Meeting of the
North Coast Unified Air Quality Management District
Governing Board of Directors

Thursday, September 17, 2020 at 10:30 a.m.,
Via Internet Teleconference – Zoom Video Conferencing

Join Zoom Meeting
https://us02web.zoom.us/j/7436469733
Meeting ID: 743 646 9733
Call in option: 669 900 6833

PUBLIC ADVISORY: The District Office will not be open to the public due to COVID-19 concerns. Consistent with Executive Orders N-25-20 and N-29-20 from the Executive Department of the State of California and the Humboldt County Public Health Officer’s March 19, 2020, Shelter In-Place Order, the meeting location will not be physically open to the public and Board Members will be teleconferencing into the meeting via Zoom Video Teleconference.

How to Observe the Meeting: To maximize public safety while still maintaining transparency and public access, members of the public can observe the meeting at www.zoom.us – Meeting Code 743 646 9733

How to Submit Public Comment: Members of the public may provide public comment before and during the meeting by sending comments to the Clerk of the Board by email at hbitner@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 Clerk of the Board at hbitner@ncuaqmd.org or by calling (707) 443-3093. The Clerk will use their best efforts to provide reasonable accommodations to provide as much accessibility as possible while maintaining public safety.
AGENDA

1. 10:30 A.M. Call to Order  
   Board Chair

2. Roll Call  
   Clerk

3. Additions and Deletions to Agenda  
   Board Chair

CONSENT AGENDA

4. Consider Approving the Consent Agenda, Items for action, 4.1 through 4.2: The Board may approve the Consent Agenda by single motion in whole or in part with or without further discussion. 
   Action Requested: Approve Consent Agenda Items 4.1 through 4.2:
   Board Chair

   4.1 By Consent, Approve Minutes of May 21, 2020 Board Meeting

   4.2 By Consent, Accept and File District Activity Report

REGULAR AGENDA

5. Public Comment Period (pursuant to Government Code section 54954.3(a))  
   Board Chair

6. Reschedule November 19, 2020 Governing Board Meeting: Due to conflicts consider cancellation of November 19, 2020 regular meeting and approve special meeting date.  
   APCO

7. APCO Report  
   APCO

8. Board Member Reports  
   Board Chair

9. Adjournment  
   Board Chair

The next Board of Directors meeting is scheduled for Thursday, November 19, 2020 at 10:30 a.m. 
NCUAQMD District Office: 707 L Street, Eureka CA 95501
Or Via Internet Teleconference – Zoom Video Conferencing

The meeting rooms are ADA accessible. Accommodations and access to NCUAQMD meetings for people with special needs must be requested of the Clerk in advance of the meeting.
Agenda Item: 1
Call to Order
Agenda Item: 2
Roll Call
Agenda Item: 3
Additions and Deletions to Agenda
Agenda Item: 4
Agenda Item: 4.1
Agenda Item: 4.2
Minutes of the Regular Meeting of the North Coast Unified Air Quality Management District Governing Board of Directors Meeting of May 21, 2020

The meeting was called to order by Vice-Chair Chris Howard at 10:30 AM via teleconference on Zoom meeting ID# https://us02web.zoom.us/j/7436469733

Meeting ID: 743 646 9733, Call in option: 669 900 6833
The meeting location was made available to the public.

MEMBERS PRESENT:
Chris Howard
Mike Wilson
Judy Morris

Del Norte County Supervisor
Humboldt County Supervisor
Trinity County Supervisor

MEMBERS ABSENT:
Rex Bohn
Brett Watson
Humboldt County Supervisor
City of Arcata Councilmember

STAFF PRESENT:
Brian Wilson
Jason Davis
Heather Bitner
Penny Costa
APCO
Deputy APCO
Clerk of the Board
Finance and HR Coordinator

OTHERS PRESENT:
None

Agenda Item 1: Call to Order

Agenda Item 2: Roll Call

Agenda Item 3: Additions and Deletions to the Agenda
**Agenda Item 4: Consider Approving the Consent Agenda**

4.1: Approve Minutes of April 16, 2020 Board Meeting

A motion offered by Supervisor Wilson, duly seconded by Supervisor Morris to Adopt Consent Agenda Items 4.1-4.2 is hereby APPROVED by the North Coast Unified Air Quality Management District Board of Directors on this 21st day of May, 2020 by the following votes:

UNANIMOUS PASS by the following Roll Call vote:
- Supervisor Howard   Aye
- Supervisor Bohn     Absent
- Supervisor Morris   Aye
- Councilmember Watson Absent
- Supervisor Wilson   Aye

There was no public comment.

**Agenda Item 5: Public Comment**

There was no public comment and no email requesting comment from the public to the Clerk.

**Agenda Item 6: Public Hearing: Proposed FY 2020-21 District Budget**

The Public Hearing was Continued to 10:35am. The Chair Closed the Public Hearing at 11:00am. The APCO sent Counsel Diamond’s regrets for not attending but she is recovering from a car accident.

The draft budget and a Powerpoint (both on file with the Minutes for this meeting) were presented via shared screen by the APCO. Potential COVID-19 effects and an increase in professional services to accommodate GovInvest services to tackle OPEB liabilities were discussed. There is not a lot of clarity regarding state funds, and DMV funding and source permitting may be affected by decreased economic activity. Grants may also be impacted by state funding changes.

There was no public comment requests via email to the Clerk.

A motion offered by Supervisor Morris, duly seconded by Supervisor Wilson to Adopt the FY 2020-21 District Operating Budget is hereby APPROVED by the North Coast Unified Air Quality Management District Board of Directors on this 21st day of May, 2020 by the following votes:
UNANIMOUS PASS by the following Roll Call vote:

Supervisor Howard   Aye
Supervisor Bohn      Absent
Supervisor Morris    Aye
Councilmember Watson Absent
Supervisor Wilson    Aye

**Agenda Item 7: APCO Report**

The APCO submitted the report that had been included with the Board packet.

**Agenda Item 8: Board Member Reports**

There were no member reports.
There was no public comment.

**Agenda Item 9: Adjournment**

The Governing Board Meeting was adjourned at 11:02 AM.

I hereby attest that this is a true and correct copy of the action taken by the North Coast Unified Air Quality Management District Board of Directors on May 21, 2020

________________________________________________________________________________________

Chair                                       Date

________________________________________________________________________________________

Heather Bitner, Clerk of the Board           Date

The Next Board Meeting is scheduled for Thursday, July 16, 2020 via teleconference. Details to be listed in the Agenda.

The meeting rooms are ADA accessible. Accommodations and access to NCUAQMD meetings for people with special needs must be requested of the Clerk in advance of the meeting.
Agenda Item: 4.2
Air Monitoring Report for September 2020

Air Monitoring Data Summary:

The purpose of this status report is to summarize the ambient air quality data available for the period of March-May 2020.

