

TV
12/27/23
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PETITION FOR VARIANCE
BEFORE THE HEARING BOARD OF THE
SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

SOUTH COAST AIR QUALITY
CLERK OF THE BOARDS

2023 DEC 22 PM 12:16

PETITIONER: LOS ANGELES DEPARTMENT OF WATER AND POWER

CASE NO: 1263-80

FACILITY ID: 800074

FACILITY ADDRESS: 6801 East 2nd Street

[location of equipment/site of violation; specify business/corporate address, if different, under Item 2, below]

City, State, Zip: Long Beach, CA 90803

1. TYPE OF VARIANCE REQUESTED (more than one box may be checked; see Attachment A before selecting)

INTERIM SHORT REGULAR EMERGENCY EX PARTE EMERGENCY

2. CONTACT: Name, title, company (if different than Petitioner), address, and phone number of persons authorized to receive notices regarding this Petition (no more than two authorized persons).

Andrea Villarin

Nick Karno

Manager of Air Quality

Deputy City Attorney

111 N. Hope Street, Room 1050

222 N. Figueroa Street, 10th Floor

Los Angeles Zip 90012

Los Angeles, CA Zip 90012

(213) 367-0409 Ext.

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Fax (213) 367-4710

Fax (213) 367-4588

E-mail andrea.villarin@ladwp.com

E-mail nick.karno@ladwp.com

3. RECLAIM Permit Yes No Title V Permit Yes No

4. **GOOD CAUSE:** Explain why your petition was not filed in sufficient time to issue the required public notice. (Required only for Emergency and Interim Variances; see Attachment A)

As further described in Sections 14 and 15, Haynes Generating Station Unit 2 had been offline since September 2022, following a turbine blade liberation event. Repairs were finally completed on December 18, 2023 but shortly after starting up on December 19, 2023 the unit tripped due to excessive vibration. The unit's annual ammonia slip test was scheduled for December 20, 2023, but had to be cancelled due to the unit

Persons with disabilities may request this document in an alternative format by contacting the Clerk of the Board at 909-396-2500 or by e-mail at clerkofboard@aqmd.gov.

If you require disability-related accommodations to facilitate participating in the hearing, contact the Clerk of the Board at least five (5) calendar days prior to the hearing.

outage, which will likely extend through 2024, making it impossible for LADWP to complete Unit 2's annual ammonia slip test by the compliance deadline.

5. Briefly describe the type of business and processes at your facility.

Los Angeles Department of Water and Power (LADWP)

LADWP is the largest municipal utility in the nation and supplies water and electric services to 3.8 million residents and businesses in the City of Los Angeles. As a vertically integrated power system, LADWP both owns and operates the majority of its generation, transmission, and distribution systems. A five-member Board of Water & Power Commissioners is appointed by the Mayor and establishes policy. Together, LADWP and the City of Los Angeles have been at the forefront of California utilities in adopting aggressive clean energy initiatives. To that end, LADWP has set goals to meet renewable energy targets, while at the same time maintaining a reliable and cost-effective power supply for customers.

Haynes Generating Station

LADWP's Haynes Generating Station (Haynes) is a natural gas-fired steam electric generating facility located on 160 acres in the City of Long Beach. Haynes currently operates two conventional steam generating units (Unit 1 and Unit 2), two combined-cycle units (Unit 9 and Unit 10), and 6 simple cycle units (Units 11-16). Haynes has a generating capacity of 1,666 megawatts, enough to power approximately one million homes.

Unit 2, which is the subject of this Petition, is a 230 MW natural gas-fired boiler equipped with a Selective Catalytic Reduction (SCR) system to control NOx. Unit 2 was commissioned in 1963 and its emissions are monitored by a Continuous Emissions Monitoring System (CEMS).

6. List the equipment and/or activity(s) that are the subject of this petition (see Attachment A, Example #1). **Attach copies of the Permit(s) to Construct and/or Permit(s) to Operate for the subject equipment. For RECLAIM or Title V facilities, attach *only* the relevant sections of the Facility Permit showing the equipment or process and conditions that are subject to this petition. You must bring the entire Facility Permit to the hearing.**

Equipment/Activity	Application/ Permit No.	RECLAIM Device No.	Date Application/Plan Denied (if relevant)*
Boiler Unit 2	640277	D4	n/a
SCR Unit 2	640278	C75	

*Attach copy of denial letter

7. Briefly describe the activity or equipment, and why it is necessary to the operation of your business. A schematic or diagram may be attached, in addition to the descriptive text.

Unit 2 is listed under Section D of Haynes' Title V Permit to Operate and is a conventional boiler, steam-electric generating unit with a capacity of 230 MW. This unit was completed in 1963. The normal fuel is natural gas which is burned in a boiler producing steam. The steam is expanded through a turbine which spins a generator to produce electricity.

Haynes is one of three major coastal power plants (along with Harbor Generating Station and Scattergood Generating Station) that work together to support 2,839 MW of installed capacity, thus providing approximately 85 percent of the total generating capacity within the City of Los Angeles and 39% of the total generating plant capacity owned by LADWP.

Unit 2 is a vital component in LADWP's portfolio of in-basin generating facilities, accounting for 13.8% of Haynes' total generating capacity and helping to ensure voltage support and grid reliability.

8. Is there a regular maintenance and/or inspection schedule for this equipment? Yes No

If yes, how often: Annually Date of last maintenance and/or inspection: 09/26/2022-06/16/2023

Describe the maintenance and/or inspection that was performed.

There are periodic maintenance inspections for the steam turbine generator and associated components. Station operations personnel continuously inspect the equipment and monitor the status of the turbine generator throughout operation. Operations personnel also write up faulty equipment notifications (FENs) and issue work orders at the first signs of problems with equipment during operation. Routine inspection and repair of the generating unit equipment occurs annually with the last scheduled maintenance outage completed in 2023 while the turbine rotor was being repaired..

Typical scheduled maintenance outages consist of routine repairs to equipment that require the unit to be offline, including repair of critical valves, piping systems, and safety valves. The maintenance also includes regulatory work, including calibration and inspection of fuel measuring devices.

Major turbine overhaul/refurbishment occurs every five to twelve years in the industry, however duration between overhauls is determined by several factors, such as hours of operation, current unit performance, outstanding equipment problems, and expected remaining life of the generating unit. The last major turbine overhaul on Unit 2 was completed in 2009 during which the entire turbine was inspected and repaired (high/intermediate pressure (HP/IP) rotor removed, inspected and repaired; low pressure rotor removed, inspected, and repaired; all main stop and control valves overhauled). The turbine was not scheduled for major overhaul since 2009 in light of the low capacity factor for the unit.

