



REGION 3

PHILADELPHIA, PA 19103

Report Title: Clean Air Act Inspection of Dynax America Corporation
Inspection Date(s): 1/28/2025
Regulatory Program(s): Title V, MACT, NSPS, NESHAP, SIP

Company Name: Same as below
Facility Name: Dynax America Corporation
Facility Location: 568 East Park Drive
Roanoke, VA 24019

Latitude: 37.345 **Longitude:** -79.87
County/Parish: Botetourt County

AFS/ICIS-Air Number: VA0000005102300039
Permit Number: BRRO-21279
NAICS Code: 336350 **SIC:** 3714
DSB ID #: ECAD-72

Facility Representatives: **Point of Contact**
Jamie Kemper, EHS Manager ☒
Phone: 540-777-9412 Email: jkemper@dxa.com
See Attachment 3 for other Facility Representatives

EPA Inspectors:
Dean DeLuca, Environmental Engineer, 3ED21
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Scott Yanos, Life Scientist, 3ED21
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State/Local Inspectors:
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EPA Lead Inspector

Signature

Dean Deluca

Date

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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 Dynax America Corporation (Dynax or Facility) to verify compliance with applicable State and Federal regulations. The Virginia Department of Environmental Quality (VADEQ) was notified of the inspection on January 13, 2025, via email. On January 24, 2025, EPA notified the Facility of the planned inspection via phone and email. EPA emailed a list of records for review to Jamie Kemper, 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 568 East Park Drive, Roanoke, VA, 24109. Dynax has its corporate headquarters located in Hokkaido, Japan. Dynax primarily manufactures and sells friction functional automatic transmission automotive parts such as clutch discs, clutch plates, and synchronizer rings and are introducing new parts for electric vehicles. This Facility is Dynax's only manufacturing facility within the United States, but Dynax has eight manufacturing facilities located in Japan, China, United States, Mexico, and Hungary. Additional information can be found on their website: <https://www.dynax-j.com/en>. Dynax operates under the NAICS code 336350 for Motor Vehicle Transmission and Power Train Parts Manufacturing and the SIC code 3714 for Motor Vehicle Parts and Accessories.

The Facility received a Title V Permit (BRRO-21279) from VADEQ issued on January 7, 2025.

Dynax is classified as a major source for Volatile Organic Compounds (VOCs) and total Hazardous Air Pollutants (HAPs). The Facility is a minor source for all other criteria pollutants. The Facility is subject to, or potentially subject to the following federal regulations:

- 40 CFR Part 60 Subpart JJJJ—Standards of Performance for Stationary Spark Ignition Internal Combustion Engines
- 40 CFR Part 63 Subpart JJJJ—National Emission Standards for Hazardous Air Pollutants: Paper and Other Web Coating
- 40 CFR Part 63 Subpart ZZZZ—National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines
- 40 CFR Part 63 Subpart MMMM—National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products
- 40 CFR Part 63 Subpart DDDDD—National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters

B. Inspection Opening Conference

At 8:35 AM on January 28, 2025, EPA inspectors arrived at the Facility for a CAA Inspection and conducted a brief opening conference. Dynax was represented by Jamie Kemper (EHS Manager), Jeff Duncan (Senior Environmental Coordinator), and Jason Sheely (Environmental Engineer). Also, Christina Clark (VADEQ) was present. EPA inspectors, Dean DeLuca 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, Dynax claimed that any photos showing the inner workings of the machines would be claimed as CBI.

II. Site Activity/Process Description

The East Park Drive Facility started operations in 1997 and has always been owned by Dynax. The Facility has approximately 500 full-time employees with the primary shift being from 7 AM – 5:30 PM, although there are multiple shifts making it a 24/7 operation. This Facility is Dynax's only facility within the United States and has approximately 660,000 square feet under roof. The Facility makes about 500 different size products and ships them worldwide. The Facility does not have any rail lines, and everything is shipped on or off the Facility by truck. The raw materials used by the Facility are metals, base papers, resins, and adhesives.

