

Memorandum

To : Lloyd L. Dillon
Compliance Project Manager
California Energy Commission
1516 9th Street
Sacramento, CA 95814

DOCKET 79-AFC-4C
DATE: JAN 9 1986
RECD: JAN 14 1986

Date : January 9, 1986

File No.:

Subject: DWR Bottle Rock
Powerplant Interim
Variance Application

From : Department of Water Resources

This will constitute a formal notification in compliance with Section 1, "Air Quality", Requirement No. 1-2 of the Bottle Rock Compliance Monitoring plan concerning the formal appeal filed with the Lake County Air Pollution Control District (LCAPCD).

The California Department of Water Resources filed an application for an Interim Variance (see attachment) with the LCAPCD on December 23, 1985. The Lake County Air Pollution Control District Hearing Board has scheduled a public hearing regarding our application on February 3, 1986, at 6:00 p.m. in the Board of Supervisor's Chambers, 255 North Forbes Street, Lakeport, CA 95453.

The purpose of the hearing is to request an Interim Variance to allow operation of the powerplant during the period required for the acquisition of consulting services needed to identify and correct operating and/or design deficiencies to which disallow the stretford system to continuously operate below the 10 ppmv H₂S level. The Hydrogen Sulfide (H₂S) emissions from the DWR Bottle Rock powerplant do not exceed the five (5) pound per hour limit during power plant generation and are, therefore, in compliance with LCAPCD DOC Condition 1.

Should you have any questions, please contact Gurmel Singh of my staff at ATSS 454-7417.



James R. Snow, Chief
Compliance Monitoring Section
Division of Operations and Maintenance

Attachments

cc: Air Resources Board
1102 Q Street
Sacramento, CA 95814

Attn: James Boyd
Executive Officer



LAKE COUNTY AIR POLLUTION CONTROL DISTRICT

— OFFICE —

Courthouse - 255 N. Forbes Street
Lakeport, California 95453
Telephone: 707/263-2391
Laboratory: 707/263-2348
Burn Info.: 707/263-3121

ROBERT L. REYNOLDS
Air Pollution Control Director

December 26, 1985

Lake County Record Bee
P.O. Box 848
Lakeport, Ca 95453

Dear Sir/Madam,

Please publish the legal notice below on December 31, 1985. Thank you.

Sincerely,


Donald L. Saderlund
Deputy APCO/Meteorologist

LEGAL NOTICE

NOTICE OF HEARING BEFORE THE LAKE COUNTY AIR POLLUTION CONTROL DISTRICT HEARING BOARD

Notice is hereby given that the Lake County Air Pollution Control District Hearing Board will hold a public hearing on Monday, February 3, 1986, at 6:00 P.M., in the Board of Supervisors Chambers, 255 North Forbes Street, Lakeport, Ca 95453.

Said Hearing will be on the request for an Interim Variance by the State of California, Department of Water Resources, Cobb, California. The application requests an interim variance for excessive emissions from the Stretford Process Unit and operation of a continuous H₂S monitor in the Stretford offgas to cooling tower process stream, as presently required by permit conditions for the Bottlerock Geothermal Power Plant, and District Rules and Regulations.

Said petition is on file and available in the District office at 883 Lakeport Blvd, Lakeport, California 95453, and on the bulletin board in the lobby of the Lake County Courthouse, 255 North Forbes Street Lakeport, Ca 95453. Any interested person may view said petition and submit data, views, comments and suggestions in writing concerning the request.

Notice is further given that all interested persons desiring to be heard, or present testimony, on said matter may appear at said Hearing.

For additional information, contact the Lake County Air Pollution Control District at (707) 263-2391.



LAKE COUNTY AIR POLLUTION CONTROL DISTRICT
 255 NORTH FORBES STREET LAKEPORT CA 95453
 (707) 263-2391

FOR OFFICE USE ONLY

FILED: 12/23/85

BY: A. Jones / [Signature]

FEE PAID: \$100.00 [Signature]

RECEIVED

VARIANCE APPLICATION

DEC 23 1985

15301428
 LAKE COUNTY
 AIR POLLUTION CONTROL

FILING FEE: \$100.00

INSTRUCTIONS: Please type all answers. If more space is needed, attach extra pages.

1. Petitioner:

Personal name: / A. D. Jones Jr.

Address: 616 Lynn Ave.