➢ There were no Federal Equivalent Method (FEM) PM$_{10}$ exceedances of the State Ambient Air Quality Standard recorded during the reported period.

➢ There were no non-FEM PM$_{2.5}$ 24 Hour exceedances of the State and Federal Ambient Air Quality Standard recorded during the period January-May 2020.

➢ There were no O$_3$, SO$_2$, NO$_2$, or CO exceedances of the State or Federal Ambient Air Quality Standard recorded during the period.

Particulate Levels in Relation to CA Ambient Air Quality Standards

<table>
<thead>
<tr>
<th></th>
<th>Jacobs</th>
<th>Crescent City</th>
<th>Weaverville</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max FEM 24-hour PM$_{10}$</td>
<td>80%</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>(March-May 2020)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FEM PM$_{10}$ Rolling Arithmetic Mean</td>
<td>83%</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>(June 2019-May 2020)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Max FRM 24-hour PM$_{2.5}$</td>
<td>52%</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>(January-May 2020)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FRM PM$_{2.5}$ Rolling Arithmetic Mean</td>
<td>60%</td>
<td>NA</td>
<td>NA</td>
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<tr>
<td>(June 2019 – May 2020)</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Max non-FEM 24-hour PM$_{2.5}$</td>
<td>NA</td>
<td>40%*</td>
<td>43%*</td>
</tr>
<tr>
<td>(March-May 2020)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-FEM PM$_{2.5}$ Rolling Arithmetic Mean</td>
<td>NA</td>
<td>56%*</td>
<td>54%*</td>
</tr>
<tr>
<td>(June 2019- May2020)</td>
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</table>

- Data unavailable
* Instrument not used for Federal Attainment Designation
Detailed Graphs:

- 24 Hour California AAQS is 50 μg/m³, Federal AAQS is 150 μg/m³.
- California Annual Arithmetic Mean AAQS is 20 μg/m³.
- Humboldt County is classified as non-attainment for this pollutant.

- Federal AAQS is 35 μg/m³. There is no separate state standard.
• Federal AAQS is 35 ug/m3. There is no separate state standard.
Agenda Item: 5
Agenda Item: 6
TO: North Coast Unified Air Quality Management District Board

FROM: Brian Wilson, APCO

SUBJECT: Reschedule November 19, 2020 Governing Board Meeting

DATE: September 17, 2020

ACTION REQUESTED: Due to conflicts consider cancellation of November 19, 2020 regular meeting and approve special meeting date.

SUMMARY:

It has come to the District’s attention that the regularly scheduled Governing Board meeting on November 19, 2020 as adopted in 2020 Calendar of Meetings will no longer work for several Board members. Staff requests the Board discuss and adopt a Special Meeting date, time and location that will be satisfactory.
2020 Governing Board Meeting Calendar

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 16</td>
<td>10:30 a.m.</td>
<td>Eureka</td>
</tr>
<tr>
<td>March 19</td>
<td>10:30 a.m.</td>
<td>Eureka</td>
</tr>
<tr>
<td>April 16</td>
<td>10:30 a.m.</td>
<td>Crescent City</td>
</tr>
<tr>
<td>May 21</td>
<td>10:30 a.m.</td>
<td>Eureka</td>
</tr>
<tr>
<td>July 16</td>
<td>10:30 a.m.</td>
<td>Eureka</td>
</tr>
<tr>
<td>September 17</td>
<td>10:30 a.m.</td>
<td>Weaverville</td>
</tr>
<tr>
<td>November 19</td>
<td>10:30 a.m.</td>
<td>Eureka</td>
</tr>
</tbody>
</table>

**Eureka Meeting Location**
NCUAQMD Office
707 L Street
Eureka, CA 95501

**Crescent City Location**
Del Norte County Supervisor Chambers
981 H Street, Suite 100
Crescent City, CA 95531

**Weaverville Location**
Trinity County Library
11 Court Street
Weaverville, CA 96093

The meeting rooms are ADA accessible. Accommodations and access to NCUAQMD meetings for people with special needs must be requested of the Clerk in advance of the meeting. Board meetings begin at 10:30 am unless otherwise noted.
Agenda Item: 7
TO: North Coast Unified Air Quality Management District Board
FROM: Brian Wilson, APCO
SUBJECT: APCO Report
DATE: September 17, 2020
ACTION REQUESTED: Accept and File

The following information is provided as a summary of items of interest to the Board and District. Staff solicits and appreciates any feedback concerning these items or other items of interest from the Board.

1. **District Response to COVID-19**

   The District continues to take appropriate measures to comply with both the County’s COVID-19 orders and guidance in addition to state executive orders and requirements. District staff continues to work on various flexible work options while maintaining District functions. There has been no health concerns with staff regarding COVID-19.

2. **Update on PG&E Regular Variance Activity**

   On February 3, 2020, the District's Hearing Board approved the Regular Variance for PG&E as proposed, and the Regular Variance Order 2020-01 was subsequently signed on February 28, 2020.

   The Regular Variance was to provide relief from permit conditions and permit emission limitations (until June 30, 2020) to allow the HBGS to conduct the emission (source testing) and other operational testing necessary to confirm their readiness to operate in an island mode or as a black start unit to serve area load. In addition to the short-term emission testing performed last December 2019, PG&E finished operational testing of Ammonia Injection Load Point Determinations (i.e. fine tuning the emission control SCR system) for loads less than 50% in April. The variance also allowed for island operational testing to determine the actual ability of the plant to achieve real-world operation similar to PSPS conditions, which PG&E completed on May 9, 2020.
On July 10, 2020, the Hearing Board issued Hearing Order No. 2020-02 for a Regular Variance to PG&E (see attached Order and Staff Report). The regular variance granted to PG&E provided relief from permit conditions and permit emission limitations for a period of up to one year, while allowing the HBGS to potentially operate in island mode during upcoming emergencies such as Public Safety Power Shutdown (PSPS) events and to conduct engine tuning at loads less than 50%. HBGS will also be submitting an application to modify its Title V Operating Permit. The proposed variance will be in effect for a period of up to one year or until a modified Operating Permit and other applicable modified licensing is effective, whichever date is sooner.

3. **Wildfire Smoke Update**

Smoke impacts to our jurisdiction from the 2020 Wildfire Season began at the beginning of August due to the Red Salmon Complex, and heavy smoke impacts started at the beginning of September primarily due to the August Complex, Slater, Elkhorn/Hopkins and numerous other southern fires. Attached is one of the most recent Wildfire Smoke PSA, Advisory, and Alert from September 13, 2020.

What the District issues in its PSAs, Advisory/Alerts, is an AQI forecast for a 24hr average as per the EPA-CA approved *Wildfire Smoke - A Guide for Public Health Officials*. Any time the AQI forecast is predicted to be Hazardous for a community, the District contacts the Public Health Department and Health Officer of the affected county to raise awareness and to ensure communication.

