



REGION 3

PHILADELPHIA, PA 19103

Report Title: Clean Air Act Inspection of LNH, Inc. (DBA Hosting.com)
Inspection Date(s): 02/28/2024
Regulatory Program(s): SIP, NSPS, NESHAPS
Company Name: Data Canopy
Facility Name: LNH, Inc. DBA Hosting.com (aka. Intelishift)
Facility Location: 350 Pencader Drive
Newark, DE 19702
Latitude: 39.61185 **Longitude:** -75.76325
County/Parish: New Castle County
AFS/ICIS-Air Number: DE00000001000300784
Permit Number:
NAICS Code: 518210 **SIC:** 7379
DSB ID #: ECAD-93

Facility Representatives: **Point of Contact**
Turner Huffaker, OPS Director ☒
Phone: 302-563-7419 Email: thuffaker@datacanopy.com

EPA Inspectors:
Stafford Stewart, Environmental Engineer, 3ED21
Phone: 215-814-5352 Email: Stewart.stafford@epa.gov
Bruce Augustine, Environmental Scientist, 3ED21
Phone: 215-814-2131 Email: Augustine.bruce@epa.gov

State/Local Inspectors:
Kevin Njoroge, Engineer, DNREC
Phone: 302-739-9402 Email: Kevin.njoroge@delaware.gov
Olayiwola Okesola, Program Manager, DNREC
Phone: (xxx) xxx-xxxx Email: Olayiwola.Okesola@delaware.gov

EPA Lead Inspector

Signature

STAFFORD
STEWART

Digitally signed by
STAFFORD STEWART
Date: 2024.04.11
17:01:35 -04'00'

Stafford Stewart

Date

1600 John F Kennedy Blvd
Philadelphia, PA 19103-2852

Supervisor Signature	KRISTEN HALL		Digitally signed by KRISTEN HALL Date: 2024.04.11 07:47:02 -04'00'
	Kristen Hall		Date

Table of Contents

I. Introduction	4
A. Summary of the Facility.....	4
B. Inspection Opening Conference.....	4
II. Site Activity/Process Description	5
III. Observations	6
IV. Records Review	7
V. Closing Conference	8
VI. List of Attachments	10

I. Introduction

The United States Environmental Protection Agency (EPA) conducted a Clean Air Act (CAA) inspection at LNH, Inc.(DBA Hosting.com) (LNH or Facility) to verify compliance with applicable State and Federal regulations. The Delaware Department of Natural Resources and Environmental Control (DNREC) was notified of the inspection on February 13, 2024, via email. On February 27, 2024, EPA notified the Facility of the planned inspection via phone and email. EPA emailed a list of records for review to Turner Huffaker prior to the inspection, however, it was never received by Mr. Huffaker's due to a change in his email address.

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 350 Pencader Drive, Newark, DE 19702. The main offices are located at 650 Pencader Drive, however the three physical data centers and three power centers to provide web hosting services are located at the 350 Pencader Drive location.

The Facility received minor operating and construction permits (Permit numbers APC-2008/0045, APC-2008/0143, APC-2008/0144, APC-2008/0166, APC-2008/0167, APC-2008/0168, APC-2008/0150 and APC-2018/0105) from DNREC. The most recent Permit APC-2018/0105 was issued on July 20, 2018.

LNH is classified as minor source for NO_x, SO_x, CO, PM, hazardous air pollutants and VOCs. 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 Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

B. Inspection Opening Conference

At 09:00 am on February 28, 2004, EPA inspectors arrived at the Facility for a CAA Inspection and conducted a brief opening conference. LNH was represented by Turner Huffaker, OPS Director. Also, Kevin Njoroge, Engineer, DNREC, and Olayiwola Okesola, Program Manager, DNREC were present. EPA inspectors, Stafford Stewart, and Bruce Augustine 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, LNH did not claim any photos or documentation as CBI.

II. Site Activity/Process Description

LNH operates a data center which provides web hosting services to businesses in the area surrounding Newark, Delaware. The company commenced operations in 1999 in a warehouse with one data center suite. In 2008, they started operations at this location and expanded by 2012 to three data centers and three power centers. In 2019 there was a company merger with Hostway, which is now known as Ntirety. However, Ntirety sold the data center to Intelishift in July 2020, and in August 2023, Intelshift merged with Data Canopy. The Facility at this location still uses Intelishift as their operational name. LNH is not affiliated with any other company however there are six locations nationwide, in the States of Colorado, California and Kentucky.

LNH serves as many as 30,000 customers, they lease out cabinet space and provide the power their customers need for their servers. The data belongs to the customers, LNH only provides the power, cooling, and network space. The customer base is very varied but consists largely of “mom and pop” operations that rent one or two cabinets. LNH have the room for 650,000 square feet of cabinet space but currently about 50% of this is being used. Customers bring in their own equipment, including servers, LNH helps with the installation of customer equipment in the rented cabinets. LNH occupies a total area of 20,000 square feet at this location. There are 25 employees company wide, however two remote employees are assigned to this location, the employees are on 24-hour call since they are typically not on site.

In 2022 the Facility replaced one of its Liebert branded uninterruptible power supply (UPS) power plants with an Eaton UPS plant. The power plants are UPS and maintain power at the data centers if there is a grid power failure, protecting the equipment from damage. A generator would normally take some time to start functioning when there is a power outage, during this downtime the UPS acts as a bridge and switches to battery power to ensure there is no interruption in power that affects the devices from working until the emergency generators (EGENs) kick in. The Facility’s main power is supplied by Delmarva Electric.

The primary emission sources at this Facility are the seven EGENs that are located on site. Each EGEN has its own 1,040-gallon associated belly diesel tank which provides the fuel to power the generator. All EGENs are owned by LNH. Kelly Generator and Equipment, Inc. is contracted to service and maintain the generators. The EGENs are used for emergency power when the facility loses utility power, they are also used when there is maintenance on the UPS for the data center. If power is lost the UPS provides power until the EGENs are activated in about 35 secs. Fuel(diesel) is delivered no more than twice per year and the EGENs can run for 55 to 65 hours without needing fuel. The Facility receives ground level ozone pollution forecast codes from the State of Delaware (DNREC) which restrict them from operating the EGENs for testing or maintenance before 5:00 pm if the forecast is Code Purple, Code Red or Code Orange.

