

NOTICE OF PUBLIC HEARING

BEFORE THE HEARING BOARD OF THE NORTH COAST UNIFIED AIR QUALITY MANAGEMENT DISTRICT

REVISED PUBLIC NOTICE IS HEREBY GIVEN, pursuant to Health and Safety Code (H&SC) Division 26, Part 4, Chapter 4, Article 2, §§ 42350-42364: Variances and District Rule 605, that the Chair of the Hearing Board of the North Coast Unified Air Quality Management District has scheduled a public hearing at 10:00 a.m. on Monday, July 26, 2021 via Zoom Video Teleconference to consider the application from Pacific Gas and Electric Co. (PG&E) for the Humboldt Bay Generating Station (HBGS) to modifying Regular Variance Order 2020-02.

Petition for Variance: The modification to the regular variance requested by PG&E is to provide relief from permit conditions and permit emission limitations for an additional year to allow the HBGS in order to complete engine tuning at loads less than 50% and to operate in island mode during upcoming emergencies such as Public Safety Power Shutdown (PSPS) events. The regular variance was in effect for a period of up to one year or until a modified Title V Operating Permit and other applicable modified licensing is effective, whichever date is sooner. Although HBGS has submitted an application to modify appropriate permit conditions in its Title V Operating Permit, more time is needed to perform the permit action.

Variance Hearing Process: The variance hearing will be conducted in accordance with H&SC sections 42350 et seq. and District Regulation VI, Hearing Board Procedures, Rule 605. The application for a Regular Variance submitted by PG&E is available online at www.ncuaqmd.org or available by contacting the Board Clerk at esquire@ncuaqmd.org.

How to Observe the Meeting: Consistent with Executive Orders N-25-20, N-29-20 and N-8-21 from the Executive Department of the State of California, the public and Board Members will be able to participate and observe the hearing via Zoom Video Teleconference. To maximize public safety while still maintaining transparency and public access, members of the public can observe the Zoom Teleconference Meeting by going on the internet to: <https://us02web.zoom.us/j/89156963968> using Meeting ID: 891 5696 3968, or alternatively calling by phone: 1-669-900-6833.

How to Submit Public Comment: Members of the public may provide public comment before and during the meeting by sending comments to the Board Clerk by email at esquire@ncuaqmd.org. Such email comments must identify the agenda item number in the subject line of the email. The comments will be read into the record, with a maximum allowance of three minutes (approximately 500 words) per individual comment, subject to the Board Chair's discretion. If a comment is received after the agenda item is heard, but before the close of the meeting, the comment will still be included as a part of the written record of the meeting but will not be read into the record during the meeting.

Americans with Disabilities Act Accommodations: Any member of the public who needs accommodations should email the Board Clerk at esquire@ncuaqmd.org or by calling (707) 443-3093. The Board Clerk will use their best efforts to provide reasonable accommodations to provide as much accessibility as possible while maintaining public safety.

Erin Squire

Clerk of the Hearing Board, North Coast Unified Air Quality Management District

07/11/2021

Air Quality Management District

707 L Street, Eureka, CA 95501

(707) 443-3093

www.ncuaqmd.org



**HEARING BOARD
APPLICATION FOR HEARING**



FILING FEE: \$ 710 (Rule 405, 1.0)

INSTRUCTIONS: Please type or write legibly. If more space is needed, attach extra sheets. Please review the attached "Guidelines for Hearing Board Application." Please note that the Petitioner must submit to the Hearing Board Clerk, one printed copy of all documents submitted in support of their application.

1. Business name: Pacific Gas and Electric Co. – Humboldt Bay Generating Station
Address: 1000 King Salmon Avenue, Eureka, CA. 95503
Phone: 707-441-2667 Contact Person: Charles Holm
2. Applicant is: () Individual () Partnership (X) Corporation
(If Partnership or Corporation, give names, addresses, and titles of all partners or officers).
3. Type of business or activity involved and street address at which it is conducted:
Commercial Electricity Generation
4. Description of article, machine, equipment, or contrivance involved in the application:
Engines S-1 through S-10, Wartsila 18V50DF Dual Fuel RICE, 148.9 mmbtu/hr, 16.2 MW, 22931 bhp (each).
5. Purpose of hearing:
() Suspension or revocation of permit under Health and Safety Code, Section 42307
() Variance under Health and Safety Code, Section:
() 42351 Interim () 42359.5 Emergency () 42350(a) Regular
You may only check one box per application form
(X) Revoking or modifying variance under Health and Safety Code, Section 42356, 42357, or 42358.
() Review denial or conditional granting of authorization for Authority to Construct or Permit to Operate Rule 102 of the NCUAQMD Rules and Regulations.

