



REGION 3

PHILADELPHIA, PA 19103

Report Title: Clean Air Act Inspection of Prosperity Drive Data Center, LLC
Inspection Date(s): 03/05/2024
Regulatory Program(s): NSPS, MACT and SIP
Company Name: Prosperity Drive Data Center, LLC
Facility Name: Prosperity Drive Data Center, LLC
Facility Location: 12401 Prosperity Dr
Silver Spring, MD 20904
Latitude: 39.05949 **Longitude:** -76.96499
County/Parish: Montgomery
AFS/ICIS-Air Number: MD0000002403102308
Permit Number: 031-2308
NAICS Code: 518210
DSB ID #: ECAD - 94
Facility Representatives: **Point of Contact**
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EPA Inspectors:
Parmatma Adhikari, Air Inspector
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Scott Yanos, Air Inspector
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State/Local Inspectors:
John Artes, Senior Regulatory and Compliance Engineer
Phone: (410)537-4232 Email: John.artes@maryland.gov

EPA Lead Inspector

Signature

Parmatma Adhikari

Date

1600 John F Kennedy Blvd
Philadelphia, PA 19103-2852

Supervisor

Signature

Kristen Hall

Date

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I. Introduction

The United States Environmental Protection Agency (EPA) conducted a Clean Air Act (CAA) inspection at Prosperity Drive Data Center, LLC (Data Center or Facility) to verify compliance with applicable State and Federal regulations. The Maryland Department of Environment (MDE) was notified of the inspection on February 20, 2024, via email. On March 4, 2024, EPA notified the Facility of the planned inspection via phone and email. EPA emailed a list of records for review to David Tolson, 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 this report.

A. Summary of the Facility

The Facility is located at 12401 Prosperity Dr, Silver Spring, MD 20904. Prosperity Drive Data Center is a co-location data center whose main tenants are Data Bridge, Priseda, Shift4 and Cytonix LLC. The Facility is responsible for providing the continuous uninterruptible power supply (UPS) power, emergency power and air conditioning to tenants.

The Facility received a CAA Synthetic Minor operating permit (# 031-2308) from MDE issued on June 26, 2019.

The Facility is classified as Synthetic Minor for nitrogen oxides (NOx), carbon monoxide (CO), volatile organic compound (VOC), particulate matter (PM) and sulfur oxides (SOx). The Facility is subject to, or potentially subject to the following federal regulations:

- 40 CFR 60 Subpart IIII: Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
- 40 CFR 63 Subpart ZZZZ: National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

B. Inspection Opening Conference

At 10:20 AM on March 5, 2024, EPA inspectors arrived at the Facility for a CAA Inspection and conducted a brief opening conference. Data Center was represented by David Tolson (Critical Facilities Manager) and Jason McDonald (Lead Engineer). Also, John Artes, an air inspector from MDE was present. EPA inspectors, Parmatma Adhikari and Scott Yanos, 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, the Facility did not claim any photos or documentation as CBI.

II. Site Activity/Process Description

The Data Center was established in 1984 and is the property of Lincoln Rackhouse and is managed by Accent Corporation. Mr. McDonald mentioned that the Data Center is considered a Tier 4 Electrical /Tier 3 Mechanical data center facility. The Data Center covers an area of 186,000 sq ft, with a building area of 50,000 sq ft. There are five buildings; building numbers 1-4 are joined and building number 5 is separately located and currently used by Cytonix LLC. The Facility operates 24 hours a day, seven days a week, 365 days a year, with employees always at the site. Accent Corporation currently has eight employees.

The Data Center Operates six Cummins 2380 KW emergency generators, three Solar Centaur (two 2500 kW and one 2800 KW) emergency combustion gas turbines, one Kohler Power Systems emergency generator, and one John Deere fire and safety generator. Emergency generators provide emergency power to the data center if utility power is lost. The emergency generators are not used for any load-shaving programs. Selective Catalytic Reduction (SCR) with urea injection is used to control the NOx emissions from four of the six Cummins emergency generators. Since the Facility is permitted as a synthetic minor for NOx, their permit limits the Facility to 25 tons of NOx emissions in any consecutive 12-month period.

The Facility has four 25,000 gallon underground diesel tanks. Additionally, there are 2,000 gallon belly (base) tanks for the Kohler Power System emergency generator and 200 gallon belly (base) diesel tanks for each of the other generators. There is also one 5,000 gallon above-ground vertical tank that contains 40% urea solution.

The opening conference concluded at 11: 45 AM.