There are no boilers, no stand-alone aboveground storage tanks (ASTs) nor diesel fire pumps on site.

The Facility maintains a natural minor source permit from DNREC that was last amended in 2018 due to an EGEN that was added to their operations. The permit does not expire and is only revised when there is a modification that triggers an amendment such as the addition of an EGEN or a new emissions source. EPA inspectors asked Turner Huffaker if they are subject to any Federal CAA rules, he stated that they follow the requirements in the MDE permit and comply with any Federal CAA rules referenced therein.

The Facility conducts 15 minute bi-weekly inspections for emissions from the EGENs. The EGENs must be operating for the inspections to be conducted for visible emissions, including opacity observations. Turner Huffaker stated that records are maintained for all tests and inspections conducted and that there were no exceedances or deviations noted during the visual emissions or opacity tests for the past five years. Stack tests are not conducted on the EGENs. Preventative maintenance (PM) is conducted on the EGENs quarterly and includes verification and checks for the proper operation of units. PM includes inspection and if necessary, replacement of air filters, batteries and chargers, coolant, leaks, belts hoses. Annual maintenance is also performed and include oil changes.

If the three data centers suffer a power outage due to some catastrophic failure or natural disaster, there is still about 3.5 MW of power available, approximately 500 KW is provided from each of the seven EGENs. EGENs are activated within in about 15 seconds after a power loss. The UPS feeds to the cabinets and always carry a load in the event of utility loss. Automatic transfer switches (ATS) are used to redirect power if there is electrical failure in the main power supply of if there is a deviation in voltage. If a voltage deviation of more than 10% is detected power is automatically disconnected and a signal is sent to activate the EGENs.

EPA inspectors asked if load transfer tests (LTS) are conducted to determine if the EGENs will transfer properly during an outage. Turner Huffaker stated that no LTS are performed, however in instances of utility outages the EGENs have been observed to “spin up and carry the load”. EPA inspectors inquired if there has been any recent power loss, Turner Huffaker stated that it has been a while since they’ve had a power loss.

The opening conference concluded at 10:05 am.

III. Observations

EPA inspectors were led on a walkthrough of the Facility at 10:08 am by Turner Huffaker of LNH and Kevin Njoroge, and Olayiwola Okesola of DNREC were also present for the walkthrough. EPA inspectors noted photos would be taken during the Facility walkthrough (Attachment 2).

The tour began at the data center (DC2) room where an automatic transfer switch (ATS) was observed. The ATS ensures a reliable means of transferring essential load connections between primary and alternate sources of electrical power. Power flows from the main supply to the ATS where it drops to 480 V with the help of a transformer. The ATS allows power to go from 480 V alternating current (AC) to 480 V direct current (DC) at the UPS.

The fire suppression system and the room housing the sprinkler system for DC2 were the next areas inspected. The EGENs’ controller panel was also observed, the utility power is monitored here, all EGENs are electronically controlled. Turner Huffaker stated that whenever a power failure or outage

from the main power supply or if there is a greater than 10% voltage deviation is detected, a startup signal is sent to the EGEN controllers to have them activated.

The inspection team then proceeded to the yard where the seven EGENs were observed, the EGENs were inspected in the following order: EGEN #7, EGEN #6, EGEN #5, EGEN #4, EGEN #3, EGEN #2 and EGEN #1. None of the EGENs was operating during the inspection. EPA inspectors were able to obtain photos of the plate information on the EGENs and to record the non-resettable meter hours, which are listed below.

Unit ID/Date of Installation	Gen / Engine	Model/Rating	Meter-hours
Generator1/12-2007	Generac / Doosan	MD500 / 500 KW	881.5
Generator2/6-2008	Generac / Doosan	MD500 / 500 KW	868.7
Generator3/6-2008	Generac / Doosan	MD500 / 500 KW	871.3
Generator4/9-2008	Generac / Volvo	MD500 / 500 KW	914.4
Generator5/9-2008	Generac / Volvo	MD500 / 500 KW	999.3
Generator6/9-2008	Generac / Volvo	MD500 / 500 KW	974.4
Generator7/ 5-2017	Generac / Perkins	MD500 / 543 KW	775.2

The inspection concluded in the area where DC#3 is located at 10:58 am.

IV. Records Review

The records review commenced immediately after the plant walkthrough at 10:59 am. EPA inspectors reviewed documents that were provided. Records were provided at the time of the inspection by Turner Huffaker. Below are the records requested and what was provided:

Fuel oil certification dated 2/14/24 for #7 EGEN from Twin Oaks Terminal showed delivery of ultra-low sulfur diesel (ULSD) and certified that the fuel contained a maximum of 15 ppm sulfur (S)

Maintenance and repair records for 5/24/23, 11/7/23 and 2/14/24 were reviewed. Maintenance includes oil and filter changes, and battery and belt checks.

Records from the Facility's database showing the following hours of usage for EGEN#1 were reviewed:

Dates: 11/4/23 to 11/7/23; Hours of usage: 863.9 to 864.6

Dates: 2/14/24 to 2/27/24; Hours of usage: 880.8 to 881.5

The Facility did not have actual records of logs showing hours of use during emergencies or the amount of fuel used, Turner Huffaker stated that these records could be calculated after filtering the data which they maintain. EPA inspectors stated that a request for a log showing all emergencies and hours of EGEN usage for the past five years will be made. The inspectors from DNREC reminded the Facility that the permitted annual limit for emergency use is 100 hrs. for each EGEN.

The following items were requested prior to the inspection via email, however due to a change in ownership of LNH, the email addresses of all staff changed, and Turner Huffaker never received the email sent. Some of the items were reviewed during the inspection and the Facility promised to send the rest via electronic mail. The Facility representative, Turner Huffaker sent a copy of the general logs on 2/28/24 after the inspection concluded.

1. A list of all air emissions sources and corresponding dates of installation. *A list of the emission sources and dates of installation were provided and reviewed.*
2. A list of all applicable NESHAP or NSPS regulations for your air emission source(s). *A list of the applicable NESHAP and NSPS regulations was provided.*
3. The hours of operation of each emergency generator (EGEN) for the past 5 years. *The Facility provided a spreadsheet via email on 2/28/28 after the inspection, the information provided was a general log which will be reviewed.*
4. The amount of diesel fuel burned in each engine each month for the past 5 years. *The Facility provided a spreadsheet via email on 2/28/28 after the inspection, the information provided will be reviewed.*
5. Any visual emissions or opacity observation test results for the past 5 years. *Visual emission records for the past five years were provided by the Facility and will be reviewed. The Facility does not record opacity results unless exceedances are observed.*
6. Records of maintenance on the EGENs for the past 5 years. *Maintenance records for the past five years are kept by the Facility, records that were randomly selected for reviewed are identified in this section above.*

V. Closing Conference

After the records review, EPA inspectors, Turner Huffaker, and Kevin Njoroge and Olayiwola Okesola from DNREC 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 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 11:48 am.