PAGE 2: Application for Hearing

6. Please identify the specific section, rule or order with which you cannot comply or permit modification:

HBGS is requesting this modification to extend the existing regular Variance Order (Order No. 2020-02), which will allow HBGS to continue moving forward on two action items. The first action item is to conduct engine tuning at low loads (less than 50%) in an attempt to improve engine operation and emissions during engine startups in island operations mode. On 12/07/20, Unit 1 was tuned. On 12/08/20 HBGS was directed by PG&E to enter sequestration, meaning that all personnel were to leave the site except for one O&M Lead, three operators, and two mechanics. The assigned personnel lived on site in trailers for a month at a time and were not allowed to leave or come in contact with anyone from outside the plant. Each month during the sequester period, the sequestered staff alternated between two crews (Crew A and Crew B). This occurred at a time when the number of COVID-19 cases was steadily increasing and PG&E was concerned that quarantine efforts may have left the plant with not enough staff to operate. The sequester period started 12/08/20 and ended 03/14/21. Following the end of the sequester period, HBGS has been working on bringing Wartsila back to the plant to continue the engine tuning efforts. The scheduling is ongoing and tuning efforts are expected to be completed within the extension period.

As discussed in the original variance application, engine tuning will most likely need approximately 4 hours of operation below 50% load for each engine. To cover the 10-engine tuning schedule, HBGS expects that the tuning activities would entail tuning two engines daily for 5 days. This schedule is completely dependent upon the CAISO and thus, may need to be adjusted to account for grid load expectations.

The second action item that is currently covered under the existing Variance Order (Order No. 2020-02) and HBGS is requesting to be continued is for the allowance of HBGS to operate in island mode during any upcoming emergency events, such as Public Safety Power Shutoff (PSPS) events/storm events, while the permit modification is in process. A Permit to Amend (PTA) application was submitted to the California Energy Commission (CEC) and the North Coast Unified Air Quality Management District (NCUAQMD) on March 5, 2021 and is currently undergoing review. HBGS is requesting this modification for extension to allow continued support of area load during emergency events, such as PSPS events, while this review process continues. As soon as the permit and license amendment process have finished, this variance would no longer be necessary.

Based upon previous testing efforts as well as islanding efforts during PSPS events during the currently approved variance period, HBGS suspects that operational parameters, associated with the two action items specified above, continue to have the potential to exceed the following permit conditions:

- Condition #84 – diesel mode, no more than two units in startup during any one clock hour.
- Condition #90 – gas mode, startup lbs/hr.
- Condition #91 – gas mode ppm, lbs/hr, and lbs/mmbtu.
- Condition #92 – gas mode, daily emissions limits
- Condition #94 – diesel mode ppm, lbs/hr and lbs/mmbtu
- Condition #95 – DPM emissions limits, hourly and daily only
- Condition #96 – S-1 through S-10 daily emissions limits in diesel mode
- Condition #111 – S-1 through S-10 load less than 50%
- Condition #112 – engines not to run more than 80 hours per calendar day at loads less than 50%.
- Condition #114 – catalyst pressure requirements
- Condition #115 – catalyst temperature requirements
- Condition #116 – CO reductions of greater than or equal to 70%

7. Reason(s) why compliance with section, rule, or order cited in line 6 above is beyond your reasonable control:

As discussed in Section 6, HBGS was not able to complete the tuning activities or obtain a modified air permit within the timeframe entailed in the current Variance Order (Order No. 2020-02). This occurred because immediately after tuning engine one, HBGS was ordered into a sequester, which lasted for over three months. HBGS is currently attempting to bring Wartsila back out to the site to continue the engine tuning efforts. HBGS has also submitted a Permit to Amend (PTA) application to the California Energy Commission (CEC) and the North Coast Unified Air Quality Management District (NCUAQMD) on March 5, 2021. The application is currently undergoing review.