9. List all District rules, and/or permit conditions from which you are seeking variance relief (if requesting variance from Rule 401 or permit condition, see Attachment A). Briefly explain how you are or will be in violation of each rule or condition (see Attachment A, Example #2).

Rule	Explanation
Permit Condition D28.3 The test shall be conducted at least annually. If an annual test is failed, the facility shall conduct source test quarterly. Four consecutive quarterly source tests must demonstrate compliance with the ammonia emissions limits prior to resuming annual source tests.	The ammonia slip test is due by December 31, 2023, and must be performed while the unit is operating. Since Haynes Unit 2 is inoperable and repairs cannot be completed by the due date, Unit 2 will not be in compliance with these Title V permit conditions and SCAQMD Rules beginning January 1, 2024 for the ammonia slip test requirement.
Rule 203(b) "The equipment shall not be operated contrary to the conditions specified in the permit to operate."	
Rule 2004(f)(1) " The Facility Permit holder shall, at all times, comply with all rules and permit conditions applicable to the facility, as specified in the Facility Permit."	

Rule 3002(c)(1)

"A person shall construct and operate a Title V facility and all equipment located at a Title V facility in compliance with all terms, requirements, and conditions specified in the Title V permit at all times."

10. Are the equipment or activities subject to this request currently under variance coverage? Yes No
11. Are any other equipment or activities at this location currently (or within the last six months) under variance coverage? Yes No
12. Were you issued any Notice(s) of Violation or Notice(s) to Comply concerning this equipment or activity within the past year? Yes No
13. Have you received any complaints from the public regarding the operation of the subject equipment or activity within the last six months? Yes No
14. Explain why it is beyond your reasonable control to comply with the rule(s) and/or permit condition(s):

It is beyond the LADWP's reasonable control to perform the ammonia slip test on Unit 2 by December 31, 2023, due to unexpected excessive vibration, liberation of turbine blades, and ensuing damage to other parts. Unit 2 had not been available to run since the initial vibration issues and unit trip on September 26, 2022. After experiencing various delays in receiving and installing parts, the repairs were deemed complete on December 18, 2023. The unit was subsequently started up on December 19, 2023, but when the unit reached a generating load of approximately 150MW, excessive vibration was experienced again and the unit was manually tripped to minimize equipment damage. Initial investigation suggests that another turbine blade has been liberated and caused damage to the condenser tubes.

This unit has suffered a long history of delays beyond the reasonable control of LADWP. Back in September 2022, after the initial blade liberation event, LADWP contacted General Electric (GE), the responsible party for the technical and material resources for Unit 2's Brown Boveri steam turbine, for a quote including replacement parts and support on the Intermediate and Low Pressure Turbine number 2 (IPLP 2) section. Before a purchase of new material was made, the steam turbine's upper case had to be removed and the rotor extracted to confirm the parts required. The top case was removed after two months starting October 31, 2022, and lasted until the end of December 2022. With the parts exposed, LADWP and GE developed a repair plan and issued a task assignment on February 8, 2023. The material had an estimated lead time of 14 weeks and required manufacturing of three sets of rotating blades and two sets of stationary blades. An initial Estimated Time of Return (ETR) for Unit 2 was scheduled for June 16, 2023.

Due to fabricating parts based on nearly 60-year-old drawings, delays in the manufacturing process pushed parts deliveries back to May 2023. GE finished their repair work on the rotor and delivered it to the site in June of 2023. GE also finished installing the stationary blades in the turbine case in July 2023, and the rotor was test fit to read clearances. During the test fit, it was determined that the axial clearances were not correct and GE had to remobilize to analyze and address this issue. Modification of the stationary blades was successfully completed by the end of August 2023. The ETR was updated to September 22, 2023, based on the remaining scope of work.

Prior to final reassembly of the low pressure steam turbine in September 2023, additional clearance issues (radial, not axial) were identified on the new blade tips. The work necessary to resolve the radial clearance delayed the final reassembly of the turbine until the end of September 2023. The unit was mechanically assembled and insulated by October 2023, and the ETR was updated to December 8, 2023.

Meanwhile, in preparation for startup, LADWP Electrical Repair Services (ERS) tested the generator at Haynes in September 2023, and it failed electrical testing. Heaters and dehumidifiers were setup in a moisture removal process to dry out the generator which continued through the end of November 2023 at

which point acceptable electrical test results were obtained. The generator was then reassembled and prepared for startup on December 8, 2023.

LADWP was able to put fires in Unit 2's boiler and roll the steam turbine for vibration testing on December 8, 2023, however, a ground fault relay occurred during the startup while trying to synchronize the generator and the startup was aborted. The ground fault investigation determined that the generator exciter was contaminated with moisture and debris and was cleaned, dried, and tested through December 18, 2023. Unit 2 was started up again and successfully synchronized to the grid on December 19, 2023. Unit 2 was loading to 150 MW when vibrations suddenly spiked and operations had to trip the turbine to minimize equipment damage. Bearings 3 and 4, which surround the Intermediate and Low Pressure Turbine number 1 (IPLP 1), showed very high values during the vibration event.

Initial investigation indicates that this failure is similar to the September 26, 2022 event, however, this failure looks to be on IPLP 1 which is just upstream of the rotor that failed in 2022. Given the turbine's current state and the timeline for the previous repair, Unit 2 will not be able to perform its annual ammonia slip test by December 31, 2023.

Please refer to Exhibit 1 for pictures from the vibration event on December 19, 2023, as well as, pictures of the damaged blades and repair efforts.

15. When and how did you first become aware that you would not be in compliance with the rule(s) and/or permit condition(s)?

The Unit 2 ammonia slip test was initially scheduled for September 21, 2023, but the unit repairs were delayed beyond this date due to issues with the blade tip seals and due to moisture in the generator. The test was cancelled with the contractor.

The test was rescheduled for December 20, 2023. After Unit 2 experienced unexpected excessive vibration on December 19, 2023, the unit was manually tripped by operators in an effort to minimize potential damage to the equipment. Initial investigation suggests that another turbine blade has been liberated and caused damage to the condenser tubes. A complete investigation cannot be completed until the equipment cools down, which takes several days. Assuming that a blade was liberated, it will take several months to receive a new one as it must be specially fabricated. For these reasons, LADWP determined that Unit 2 cannot be repaired and restarted in time to meet the December 31, 2023, deadline to conduct the NH3 slip source test.