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 LNH.

- The Facility is required to record, maintain, and initialize the following records:
 - The date, time, duration and reason for each start-up of the EGENs

- The total hours of operation for each month and the cumulative 12 month rolling period within 15 days of the end of each calendar month.
- The total fuel usage for each month and the cumulative 12 month rolling period within 15 days of the end of each calendar month.

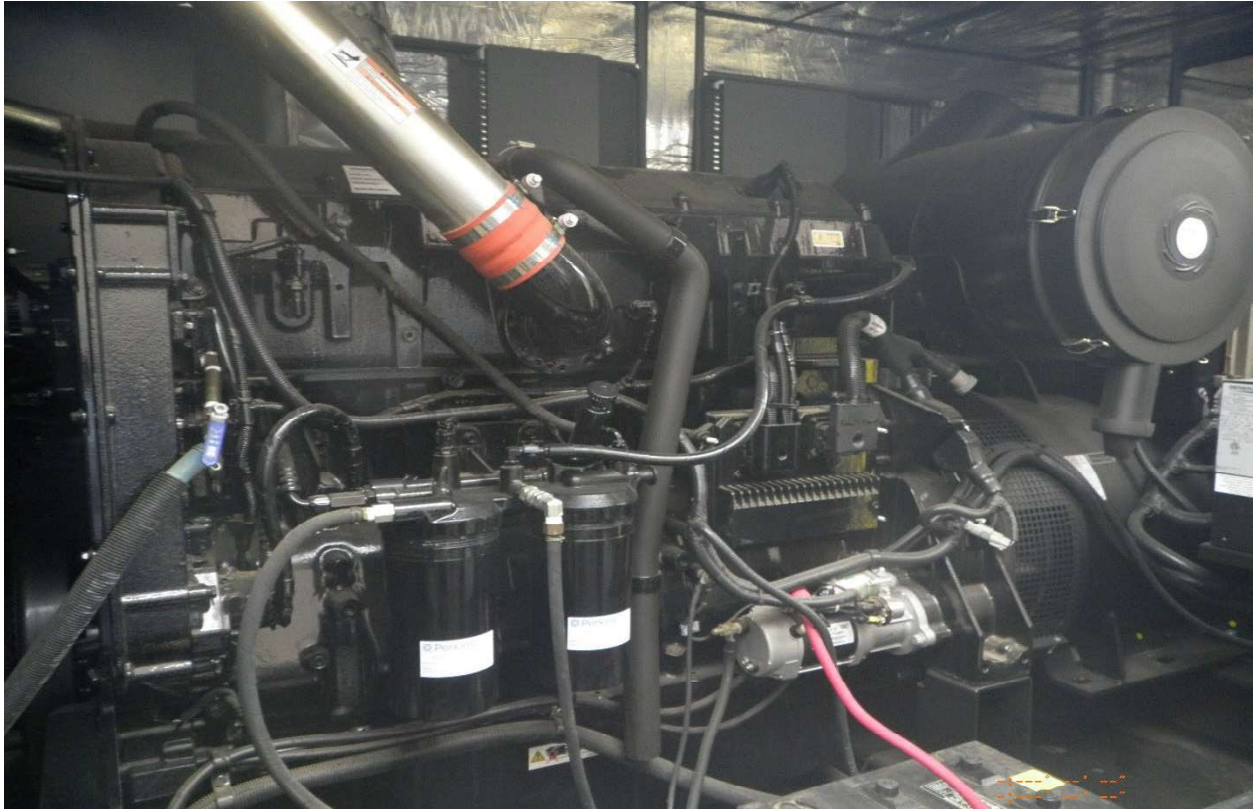
Turner Huffaker stated that these records are not maintained in the manner prescribed above, but the information needed could be figured out by searching the database. For example, while a spreadsheet recording total fuel usage each month is not produced in a summarized format, it could be obtained by querying the database. He stated that he would send a copy of the required records in a CSV file format that covers the past five years. This file was sent after the inspection on 2/28/24.

- Documentation should be submitted to DNREC to inform them of the name change from LNH to Intelishift.