There are many wildfire smoke informational sites out there like Weather Underground, IQData, PurpleAir, etc. These mainly provide specific hourly data, however they are not very correct and use other algorithms and/or just satellite data. The best source presently to show the local District monitors and sensors is [https://fire.airnow.gov](https://fire.airnow.gov). This site will show icons for fixed station monitors as circles, portable monitors (EBAMs) as triangles, and sensors as squares.

Due to the wildfires, the District has portable monitors (EBAMs) deployed at these locations: Crescent City, Gasquet, Eureka, Weaverville, Hoopa, Weitchpec, Willow Creek, Klamath, Trinity Center, Bridgeville, and Garberville.

Recently, the EPA added the sensor layer to the Fire.AirNow.gov website which only shows government PurpleAir sensors, but applies a needed correction factor to them as they do not compensate for humidity or react well to high concentrations. Currently, there are about 15 sensors deployed by the District in Humboldt, Del Norte, Trinity County. If the PurpleAir sensor site, PurpleAir.com, is used to view all sensors in the area, one of the correction factors in the lower left (AQ&U or LRAPA) should be applied, as even the EPA uses a correction/conversion factor when displaying them in the layer shown on the Fire.AirNow.gov site. Sensors are a $200 device as compared to a $10,000 portable EBAM monitor, and they need a correction factor applied to be comparable, which is recommended by the EPA, CARB, and air districts. Applying those factors can sometimes make the difference between Unhealthy and Hazardous AQIs. Additionally, sometimes a sensor may be higher than others given its elevation (one in Kneeland is at an elevation of 2000 feet
as compared to one in Eureka) since sometimes smoke concentrations may not be the same at different elevations.

Other sites such as WeatherUnderground.com shows local “monitors”, but these are actually all the private/citizen-science sensors without a correction factor. It does not show or take into account any of the portable monitors (EBAMs) deployed during wildfires listed above nor any stationary monitoring sites.

4. **Carl Moyer State Reserve Funds**

   The State Reserve (“Multi-District”) funds are part of an unallocated percentage of Carl Moyer Program funding that specifically targets and supports state priorities and statewide equipment in partnership with air districts.

   Several years ago the funding had gone toward the TIMBER (Truck Improvement/Modernization Benefitting Emission Reductions) Program. More recently, CARB has requested the Carl Moyer State Reserve funds to go toward Carl Moyer eligible small fleet off-road equipment.

   The District was awarded $200,000 ($175,000 in project funds and $25,000 in administration) for State Reserve Year 22 Grant Funds. The $9.3 million in grant funds were awarded to only 7 of the 35 air districts, and only 2 were rural districts.

   Staff believes the Board has already provided authorization under its prior approval of Board Resolution 2013-4, which allows participation in the Carl Moyer Program and all subset programs through December 31, 2026, and also confirms the District will commit to complying with all program requirements, including those that are specific to individual programs. The acceptance and expenditure of the potential allocation of $200,000 is reflected in the current approved District FY20-21 Budget.

5. **Update on State Woodsmoke Grant**

   The District was allocated about $315,000 in Year 1 Program Funding (out of $5 million statewide) and funded 70 wood stove replacements. CARB allocated $170,000 for Year 2 Program funding (out of $3 million statewide). Within small and rural air districts, the District was again allocated the largest amount of funding in the state for the second year. The District has allocated an additional $100,000 from settlement funds to supplement CARB funding this year.

   For Year 2, the District has allocated 47 projects, with 13 more to be completed by December 2020. Although the Woodstove Reduction Program will not receive funding in the next State budget due to COVID-19 impacts, the District plans to continue to utilize earmarked settlement funding until depleted.
District Staff Report for
Regular Variance Hearing on July 10, 2020

Petitioner: Pacific Gas & Electric (PG&E)
Re: Humboldt Bay Generating Station (HBGS) Facility

Purpose of Hearing:

The regular variance requested by PG&E is to provide relief from permit conditions and permit emission limitations for a period of up to one year, while allowing the HBGS to potentially operate in island mode during upcoming emergencies such as Public Safety Power Shutdown (PSPS) events and to conduct engine tuning at loads less than 50%. HBGS will also be submitting an application to modify its Title V Operating Permit during the summer of 2020. The proposed variance would be in effect for a period of up to one year or until a modified Operating Permit and other applicable modified licensing is effective, whichever date is sooner.

The petitioner is seeking relief from the following permit conditions under their Operating Permit:

- 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 emission 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%.

Equipment Subject to Petition:

The primary permitted units are ten (10) Wärtsilä 18V50DF engines rated at 16.3 MW (22,931 BHp) that are dual fuel reciprocating internal combustion engines (RICE), equipped with selective catalytic reduction (SCR), oxidation catalyst, and associated support equipment including continuous emissions monitors (CEMS). The primary fuel is
natural gas with diesel pilot injection. The dual-fueled units are capable of firing 100% on diesel fuel.

Documents Relevant to the Variance Request:

- PG&E Regular Variance Request cover letter (5/27/20)
- PG&E Regular Variance Application/Petition (5/27/20)
- Title V Federal Operating Permit and District Permit to Operate #NCU 059-12 for the PG&E HBGS (last revised 7/19/18)

Background:

When the Operating Permit was initially issued to PG&E for the HBGS in 2008, PG&E had requested operation of the engines S-1 through S-10 at loads no lower than 50%. Because the engines were new and there were no other engines similar in the United States, the U.S. EPA required that PG&E obtain a manufacturer guarantee for emission rates. In this case, PG&E’s engine manufacturer (Wartsila), did not provide guarantee for engine operation below 50%. Consequently, PG&E presented an initial permit application for HBGS for loads no lower than 50%.

PG&E has indicated that operating the HBGS plant during an island mode or as a black start unit to serve area load would require operation below the 50% that was initially proposed in their Operating Permit.

On December 10, 2019, PG&E submitted an interim variance request pursuant to Health and Safety Code (H&SC) §42351 and District Regulation VI, Rule 603, to conduct testing while operating three of ten Wartsila Dual Fuel reciprocating engines located at the HBGS at load lower than the 50%, the minimum load level allowed by the Operating Permit. Concurrent with its submittal of the application for interim variance, PG&E also submitted an application for a regular variance pursuant to H&SC §42352. Absent the variance, PG&E would not be able to conduct the testing needed to investigate the feasibility of operating the HBGS plant during an island mode or as a black start unit to serve area load at operation below what was initially proposed in their Operating Permit.

On December 14, 2019, the Hearing Board granted an interim variance from the identified permit conditions of the Operating Permit. During the period of the interim variance, PG&E conducted short term testing on the identified engines while operating under 50% load in accordance with Source Test Plan. A regular variance was heard and granted on February 3, 2020, which included two additional operational tests: a) Ammonia Injection Load Point Determination Tests (April 2020), and b) Island Operational Testing (May 2020).