16. What actions have you taken since that time to achieve compliance?

The ammonia slip tests initially planned for September 21, 2023, and December 20, 2023, were scheduled in time to meet the December 31, 2023, deadline and the requirements of permit condition D28.3. Unfortunately, the unit was unable to complete testing on either of these dates due to additional repairs needed and due to vibration issues, respectively. Since the unit tripped on December 19, 2023, a complete investigation into the excessive vibration issues has not yet been possible as the unit needs to cool down; however, once the unit is accessible a full investigation will be launched and a repair plan and timeline will be developed in order to restore the unit and complete the ammonia slip source test as soon as possible.

17. What would be the harm to your business during and/or after the period of the variance if the variance were not granted?

Economic losses: TBD

Number of employees laid off (if any): None

Provide detailed information regarding economic losses, if any, (anticipated business closure, breach of contracts, hardship on customers, layoffs, and/or similar impacts).

The permanent inability to operate Unit 2 would result in incalculable costs to the residents of the City of Los Angeles. The cost of the unit itself and the ensuing stress on LADWP's ability to generate power would result in hardships to all of LADWP's customers because they would shoulder the burden of paying for these costs.

Additionally, LADWP's ratepayers would also bear the expense of any resulting fines and penalties if this variance is not granted. LADWP could be subject to a Notice of Violation for the entire duration that the ammonia slip test is not successfully performed.

18. Can you curtail or terminate operations in lieu of, or in addition to, obtaining a variance? Please explain.

LADWP has already terminated Unit 2's operations since December 19, 2023, and it is not possible to curtail operations because the unit is out of service.

Even with operations temporarily terminated, LADWP will still require a variance. While this petition is seeking relief from complying with the ammonia slip test due date of December 31, 2023, LADWP recognizes that Unit 2 must be brought back to service as soon as possible before the ammonia slip source testing can be conducted.

19. Estimate excess emissions, if any, on a daily basis, including, if applicable, excess opacity (the percentage of total opacity above 20% during the variance period). If the variance will result in no excess emissions, skip to No. 20.

Pollutant	(A)	(B)	(C)*
	Total Estimated Excess Emissions (lbs/day)	Reduction Due to Mitigation (lbs/day)	Net Emissions After Mitigation (lbs/day)
None	N/A	N/A	N/A

* Column A minus Column B = Column C

Excess Opacity: 0 %

20. Show calculations used to estimate quantities in No. 19, or explain why there will be no excess emissions.

There will be no excess emissions because Unit 2 is not operational and has been out of service since December 19, 2023.

21. Explain how you plan to reduce (mitigate) excess emissions during the variance period to the maximum extent feasible, or why reductions are not feasible.

N/A

22. How do you plan to monitor or quantify emission levels from the equipment or activity(s) during the variance period, and to make such records available to the District? **Any proposed monitoring does not relieve RECLAIM facilities from applicable missing data requirements.**

During the variance period, LADWP will continue to monitor and record emissions through CEMS, which will be operational during the repair of Unit 2. There is no ammonia analyzer installed on Unit 2. The source test will be the basis of compliance with the ammonia slip permit limit.

23. How do you intend to achieve compliance with the rule(s) and/or permit condition(s)? Include a detailed description of any equipment to be installed, modifications or process changes to be made, permit conditions to be amended, etc., dates by which the actions will be completed, and an estimate of total costs.

8. Is there a regular maintenance and/or inspection schedule for this equipment? Yes No

If yes, how often: Annually Date of last maintenance and/or inspection: 09/26/2022-06/16/2023

Describe the maintenance and/or inspection that was performed.

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17. What would be the harm to your business during and/or after the period of the variance if the variance were not granted?

Economic losses: TBD

Number of employees laid off (if any): None

Provide detailed information regarding economic losses, if any, (anticipated business closure, breach of contracts, hardship on customers, layoffs, and/or similar impacts).

The permanent inability to operate Unit 2 would result in incalculable costs to the residents of the City of Los Angeles. The cost of the unit itself and the ensuing stress on LADWP's ability to generate power would result in hardships to all of LADWP's customers because they would shoulder the burden of paying for these costs.

Additionally, LADWP's ratepayers would also bear the expense of any resulting fines and penalties if this variance is not granted. LADWP could be subject to a Notice of Violation for the entire duration that the ammonia slip test is not successfully performed.

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Even with operations temporarily terminated, LADWP will still require a variance. While this petition is seeking relief from complying with the ammonia slip test due date of December 31, 2023, LADWP recognizes that Unit 2 must be brought back to service as soon as possible before the ammonia slip source testing can be conducted.

19. Estimate excess emissions, if any, on a daily basis, including, if applicable, excess opacity (the percentage of total opacity above 20% during the variance period). If the variance will result in no excess emissions, skip to No. 20.

Pollutant	(A)	(B)	(C)*
	Total Estimated Excess Emissions (lbs/day)	Reduction Due to Mitigation (lbs/day)	Net Emissions After Mitigation (lbs/day)
None	N/A	N/A	N/A

* Column A minus Column B = Column C

Excess Opacity: 0 %

20. Show calculations used to estimate quantities in No. 19, or explain why there will be no excess emissions.

There will be no excess emissions because Unit 2 is not operational and has been out of service since December 19, 2023.

21. Explain how you plan to reduce (mitigate) excess emissions during the variance period to the maximum extent feasible, or why reductions are not feasible.

N/A

22. How do you plan to monitor or quantify emission levels from the equipment or activity(s) during the variance period, and to make such records available to the District? **Any proposed monitoring does not relieve RECLAIM facilities from applicable missing data requirements.**

During the variance period, LADWP will continue to monitor and record emissions through CEMS, which will be operational during the repair of Unit 2. There is no ammonia analyzer installed on Unit 2. The source test will be the basis of compliance with the ammonia slip permit limit.

23. How do you intend to achieve compliance with the rule(s) and/or permit condition(s)? Include a detailed description of any equipment to be installed, modifications or process changes to be made, permit conditions to be amended, etc., dates by which the actions will be completed, and an estimate of total costs.

Compliance will be achieved through relief from the administrative requirement to complete the ammonia slip source test by December 31, 2023. If the variance is granted, the ammonia slip source test will be scheduled as soon as is practical following the successful return of Unit 2 to normal operation.

24. State the date by which you expect to achieve final compliance: December 31, 2024. LADWP requests that the variance take effect on January 1, 2024. We request one year of variance coverage in order to provide time to perform the follow up repairs and validate the integrity of the repairs prior to returning the unit to normal operation and performing the ammonia source tests.

If the regular variance is to extend beyond one year, you **must** include a **Schedule of Increments of Progress**, specifying dates or time increments for steps needed to achieve compliance. See District Rule 102 for definition of Increments of Progress (see Attachment A, Example #3).