Dynax America is owned by Dynax Corporation (Japan) which is owned by Exedy Group. Exedy Corporation is a publicly traded company (7278) on the Tokyo Stock Exchange with approximately 14,500 full-time employees.

The Facility manufactures automatic transmission components, primarily friction discs and clutch packs. Facility representatives stated the primary business is paper web coating. The Facility has twelve processes, but not all components go through all processes. The primary flow of materials is through stamping, etching, and then coating. Some materials go through additional processes, for example a shot blaster. Facility representatives stated most of the emissions created originate from the enclosed saturation lines processes which includes a resin bath and vents to Oxidizers 1 and 2 (PCD 1 and PCD2). The Facility has six oxidizers located on-site, three scrubbers (PCD6, PCD8, and PCD 9), and two baghouses. There is a main baghouse for the building which pulls in air from multiple locations and a self-contained baghouse in a shotblasting area. In addition to process flow emission points, there are also storage tanks, a boiler, and two emergency generators.

Starting with the 2019 permit issuance, Dynax was required to conduct a stack test on each of the oxidizers once every five years. Oxidizers 1, 2, 4, 5, and 6 passed their stack tests. Oxidizers 1 and 2 (PCD1 and PCD2) are thermal oxidizers (TOs) while 3, 4, 5, 6 (PCD3, PCD4, PCD 5, PCD7) are regenerative thermal oxidizers (RTOs). However, Oxidizer 3 is a different design since it does not have a puff chamber. When the newer RTOs arrived, Oxidizer 3 became a backup unit and didn't operate from

2019-2023. This unit was tested in 2023 and failed its stack test. Following the failure, this unit was locked out. Vendors have been selected to refurbish Oxidizer 3 and a retest will follow this refurbishment. If it fails another stack test, Facility representatives stated the unit would be decommissioned.

The Facility has an 8,000-gallon methanol tank, a 1,500-gallon methanol tank, and multiple MEK (Methyl Ethyl Ketone) drums. The Facility ships hazardous waste and is classified as large quantity generator (LQG). Two Generac propane emergency generators of 48kW and 80kW are located on the property. Facility representatives stated the processes are designed such that they cannot operate without an operating control device, that data can be seen in multiple locations so staff can quickly respond to issues, and that, although not required, they do not conduct LDAR (leak detection and repair) monitoring. Facility representatives stated there have not been any process changes since the July 2024 permit issuance which would increase or decrease emissions.

The opening conference concluded at 10:00 AM.

III. Observations

EPA inspectors were led on a walkthrough of the Facility at 10:10 AM by Jamie Kemper (EHS Manager), Jeff Duncan (Senior Environmental Coordinator), and Jason Sheely (Environmental Engineer) of Dynax and Christina Clark (VADEQ) was also present for the walkthrough. EPA inspectors noted photos would be taken during the Facility walkthrough (Attachment 2).

At the start of the inspection, the weather was clear, windy, and about 45°F and remained similar throughout the walkthrough.

The inspection team started the walkthrough by going to the raw material receiving area where they receive steel coils from primarily three vendors. Following that, the inspection team observed the stamping process where metal discs of various sizes are created from the coiled steel. There are no chemicals used in the stamping process. Enclosed 55-gallon oil drums were observed in this area.

After this area, the inspection team went to the induction furnaces where the metal is heated to approximately 600°C and flattened. Facility representatives stated that no air regulations applied to the induction heating. After leaving the induction furnace area, facility representatives answered questions about the business. Facility representatives stated their finished materials are mostly used in new vehicles and are sold to transmission manufacturers. Some of their finished materials are used in aftermarket parts, for example if a used vehicle needs a new clutch kit. Any of these aftermarket parts go through Exedy Globalparts Corporation which is headquartered in Michigan which then distributes these parts.