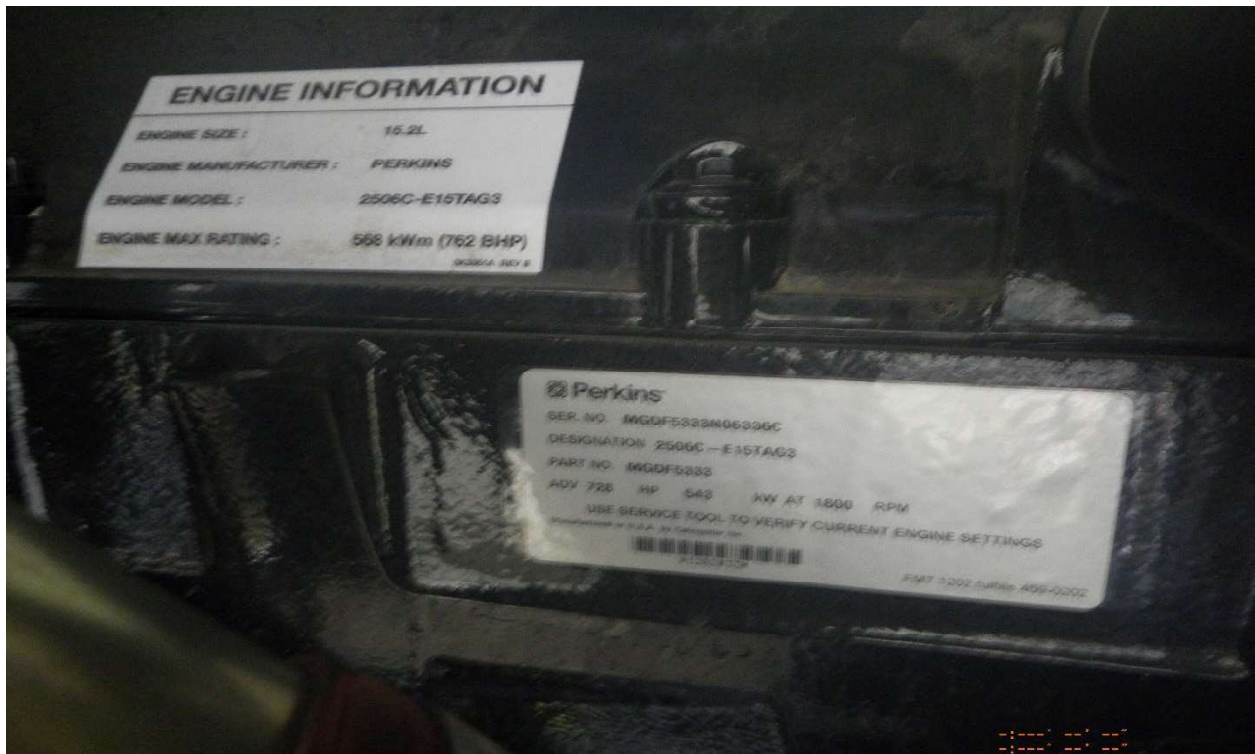
DSB ID #: ECAD-93

VI. List of Attachments

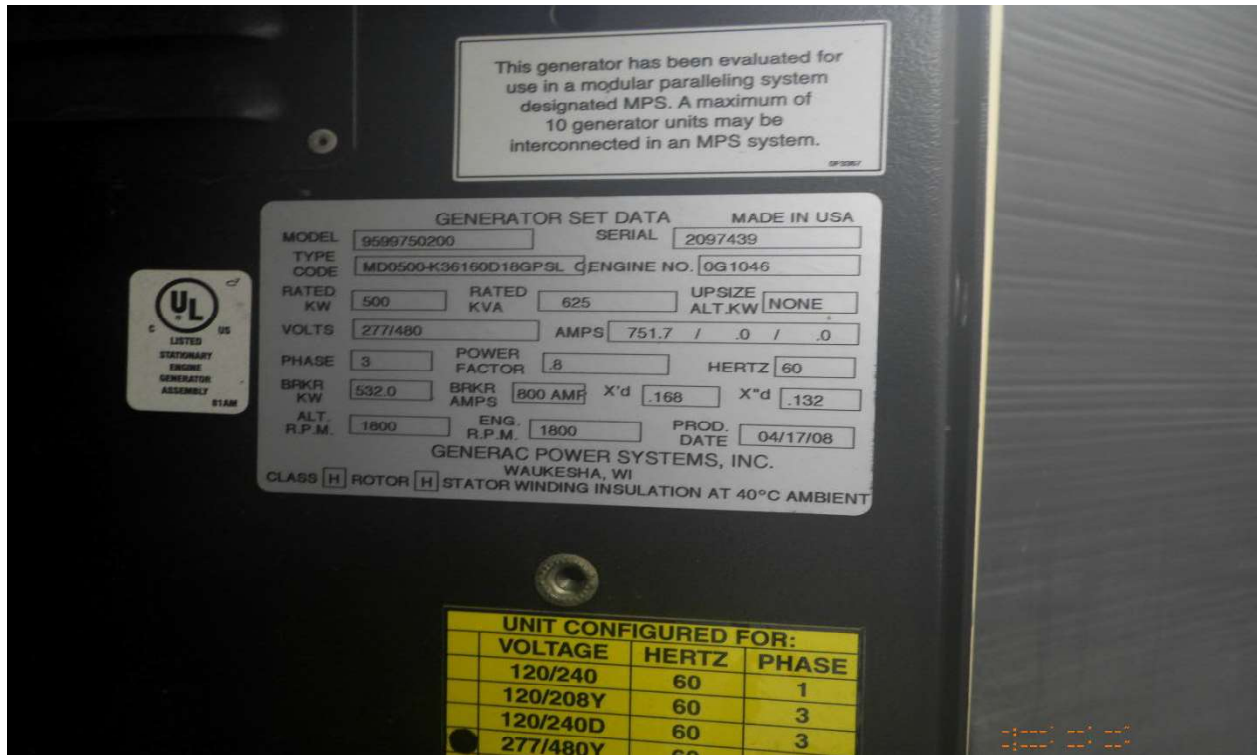
Attachment 1: Photo Log



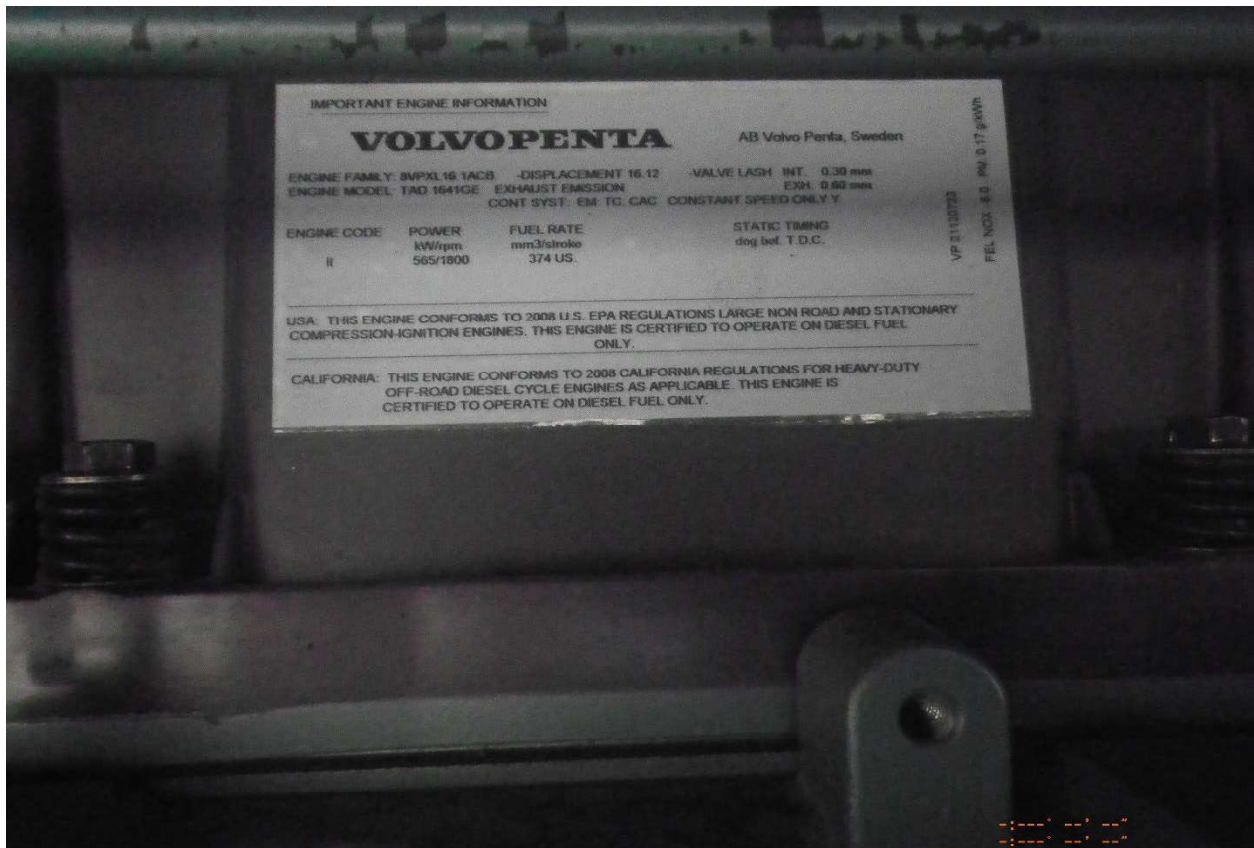
1. Perkins 543kW Generator 7 – Intelishift – 02/28/24