Operating in an island mode or as a black start unit to serve area load during emergency events, such as PSPS events, could require up to 120 mw of variability in load decreases and increases to manage instant real time area load changes. We would expect that in an island scenario, our optimum operating range for each engine could be between 4 mw and 16.3 mw. We expect to set each engine at approximately 8 mw allowing 8.3 mw of range up and 2 mw down in load. The load settings could vary significantly depending on the area load at the time. During island mode operations, more than two units may need to be started up in one hour to support grid load demands. Accordingly, HBGS is including the low load-related conditions in this request for extension of the existing variance (conditions 84, 111 and 112).

HBGS believes that the recent low load ammonia injection load point establishment has reduced some of the risk associated with NOx emissions and that all of the previous low load activities show that the plant can support island mode with very little risk for permit condition exceedances. However, there is still minimal experience operating in low loads especially during island mode operations and although HBGS will continue to control emissions to the maximum extent practicable, HBGS would like to continue to account for any potential upcoming permit condition exceedances associated with conducting emergency island mode operations in this request for extension of the existing variance.

During recently completed activities covered under previous variances (emissions testing, ammonia injection load point establishment activity, island testing, and islanding activities during actual PSPS events), it was observed that while operating in natural gas at low loads, several of the SCR catalysts heated up to approximately 900 -915 degrees Fahrenheit. Temperatures above this could lead to extreme thermal degradation of the catalysts. Switching the fuel to distillate drops this temperature back down to safe levels. There is a chance that the proposed low load engine tuning activities may reduce catalyst temperatures while operating in an island mode, which is one of the reasons the low load engine tuning is being proposed. Because the engines will not be operating at full load, it is expected that differential pressures across the catalyst have the potential to be significantly lowered, which would lead to the potential to have reduced CO destruction capability. Although CO has been controlled very well during previous low load activities, HBGS would like to continue including the related conditions in this request for variance extension (conditions 114, 115, and 116).

Another reason for the engine tuning activities is that HBGS believes engine tuning has the potential to lead to lower startup emissions in natural gas mode when operating at lower loads. While HBGS believes that the engine tuning activities may reduce NOx emissions (including startup emissions), it is currently unknown whether this will be successful and therefore HBGS is including associated conditions in this request for variance extension (conditions 90, 91, 92, 94, and 96).

While the engine tuning will also most likely lead to overall improved engine performance and the low load emissions testing conducted in December showed very good control of DPM at lower loads, operating in distillate at low loads is still a relatively new mode of operation for HBGS, therefore HBGS is including DPM control in this request for variance extension (condition 95).

PAGE 4: Application for Hearing

Without a continued variance, HBGS is not allowed to operate engines S-1 through S-10 at loads lower than 50%. HBGS believes that recent emissions testing, ammonia load point establishment, island testing, and island operation during actual PSPS events have shown that operation of the engines in island mode during emergency events is possible with relatively minimal emissions impacts, as discussed above.

8. Describe your past diligence to maintain compliance with the provision noted in line 6 above (i.e., programs to monitor emissions, monitoring changes in production rates, monitoring efficiency of emission control equipment, etc.):

The HBGS facility is currently in compliance with all provisions of its current operating permit. Since the engines S-1 through S-10 are not allowed to operate at loads below 50% (with the exception of variance covered activities), there are currently no compliance issues at loads below 50%. In addition, as part of previous variance coverage, HBGS has proactively established low load ammonia injection load points in an effort to further reduce emissions that could occur during island operations. The proposed additional engine tuning is another example of HBGS's diligent efforts to reduce emissions while operating in island mode during emergency situations.

9. Damage or harm resulting, or which would result, from compliance with section, rule or order cited in line 6 above:

HBGS believes that any exceedances of emissions during the proposed engine tuning activities and emergency islanding operations will be of relatively short duration, and that impacts on local or regional air quality will be insignificant. This belief has been further reinforced by the PSPS islanding efforts conducted during the currently approved variance period.

10. Period of time for which variance or modified variance is sought: HBGS is requesting a modification to the existing regular variance to extend variance coverage for a time period of one year or until completion of covered activities and completed permit modifications. The variance can be terminated upon completion of covered activities and completion of permit modifications.

Why: During the one year of proposed variance extension, HBGS will continue pursuing PTO modifications that will allow emergency islanding operations to occur without requiring a variance. HBGS has submitted an application for permit modification, which is currently under review by the NCUAQMD and the CEC. Following any granted permit modifications, the variance can be terminated. HBGS will also tune the engines during this time period.

HBGS proposes the following increments of progress to satisfy this requirement.