The Ammonia Injection Load Point Determination Tests were performed in April, and allowed the ammonia injection control system to be tuned at low load by adding five (5) additional load points. The plant uses a Selective Catalytic Reduction (SCR) system for NOX emissions control with ammonia injection as part of the control system. These had already been determined for the engines at loads greater than 50% load, but had not yet been established for loads below 50%. These tests allowed the HBGS to determine the optimum operating load range for each unit in order to control the NOx emissions to some specific level. The tests required about 4 hours per engine for ten engines (less than 100 hrs of total operation).
The Island Operational Testing was performed on May 14, 2020 using three engines from each group of five engines (Units #1, 2, 3, and Units #8, 9, 10). This operationally tested the ability of the plant and engines to achieve real-world island operation similar to PSPS conditions.

On the successful completion of these tests, PG&E submitted a Regular Variance petition on May 27, 2020 to provide relief from permit conditions and permit emission limitations for a period of up to one year, while allowing the HBGS to potentially operate in island mode during upcoming emergencies such as Public Safety Power Shutdown (PSPS) events and to conduct engine tuning at loads less than 50%. HBGS will also be submitting an application to modify its Title V Operating Permit during the summer of 2020. The proposed variance would be in effect for a period of up to one year or until a modified Operating Permit and other applicable modified licensing is effective, whichever date is sooner.

In order to support local load demand during emergency events such as PSPS events, natural gas is proposed to be the primary and preferred fuel source during operations in island mode, but in the event that operating conditions warrant, distillate (diesel) fuel may be used in order to maintain engine reliability and to avoid damaging the engines or air pollution control systems. PG&E had indicated that examples of these conditions during natural gas operation may include, but are not limited to, overheating catalysts, synch back to parallel operation, cylinder issues, extreme load swings, etc.

**Relevant Regulations:**

- District Regulation VI - Hearing Board Procedures contain the requirements and procedures as authorized by the California Health & Safety Code; specifically: Rule 601 – Petition Procedures, Rule 605 – Hearing Procedures, and Rule 606 - Decisions
- Health and Safety Code (H&SC) §40826, and §42532

**Discussion & Recommendation:**

The North Coast Unified Air Quality Management District (District) believes that PG&E meets the requirements of the regular variance petition as proposed, with the inclusion of allowing the HBGS to conduct engine tuning at loads less than 50% to reduce NOx emissions even further than prior activities.

The purpose of the regular variance is to provide relief from permit conditions and permit emission limitations for a period of up to one year, while allowing the HBGS to potentially operate in island mode during upcoming emergencies such as PSPS events, and to conduct engine tuning at loads less than 50% in an attempt to improve engine operation and emissions during engine startups in island operations mode. HBGS will also be submitting an application to modify its Title V Operating Permit during the summer of 2020.

The proposed variance would be 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.
Since the initial testing in December of 2019, there has not been excessive emissions when engines are operated at low load operations. PG&E successfully performed the testing as allowed under the terms of the initial variance from December 15-22, 2019. At that time, the engines were operated at 25% and 7% load rating while operating in natural gas mode and in diesel mode - NOx emissions were just at or over the existing emission limits in three of the four engines in natural gas mode, once at 4 MW and three times at 6MW. Subsequent operational testing of ammonia injection tuning at the lower loads was performed to reduce NOx emissions in natural gas mode at the lower load points. These activities have showed that the plant can now potentially operate in an island mode with very little risk of exceeding permit conditions.

Because the previous activities of ammonia injection tuning at the lower loads appear to have successfully lowered NOx emissions during operation at low loads, PG&E believes that tuning the engines at low loads will also serve to reduce NOx emissions. Since installation, HBGS has only performed engine tuning on all the engines for loads greater than 50%. In an effort to further reduce NOx emissions, the HBGS is also including low load engine tuning in the proposed regular variance request.

**Hearing Board Findings Required By the H&SC:**

Under H&SC §42352 and District Regulation VI - Hearing Board Procedures, Rule 606 – Decisions, the Hearing Board may grant a regular variance only if it makes the following six findings:

1) That the petitioner for a variance is, or will be, in violation of a provision of the HSC or of any rule, regulation, or order of the District, including but not limited to, any permit condition.
2) That due to conditions beyond the reasonable control of the petitioner, requiring compliance would result in either a) an arbitrary or unreasonable taking of property, or b) the practical closing and elimination of a lawful business.
3) That such closing or taking would be without a corresponding benefit in reducing air contaminants.
4) That the applicant for the variance has given consideration to curtailing operations of the source in lieu of obtaining a variance.
5) During the period the variance is in effect, that the applicant will reduce excess emissions to the maximum extent feasible.
6) During the period the variance is in effect, that the applicant will monitor or otherwise quantify emissions levels from the source, if requested to do so by the District, and report these emissions levels to the district pursuant to a schedule established by the District.

Finding 1):

PG&E believes that operating the HBGS plant during an island mode or as a black start unit to serve area load would require operation below what was initially proposed in their Operating Permit. If the variance is not granted and PG&E needed to support local load demand during emergency events such as PSPS events by operating at low loads, PG&E would be in violation of Condition #111 (S-1 through S-10 load less than 50%) of the Operating Permit, with the potential to exceed other permit conditions as listed initially above and in their petition.
While the permit modification is in process, PG&E may need to operate the HBGS in island mode during any upcoming emergency events, such as the PSPS events. As soon as the permit amendment process is finished, the variance would no longer be necessary.

Finding 2):

Due to conditions beyond the reasonable control of petitioner, requiring compliance would result in an arbitrary or unreasonable taking of property – in this circumstance, a denial of the variance would be tantamount to denying the petitioner the opportunity to perform low load engine tuning to further reduce NOx emissions during engine startups in island operations mode. Absent a variance, the Petitioner would not be able conduct the tuning needed to operating the HBGS at acceptable emissions levels for the benefit of the local area during PSPS events.

In addition, had the petitioner alternatively presented the project in the form of an Authority to Construct application, they may have been granted approval but not within an acceptable timeframe needed to meet HBGS’s readiness to operate in an island mode or as a black start unit to serve area load. PG&E is the sole provider of electricity and it can be argued that it provides an essential public service to the region as it also provides support for public health and safety.

Finding 3):

Denying the petitioner request would not result in a corresponding benefit in reducing air contaminants. However, low load engine tuning will result in potentially lower emissions in both natural gas and diesel modes, and will advise and support the modification request to the current Operating Permit. This data will inform PG&E’s operational ability during an island mode or as black start unit to serve area load during times of regional power outages (PSPS events, etc.).