III. Observations

EPA inspectors were led on a walkthrough of the Facility at 11:45 AM by David Tolson and Jason McDonald of Data Center and John Artes from MDE was also present for the walkthrough. EPA inspectors noted photos would be taken during the Facility walkthrough (Attachment 2).

The walkthrough started with the observation of the Facility's John Deere fire and safety generator. EPA observed the generator and took a photo of the generator data plate and current run hours. The 2008 John Deere generator is rated at 94-118 Kw power at 1,800 rpm and has 381 operating hours. At the time of inspection, the generator was not operating. Mr. McDonald mentioned that the generator was tested weekly.

After inspecting the John Deere fire and safety generator, the inspection team passed through the technology rooms and proceeded to observe the Solar Centaur emergency combustion gas turbines.

The inspection team observed three gas turbines in the turbine room. Mr. McDonald mentioned that these turbines have not been operated since 2014 due to expensive operating costs and parts are not available easily. The fuel lines for turbine engines were disconnected. The turbines are listed in the Facility's current CAA permit. Mr. McDonald mentioned that they are being removed from the permit.

Next, the inspection team inspected six Cummins 2380 KW emergency generators. Both generating rooms are identical and mirror reflections of one another. The emergency generators in the first room are labeled 3-1, 3-2, and 3-3, while those in the second room are labeled 2-3, 2-2, and 2-1. Generators labeled as 2-1, 2-2, 3-2, and 3-3 were equipped with SCR units for NOx emission controls, whereas 2-3 and 3-1 were uncontrolled. None of the generators were operating at the time of inspection. The following was the information recorded for each Cummins generator during the inspection.

Cummins Model No.	Generator Label	Rated Capacity	Year of Manufacture	Control Equipment	Run Hours
2400 DQLA	3-1	2380 KW	2005	SCR	693.6
2400 DQLA	3-2	2380 KW	2005	SCR	1470
2400 DQLA	3-3	2380 KW	2005	None	1268
2400 DQLA	2-3	2380 KW	2005	None	630
2400 DQLA	2-2	2380 KW	2005	SCR	1564
2400 DQLA	2-1	2380 KW	2005	SCR	1484

After observing the emergency generators, the walkthrough proceeded outside to observe the diesel tanks. All four underground diesel tanks were installed in 2005, but the new piping layout was completed last year. The inspection team was then led to the 5th building to observe a Kohler emergency generator. The team inspected the generator and took photos of the data plate and hours meter. The 2008 Kohler Power System emergency diesel generator Model # 350RE0ZDD was rated at 355 KW and has 463.5 operating hours. At the time of inspection, the generator was not operating.

Then, the inspection team observed a 5,000-gallon above-ground vertical tank that contained 40% urea solution. The inspection team then returned to the conference room.

The walkthrough concluded at 12:45 PM.

IV. Records Review

The records review commenced immediately after the plant walkthrough at 12:45 PM. EPA inspectors reviewed documents requested in the March 4, 2024, email to David Tolson (see Attachment 1).

Records were provided at the time of the inspection by David Tolson and Jason McDonald. Below are the records requested and what was provided:

1. Provide a plot plan of the Facility. Also, provide a paper copy during the opening conference.
2. Provide a detailed description of Prosperity Drive Data Center's process(es).
3. A list of all combustion sources at the Facility such as furnaces, boilers, and/or engines.
 - a. For each boiler or engine identified, provide:
 - i. Date of installation;
 - ii. Type of fuel(s) combusted;
 - iii. Maximum heat input rating (MMbtu, HP or kW/hr);
 - iv. Days each unit operated and hours of operation monthly from January 2020 to the present.
 - b. Fuel usage on a monthly basis for any combustion equipment at the Facility (boilers, emergency generators, fire pumps, etc.) since January 2020.
 - c. Records of each tune-up conducted at each unit since January 2020.
4. Provide copies of the emission statements submitted to MDE for the years 2020-2023. These emission statements shall include the emission factors used to determine emissions and the derivation of each factor (stack test, CEMS, AP-42, etc.).
5. Annual emissions calculations (preferably emailed in an unlocked Microsoft Excel format) since 2020, including but not limited to:
 - a. Monthly rolling emissions of VOCs, HAPs and NO_x for each process unit and facility wide along with supporting calculations for 2020-2023 (lbs/hr).
6. Provide a list of any and each control device currently in use at Prosperity Drive Data Center used to control or reduce emissions from any emission point at the site. The list should include:
 - a. The make/model of the control;
 - b. Date of installation at the Facility;
 - c. Which pollutant(s) are being controlled;
 - d. Each source or emission point being controlled;
 - e. The capture and destruction efficiency for each control;
7. Copies of any stack tests conducted on any engines or boilers to determine emission rate, control efficiency, or for compliance demonstrations, etc. conducted at the Facility since 2020.
8. Provide a list of each request for permit determination or permit application submitted to the MDE since January 2020. Also, provide a list of each permit or permitting determination issued to Prosperity Drive Data Center. This should include the date of the request/permit and the permit number, if applicable.
9. Identify whether conducts peak shaving or has entered into contracts for emergency demand response. If so, provide copies of any contracts related to these operating scenarios.
10. Provide copies of any initial notifications, compliance reports, and/or periodic reports submitted to either EPA or MDE pursuant to applicable regulations under 40 C.F.R. Part 60 and 63.