The inspection team then went to the acid etching area. Dynax has two acid etching units, (surface treatment lines ST3 and ST4) which use Hydrochloric Acid (HCl). Facility representatives stated it takes

15-20 minutes for parts to go through these etching lines. For ST3, the inspection team observed stamped parts manually being placed on racks which then go through the enclosure containing the acid baths used to etch the metal. The process was completely enclosed except for the door for the racks. During the inspection, the inspection team observed that ST3's enclosure had a differential pressure of negative 0.007" H₂O. ST3 exhausts through a horizontal wet alkaline scrubber. The inspection team observed vertical white lines at the bottom and towards the top of the scrubber exhaust. Facility representatives stated there had been some work done on the area due to pipe degradation and the inspection team requested a work order or other documentation for this work. During the inspection, the PCD9 scrubber showed a differential pressure of -0.04" H₂O, a flow rate of 187 gallons/minute of water, a pH of 11.3, and the weekly circle chart showed consistent operation.

ST4 followed a very similar process, but the parts were on a conveyor which did not need to be manually placed into the enclosure and there were two in line scrubbers (PCD8 and PCD6 (also called scrubber 4)) designed to control HCl. The process was completely enclosed except for the door for the conveyor. When the inspection team arrived, ST4 was temporarily not in operation. At this time, Facility representatives discussed the testing history concerning ST4 with the inspection team. Facility representatives stated: the PCD6 scrubber failed to meet the destruction efficiency requirement in approximately 2017; then the PCD8 vertical scrubber was added as a second scrubber for the same process line; PCD6 failed a retest in 2019; PCD6 failed a retest in 2020; VADEQ and Dynax signed a consent agreement requiring Dynax to install a new scrubber by November 2025, with a stack test to follow the installation; the new scrubber must go where the current vertical scrubber is located; and the new scrubber will be designed to control particles down to one micron using a candle filter and a vertical venturi throat. By this time this discussion ceased, ST4 had restarted operation. During the inspection, the PCD6 scrubber showed a differential pressure of -0.023" H₂O, a flow rate of 219 gallons/minute of water, a pH of 10.6.

Facility representatives stated that HCl is purchased at 31.5% and is diluted to 25% for use in the acid baths and that line ST4 has a higher throughput than ST3. The inspection team also observed the primary and secondary containments for both ST3 and ST4.

Following the surface treatment lines, the inspection team observed some smaller emitting processes and locations: a 10,000-gallon caustic tank in an enclosed room with some previous spillage noted; the roll coating process with an oven temperature of 135°C; the induction banding process whose ovens were not operating but Facility representative stated they typically operate at about 400°C; the enclosed paper grinding process which essentially sand smaller strips of paper on conveyor belts at multiple smaller machines; and an industrial laser cutter. The paper grinding process collects dust to the building's main baghouse. Facility representatives stated this unit was tested once around 2015, but it does not have any requirements to be tested. The industrial laser cutter is a smaller volume process which is only used for the aftermarket parts. This laser cuts pieces to the required sizes and vents to a small baghouse which exhausts inside the building.

The inspection team left for lunch at 11:35 AM and restarted after lunch at 12:45 PM.

The inspection team first went to the saturation process and its phenolic resin baths. Facility representatives stated they use two resins (Resin A and Resin B) in this process. The enclosure surrounding the resin bath was observed to have a differential pressure of $-0.0185'' \text{ H}_2\text{O}$. The inspection team observed the back of the enclosure also from within the resin room and did not observe any noteworthy openings. At the time of the inspection, the oxidizer was operating at 1253°F and the three drying ovens were operating at 303°F , 439°F , and 447°F . Facility representatives stated the oxidizer operational information gets continuously recorded into their SCADA (Supervisory Control And Data Acquisition) system.

Dynax has a shotblasting room with its own baghouse. This baghouse is located inside the shotblasting area and exhausts within that same room. The inspection team did not enter the shotblasting room, but did observe dust on the walls outside of the room.

Dynax has an engineering control panel (ECP) which displays information from multiple oxidizers. Dynax again confirmed that the SCADA system was the primary location to get information, but green sheets are also secondarily maintained at the ECP for workers to use if there is an issue with the SCADA system. At the ECP, the inspection team observed that oxidizer #4 was operating at 1625°F . Facility representatives stated the oxidizers have alarms which are set approximately $25^\circ\text{F} - 50^\circ\text{F}$ above the permit limit for each oxidizer. After leaving the ECP, Facility representatives showed the inspection team that oxidizer #3 was locked out and tagged out.