From an air quality perspective, discharges from a stationary source (such as PG&E) equipped with state-of-the-art pollution controls and monitoring equipment during events such as a PSPS, is indeed preferred over the alternative emissions from hundreds or thousands of gas or diesel back-up generators operated at private, retail, commercial, and governmental establishments in communities throughout the region. In addition, from a public safety perspective, loss of power to communities represents grave safety concerns that overshadow potential air emissions.

Operation of the HBGS to serve local area power need during PSPS events serves the public health and safety by reducing private, retail, commercial, and governmental reliance on individual back-up generators, most of which are not controlled or monitored for air emissions.

Finding 4):

Curtailing operations in lieu of the variance would not be a practical way to achieving what the petitioner needs to accomplish as proposed. The purpose of the regular variance is to allow PG&E to operate at load levels less than the 50% level authorized in its current Operating Permit, while they conduct engine tuning at low loads in an attempt to improve engine operation and emissions during engine startups in island operations mode.
Finding 5):

During the period the variance is in effect, PG&E is required to reduce excess emissions to the maximum extent feasible. As part of the variance order, the District requested, and the Petitioner agrees to accept, certain conditions to maintain the lowest possible impact on air quality emissions, notably: a) HBGS will continue to adhere to all conditions in its Operating Permit, and specifically continue to use all Air Pollution Control (APC) systems (SCR and CO catalyst, etc.) to the maximum extent possible during any low load operation and engine tuning; and b) the HBGS will continue to adhere to all monitoring requirements as indicated in its Operating Permit (CEMS, etc.).

The HBGS will be required to continue to use the SCR and CO catalyst systems during all engine tuning and emergency islanding operations. Based on previous variance-covered activities, PG&E believes that emissions from the HBGS during islanding operations will most likely not exceed current permit limits. If there are any excursions from existing permit conditions, they are anticipated to be of short duration and at minimal levels.

Finding 6):

During the period the variance is in effect, PG&E will still be utilizing existing regulatory monitoring (e.g., CEMS) as required by the permit, and emissions will indeed be quantified and reported during the engine tuning along with regular operation.

Recommended Variance Order Conditions:

It is recommended that the Hearing Board make each of the statutory findings to grant the Regular Variance on the conditions set forth above (Hearing Board Findings Required by the H&SC), and direct the APCO and General Counsel to draft a Variance Order consistent with the Hearing Board's determination for approval by the Petitioner before signature by the Hearing Board Chair.

If a regular variance is granted by the Hearing Board, it is also recommended that the Regular Variance Order include the following:

1. The required findings identified under H&SC §42352 and District Regulation VI - Hearing Board Procedures, Rule 606 – Decisions, have been satisfied.

2. The Petitioner be granted relief from the permit conditions and limitations of the Operating Permit as listed and proposed above at operational load levels less than 50%, so as to perform low load engine tuning in an attempt to improve engine operation and emissions during engine startups in island operations mode, and to allow the HBGS to operate in island mode during any upcoming emergency events such as Public Safety Power Shutoff (PSPS) events, while the permit modification is in process.

3. The Petitioner be granted relief from the permit conditions and limitations of the Operating Permit as proposed in the petition until July 10, 2021.
4. The Petitioner shall use natural gas as the primary and preferred fuel source during operations in island mode to support local load demand during emergency events such as PSPS, but in the event that operating conditions warrant, distillate (diesel) fuel may be used in order to maintain engine reliability and to avoid damaging the engines or air pollution control systems. Examples of these conditions during natural gas operation may include, but are not limited to, overheating catalysts, synch back to parallel operation, cylinder issues, extreme load swings, etc.

5. The Petitioner shall conduct the low load engine tuning activities, where the total of engine tuning shall not exceed 44 hours, per the following assumptions and allowances:
   - Proposal is for 4 hours of operation below 50% load for each engine.
   - There are 10 engines that will be tested (S-1 through S-10).
   - HBGS expects that the tuning activities would entail tuning 2 engines daily for 5 days.
   - Allowance for a 10% contingency (for 44 hours of total testing time allowed), because the schedule is completely dependent upon the CAISO and may need to be adjusted to account for grid load expectations.

6. The Petitioner will continue to adhere to all conditions in its Operating Permit, and specifically continue to use all Air Pollution Control (APC) systems (SCR and CO catalyst, etc.) to the maximum extent possible during all low load engine tuning and operation.

7. The Petitioner will continue to adhere to all regulatory monitoring requirements in the Operating Permit, specifically use of Continuous Emissions Monitoring (CEMS) during all low load engine tuning.

8. Within thirty days (30) days after the date of expiration of the variance, HBGS to prepare and submit a report of the emissions discharged that occurred as a result of relief obtained pursuant to the regular variance in accordance with District Rule 404(C) – Excess Emission Fee Schedule. Payment of fees shall be made according to District Rule 404(C).
BEFORE THE HEARING BOARD
OF THE
NORTH COAST UNIFIED AIR QUALITY MANAGEMENT DISTRICT

In the matter of the Petition for
Regular Variance
by PG&E Company for HBGS

) No. 2020-02
) CONFIRMATION OF FINDINGS
) AND ORDER
) FOR REGULAR VARIANCE

On July 10, 2020, pursuant to Health and Safety Code (HSC) § 42352 and District Regulation VI, Rule 606 of the North Coast Unified Air Quality Management District, a duly noticed petition for a regular variance submitted pursuant to HSC § 40826 by Pacific Gas and Electric Company ("PG&E") (hereinafter referred to as "Petitioner"), came on for hearing by the North Coast Unified Air Quality Management District Hearing Board. The hearing was duly noticed and conducted via Zoom video teleconference by Board members Charles Rocklein (Chair of the Hearing Board), Joanna Hawley Jones, John Corbett, Ken Mierzwa, and Dr. Denver Nelson. Consistent with Executive Orders N-25-20 and N-29-20 from the Executive Department of the State of California and the Humboldt County Public Health Officer’s March 19, 2020, Shelter In-Place Order, the public and Board Members were able to participate and observe the hearing via Zoom video teleconference.

Petitioner was represented by Charles Holm, PG&E Humboldt Bay Generating System (HBGS) Plant Manager, and Ryan Messinger, HBGS Environmental Compliance Manager. The District was represented by Brian Wilson, Air Pollution Control Officer (APCO); Jason L. Davis, Deputy APCO and Permitting & Planning Division Manager; Al Steer, Compliance and Enforcement Division Manager; and Nancy Diamond, District General Counsel.

Representatives of the Petitioner, the District, and members of the public were sworn in and gave extensive public testimony concerning the requested variance. The District, and Petitioner were given the right of cross-examination and the public was given the opportunity to direct questions to both the Petitioner and the District.

The following documents and other evidentiary material were marked for identification and received into evidence.