Except for QN 7, all the requested information was provided during the inspection. After the inspection, Mr. Tolson emailed the copy of the stack test report requested in QN 7.

V. Closing Conference

After the records review, EPA inspectors, David Tolson, Jason McDonald of Data center and John Artes of MDE 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 in sixty (60) days, with a copy to the State. Simultaneously, EPA will perform a detailed review of records and may have additional questions.

While EPA did not identify any specific issues with Data Center during the inspection, a thorough review of the records collected during and after the inspection is being conducted, and EPA may generate additional questions.

The inspection concluded at 1:00 PM.

VI. List of Attachments

Attachment 1: Email correspondence to David Tolson of records requested to review during inspection

Attachment 2: Photo Log

From: [Adhikari, Parmatma](#)
To: [David Tolson](#)
Subject: CAA Inspection_ Prosperity Drive Data Center - 3/5/24
Date: Monday, March 4, 2024 9:57:00 AM
Attachments: [Prosperity Drive Data Center_CAA Inspection_Document Request.docx](#)

Dear Mr. Tolson:

As discussed over our phone call today, EPA Region 3 will be conducting a Clean Air Act (CAA) inspection of Prosperity Drive Data Center on March 05, 2024. My colleague, Scott Yanos, an inspector from MDE and I anticipate arriving at 12401 Prosperity Drive, Silver Spring, MD 20904 around 9:45 AM. We would like to begin with an opening meeting that will provide EPA with the current and historical operations at the facility and a brief overview of its process(es).

The scope of the inspection will include, but may not be limited to, a review of all air pollution sources, a facility walk-through (during which photographs will be taken), and a review of records.

To help facilitate the inspection, it would be appreciated if the records in the attached document were made available for review.

Please confirm receipt of this message and don't hesitate to contact me with any questions.

Thanks!

Parmatma Adhikari
Environmental Engineer
ECAD, Air Section
US EPA, Region III
Four Penn Center
1600 John F Kennedy Blvd
Philadelphia, PA 19103
215-814-2161

Attachment 2:

