



## REGION 3

PHILADELPHIA, PA 19103

**Report Title:** Clean Air Act Inspection of 401 City Avenue  
**Inspection Date(s):** 12/12/2024  
**Regulatory Program(s):** SIP, NSPS, MACT  
  
**Company Name:** 401 City Ave Assoc.  
**Facility Name:** 401 City Avenue  
**Facility Location:** 401 E City Ave.  
Bala Cynwyd, PA 19004  
**Latitude:** 40.008676 **Longitude:** -75.213537  
**County/Parish:** Montgomery  
  
**AFS/ICIS-Air Number:** PA000832379  
**Permit Number:** 46-00302  
**NAICS Code:** 518210 **SIC:** 7374  
**DSB ID #:** ECAD-105

| Facility Representatives:                              | Point of Contact                    |
|--------------------------------------------------------|-------------------------------------|
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**EPA Lead Inspector**

**Signature**

**Bruce Augustine**

**Date**

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**Supervisor**

**Signature**

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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 401 City Avenue Association (401 City Ave or Facility) to verify compliance with applicable State and Federal regulations. The Pennsylvania Department of Environmental Protection (PADEP) was notified of the inspection on November 25, 2024, via email. On December 10, 2024, EPA notified the Facility of the planned inspection via phone and email. EPA emailed a list of records for review to Steven Decembrino, prior to the inspection (see Attachment 1). These records are listed in the Records Review section of the report.

The inspection included an evaluation of the Facility's processes and its compliance with the CAA. All information included in this report is the result of statements by the Facility representatives, materials shown to the inspectors by the Facility representatives, and/or documents provided by the Facility representatives to the inspectors at the time of, or subsequent to, the inspection. In addition, information gathered prior to the inspection from a review of EPA and State records may be included in Section A. Summary of the Facility.

## **A. Summary of the Facility**

The Facility is located at 401 E. City Avenue, Bala Cynwyd, PA 19004. 401 Property Management owns and operates the building whose main tenant is Susquehanna International Group (SIG). SIG is an international options trading and technology firm that occupies 90% of the building at 401 City Ave. SIG is a privately held company that was formed in 1987 and currently has over 3000 employees at multiple global locations. SIG's website is [www.sig.com](http://www.sig.com) and they operate under SIC code 7374: Data Processing and Preparation and NAICS code 518210: Computing Infrastructure Providers, Data Processing, Web Hosting, and Related Services.

The Facility received a synthetic minor operating permit (46-00302) from PADEP issued on January 28, 2021.

401 City Ave is classified as a synthetic minor for source for NO<sub>x</sub> and a minor source the remaining criteria pollutants and hazardous air pollutants (HAP). The Facility is subject to, or potentially subject to the following federal regulations:

- 40 C.F.R. Part 60, Subpart IIII: Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (NSPS 4I)
- 40 C.F.R. Part 63, Subpart ZZZZ: National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (MACT 4Z)

## **B. Inspection Opening Conference**

At 9:10AM on December 12, 2024, EPA inspectors arrived at the Facility for a CAA Inspection and conducted a brief opening conference. 401 City Ave was represented by Steven Decembrino. Also, Alec

Yarnell of PADEP was present<sup>1</sup>. After the opening meeting commenced, Bob Brackett of SIG was brought in to answer questions related to SIG operations. EPA inspectors, Bruce Augustine, Steve Ott, Kyle Krall, and Owen Ehret presented their credentials and explained the purpose of the visit was to conduct a CAA inspection to determine compliance with their permit and any applicable regulations. Additionally, EPA informed the facility representatives of their right to claim any confidential business information (CBI). At that time, Mr. Decembrino did not claim any photos or documentation as CBI.

## II. Site Activity/Process Description

401 City Ave operates as a subsidiary of SIG and maintains SIG's corporate headquarters. SIG began operating in 1987 and has operated at this location since that time. SIG has approximately 1600-1800 employees at this location. 401 City Ave has two additional tenants at the site: Liberty Healthcare and LF Driscoll. The building is over 400,000ft<sup>2</sup> and operates as office space and a data center for SIG. SIG currently operates three data centers but plans to reduce it to two in the near future. The SIG data center only manages data and information for this and other SIG locations. They do not manage data for any outside clients.