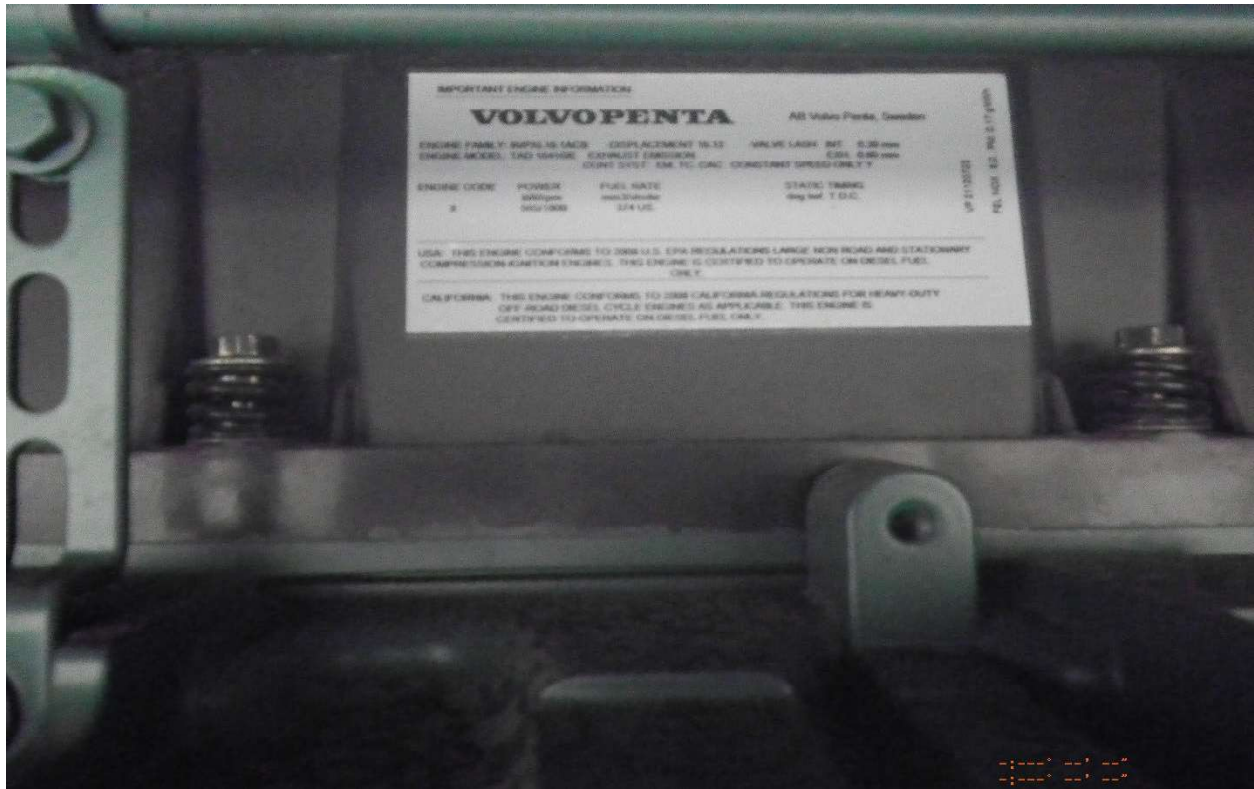
2. Perkins 543kW Generator 7 Engine Plate – Intelishift – 02/28/24