PHOTO LOG

Facility: Prosperity Drive Data Center

Location: 12401 Prosperity Drive, Silver Spring, MD 20904

Inspection Date: 03/05/2024

EPA Inspector(s): Parmatma Adhikari, Scott Yanos

Photographer: Scott Yanos



Photo Number: 001

Photo Description: The front of the Fire and Safety Generator



Photo Number: 002

Photo Description: The Fire and Safety Emissions Control Information Label



Photo Number: 003

Photo Description: Fire and Safety Generator Control Panel

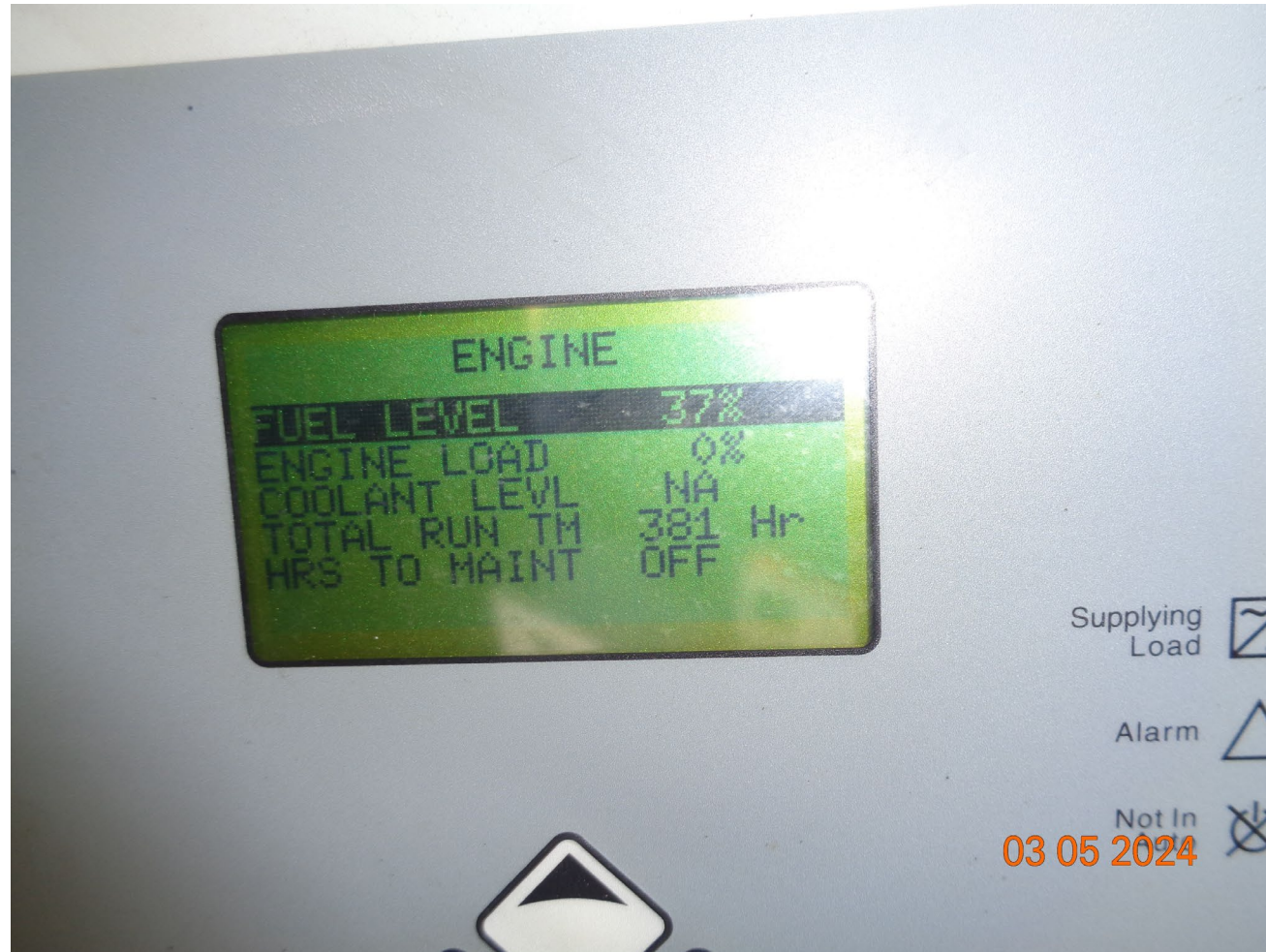


Photo Number: 004

Photo Description: Fire and Safety Generator Engine Hours



Photo Number: 005

Photo Description: The disconnected and blanked off fuel lines for decommissioned turbine engines