The original data center at the Facility began operation in the 1990s. The second data center began operation in 2006 while the third data center commenced operation in 2019. As mentioned earlier, SIG plans to remove the original data center from service in the near future and operate the two remaining data centers. The Facility currently has dual electric service from the local provider (PECO) in that two lines come into the Facility to provide electric service to the building and the data centers. If one line fails, the other line from a separate substation can handle the load. Both incoming service lines are always active. If there is a total power loss, the Facility has an uninterruptable power system (UPS) that initiates power supply to the data centers while the emergency generators startup.

The Facility has four emergency generators onsite to provide power in the event of a power outage. All of the generators are powered by diesel fuel. The original emergency generator was installed when the building was constructed in the 1980's and provides emergency lighting to the building in the event of a loss of power. The remaining three emergency generators provide emergency power to the three data centers if there is a power loss. Two of those generators were installed in 2005 when the original data center at the site was constructed. The final generator was installed in 2019 when the third data center was constructed. The following is a list of emergency generators onsite:

| Generator          | Model | Size   | Year |
|--------------------|-------|--------|------|
| Caterpillar Egen 1 | 3516B | 2885HP | 2005 |
| Caterpillar Egen 2 | 3516B | 2885HP | 2005 |
| Caterpillar Egen 3 | 3516C | 2937HP | 2019 |
| Caterpillar Egen   | 3412  | 749HP  | UNK  |

<sup>1</sup> Full List of Attendees is Included in the Sign-In Sheet (attachment 2)

The Facility stated that the three data center emergency generators are only used to provide power to the data centers and there are no agreements to provide power to any other sources or back to the grid. The Facility also stated that the generators have never operated in an emergency situation or in a non-emergency situation other than periodic testing. The Facility conducts quarterly preventative maintenance quarterly for 15-30 min per generator. Foley CAT is the third party that conducts preventative maintenance and repairs, if necessary. None of the generators have been equipped with any additional pre/post combustion emission controls other than what was originally installed by the manufacturer.

The Facility also operates two natural gas fired boilers that provide comfort heat and hot water for the Facility. The boilers are a Bosch Thermotechnik boiler rated at 2.67MMBtu/hr and a Well-McLain boiler rated at 2.737MMBtu./hr. The Well-McLain boiler was installed within the last 10 years.

The opening conference concluded at 9:40AM.

### **III. Observations**

EPA inspectors were led on a walkthrough of the Facility immediately following the opening conference by Steven Decembrino of 401 City Ave., and Alec Yarnell of PADEP was also present for the walkthrough. EPA inspectors noted photos would be taken during the Facility walkthrough (Attachment 3).

The walkthrough commenced on the upper facilities floor where the building emergency generator was observed. Mr. Decembrino reiterated that the generator is only used for emergency lighting in the building in the event of a power outage. The building emergency generator hour meter was observed at 1038 hours during the inspection. The EPA inspection team also observed the two natural gas fired comfort boilers. Both were operating at the time of the inspection. Neither boiler was equipped with a nameplate, however, the certificate indicates that Boiler 1 was installed in 2016 and Boiler 2 was installed in 2012. The burner rating on both boilers matches the rating in the permit.

The EPA inspection team proceeded to walk through the UPS area for both UPS A and UPS B. No emission sources were observed in this area. Next, the inspection team walked through Data Center 1 and Data Center 2. Both centers are 8,000-10,000ft<sup>2</sup> and no emission sources were observed in either area.

The EPA inspection team proceeded outside to inspect the three emergency generators for the data centers. All three generators are located in trailers. None of the generators were operating at the time of the inspection. Generator A and B are located in a single trailer and are both Caterpillar 3516B units constructed in 2005. Both engines are equipped with a genset rated at 2MW. The hour meter for Generator A was 268.0 hours and the hour meter for Generator B was 277.5 hours. Generator C is located in a second trailer and also was not operating during the inspection. It is a Caterpillar 3516C that was constructed in April 2019. The hour meter for this generator was 38.4 hours. EPA noted that

Engine C is not equipped with a sticker indicating that the unit is to be used for emergency purposes only. All three generators are equipped with a 2,000 gallon belly or day tank for diesel fuel. There are no separate tanks for diesel fuel for these generators.

The walkthrough concluded at 10:34AM.

