

FILED

FEB 27 2003

HEARING BOARD
BAY AREA AIR QUALITY
MANAGEMENT DISTRICT

MARY ROMAIDIS
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BAY AREA AIR QUALITY
MANAGEMENT DISTRICT

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BEFORE THE HEARING BOARD
OF THE
BAY AREA AIR QUALITY MANAGEMENT DISTRICT
STATE OF CALIFORNIA

In the Matter of the Application of)
)
Los Medanos Energy Center, LLC) No. 3420
)
For a Variance from Regulation 2,) ORDER GRANTING VARIANCE
Rule 1, Section 307)
_____)

The above-entitled matter is an Application for Variance from the provisions of Regulation 2, Rule 1, Section 307 filed on January 31, 2003.

Jeffrey Adkins and Gary Rubenstein of Sierra Research appeared on behalf of Los Medanos Energy Center ("Applicant").

Toby Sherwood, Counsel, appeared for the Air Pollution Control Officer ("APCO").

The Clerk of the Hearing Board provided notice of this hearing on the Application for Variance in accordance with the requirements of the California Health and Safety Code. The Hearing Board heard the request for Variance on February 20, 2003. At the hearing, the variance application was amended to request a variance for the period February 20, 2003, through May 20, 2003.

The Hearing Board provided the public opportunity to testify at the hearing as required by the California Health and Safety Code, but no one did so. The Hearing Board heard the Applicant's and APCO's evidence and argument. The APCO did not oppose the granting of this Variance.

ARB

1 The Hearing Board received evidence and argument, and took the matter under submission
2 for decision. After consideration of the evidence, the Hearing Board voted to grant the request for
3 Variance, as set forth in more detail below:

4 BACKGROUND

5 Applicant operates a gas turbine power plant located at 750 East Third Street,
6 Pittsburg, California 94565. Applicant's representatives testified at the hearing that the company
7 operates two GE Frame 7FA gas turbines with dry low-NOx combustors to produce electricity for
8 sale to the electrical grid. These combustors include certain components that must be replaced on a
9 routine basis once they have reached the end of their operational life. Once new combustor
10 components have been installed, the turbines must be tuned at low operating loads to meet
11 manufacturer's specifications for emissions and combustion dynamics. The Applicant first
12 replaced its combustor components in August of 2002. The Applicant discovered during this
13 tuning procedure that it could not operate within the constraints of its current permit limits, and it
14 was subsequently issued a Notice of Violation by the District. The Applicant is now required to
15 perform a second combustor component replacement and tuning procedure, and it sought short-
16 term Variance relief for this procedure, pending approval of more permanent changes to the
17 facility's permit to allow for these activities in the future.

18
19 DISCUSSION

20 Current permit conditions limit the Applicant to 180 minutes of operation in excess of its
21 NOx emission concentration limits during turbine startup events and to a maximum of 240 pounds
22 NOx emissions per turbine startup event. The Applicant attempted to conduct its combustor tuning
23 activities within these permit constraints during a tuning event in August of 2002. However, the
24 Applicant was not able to complete the tuning procedure within these limits.

25 The Applicant is affiliated with Calpine Corporation, and it has conducted a review of other
26 similar turbines owned by Calpine at the Sutter Energy Center (Yuba City, California) and Delta

1 Energy Center (Pittsburg, California) to determine whether this problem was unique to the
2 Applicant's facility. After its review of these similar facilities, the Applicant concluded that proper
3 tuning of its Pittsburg Los Medanos turbines could not be completed under its current permit limits.
4 The Applicant knew that it could not get permit approval in time for its scheduled combustor tuning
5 and, as a result, submitted this request for Variance relief. The Applicant submitted a permit
6 application to the District staff on February 19, 2003, for revision of its permit so that there will be
7 need for a Variance in the future. The District staff indicated that the requested changes to the perm
8 are likely to be made.

9 The Applicant has requested a Variance from February 20, 2003, through May 20, 2003, or
10 until such time when the combustor tuning is complete, whichever occurs first.

11 Applicant is not considered a small business as described by California Health and Safety
12 Code Section 42352.5(b)(1). Estimated maximum excess emissions during the startup and tuning
13 events are 365 pounds of NOx. The APCO has not requested Applicant to monitor or quantify actu
14 emissions beyond the continuous emissions monitoring for NOx already required by the Permit to
15 Operate for these turbines.

16 17 SPECIFIC FINDINGS

18 The Hearing Board finds pursuant to Health and Safety Code Section 42352 that:

19 1. Applicant will be in violation of Regulation 2, Rule 1, Section 307 during the Variance
20 period. The regulation requires that the Applicant comply with its Permit Conditions 21(a) and 21(b)
21 limiting NOx concentrations and emission rates during non-startup operation, and Condition 23
22 limiting startup events to a maximum of 180 minutes and 240 pounds of NOx emissions.

23 2. Due to conditions beyond the reasonable control of the Applicant, requiring compliance
24 with District Regulation 2, Rule 1, Section 307, and Conditions 21(a), 21(b), and 23 would result
25 in an arbitrary and unreasonable taking of property. The problems associated with compliance
26 during combustor tuning events are unique to dry low-NOx combustors, and it was beyond the

1 reasonable control of the Applicant to comply with these conditions or to have known that the
2 conditions would be violated during tuning events. Compliance could be achieved only by
3 shutdown. This would be an unreasonable taking of property.

4 3. The hardship due to requiring immediate compliance with District Regulation 2,
5 Rule 1, Section 307 would be without a corresponding benefit in reducing air contaminants. The
6 Applicant estimates that maximum excess emissions will be a total of 365 pounds of NOx from
7 both turbines combined. Daily and annual emissions will remain within current permit limits.

8 4. Applicant considered curtailing operations in lieu of obtaining a Variance, but
9 curtailing operation would not result in compliance since tuning must be performed at low turbine
10 loads. Applicant also considered conducting tuning operations during several consecutive startups,
11 but determined that this would result in increased NOx emissions as compared with the levels
12 expected under this variance. In addition, such an approach would result in excessive wear on the
13 turbines, and might be considered a circumvention of District regulations.

14 5. During the period the Variance is in effect, Applicant will reduce excess emissions
15 to the maximum extent feasible by meeting its daily and annual emission limits and conducting its
16 tuning activities as quickly as possible.

17 6. The District staff has not requested Applicant to monitor or otherwise further
18 quantify any emission levels beyond what is already required by the Permit to Operate for these
19 turbines.

20
21 **THEREFORE, THE HEARING BOARD ORDERS:**

22 A Variance from Regulation 2, Rule 1, Section 307 is hereby granted from February 20,
23 2003, to and including May 20, 2003, or until such time as combustor tuning activities are
24 completed, whichever is sooner, subject to the following conditions:

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26 1) The Applicant must notify the District staff at least 48 hours before the time the

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newly refurbished gas turbines will be tuned.

- 2) The Applicant cannot emit more than 480 pounds of NOx per startup, for each turbine.
- 3) The Applicant cannot have more than six hours of low load operation, for each turbine, during startup after fuel flow is initiated.
- 4) Applicant shall pay the excess emission fees.

Moved by: Terry A. Trumbull, Esq.

Seconded by: Julio Magalhães, Ph.D.

AYES: Allan R. Saxe, Esq., Julio Magalhães, Ph.D., Terry A. Trumbull, Esq.,
Michael E. Greenberg, M.D., Christian Colline, P.E.,

NOES: None.

Christian Colline
Christian Colline, P.E., Acting Chair

2/27/03
Date