1. Completion of the tuning and low load activities by the end of the final variance (in July 2022) as listed in Item 6, paragraphs 1- 3.
2. Provide a detailed report on the occurrences of all emergency/islanding/low load operations (by July 2022).
3. Completion of the permitting action/CEC license (permits allowing for low load operations) by July 2022.

PAGE 5: Application for Hearing

11. Requirements which applicant can meet, if less than required by section, rule, or order cited in line 6 above:

HBGS will continue to use the SCR and CO catalyst systems during all engine tuning and emergency islanding operations. Previous and current variance-covered activities continue to demonstrate that emissions during islanding operations will most likely not exceed current permit limits as well. If there are any excursions from existing permit conditions, they would be expected to be of short duration and minimal levels.

12. Describe the activities the applicant will take to reduce excess emissions to the maximum degree feasible:

HBGS will continue to operate the current APC systems to the maximum extent possible during the low load engine tuning and emergency island activities.

13. Advantages and disadvantages to residents of area if section, rule, or order cited in line 6 above is complied with:

Disadvantages would be the potential for short term exceedances of permit emissions limits during the emergency islanding operations. HBGS has demonstrated that exceedances will be minimal, if at all.

Advantages will be that HBGS will be able to continue providing power to the local area during times of emergencies, such as PSPS events, winter storms, natural disasters, etc. The low load engine tuning may potentially reduce NOx emissions.

14. Would granting of variance create a public or private nuisance? No

Why:

HBGS will operate, to the greatest extent possible, the existing engine APC systems in order to minimize emissions during the engine tuning activities and while operating in island mode during future emergency events.

15. Describe how the applicant will monitor or otherwise quantify emission levels during the term of whatever action is taken by the Hearing Board on this application:

HBGS will continue to operate the APC systems, and the CEMS systems on engines S-1 through S-10 during all proposed activities. The engine tuning activities may potentially reduce NOx emissions.

16. Estimate the excess emissions of each pollutant, for the time period requested under this application, which will occur if your facility is granted a variance.

At this time, HBGS does not believe that any excess emissions will occur during the low load engine tuning and islanding operations, however there has only been a limited amount of testing and actual island operations during emergency events. HBGS estimates that if any exceedances do occur, they will be in the area of concentration (ppm) limits or potentially startup emissions as islanding operations may require startups that do not go to full load. The low load engine tuning may assist in reducing the startup NOx emissions. Any excess mass emissions that occur during the proposed engine tuning activities or during proposed emergency island mode operation will be reported in accordance with Appendix B of the NCUAQMD regulations as well as any requirements mandated by the variance process.

PAGE 6: Application for Hearing

Please describe your method of calculation.

Any excess mass emissions will be calculated using various means of data available such as CEMS data, emissions factors, source testing data, fuel use etc. HBGS will calculate and report excess mass emissions in accordance with Appendix B of the NCUAQMD regulations.

Also, please calculate the excess emissions fee to satisfy the requirements of Rule 405, 5.10:

Because this variance request is for proposed activities, versus activities that have already happened, It is hard to know what emissions exceedances may occur. Any mass emissions exceedances incurred while operating under this variance will be calculated or measured and reported by the end of the variance period. Any associated fees will be paid at that time.

17. Describe the affects of curtailing operations of the source in lieu of obtaining a variance. Curtailing operations will have no effect. The point of the variance is to allows low load engine tuning and emergency island operations which in actuality represents a curtailment of operations in order to provide the local area with power during emergency events.

Has consideration been given to curtailing operations? () yes (X) no

Explain the degree of consideration given to curtailment: None, see above.

I, *C. I. W.* *Plant Manager* *June 18, 2021*
signature title date

hereby certify that the foregoing is true and correct.

**North Coast Unified
Air Quality Management District**
707 L Street, Eureka, CA 95501
(707) 443-3093
www.ncuaqmd.org



GUIDELINES FOR HEARING BOARD APPLICATION

The North Coast Unified Air Quality Management District (NCUAQMD) Hearing Board has developed a set of guidelines to assist applicants in completing an application for a hearing.

To evaluate the application for a hearing from specific conditions delineated in the [NCUAQMD Rules and Regulations](#), it is necessary that the applicant answer the questions thoroughly. These questions are developed to elicit the answers needed by the Hearing Board to make the required findings in Section 42352 of the Health & Safety Code prior to issuance of a variance. If you are a "small business", as defined in Section 42352.5(b)-1, the NCUAQMD will assign a person to assist you in the completion of this application and developing any needed compliance schedules.