Facility representatives then led the inspection team outside to see oxidizers #3 - #6. After observing the oxidizers, the inspection team went to the building storing many of Dynax's chemicals. The inspection team observed three Resin A tanks (5,000 gallons, 2,000 gallons, and 1,500 gallons), three Resin B tanks of the same size, and a 1,500-gallon methanol tank located in one room of the building. The inspection team also observed a 5,500-gallon Hydrochloric Acid (HCl) tank in a containment in another room of the building. Facility representatives stated there were no RMP (Risk Management Program) requirements because it was less than 37% HCl. The inspection team also observed an 8,000-gallon methanol tank outside of this building. While in this area, the inspection team observed a leaking green resin from a 55-gallon drum. Facility representatives started taking corrective actions while the inspection team was still in the area.

The inspection team then continued inspecting the exterior by going to the wastewater treatment plant emergency generator. During the inspection, the inspection team could not access the enclosure since it was locked, and Facility representatives did not have a key. Following this emergency generator, the inspection team went to oxidizer #2. The oxidizer was a COR-PAK thermal oxidizer installed in May 2004 operating at $1.3'' \text{ H}_2\text{O}$. Facility representatives stated the digital readout was not functioning, but all information is more readily available to all Dynax employees through the SCADA system.

The inspection team then concluded the walkthrough by observing the building's main baghouse and second emergency generator (ITGEN). Facility representatives stated that ITGEN was under maintenance and has not started up since December 2024.

The walkthrough concluded at 2:08 PM.

IV. Records Review

EPA did not conduct a records review onsite, but did discuss the requested records with Facility Representatives at 2:15 PM. Dynax provided a copy of Facility plot plans during the opening conference, but Dynax had not yet provided any of the other documents requested in the January 24, 2025, email to Jamie Kemper (see Attachment 1). In addition to the original records, EPA requested the following records while onsite:

1. Summaries of the most recent stack tests for each of the oxidizers and scrubbers;
2. Minimum set point for each oxidizer;
3. 2022 and 2023 emissions inventory submittals;
4. Most recent semi-annual 40 CFR Part 63 Subpart JJJJ compliance reports;
5. The two active consent orders with VADEQ's air program;
6. Maintenance work order for the repairs around scrubber #3's exhaust;
7. Image of the scrubber #3 nameplate;
8. SDS for Resin A and resin B; and
9. Image of emergency generators (WWGEN & ITGEN) nameplate and total hours.

V. Closing Conference

After the records review, EPA inspectors, Jamie Kemper (EHS Manager), Jeff Duncan (Senior Environmental Coordinator), Jason Sheely (Environmental Engineer), John Hattersley (Executive Vice President), and Christina Clark (VADEQ) 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 State. Simultaneously, EPA will perform a detailed review of records and may have additional questions. Dynax did not claim any documents or images as CBI. The inspection concluded at 2:50 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 Dynax.

- White substance observed on the exhaust for scrubber #3.
- Drum located outside the chemical storage building observed to have a line of material flowing downhill from the drum displaying the drum was not completely enclosed.
- Issues with stack testing requirements related to the two active consent orders that Dynax has with VADEQ.

VI. List of Attachments

- | | |
|---------------|---|
| Attachment 1: | Email correspondence to Jamie Kemper of records requested to review during inspection |
| Attachment 2: | Photo Log |
| Attachment 3: | Dynax Sign-in Sheet |

DeLuca, Dean

From: DeLuca, Dean
Sent: Friday, January 24, 2025 11:06 AM
To: jkemper@dxa.com
Subject: US EPA Clean Air Act Inspection - Dynax