Exhibit 1: Notice of Public Hearing to be held on July 10, 2020;
Exhibit 2: Petitioner’s Application for Hearing for a Regular Variance under HSC §42350(a);
Exhibit 3: District Staff Report for Regular Variance Hearing on July 10, 2020;
Exhibit 4: Title V Federal Operating Permit and District Permit to Operate No: NCU 059-12 for the PG&E HBGS ("Operating Permit"); and
Exhibit 5: Recommended Variance Orders as modified on July 10, 2020.
Neither party offered an exhibit that was not received into evidence. After receiving evidence and testimony, findings and decision were made as follows:

**FINDINGS**

Based on the evidence and testimony, the following findings are made pursuant to HSC § 42352 and District Regulation VI, Rule 606 – Decisions:

1. Petitioner owns and operates the Humboldt Bay Generating System ("HBGS"), a power generation facility located at 1000 King Salmon Avenue, Eureka, California, under the terms and conditions of Title V Federal Operating Permit and District Permit to Operate No. NCU 059-12 ("Operating Permit").

2. The Operating Permit requires operation of all ten Wartsila Dual Fuel reciprocating engines located at the HBGS to be operated at loads of 50% or more. Emission limitation conditions in the Operating Permit are based on the 50% operational engine load, and were established at the time the Operating Permit was first issued based on the engine manufacture's guarantee. Deployment of this type of engine technology was new and no emissions profile for operations at lower loads was available or guaranteed by the manufacturer.

3. On December 14, 2019, the Hearing Board granted Petitioner an Interim Variance pursuant to HSC § 42351 and District Regulation VI, Rule 603, to conduct emissions testing while operating three of the ten Wartsila Dual Fuel reciprocating engines at loads lower than 50% (North Coast Unified Air Quality Management District Hearing Board Confirmation of Findings and Order No. 2019-01).

4. Petitioner performed emission testing as allowed under the terms of the Interim Variance from December 15-17, 2019 while operating under 50% load in accordance with the TRC Source Test Plan. NOx emissions during these tests indicated that the engines could potentially operate at low loads within NOx emission limitations with further tuning and ammonia modifications that were performed at higher loads.

5. On February 3, 2020, the Hearing Board granted Petitioner a short-term Regular Variance pursuant to HSC § 42352 and District Regulation VI, Rule 606 to conduct additional testing while operating three of the ten Wartsila Dual Fuel reciprocating engines at loads lower than 50%, and to test operation of the HBGS in island mode (North Coast Unified Air Quality Management District Hearing Board Confirmation of Findings and Order No. 2020-01). The short-term Regular Variance terminated on June 30, 2020.

6. Petitioner’s request to operate and test the HBGS engines at loads lower than 50% is part of its investigation into whether it can operate the HBGS in an island mode or as a black start unit to provide local power during emergency events that impact local electric power transmission lines, such as Public Safety Power Shutdown (PSPS) events, storms, etc. Under the terms of the short-term Regular Variance, Petitioner performed ammonia injection load point determination tests (completed April 2020) associated with the engines’ respective
lower operational loads and tested island operational mode (completed May 2020).

7. The results of testing and island mode operation during the Interim and short-term Regular Variances allowed Petitioned to obtain preliminary ammonia injection load point profiles for three of the ten engines operating at low electric service loads, and to confirm that island operation can be achieved. By using the ammonia injection load points data obtained during Variance testing, NOx emissions during low load operation were reduced to acceptable levels. Petitioner believes that additional testing to refine ammonia injection load points for engine operation at low electric service loads will further reduce NOx emissions during island operation.

8. On May 27, 2020, Petitioner submitted an application for variance to obtain relief from Operating Permit conditions and permit emission limitations for two purposes: i) 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; and, ii) to operate the HBGS in island mode during emergency events, such as Public Safety Power Shutoff (PSPS) events/storm events, while seeking modification of the HBGS Operating Permit. Petitioner will submit an application to modify its Title V Operating Permit during the summer of 2020 to allow the HBGS to operate in island mode. The variance is sought for a period of up to one year or until a modified Title V Operating Permit is effective, whichever date is sooner.

9. Operation of the HBGS to serve local area electric power during PSPS and other emergency events serves the public health and safety by reducing private, retail, commercial, and governmental reliance on individual back-up generators, most of which are not controlled or monitored for air emissions.

10. Proposed additional testing during the term of the variance will cause insignificant air quality impacts.

11. The required findings identified under HSC § 42352 and District Regulation VI, Rule 606 have been satisfied based on the proposed findings in the District staff report at Exhibit 3 to the record of this hearing, and which are adopted herein. These findings are summarized as follows:

   a. That the petitioner is, or will be, in violation of a provision of the HSC or of any rule, regulation, or order of the District, including but not limited to, any permit condition. Operation and/or engine tuning the HBGS at loads less than 50% would violate the following Operating 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 emission 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%.

b. That due to conditions beyond the reasonable control of the petitioner, requiring compliance would result in either a) an arbitrary or unreasonable taking of property, or b) the practical closing and elimination of a lawful business. Petitioner’s testing during the interim and regular variances indicates that it is able to operate the HBGS in island mode to provide electric power to portions of Humboldt County during local power outages caused by emergencies including PSPS and other emergency events, rather than remaining out of operation in shut down mode. If the variance is not granted, PG&E would be required to shut down the HBGS rather than support local load demand during such emergency events or operate in violation of Condition #111 (S-1 through S-10 load less than 50%) of the Operating Permit, with the potential to exceed other permit conditions as listed initially above and in their petition. An application to modify the Operating Permit to be able to operate during local power outages caused by PSPS and other emergency events will be submitted as part of variance.

c. That such closing or taking would be without a corresponding benefit in reducing air contaminants. Discharges from the HBGS regulated through an Operating Permit are preferable to the unregulated emissions from hundreds or thousands of gas or diesel back-up generators operated throughout the region during PSPS and other electric power shutdown events.

d. That the applicant for the variance has given consideration to curtailing operations of the source in lieu of obtaining a variance. Curtailing operations of the HBGS would not allow Petitioner to operate at the low load levels necessary to operate in island mode or as a black start unit to serve local area load, or to perform engine tuning at loads less than 50%.

e. During the period the variance is in effect, that the applicant will rescue excess emissions to the maximum extent feasible. As part of this Order, Petitioner is required to i) continue adhere to all conditions in the Operating Permit, including the use of all Air Pollution Control systems (SCR, CO catalyst, etc.), and ii) adhere to all monitoring equipment and requirements (CEMS, etc.) to the maximum extent possible.

f. During the period the variance is in effect, that the applicant will monitor or otherwise quantify emissions levels from the source, if requested to do so by the District, and report these emissions levels to the District pursuant to a schedule established by the District. As part of this Order, Petitioner will be required to quantify and report all monitoring data obtained during the period of the variance as part of the regular monitoring reporting.
ORDER

Based upon the above findings, Petitioner is granted a regular variance from the following conditions of the Operating Permit:

- Condition #84 – diesel mode, no more than two units in startup during any one clock hour.
- Condition #90 – gas and diesel 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 emission limits in diesel mode.
- Condition #109 – startup and shutdowns, limited to 30 engine hours/day
- 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%.