Antioch, CA Zip 94509

Phone: (415) 757-5108

Business Name: Dept. of Water Resources
 State of California

Address: P.O. Box 270

Cobb, CA Zip 95426

Phone: (707) 928-5225

2. Applicant is: () Individual () Partnership () Corporation

(X) State Agency

3. If Partnership or Corporation, give names, addresses, and titles, of all partners or officers:

L. A. Mullnix, Chief Division of Operations and Maintenance

Dept. of Water Resources

P.O. Box 388

Sacramento, CA 95802

4. Type of business or activity involved and street address at which it is conducted:

Geo-thermal Powerplant

High Valley Road

5. Description of article, machine, equipment, or contrivance involved in the application:

1. Stretford Process Unit

2. H₂S Monitor, Stretford off gas to cooling tower.

6. Purpose of hearing, to consider:

() Revocation of permit to operate pursuant to Health and Safety Code, section 42307 (section 674 LCAPCD Rules and Regulations).

(X) Interim variance, pursuant to Health and Safety Code, section 42351 (section 1700 LCAPCD Rules)

() Modification of a previous variance pursuant to Health and Safety Code, section 42357 (1713 LCAPCD Rules)

() Review of an authority to construct or permit to operate as requested by: () Applicant () District.

() Other:

7. Section, Rule, permit condition or order complained of:
Lake County Air Pollution Control District, Modified Determination of Compliance, dated February 22, 1982; Condition 2 b and 20.
8. Reason why compliance with section, rule or order cited in paragraph 7 above is unreasonable (attach response if lengthy).
Please see attached response.
9. Period of time for which variance sought:
Ninty (90) Days
10. Damage or harm resulting, or which would result, from compliance with section, rule or order cited in paragraph 7 above:
Please see attached response..
11. Requirements which applicant can meet and by what date, if less than that required by section, rule or order cited in paragraph 7 above; and steps which can be taken to lessen the degree or extent of violation. (attach response)
12. Advantages and disadvantages to residents of the district resulting from requiring compliance or resulting from granting a variance.
None
13. Would granting of the variance create a public or private nuisance? If not, explain why not.
No. The powerplant will continue to operate under the basic emmision limit of five (5) pounds per hour, H₂S, as required by the L.C.A.P.C.D. Determination of Compliance.

14. Is there any other case pending involving the same equipment or process?
NO.
If so, describe:

15. Is the subject equipment or process covered by a permit to operate issued
by the Air Pollution Control Officer? YES.

If so, describe: Authority to Construct, Permit # A/C 80-034A

16. General Comments:

Dated 12/23/55

Signed

Title

Alfred J. [Signature]
Sup^r. Geysers Facilities

Dec. 23, 1985
Attachment

Interim Variance Request
Dept. of Water Resources
Bottle Rock Powerplant

Item 8.

A. The Department of Water Resources requests a variance of L.C.A.P.C.D., DOC, Condition 2, item b. This variance will allow operation of the power plant during the period required for the acquisition of consulting services needed to further identify and correct operating and/or design deficiencies which disallow the Stretford System to continuously operate below the 10 ppmv H₂S level. The operation of the plant does not presently exceed the basic five (5) pound per hour limit.

Under present conditions the Department is subject to citation for the technical violation of Condition 2, item b. The only alternatives available to the Department are a variance or shutdown of the plant.

Condition 1 of the DOC requires "Hydrogen Sulfide (H₂S) emissions from the DWR/Bottle Rock Plant shall be limited to a maximum of five (5) pounds per hour during power plant generation and all possible generation outages."

The power plant consistently meets the five pound limit.

Condition 2, item 2 requires A Stretford unit as specified in the AFC to reduce H₂S concentration in the noncondensable gases to 10 ppmv or less. The Stretford unit because of chemical regeneration problems does not meet the 10 ppmv limit.

This exceed condition does not however violate the basic five pound per hour, H₂S, limitation.

The Stretford unit emissions are normally in the 20 to 80 ppm range. The maximum noncondensable gas flow rate, to date, has not exceeded 6000 pounds per hour. The worst case H₂S emission level from the Stretford unit has been 200 ppmv. The worst case emission, 200 ppmv, at the maximum gas flow rate, 6000 pounds per hour equals 1.2 pounds of H₂S, per hour, being emitted to the atmosphere.

The secondary abatement system (H₂O₂) maintains the condensable H₂S levels below 3.5 pounds per hour. The total H₂S emissions during worst case is 4.7 pounds per hour.

B. Condition 20, L.C.A.P.C.D., DOC, requires among other stipulations, that H₂S emissions shall be monitored continuously at the Stretford unit off-gas to the cooling tower.

An instrument is presently provided for this service. This instrument because of gas sampling problems does not provide continuous readings that are reliable. In recognition of this and at the suggestion of the L.C.A.P.C.D. the Department has engaged a consulting firm to modify, evaluate and recommend as to the suitability of this instrument. This work is presently in progress.

During the evaluation process the H₂S emissions are monitored at least twice daily. These readings are available to the Air Pollution Control District's officers.

The granting of a variance for the continuous H₂S monitoring will recognize that this instrument will be undergoing modification and retrofitting necessary for its evaluation and during this time will not be operating continuously.