List Increments of Progress here:

N/A

25. List the names of any District personnel with whom facility representatives have had contact concerning this variance petition or any related Notice of Violation or Notice to Comply.

Kevin Orellana Ext. 3492

Sheri Hanizavareh Ext. 3462

The undersigned, under penalty of perjury, states that the above petition, including attachments and the items therein set forth, is true and correct.

Executed on 12/22/2023, at Los Angeles, California

Katherine Rubin Digitally signed by Katherine Rubin
Date: 2023.12.22 11:39:33 -08'00'

Signature

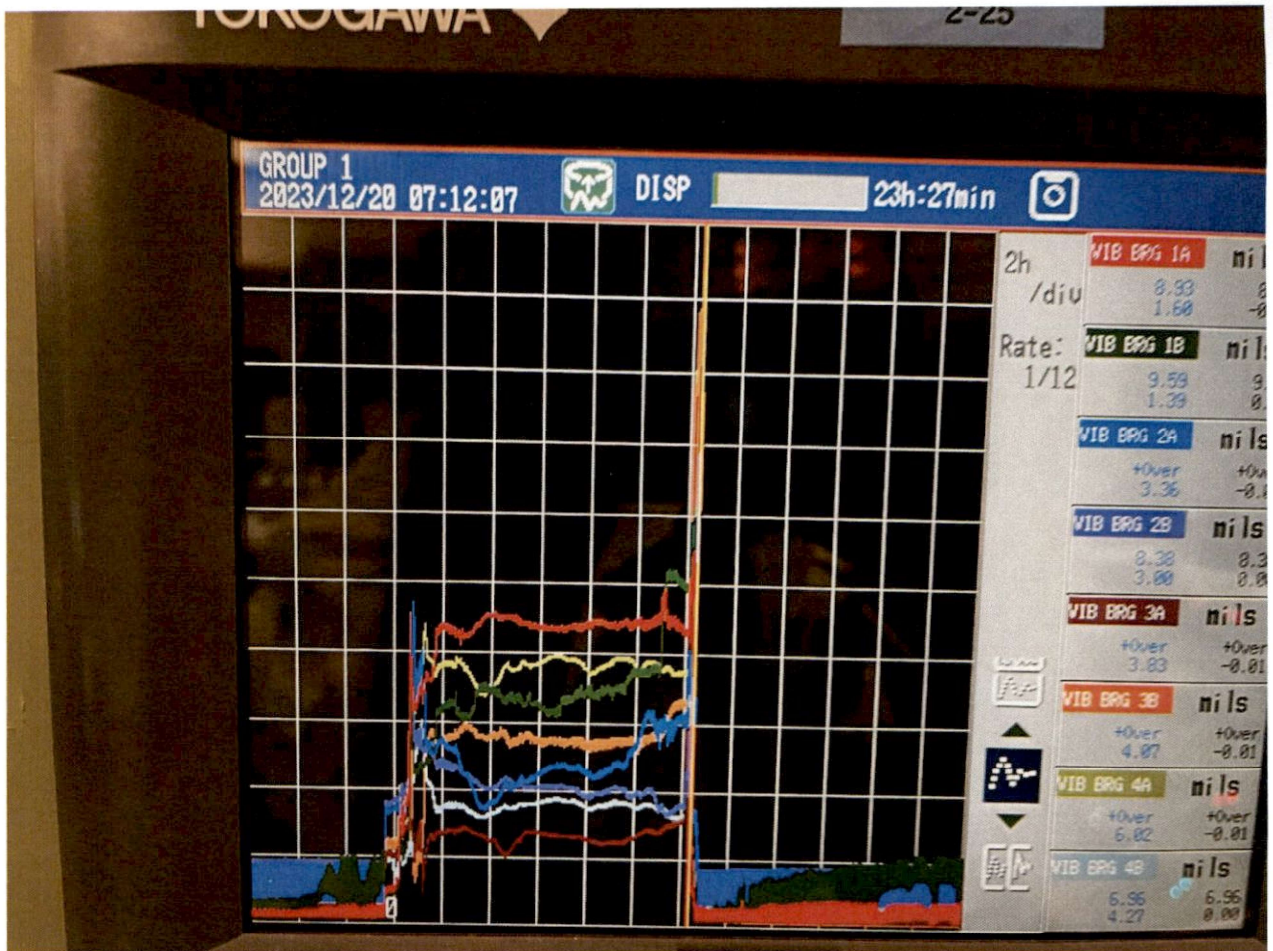
Katherine Rubin

Print Name

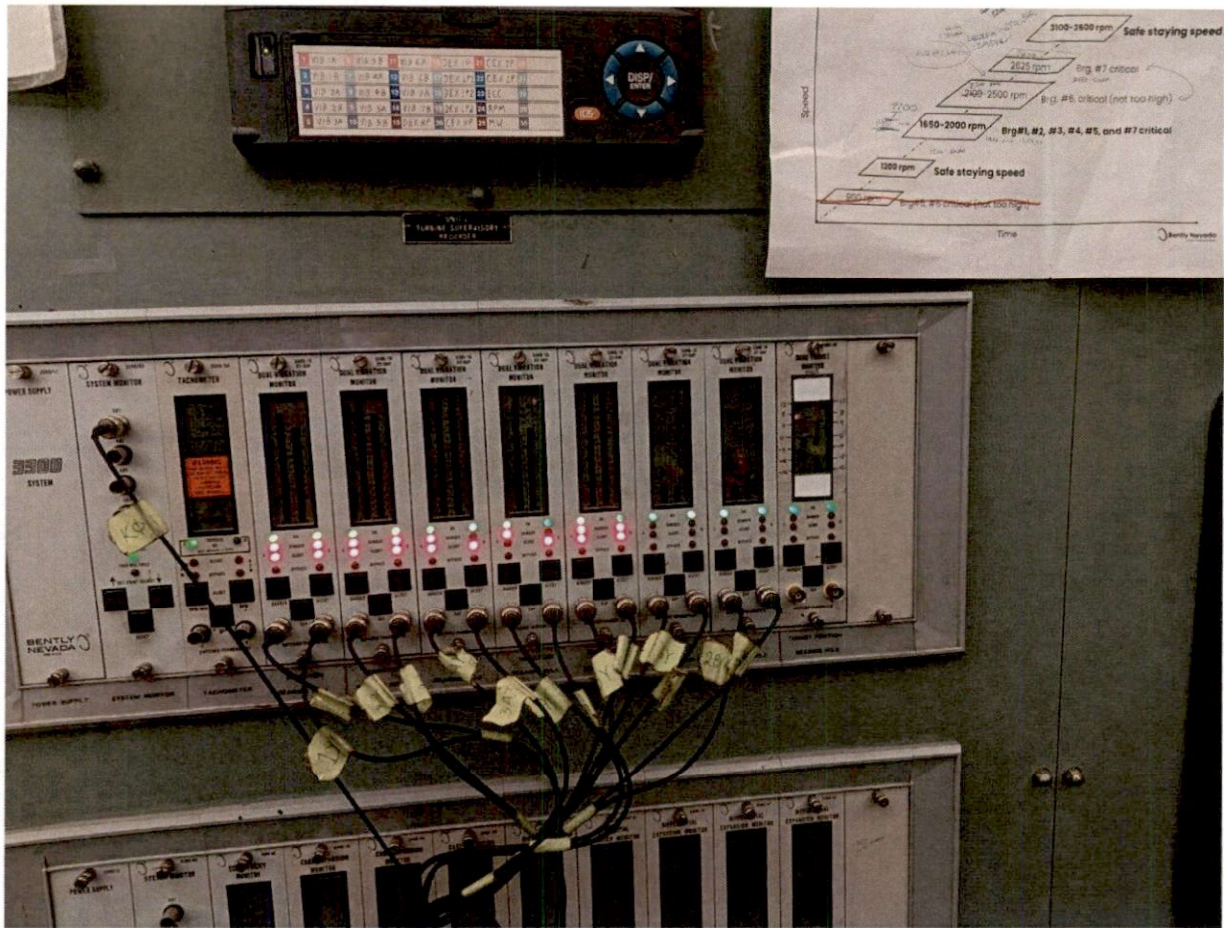
Director of Corporate Environmental Affairs