#### **IV. Records Review**

The records review commenced immediately after the plant walkthrough at 10:40AM. EPA inspectors reviewed documents requested in the December 10, 2024, email to Steven Decembrino (see Attachment 1). Records were provided prior to the inspection via EPA's file sharing site goanywhere.com by Mr. Decembrino. Below are the records requested and what was provided:

1. For each engine, boiler, generator, or fire pump at the facility, provide:

- a. Make/model;
- b. Date of construction;
- c. Date of installation;
- d. Rating (MMBtu/hr, kW, HP);
- e. Engine displacement (L/cyl)

***401 City Ave provided a pdf with the engine information for emergency generators A, B, and C. The date of construction for each of these units was observed on the engine nameplate during the inspection. Mr. Decembrino indicated he would provide the date of construction for the building emergency generator.***

2. Provide monthly emissions of NOx emissions for each engine from January 2022 to November 2024. Provide supporting calculations including emission factors.

***401 City Ave provided an Excel spreadsheet with monthly NOx emissions for each combustion unit for the time period specified.***

3. Provide calculations of allowable and actual NOx emissions during Ozone season for calendar years 2022, 2023, 2024. Provide supporting calculations for each year.

4. ***401 City Ave provided an Excel spreadsheet with monthly NOx emissions for each combustion unit for the time period specified.***

5. Provide the monthly hours of operation for each engine, boiler, fire pump, etc from January 2022 to November 2024. For each month, provide the hours of operation for emergency and non-emergency (testing, maintenance, etc.).

***401 City Ave provided an Excel spreadsheet with monthly hours of operation for each combustion unit for the time period specified.***

6. Provide receipts of fuel deliveries for each month from January 2022 through November 2024. In addition, provide a summary of fuel delivered (gallons) for each month during that time period.

***401 City Ave provided a copy of a distillate fuel delivery receipt from August 13, 2024 for with four separate fuel amounts. This would reflect fuel delivery to four emergency diesel generators. EPA noted that the fuel delivery receipt did not contain the fuel sulfur content, cetane index or aromatic compound content.***

7. For each month from January 2022 through November 2024, provide the amount of fuel combusted (gallons) in each engine, boiler, fire pump, etc.

***401 City Ave provided an Excel spreadsheet with monthly fuel usage in gallons or each combustion unit for the time period specified.***

8. Provide a copy of any Risk Management Plan (RMP) or SPCC Plan that has been prepared or submitted to either EPA or PADEP.

***401 City Ave provided a pdf of an SPCC Plan dated January 28, 2020.***

## **V. Closing Conference**

After the records review, EPA inspectors, Steven Decembrino of the Facility and Alec Yarnell of PADEP 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 report 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 60 days, with a copy to the PADEP. Simultaneously, EPA will perform a detailed review of records and may have additional questions. The inspection concluded at 12:45PM.

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 401 City Ave.

- EPA noted that the single fuel receipt provided during the inspection did not contain the fuel sulfur content, cetane index or aromatic content. Section D.I.002 requires that Generator C combust fuel with a sulfur content less than 15ppm and have either a cetane index equal to or greater than 40 or the aromatic index shall not exceed 35%. The methods to comply with this requirement are either fuel sampling or a certification on each fuel delivery receipt from the supplier.
- The buildings emergency lighting generator is not listed in the existing synthetic minor permit. The three data center generators are listed in the permit. Also, the two comfort hot water boilers are listed in the permit as insignificant sources. However, the building generator is not

listed. EPA noted that this source may need to be in the permit and the Facility should discuss with PADEP.

- Table 5 of NSPS 4I requires that each new emergency compression ignition engine greater than 175HP and constructed on after 2011 must comply with the labeling requirements of §60.4210(f). 40 C.F.R. §60.4210(f) states that starting with the model years indicated in Table 5, all engines must be equipped with a permanent label stating that the engine is for stationary emergency use only. This sticker was not evident on Generator C and is not required on Generators A or B.
- The Facility is a synthetic minor source for NO<sub>x</sub> with a limit of 25tpy. The NO<sub>x</sub> emission information provided during the inspection included the three data center emergency engines. No emission data was provided and it is not clear that emissions are being calculated for the building emergency engine and the two natural gas fired boilers. These are NO<sub>x</sub> emission sources that contribute to the annual NO<sub>x</sub> emissions from the Facility and may need to be included in the emissions inventory.

**VI. List of Attachments**

- Attachment 1: Email correspondence to Steven Decembrino of records requested to review during inspection
- Attachment 2: Inspection Sign-In Sheet
- Attachment 3: Photograph Log