3. Generac 500kW Generator 5 Gen Set Plate – Intelishift – 02/28/24



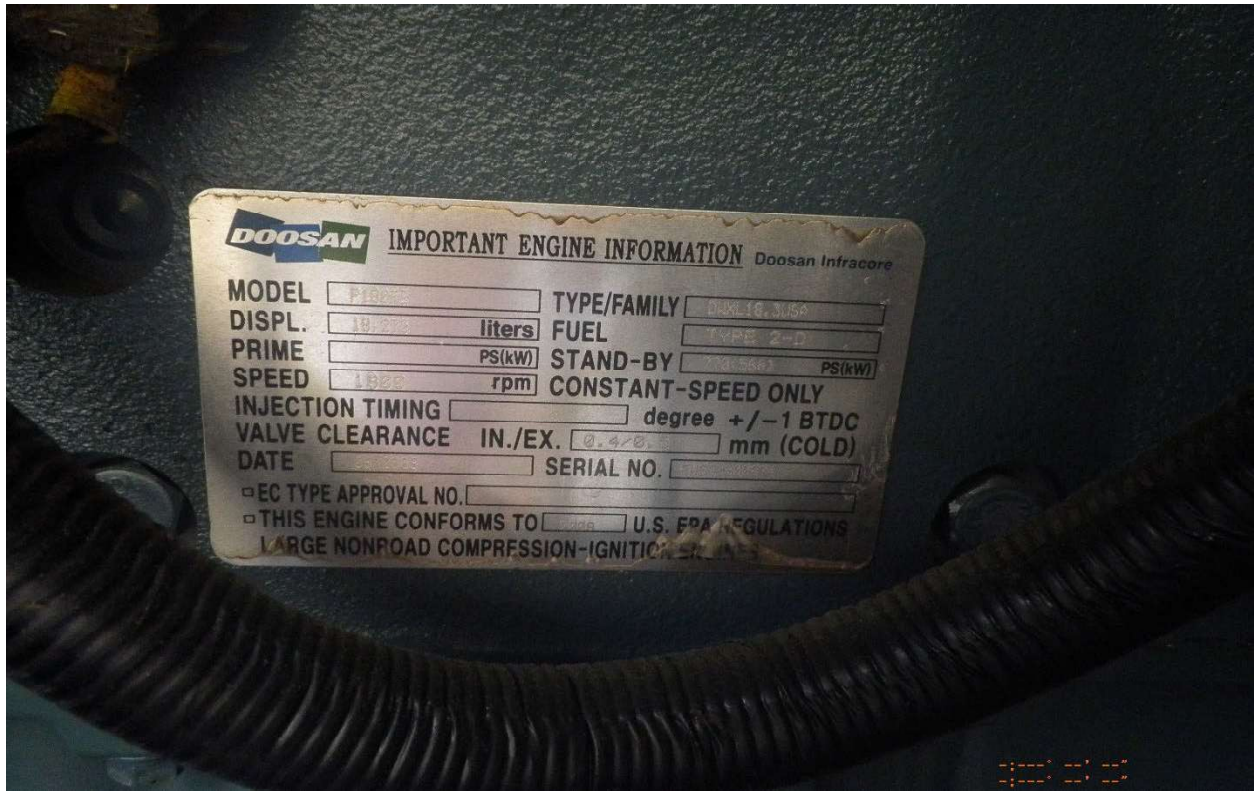
4. Volvo Engine Generator 5 Engine Plate – Intelishift – 02/28/24



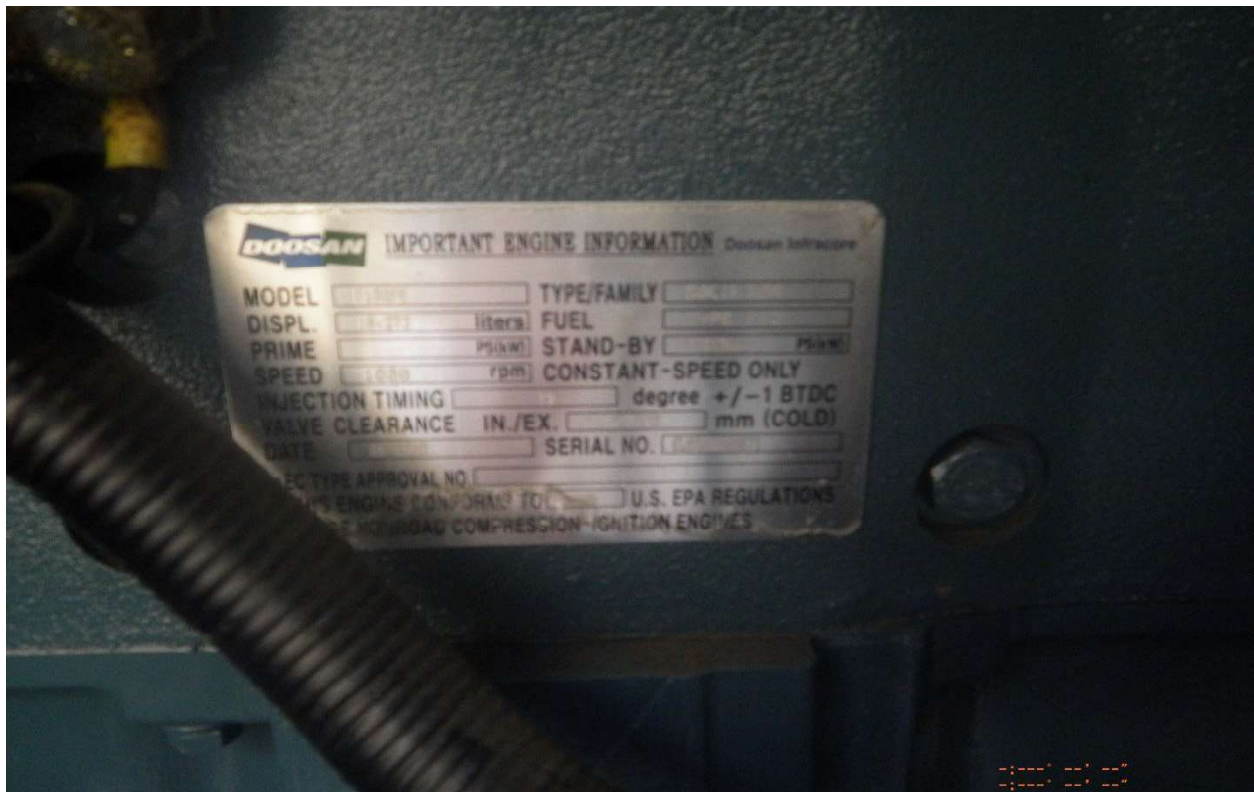
5. Volvo Engine Nameplate Generator 4 – Intelishift – 02/28/24