The period of this variance shall be governed by HSC § 42358(a), and shall expire no later than July 10, 2021. During the period of this variance, unless otherwise stated, the following shall apply:

1. The Petitioner is granted relief from the permit conditions and limitations of the Operating Permit as listed above at operational load levels less than 50%, in order to perform low load engine tuning in an attempt to improve engine operation and emissions during engine startups in island operations mode, and to allow the HBGS to operate in island mode during any upcoming emergency events such as Public Safety Power Shutoff (PSPS) events, while the permit modification is in process.

2. The relief granted by the variance will be limited to engine tuning and testing events, and emergency events requiring disconnection from the California Independent System Operator (CAISO) grid and operation in island mode, such as Public Safety Power Shutoff (PSPS) events.

3. The Petitioner shall use natural gas as the primary and preferred fuel source during operations in island mode to support local load demand during emergency events such as PSPS, but in the event that operating conditions warrant, distillate (diesel) fuel may be used in order to maintain engine reliability and to avoid damaging the engines or air pollution control systems. Examples of these conditions during natural gas operation may include, but are not limited to, overheating catalysts, synch back to parallel operation, cylinder issues, extreme load swings, etc.

4. The Petitioner shall conduct the low load engine tuning activities, where the total of engine tuning shall not exceed 44 hours, per the following assumptions and allowances:
a) Proposal is for 4 hours of operation below 50% load for each engine.

b) There are 10 engines that will be tested (S-1 through S-10).

c) HBGS expects that the tuning activities would entail tuning 2 engines daily for 5 days.

d) Allowance for a 10% contingency (for 44 hours of total testing time allowed), because the schedule is completely dependent upon the CAISO and may need to be adjusted to account for grid load expectations.

5. The Petitioner shall continue to adhere to all conditions in the Operating Permit, and specifically continue to use all Air Pollution Control (APC) systems (SCR and CO catalyst, etc.) to the maximum extent possible during all low load testing and operation.

6. The Petitioner shall continue to adhere to all regulatory monitoring requirements in the Operating Permit, specifically used of Continuous Emissions Monitoring (CEMS) during all low load tests and operation.

7. Within thirty (30) days after the date of expiration of the variance, Petitioner shall prepare and submit a report of the emissions discharged that occurred as a result of relief obtained pursuant to the regular variance in accordance with District Rule 404(c) - Excess Emission Fee Schedule once the final results of the proposed testing are obtained. Payment of fees shall be made according to District Rule 404(c).

8. This Variance shall expire on July 10, 2021 or on the effective date of a modified Title V Operating Permit, whichever is sooner.
SO ORDERED, on Motion made by Board member Corbett and seconded by Board member Nelson, effective July 10, 2020 and expiring July 9, 2021.

Ayes: Board members Rocklein, Samples, Corbett, Mierzwa and Nelson
Nays: None.

By: [Signature]  
Charles Rocklein, Chairperson of the Hearing Board  
Date: 8-18-20

ATTEST:

By: [Signature]  
Heather Bitner, Clerk of the Hearing Board  
Date: 8/19/20

Approved as to form:

PG&E

By: [Signature]  
Charles Holm, HBGS Plant Manager  
Date: 8/19/20

North Coast Unified Air Quality Management District

By: [Signature]  
Brian Wilson, Air Pollution Control Officer  
Date: 8/18/20
**UPDATED Air Quality Public Service Announcement**

Several fires continue to impact our region with smoke: Red Salmon Complex (https://inciweb.nwcg.gov/incident/6891), August Complex (https://inciweb.nwcg.gov/incident/6983), Slater Fire (https://inciweb.nwcg.gov/incident/7173), Elkhorn/Hopkins Fire (https://inciweb.nwcg.gov/incident/7071), and Oak Fire, as well as numerous other fires in Oregon. USFS Air Resource Advisors (ARAs) are assigned to LRA fires impacting our area, provide daily smoke outlook forecasts that advise these notifications within our jurisdiction.

Continued fire growth and smoke production is expected to continue today on the Red Salmon Complex. The ARA assigned to the fire indicates that smoke from the fire will combine with the Slater Fire and others, and poor air quality will continue today to persist in the regions close to the fire. Smoke from the Red Salmon Complex will combine with other fires in the area which could keep the levels in the Very Unhealthy and Hazardous AQI range, depending on proximity to the fires. An Air Quality ALERT has been issued for Gasquet, Orleans, and Weitchpec, which are forecast to have Hazardous conditions from smoke impacts given their proximity to the fire. Air quality monitors for these communities can be viewed at https://fire.airnow.gov.

Weather conditions and fire activity will continue to push smoke from southern fires (August Complex, Oak Fire, and Elkhorn/Hopkins) to impact the communities in Southern Humboldt and Trinity County. The ARA on the fire indicates that fire continues actively burning, both along the perimeter and in large interior pockets. Fire activity is expected to remain high with critically dry fuels and no overnight moisture recovery tonight. Shading from dense smoke is moderating fire behavior somewhat. Slightly stronger southerly winds may bring some gradual improvements today, with southwesterly winds continuing the slow clearing trend tomorrow.

**Humboldt County** – Air Quality ADVISORY issued today for Eureka (including Rio Dell to Trinidad), Hoopa, Willow Creek, Garberville, and Redway areas; Air Quality ALERT was issued for Orleans, Weitchpec

- Eureka (including Rio Dell to Trinidad) – Unhealthy conditions likely
- Orleans – Mostly Hazardous conditions likely.
- Weitchpec – Mostly Hazardous conditions likely.
- Hoopa – Very Unhealthy conditions likely.
- Willow Creek – Very Unhealthy conditions likely.
- Garberville & Redway and nearby communities – Unhealthy with periods of Very Unhealthy conditions.

**Del Norte County** – Air Quality ADVISORY issued today for Crescent City, Klamath; Air Quality ALERT was issued today for Gasquet.

- Crescent City – Unhealthy conditions likely.
- Gasquet – Hazardous conditions due to proximity to fire.
- Klamath – Unhealthy conditions expected

**Trinity County** - Air Quality ADVISORY issued today for Weaverville, Hayfork, and Ruth, Zenia-Kettenpom, Trinity Pines areas.

- Weaverville and surrounding communities – Mostly Unhealthy, Very Unhealthy to Hazardous conditions in afternoon.
- Hayfork – Mostly Unhealthy, Very Unhealthy to Hazardous conditions in afternoon.
- Ruth, Zenia-Kettenpom, Trinity Pines - Unhealthy to Very Unhealthy conditions.
Particulate Matter (PM2.5) monitors are located in Crescent City, Gasquet, Eureka, Weaverville, Hoopa, Weitchpec, Willow Creek, Klamath, Trinity Center, Bridgeville, and Garberville. Updates will be provided as conditions change.