Title

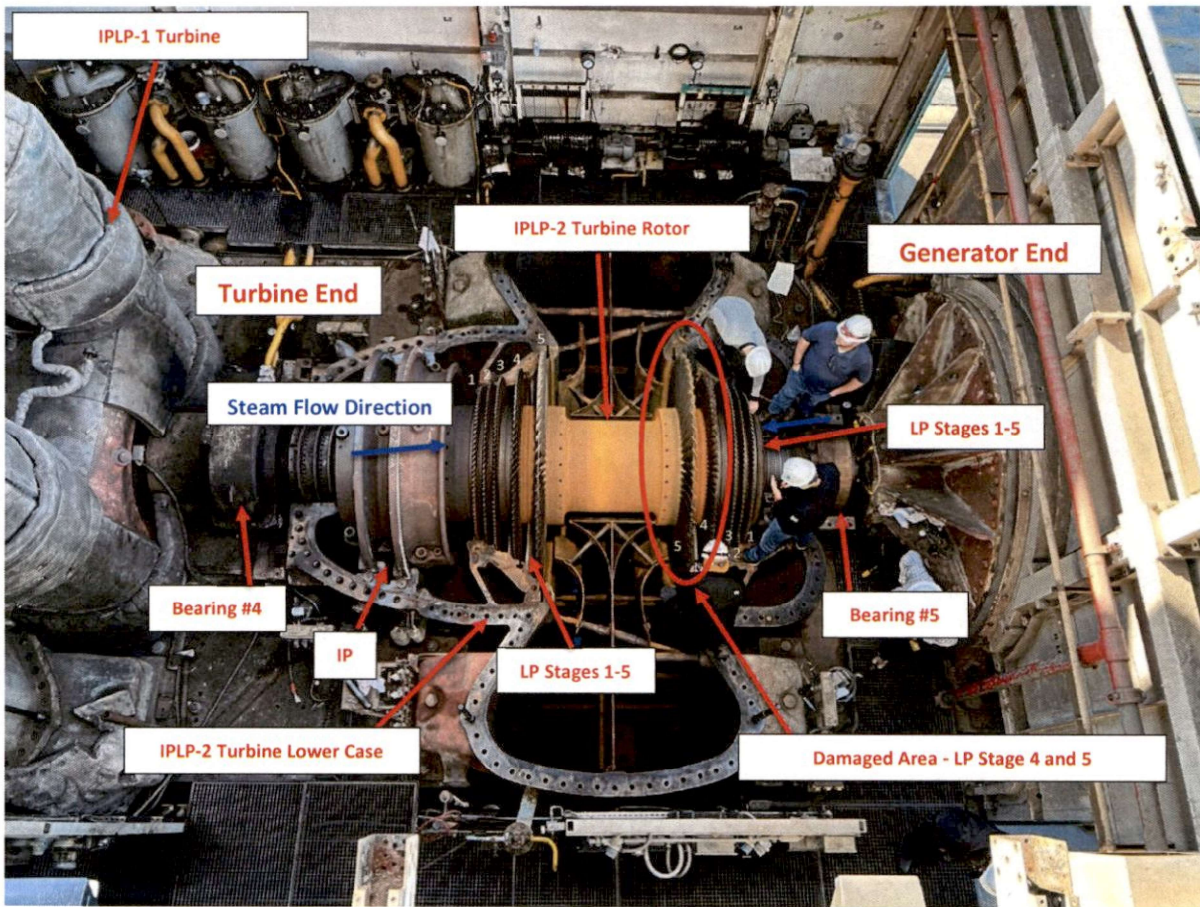
EXHIBIT 1



Vibration Event 12/19/23 – Bearing Vibrations



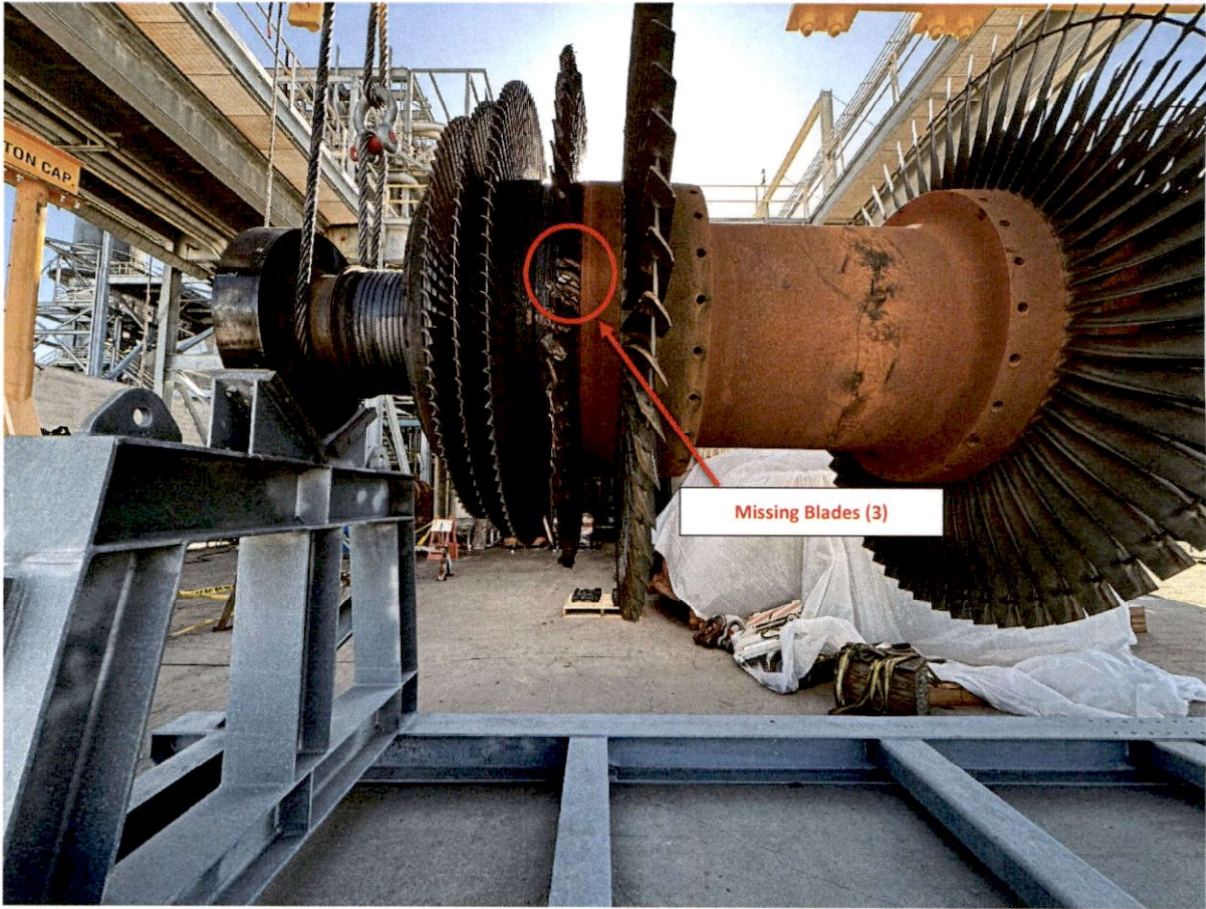
Vibration Event 12/19/23 – Bentley Vibration Monitor Rack