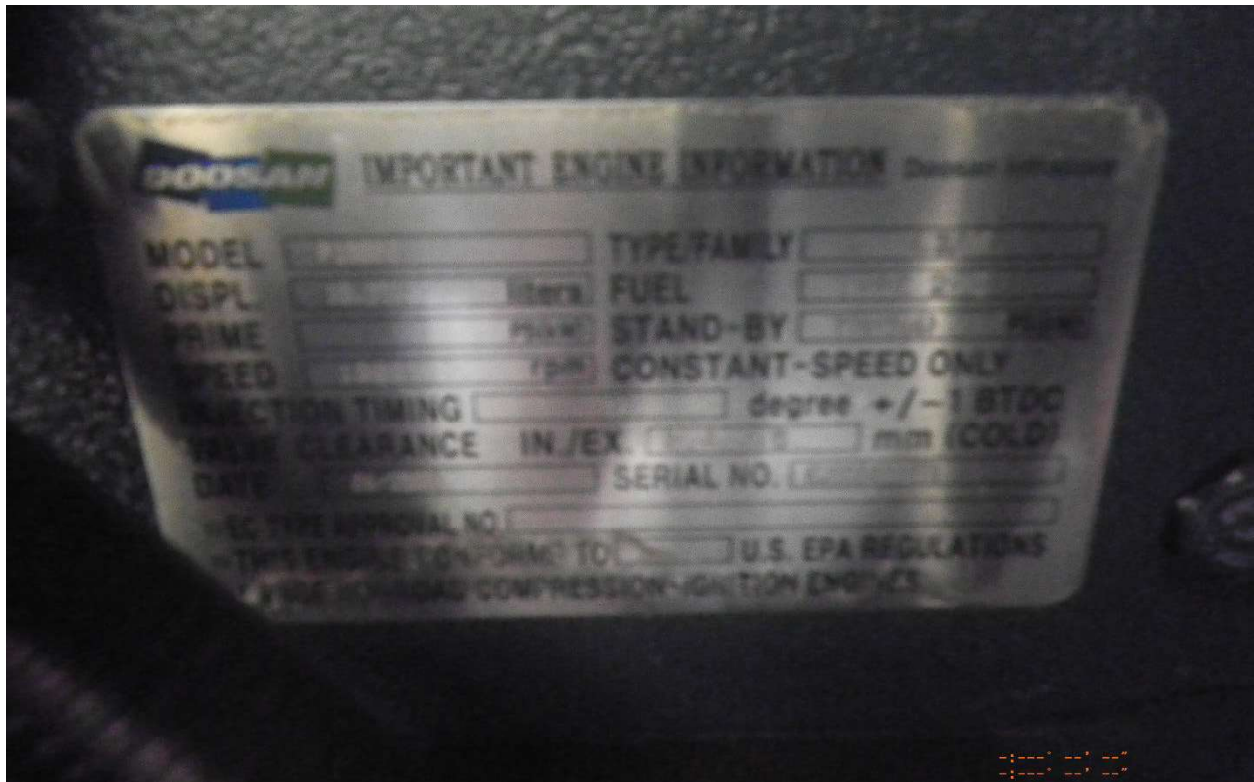
6. Generator 4 Parameter Screen – Intelishift – 02/28/24



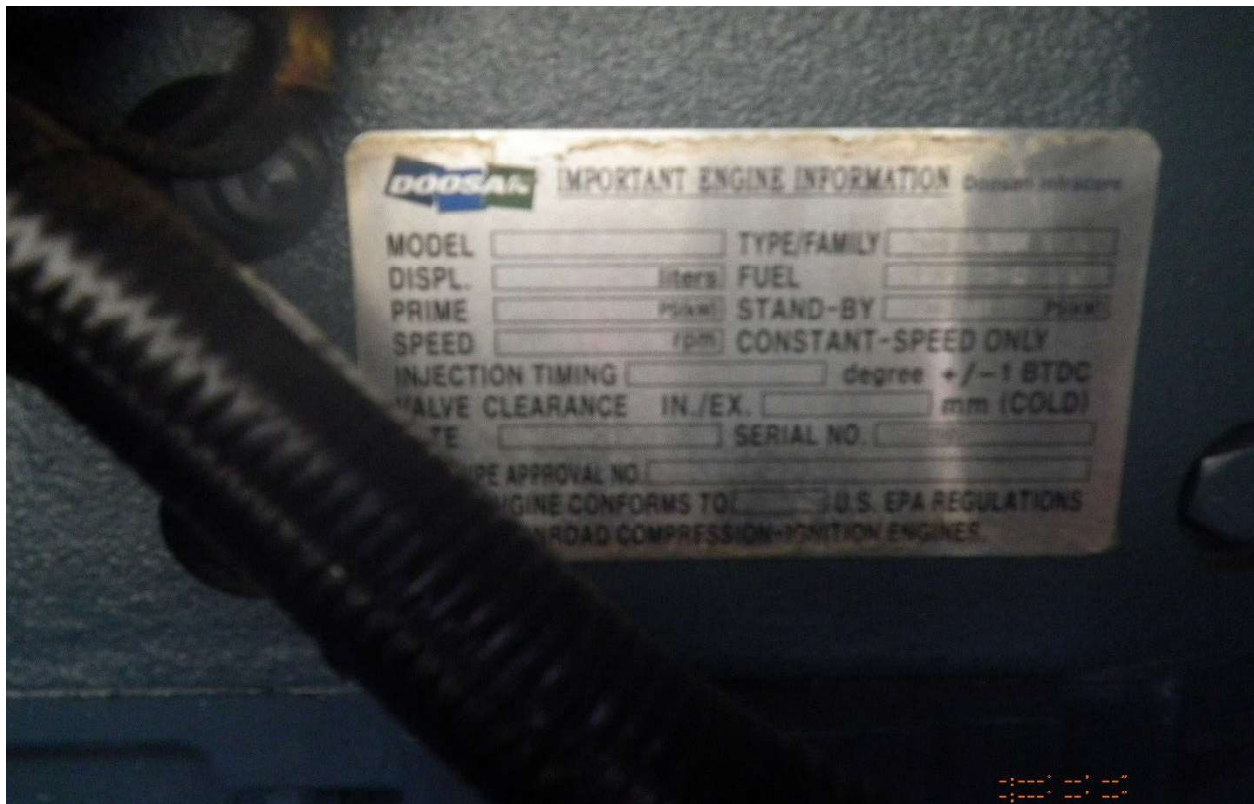
7. Doosan Engine Nameplate Generator 3 – Intelishift – 02/28/24