As with all wildfires, ash fallout is possible depending on fire activity and proximity to the fires. Ash fallout information can be found in the Wildfire Smoke Resources section of our webpage at [www.ncuaqmd.org](http://www.ncuaqmd.org).

### Health Information for Smoke Impacts

Concentrations of smoke may vary depending upon location, weather, and distance from the fire. Smoke from wildfires and structure fires contain harmful chemicals that can affect your health. Smoke can cause eye and throat irritation, coughing, and difficulty breathing. People who are at greatest risk of experiencing symptoms due to smoke include: those with respiratory disease (such as asthma), those with heart disease, young children, and older adults.

These sensitive populations should stay indoors and avoid prolonged activity. All others should limit prolonged or heavy activity and time spent outdoors. Even healthy adults can be affected by smoke. Seek medical help if you have symptoms that worsen or become severe.

Follow these general precautions to protect your health during a smoke event:

- Minimize or stop outdoor activities, especially exercise.
- Stay indoors with windows and doors closed as much as possible.
- Do not run fans that bring smoky outdoor air inside – examples include swamp coolers, whole-house fans, and fresh air ventilation systems.
- Run your air-conditioner only if it does not bring smoke in from the outdoors. Change the standard air conditioner filter to a medium or high efficiency filter. If available, use the “re-circulate” or “recycle” setting on the unit.
- Do not smoke, fry food, or do other things that will create indoor air pollution.

If you have lung disease (including asthma) or heart disease, closely monitor your health and contact your doctor if you have symptoms that worsen.

Consider leaving the area until smoke conditions improve if you have repeated coughing, shortness of breath, difficulty breathing, wheezing, chest tightness or pain, palpitations, nausea, unusual fatigue, lightheadedness.


For further information, visit the District’s website at [www.ncuaqmd.org](http://www.ncuaqmd.org) or call the District’s Wildfire Response Coordinator at (707) 443-3093 x122.
Air Quality ADVISORY

Unhealthy to Very Unhealthy Conditions

<table>
<thead>
<tr>
<th>Area/location</th>
<th>Humboldt County</th>
<th>Del Norte County</th>
<th>Trinity County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eureka (including Rio Dell to Trinidad)</td>
<td>Unhealthy</td>
<td>Unhealthy</td>
<td>Unhealthy to Very Unhealthy</td>
</tr>
<tr>
<td>Willow Creek</td>
<td>Very Unhealthy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hoopa Valley</td>
<td>Very Unhealthy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Garberville, Redway &amp; nearby communities</td>
<td>Unhealthy to Very Unhealthy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crescent City</td>
<td>Unhealthy</td>
<td></td>
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<tr>
<td>Klamath</td>
<td>Unhealthy</td>
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</tbody>
</table>

Smoke impacts from the fires are expected to reach Unhealthy to Very Unhealthy conditions over the next 24 hours in the communities indicated above. This forecast is expected to remain in effect until September 14, 2020. Updates will be provided as conditions change. A separate air quality ALERT for Hazardous conditions was issued today for Gasquet, Orleans, and Weitchpec. Air quality monitors for these communities can be viewed at [https://fire.airnow.gov](https://fire.airnow.gov).

Particulate Matter (PM2.5) monitors are located in Crescent City, Gasquet, Eureka, Weaverville, Hoopa, Weitchpec, Willow Creek, Klamath, Trinity Center, Bridgeville, and Garberville. Updates will be provided as conditions change. Fire information can be found at [http://inciweb.nwcg.gov/](http://inciweb.nwcg.gov/) or [https://fire.airnow.gov/](https://fire.airnow.gov/). Current weather information can be found at [www.wrh.noaa.gov](http://www.wrh.noaa.gov).

For more information, please see the NCUAQMD’s Public Service Announcements for recommendations on limiting smoke exposure on our website at [www.ncuaqmd.org](http://www.ncuaqmd.org) or call the District’s Wildfire Response Coordinator at (707) 443-3093 x122.
WILDFIRE SMOKE INFORMATION
A joint message from the North Coast Unified Air Quality Management District (NCUAQMD) and partners

Issued: September 13, 2020
Expires: September 14, 2020

Air Quality ALERT
Hazardous Conditions

<table>
<thead>
<tr>
<th>Area/location</th>
<th>AQI Forecast</th>
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<tbody>
<tr>
<td>Humboldt County</td>
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<tr>
<td>Orleans</td>
<td>Hazardous</td>
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<tr>
<td>Weitchpec</td>
<td>Hazardous</td>
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<tr>
<td>Del Norte County</td>
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<tr>
<td>Gasquet</td>
<td>Hazardous</td>
</tr>
</tbody>
</table>

Smoke impacts from the fires are expected to reach HAZARDOUS conditions over the next 24 hours in the communities of Orleans, Weitchpec, and Gasquet due to their proximity to the Red Salmon Complex. This forecast is expected to remain in effect until September 14, 2020. Updates will be provided as conditions change.

An air quality monitors for these communities can be viewed at https://fire.airnow.gov.

Particulate Matter (PM2.5) monitors are located in Crescent City, Gasquet, Eureka, Weaverville, Hoopa, Weitchpec, Willow Creek, Klamath, Trinity Center, Bridgeville, and Garberville. Updates will be provided as conditions change. Fire information can be found at http://inciweb.nwci.gov/ or https://fire.airnow.gov/. Current weather information can be found at www.wrh.noaa.gov.

For more information, please see the NCUAQMD’s Public Service Announcements for recommendations on limiting smoke exposure on our website at www.ncuaqmd.org or call the District’s Wildfire Response Coordinator at (707) 443-3093 x122.

<table>
<thead>
<tr>
<th>Air Quality Index (AQI Value)</th>
<th>PM 2.5 24hr avg (ug/m³)</th>
<th>Actions to Protect Yourself</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good (0-50)</td>
<td>0-12</td>
<td>None</td>
</tr>
<tr>
<td>Moderate (51-100)</td>
<td>12-35</td>
<td>Sensitive individuals should consider limiting prolonged or heavy exertion</td>
</tr>
<tr>
<td>Unhealthy for Sensitive Groups (USG) (101-150)</td>
<td>35-55</td>
<td>People within USG should reduce prolonged or heavy outdoor exertion</td>
</tr>
<tr>
<td>Unhealthy (151-200)</td>
<td>55-150</td>
<td>People within USG should avoid all prolonged or heavy outdoor exertion</td>
</tr>
<tr>
<td>Very Unhealthy (201-300)</td>
<td>150-250</td>
<td>Everyone should avoid prolonged or heavy exertion</td>
</tr>
<tr>
<td>Hazardous (&gt;300)</td>
<td>250-500</td>
<td>Everyone should avoid any outdoor activity</td>
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Agenda Item: 8
Agenda Item: 9