Jamie,

Per our conversation this morning, EPA is going to conduct a Clean Air Act inspection of Dynax on January 28-29, 2025. EPA will have two inspectors (Dean DeLuca and Scott Yanos) onsite to conduct the inspection, which will include an opening conference, site walkthrough (including photos/camera recordings, FLIR monitoring), and record review/closing conference. VADEQ also plans to have an inspector (Christina Clark) onsite for the inspection. EPA and VADEQ plan to arrive at the facility on the morning of 1/28/2025 at 8:30AM. Please see the below list of records EPA would like Dynax to provide. I will include a separate email with a link for Dynax to upload documents using EPA's goanywhere file sharing site. As I mentioned on the phone, I would like to have a hardcopy of the facility plot plan available at the time of the opening conference. You indicated that the required PPE for the facility includes safety glasses and hearing protection. You also indicated that flash photography would not be allowed so we will ensure our camera settings are correct and safe prior to starting the walkthrough. Let me know if you have any questions about the inspection or record request.

1. Provide a plot plan of the facility available in hardcopy for the inspection opening conference which identifies each processing unit, control device, storage vessels, etc. for the facility.
2. Provide a detailed process description which includes all process units and emission points currently operational at the site.
3. Provide the summary pages for the most recent stack test for each pollution control device or state none if there has never been a stack test.
4. Provide the two most recent annual emissions inventory statements as well as any calculations and emissions factors used to calculate emissions for each pollutant and the origin of each emission factor in an excel or similar file format.
5. For each fire pump, generator, or engine located onsite, if any, provide:
 - The make and model of the unit;
 - The size of the unit (HP and displacement (L));
 - Fuel amount and type combusted monthly (gallons) from January 2022-present;
 - Hours of operation monthly from January 2022-present.
 - For emergency generators, provide the reason for each use from January 2022-present.

Thanks, Dean

Dean DeLuca
Environmental Engineer, Air & RCRA Branch
Enforcement & Compliance Assurance Division (ECAD)
U.S. Environmental Protection Agency, Region III
DeLuca.Dean@epa.gov; (304) 234-0264

Attachment 2:

PHOTO LOG

Facility: Dynax America Corporation

Location: 568 East Park Drive, Roanoke, VA 24019

Inspection Date: January 28, 2025

EPA Inspector(s): Dean DeLuca and Scott Yanos

Photographer: Scott Yanos



Photo Number: 001

Photo Description: Raw Material Receiving



Photo Number: 002

Photo Description: Induction Heat Unit #3



Photo Number: 003

Photo Description: Acid Etch Unit #3 (Surface Treatment Line 3, ST3)