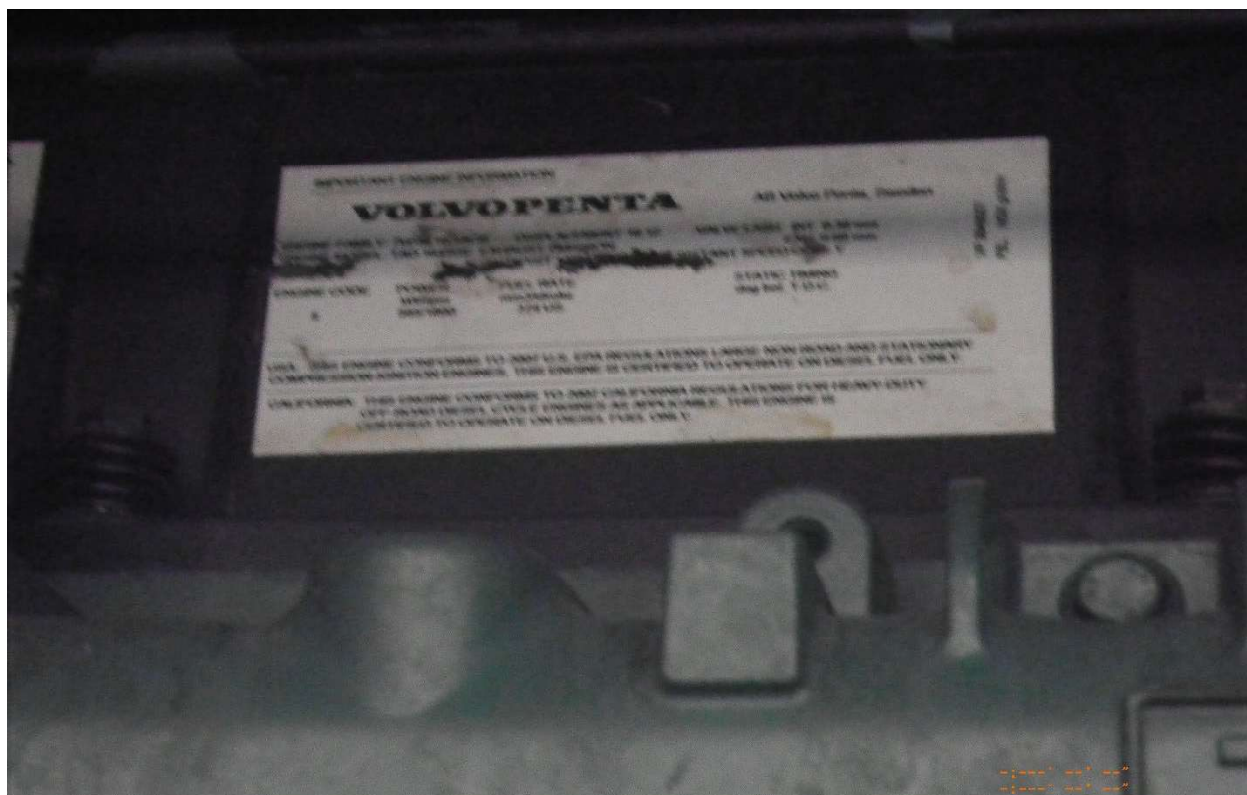
8. Doosan Engine Nameplate Generator 2 – Intelishift – 02/28/24



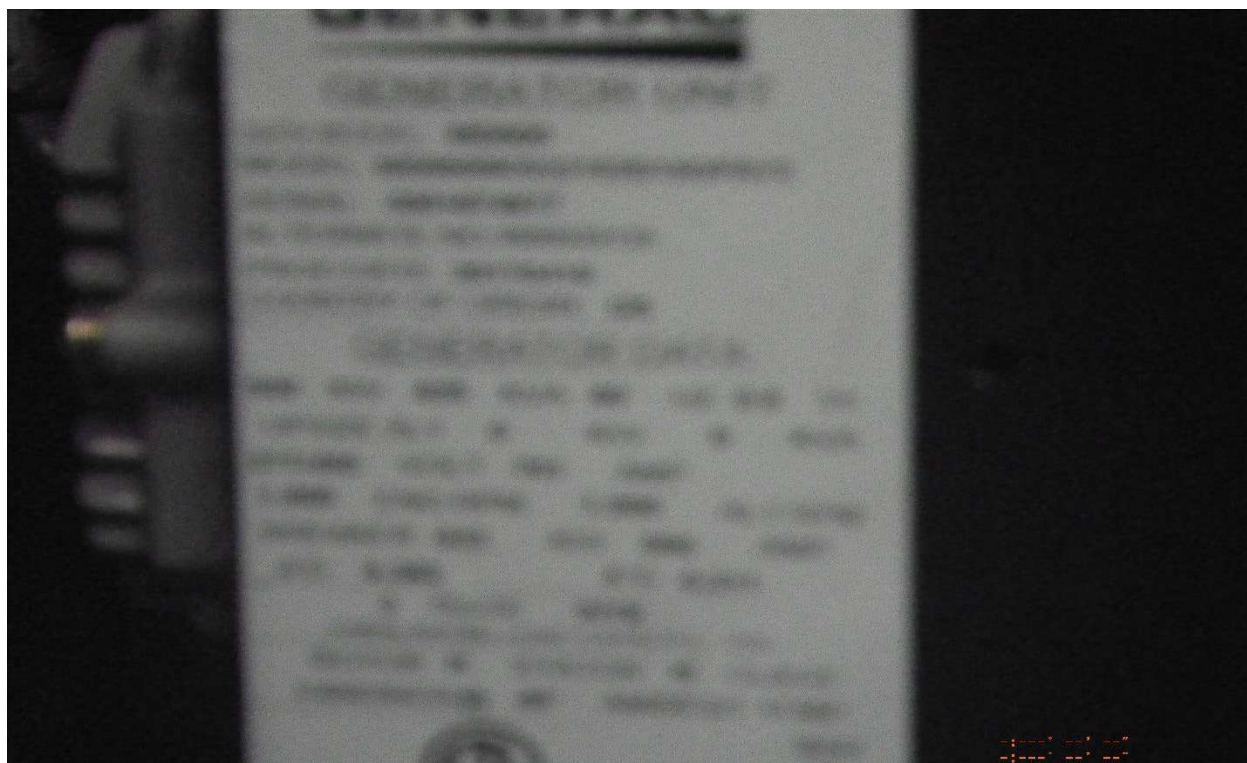
9. Doosan Engine Nameplate Generator 2 – Intelishift – 02/28/24



10. Doosan Engine Nameplate Generator 1 – Intelishift – 02/28/24



11. Volvo Engine Nameplate Generator 6 - Intelishift – 02/28/24



12. Generac Gen Set Nameplate (blurry) Generator 7 – Intelishift – 02/28/24



13. Overview of Generators 4, 5, 6, and 7 – Intelishift – 02/28/24



14. Overview of Generators 1, 2, and 7 – Intelishift – 02/28/24



15. Overview of Generator 7 – Intelishift – 02/28/24