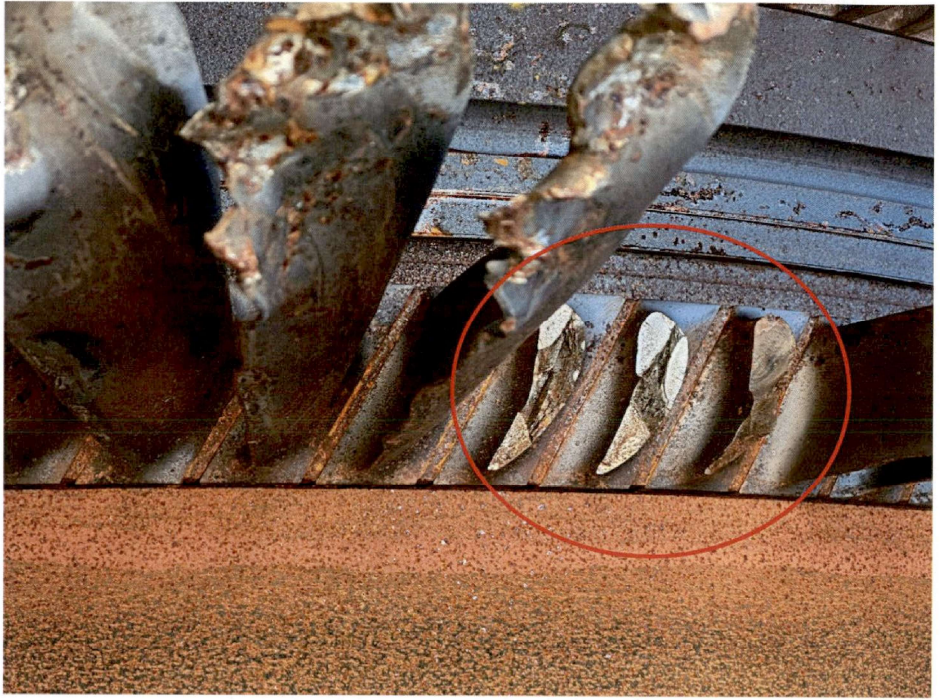
December 20, 2022 – Damaged Rotor with Top Case Removed



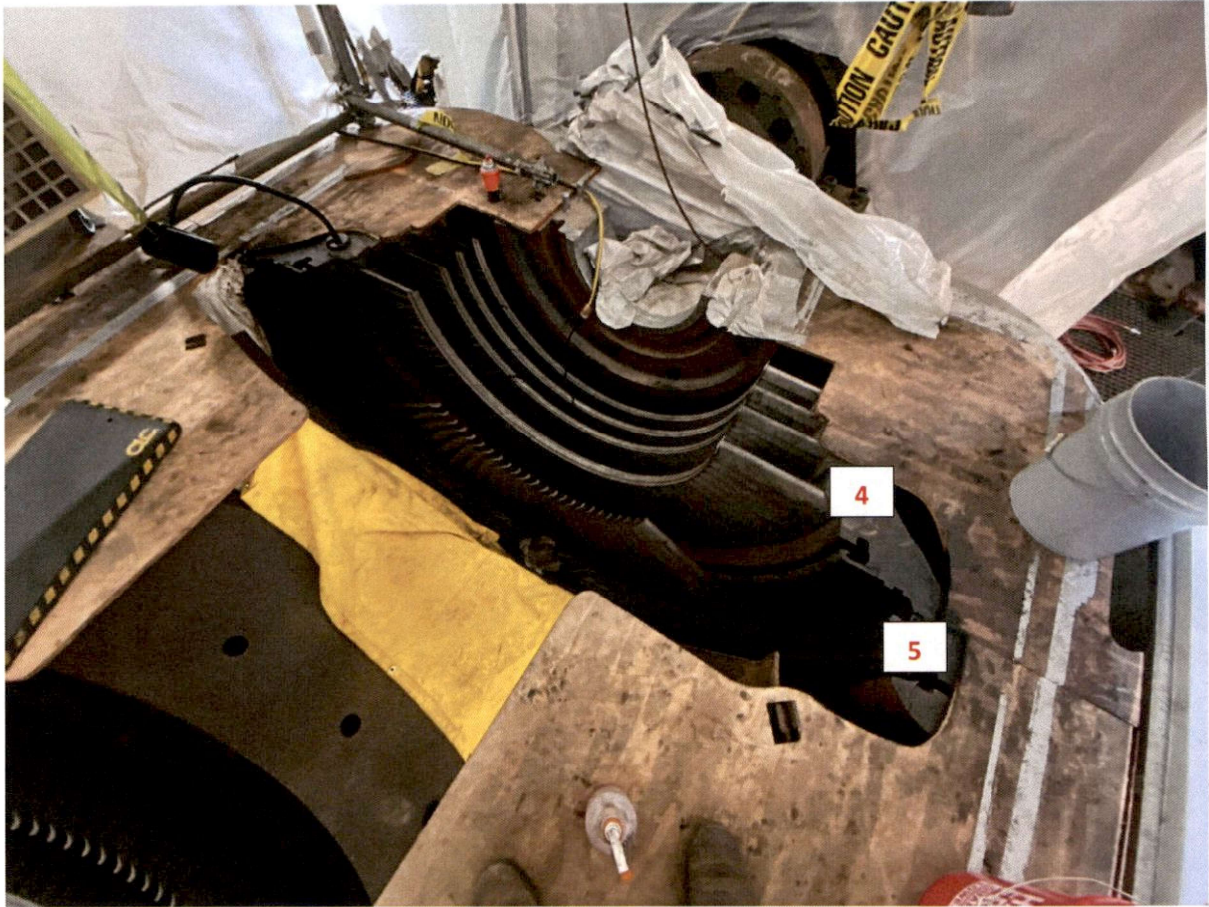
December 29, 2022 – Damaged Rotating Stage 4 & 5 Blades on LP, Generator End