Photo Number: 004

Photo Description: Acid Etch Unit #3 Scrubber Exhaust

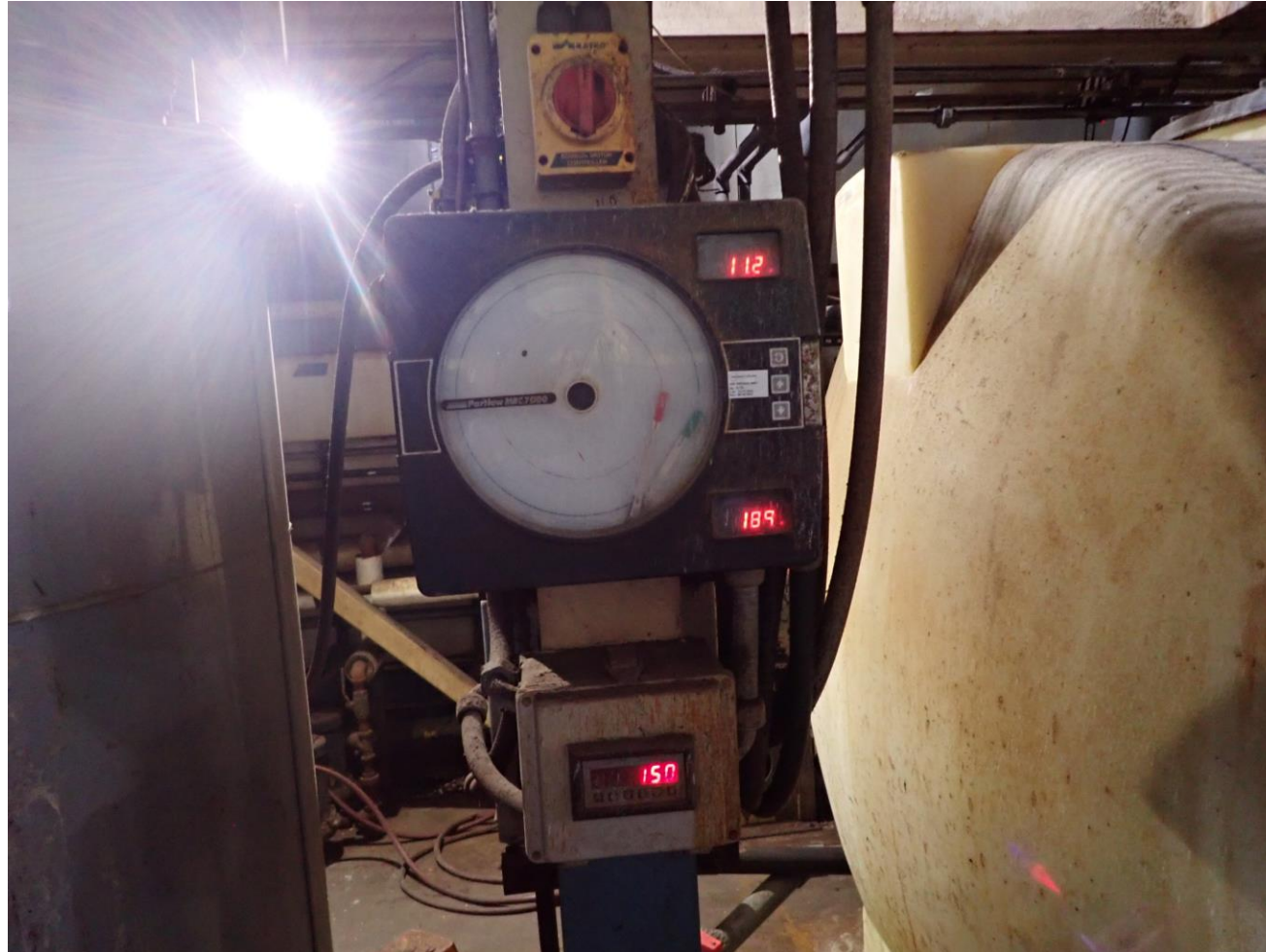


Photo Number: 005

Photo Description: Acid Etch Unit #3 Scrubber Readings



Photo Number: 006

Photo Description: Acid Etch Unit #3 Negative Pressure Enclosure Reading



Photo Number: 007

Photo Description: Acid Etch Unit #3 Scrubber Intake



Photo Number: 008

Photo Description: Scrubber Unit #2



Photo Number: 009

Photo Description: Scrubber Unit #4



Photo Number: 010

Photo Description: Connection Between Scrubber Unit #2 and Scrubber Unit #4



Photo Number: 011

Photo Description: Acid Etch Unit #4 Control Panel



Photo Number: 012

Photo Description: 10,000 Gallon Caustic Tank



Photo Number: 013

Photo Description: Example Final Product Being Packaged



Photo Number: 014

Photo Description: Grinding and Jet Blowing Process Units



Photo Number: 015

Photo Description: Saturation Unit



Photo Number: 016

Photo Description: Saturation Unit



Photo Number: 017

Photo Description: Saturation Unit Resin Bath Negative Pressure Enclosure Reading