CONTENTS OF PETITION (Rule 601):

1. Name, address and telephone number of petitioner or other person authorized to receive service of notice shall be stated.
2. Indicate whether the petitioner is an individual, co-partnership, corporation, or other entity; names and addresses of partners if a co-partnership, names and addresses of the officers if a corporation, and names and addresses of the persons in control if an entity.
3. Indicate the type of business or activity involved in the application, and the street address at which conducted.
4. Include a brief description of the article, machine, equipment or other contrivance, if any involved in the application.
5. Indicate whether the hearing is to concern:
 - A. Whether a permit shall be revoked or a suspended permit reinstated under [Section 42307](#) of the Health and Safety Code of the State of California.

Section 42307: "An air pollution control officer may request the hearing board of the district to hold a hearing to determine whether a permit should be revoked, if he finds that the holder of the permit is violating any applicable order, rule or regulations of the district, or any applicable provision of this division" (California Air Pollution Control Laws).

- B. The granting of variance under [Section 42350\(a\)](#) of the Health and Safety Code of the State of California.

Section 42350: "Any person may apply to the hearing board for a variance from [Section 41701](#) or from the rules and regulations of the district".

Section 42351: Interim Variance. "Any person who has submitted an application for a variance and who desires to commence or continue operation pending the decision of the hearing board on the application may submit an application for an interim variance."

Petitioners filing for an Interim Variance are required to also file for a regular variance.

PAGE 2: GUIDELINES FOR HEARING BOARD APPLICATION

Section 42359.5: Emergency Variance: "shall not remain in effect longer than 30 days and shall not be granted when sought to avoid the provisions of Section 40824 or 42351."

- C. Whether to revoke or modify a variance under Section 42356, 42357, or 42358 of the Health and Safety Code of the State of California.

Section 42356: "The hearing board may modify or revoke, by written order, any order permitting a variance."

Section 42357: "The hearing board may review and for good cause, such as a change in the availability of materials, equipment, or adequate technology, modify a schedule of increments of progress or a final compliance date in such a schedule".

Section 42358(a): "The hearing board, in making any order permitting a variance, shall specify the time during which such order shall be effective, in no event, except as otherwise provided in subdivision (b), to exceed one year, and shall set a final compliance date."

Section 42358(b): "A variance may be issued for a period exceeding one year if the variance includes a schedule of increments of progress specifying a final compliance date by which the emissions of air contaminants of a source for which the variance is granted will be brought into compliance with applicable emission standards."

- D. Whether to review the denial or conditional granting of an authority to construct or permit to operate under Rule 102 of the NCUAQMD.

6. Identify the specific section, rule or order with which you cannot comply.
7. Indicate the facts showing why compliance with the section, rule or order cited in line 6 above is not within your reasonable control.
8. Indicate the efforts you have made over past years to continually be aware of your compliance status and the monitoring efforts you have exerted to maintain compliance with regulatory emission limits.
9. Indicate the damage or harm resulting or which would result to petitioner from a compliance with such section, rule or order.
10. State the period of time for which the variance is sought and why.
11. State the requirements which petitioner can meet and the date when petitioner can comply with such requirements.
12. State actions that will be taken to reduce excess emissions to the maximum extent possible.
13. Indicate the advantages and disadvantages to the residents of the district resulting from granting a variance.
14. State whether or not operations under such variance, if granted, would constitute a nuisance.
15. State the methods how emissions will be measured and monitored during the term of applicant's request.

PAGE 3: GUIDELINES FOR HEARING BOARD APPLICATION

16. Calculate the excess emissions (emissions above the allowable limit) that are anticipated to occur over the term of the variance, if granted. Show the techniques used to calculate excess emissions for each pollutant. Calculate, showing the method used, the excess emissions fee required by [Rule 405, 5.10](#) of the NCUAQMD's Regulation. Both the excess emissions fee and the filing fee shall be submitted with the application for a variance.
17. State the considerations that were given by the applicant to curtail operations in lieu of seeking a variance.

Each application shall be signed by the petitioner, or some person on their behalf, and where the person signing is not the petitioner, it shall set forth their authority to sign.

All petitions shall be typewritten, double spaced, on legal or letter sized paper, on one side of the paper only, leaving a margin of at least one inch at the top and left side of each sheet.

Within our capabilities, NCUAQMD staff is willing to assist you in the preparation of your variance application form and supporting documents.