January 17th, 2023 – Damaged Rotating Blades, Stage 4 (3) Blades missing, Generator End



January 17th, 2023 – Damaged Rotating Blades, Stage 4 (3) Blades missing, Generator End (Close Up)



May 12th, 2023 –Stationary Stage 5 damaged blades partially removed from Lower Case, Generator End



May 9th, 2023 – Removed Damaged Top Case Stationary Blades, Stage 5



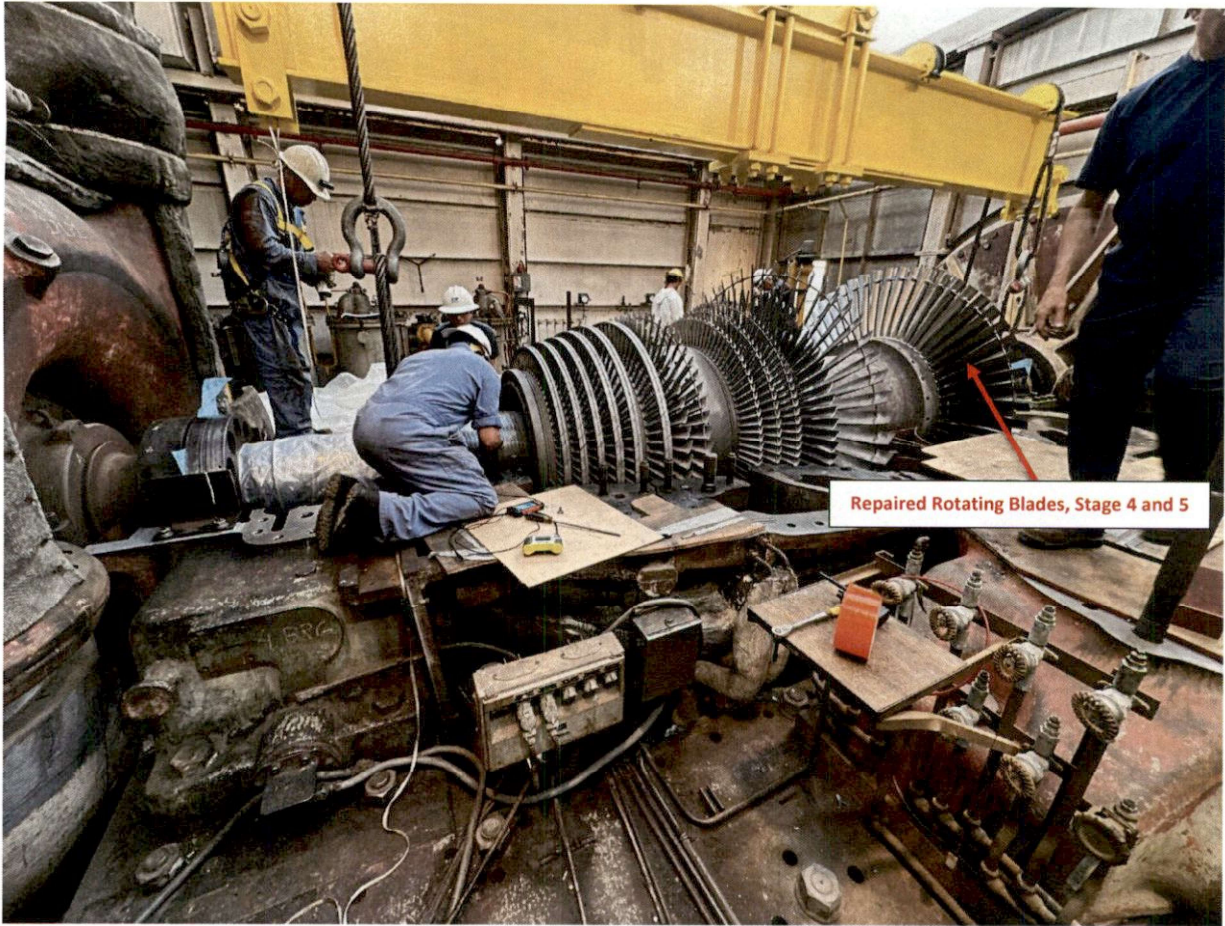
May 25th, 2023 – GE installing new Stage 4 Stationary Blades on Top Case, Generator End