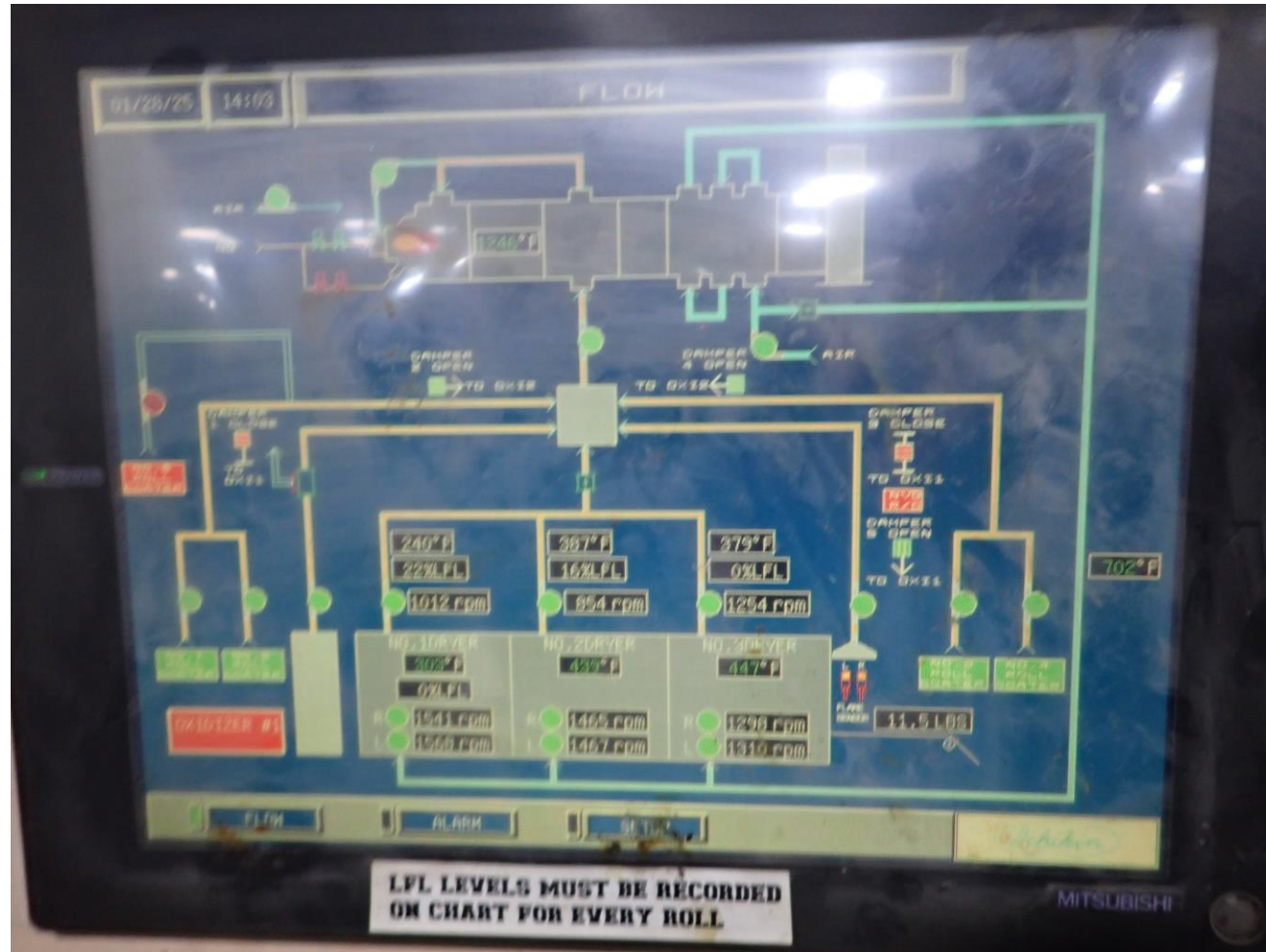


Photo Number: 018

Photo Description: Saturation Unit Control Panel



Photo Number: 019

Photo Description: Dust Covered Walls in Shot Blaster Area

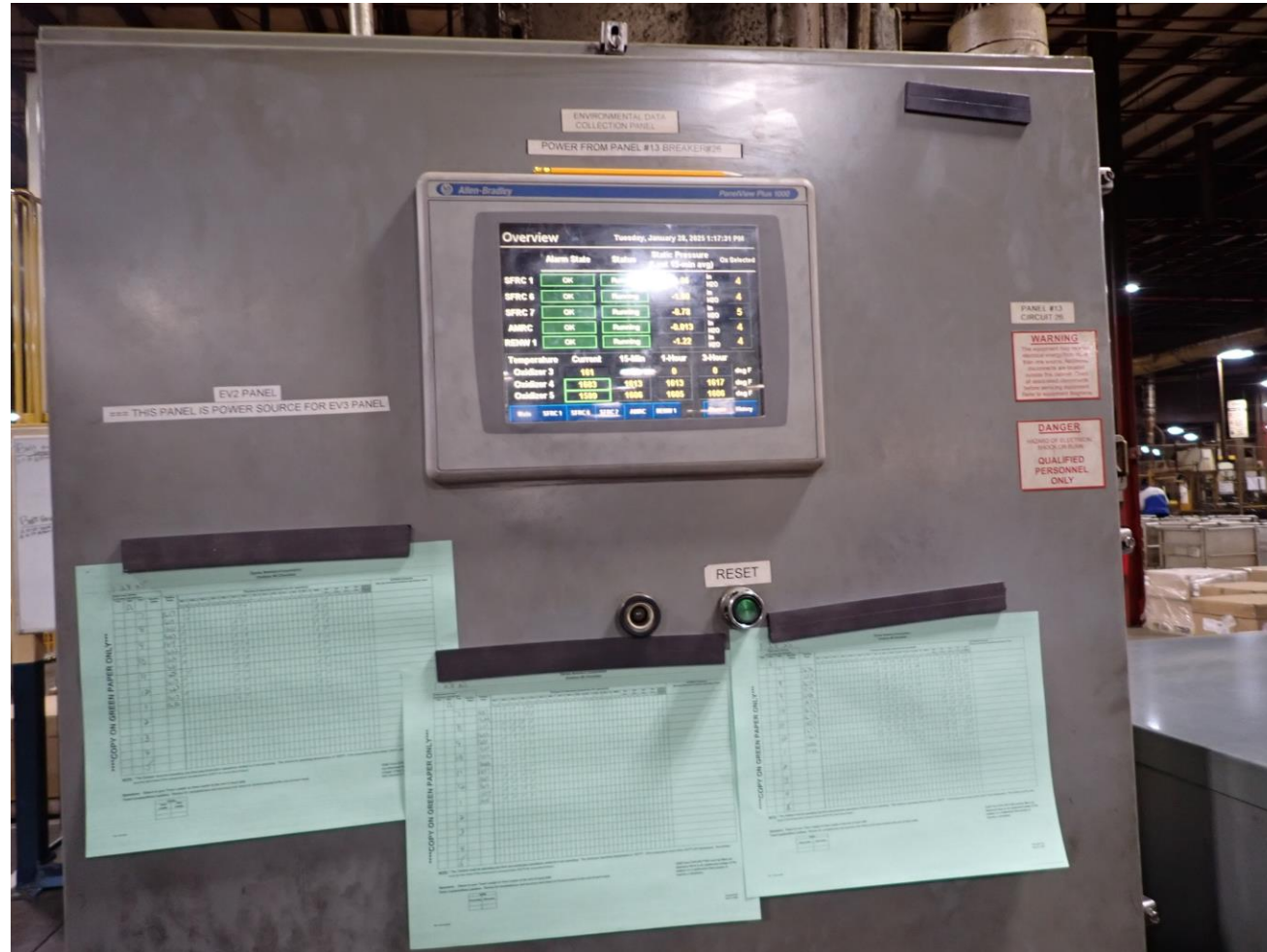


Photo Number: 020

Photo Description: SCADA Floor Controls and Green Sheets



Photo Number: 021

Photo Description: Lockout/Tagout of Oxidizer Unit #3



Photo Number: 022

Photo Description: Oxidizer Unit #6



Photo Number: 023

Photo Description: Oxidizer Units #4, #3 and #5



Photo Number: 024

Photo Description: Chemical Storage Picture #1



Photo Number: 025

Photo Description: Chemical Storage Picture #2



Photo Number: 026

Photo Description: Resin Leak From Drum



Photo Number: 027

Photo Description: Emergency Generator (WWGEN)



Photo Number: 028

Photo Description: Oxidizer Unit #2



Photo Number: 029

Photo Description: Main Baghouse



Photo Number: 030

Photo Description: Emergency Generator (ITGEN)

Inspection Sign-In Sheet

Facility: Dynax

Date: 1/28/2025

[illegible]