Item 10.

Replacement engery costs, to the Department, which would be incurred if the plant is shutdown would be in excess of 1,107,150.00 dollars per month. Conversely if the plant is operated without the requested variances the Department is subject to citation and fines..

Item 11.

A. The Department is presently preparing a contract for consulting services to specifically identify the Stretford chemical regeneration problem. Discussions with available consultants indicate if the problem is operational in nature it's correction could be accomplished within the time frame of this requested variance. If the problem is a design deficiency temporary solutions may be possible. If not the plant will be shut down until corrections are made.

B. The Department has already engaged the services of a consultant for the improvement of the H₂S monitor. The instrument appears to have the capability to perform in an acceptable manner. Correction of the gas sampling system is awaiting delivery of specialized equipment. Completion of the gas sampling system and evaluation of the total system are to be completed during the period requested for variance.

If the present monitor does not prove suitable the Department shall purchase one that is acceptable to the L.C.A.P.C.D.

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ROBERT L. REYNOLDS
Air Pollution Control Director

Mr. A. D. Jones
State of California
Department of Water Resources
Geysers Facilities, D.F.D.
P.O. Box 270
Cobb, Ca. 95426

December 20, 1985

RE: CITATION AND INSPECTION OF 12/19/85

Dear Mr. Jones:

Please find enclosed a Citation issued by the District for violation of Chapter II, Article II Section 412 B, emissions from sulfur recovery units in excess of 10 ppmv also contained in Condition 2 Part B of your Authority to Construct Permit. I am also including a citation for a violation of Condition 20 of your Authority to Construct for the non operation of a required continuous H₂S emissions monitor on the treated Stretford non condensable gas stream.

We have decided to issue the citation in this instance given the fact that we have previously issued a NOV in the case for the Stretford tailgas concentration being above 10 ppmv on 8/9/85 and failure to notice the District. It was our clear understanding that notification would be given to the District in the event that problems with the unit were being experienced. We did receive notification that the facility would be down for repair to the Stretford system on 12/4/85 and that you would be returning to on line operation on or about 12/8/85 which also resulted in unreported excess emissions and a major complication with startup. To date we have not received notification of the actual return time and a check of your logs indicate that since the return to operation the Stretford system has not been in compliance with the 10 ppm limit. This was confirmed by inspection and source testing on 12/18/85.

Regarding the lack of a continuous monitor on the treated Stretford off gas, the District believes that we have been exceedingly patient and cooperative in assisting the Department in this matter. Our inspection of 12/18 indicates that the monitor is not operational. The flow system is disconnected with the meter reading zero despite the continuous recorder giving a signal of approximately 4.5 ppmv. The recorder trace appears to mimic the slope of the adjacent recorder for non condensable gas flow and may indicate an interference between the two signals. The recorders were not posted as off line at either location where output is recorded. The District was unable to confirm monitor calibration because of the condition of the sampler system.

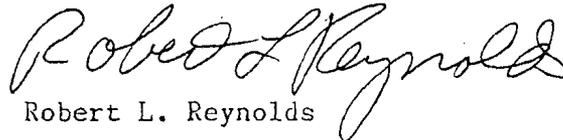
It was our understanding that deficiencies of the monitor system would be corrected as per our request of 8/8/85 and indicated in your letter of 9/16 and 10/29/85. We have not observed significant progress in this regard.

Continued violations are subject to a separate offense for each day of up to \$1000 per day per violation.

The subject of operation under variance request has been suggested by the District in the past and we offer this temporary solution again in this regard. Be advised that the District will continue to work with the Department; however, we will at this time formally seek a legal remedy of the situation at hand until the problems are solved.

We look forward to discussing these circumstances with you, and hopefully we can effect a remedy to the noted violations. Please give me a call to set up an office conference at your earliest convenience.

Sincerely,



Robert L. Reynolds

RLK/RLR
enclosures

Important — Read Carefully

WARNING:

Willful failure to appear as promised is a separate violation for which you may be arrested and punished by 6 MONTHS IN JAIL AND/OR \$500.00 FINE, regardless of the disposition of the original charge (P.C. 853.7).

OFFICE OF COURT CLERK — HOURS

Kelseyville: Monday 3:30 (Judge)
Clerk: Monday 9-5; Tues.-Fri. 9-12

Clearlake Highlands: Friday 9-12 and 24
Clerk: 8:30-4:30 daily

Middletown: Thursday 24 (Judge)
Clerk: Tues. 8:30-10; Thurs. all day

Lower Lake: Monday 24

Upper Lake: Monday-Friday 10-12 and 24

Lakeport: Tuesday 11 a.m. (Judge)
Clerk: Daily 8-5