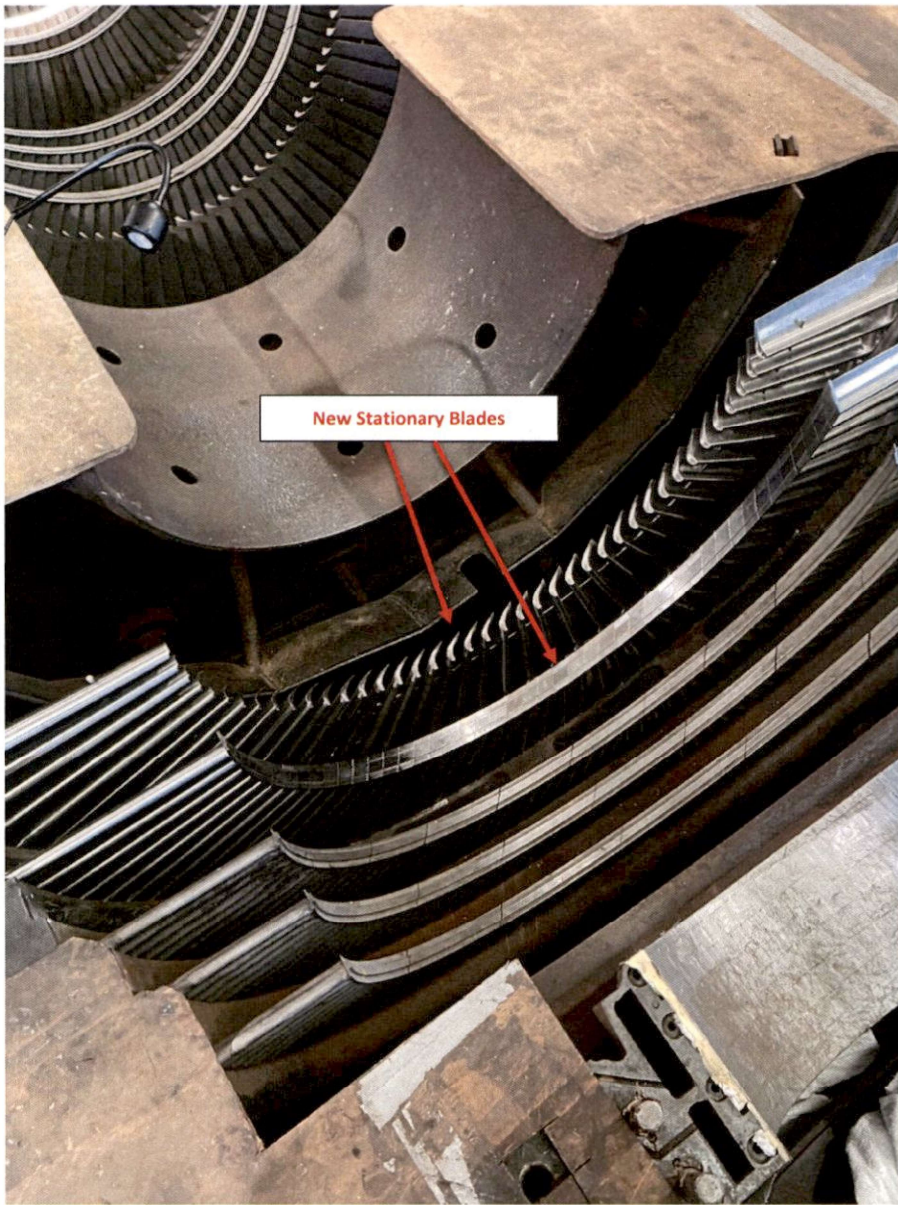
June 17th, 2023 – GE Installing new Stage 4 and Stage 5 Stationary Blades on Lower Case , Generator End



July 23rd, 2023 - Repaired Rotor on Stand



July 23, 2023 - Repaired Rotor Install and Clearance Checks



June 29th , 2023 - New Stationary Blades in Lower Case



New Stationary Stage 4 Blade

August 5th, 2023 - Axial Clearance Interference – Required GE Repair

EXHIBIT 2

(Pages from Haynes Gen Station Title V Permit)



FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

The operator shall also install and maintain a device to continuously record the parameter being measured.

The measuring device or gauge shall be accurate to within plus or minus 5 percent. It shall be calibrated once annually per calendar year.

The pressure differential shall be between 4.0 and 5.8 inches water column.

[RULE 1703 - PSD Analysis, 10-7-1988; RULE 2005, 12-4-2015]

[Devices subject to this condition : C162, C168, C174, C180, C186, C192]

D12.12 The operator shall install and maintain a(n) non-resettable elapsed time meter to accurately indicate the elapsed operating time of the engine.

[RULE 1304(c)-Offset Exemption, 6-14-1996; RULE 1470, 10-1-2021; 40CFR 60 Subpart III, 7-11-2006]

[Devices subject to this condition : D195, D196]

D12.13 The operator shall install and maintain a(n) non-resettable totalizing fuel flow meter to accurately indicate the fuel usage of the engine.

[RULE 2012, 2-5-2016; 40CFR 60 Subpart III, 7-7-2016]

[Devices subject to this condition : D195, D196]

D28.3 The operator shall conduct source test(s) in accordance with the following specifications:



FACILITY PERMIT TO OPERATE LA CITY, DWP HAYNES GENERATING STATION

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

The test shall be conducted at least annually. If an annual test is failed, the facility shall conduct source tests quarterly. Four consecutive quarterly source tests must demonstrate compliance with the ammonia emissions limits prior to resuming annual source tests.

If the equipment does not operate or becomes non-operational due to breakdown for an entire year or quarter, ammonia source test will not be required for the period.

The District shall be notified of the date and time of the test at least 7 days prior to the test.

The test shall be conducted by a testing laboratory certified by the California Air Resources Board in the required test methods, and in compliance with District Rule 304 (no conflict of interest).

The test shall be conducted to determine the NH₃ emissions using District Methods 207.1 measured over a 60 minute averaging time period.

The test shall be conducted as follows: The NO_x concentration, as determined by the certified CEMS, shall be simultaneously recorded during the ammonia slip test. If the CEMS is inoperable or not yet certified, a test shall be conducted to determine the NO_x emissions using District Method 100.1 measured over a 60 minute averaging period.

The test shall be conducted when the equipment is operating at 60 percent load or greater.

The test shall be conducted and the results submitted to the District within 45 days after the test date.

The test shall be conducted to demonstrate compliance with the Rule 1303 concentration limit..

In lieu of complying with the annual or quarterly NH₃ source testing requirements, an ammonia CEMS certified under an approved South Coast AQMD protocol may be



**FACILITY PERMIT TO OPERATE
LA CITY, DWP HAYNES GENERATING STATION**

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

utilized to demonstrate compliance.

[**RULE 1135, 7-19-1991; RULE 1135, 1-7-2022; RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002**]

[Devices subject to this condition : C73, C75]

D29.2 The operator shall conduct source test(s) for the pollutant(s) identified below.

Pollutant(s) to be tested	Required Test Method(s)	Averaging Time	Test Location
NH3 emissions	District method 207.1	1 hour	Outlet of the SCR serving this equipment