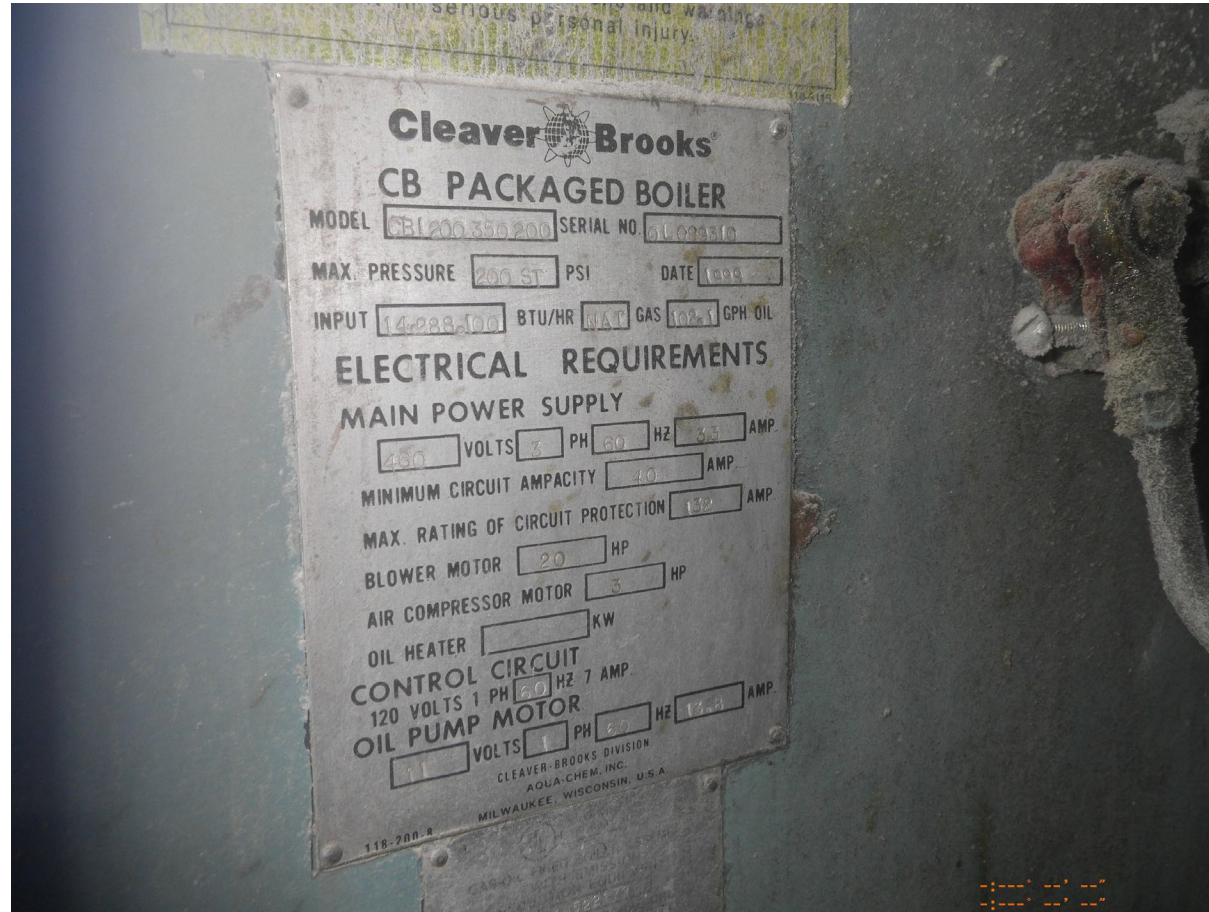


Photo Number: 12/16

Photo Description: Cleaver-Brooks back-up boiler boilerplate.



Photo Number: 13/16

Photo Description: Five dissolvers inside of the furnace building.



Photo Number: 14/16

Photo Description: Regenerator and the waste heat boiler.



Photo Number: 15/16

Photo Description: Glass furnace continuous pour into traveling molds.



Photo Number: 16/16

Photo Description: Dissolver feed hopper with cooled glass cubes.