Photo Number: 006

Photo Description: Turbine engine room



Photo Number: 007

Photo Description: Generator 3-2 Urea Control Panel



Photo Number: 008

Photo Description: Generator 3-3 Urea Control Panel



Photo Number: 009

Photo Description: Generator 3-1



Photo Number: 010

Photo Description: Generator 3-1 Engine Hours



Photo Number: 011

Photo Description: Generator 3-2



Photo Number: 012

Photo Description: Generator 3-2 Engine Information and Serial Number

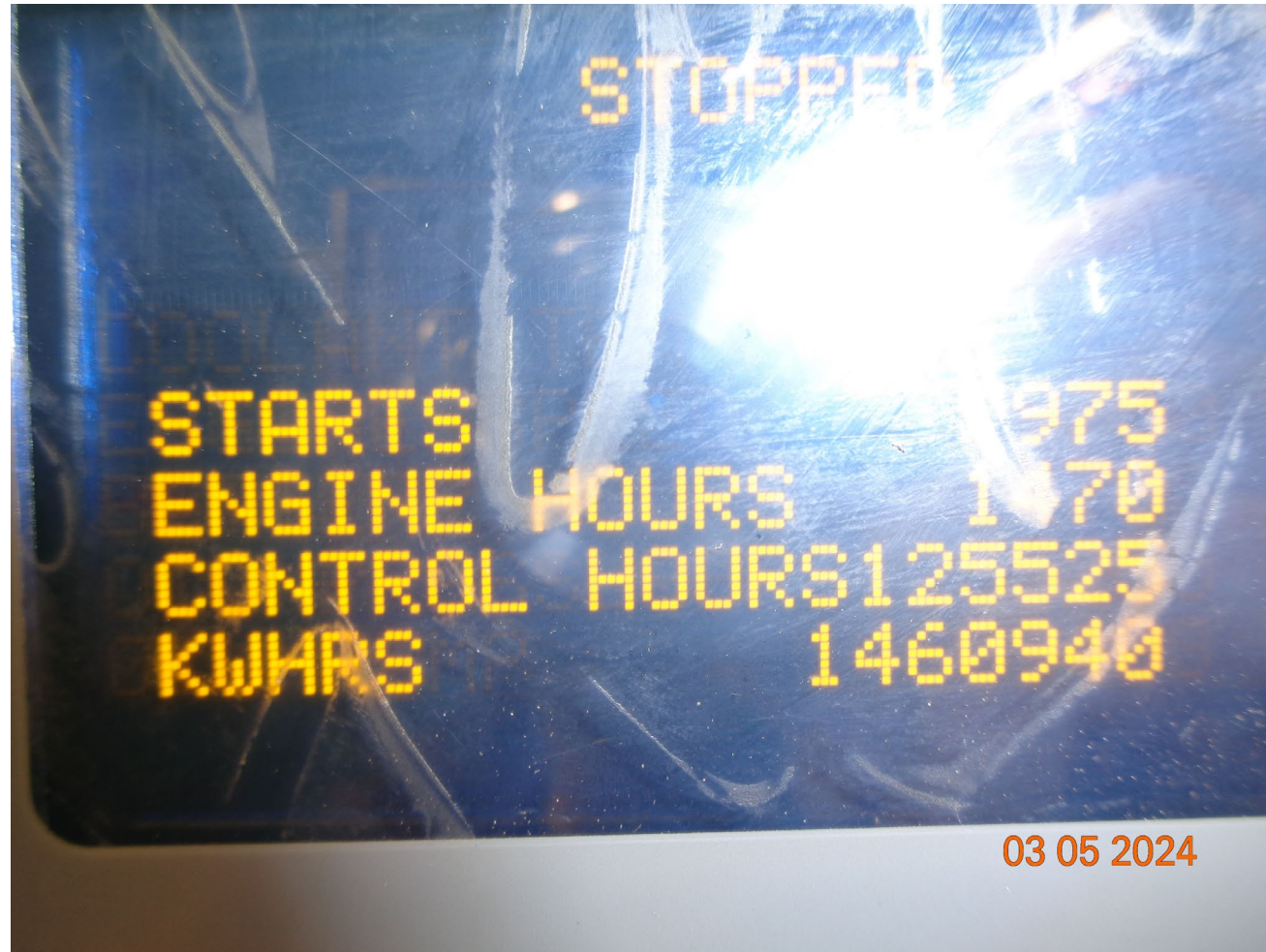


Photo Number: 013

Photo Description: Generator 3-2 Engine Hours



Photo Number: 014

Photo Description: Generator 3-3



Photo Number: 015

Photo Description: Generator 3-3 Engine Information and Serial Number



Photo Number: 016

Photo Description: Generator 2-2 Urea Control Panel



Photo Number: 017

Photo Description: Generator 2-1 Urea Control Panel



Photo Number: 018

Photo Description: Generator 2-3



Photo Number: 019

Photo Description: Generator 2-3 Engine Hours



Photo Number: 020

Photo Description: Generator 2-2



Photo Number: 021

Photo Description: Generator 2-2 Engine Hours



Photo Number: 022

Photo Description: Generator 2-2 Engine Information and Serial number



Photo Number: 023

Photo Description: Generator 2-1



Photo Number: 024

Photo Description: Generator 2-1 Engine Information and Serial Number



Photo Number: 025

Photo Description: Generator 2-1 Engine Hours



Photo Number: 026

Photo Description: 5th Build Fire and Safety Generator Control Panel



Photo Number: 027

Photo Description: 5th Building Fire and Safety Generator Engine Hours



Photo Number: 028

Photo Description: 5th Building Fire and Safety Generator



Photo Number: 029

Photo Description: 5th Building Fire and Safety Generator Engine Information and Serial Number



Photo Number: 030

Photo Description: Urea Tank



Photo Number: 031

Photo Description: Urea Tank Specifications Sign