



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street
San Francisco, CA 94105-3901

DOCKET 00-AFC-1
DATE NOV 30 2000
RECD. DEC 04 2000

November 30, 2000

Ellen Garvey
Air Pollution Control Officer
Bay Area AQMD
939 Ellis St.
San Francisco, CA 94109

Re: Preliminary Determination of Compliance for Contra Costa Power Plant

Dear Ms. Garvey:

Thank you for the opportunity to comment on the District's Preliminary Determination of Compliance (PDOC) for the Contra Costa Power Plant (CCPP). In accordance with the District's New Source Review rule and the Prevention of Significant Deterioration (PSD) delegation agreement between the District and EPA, we have reviewed the PDOC during the public and EPA comment period.

We do not concur with the District's emission limits for carbon monoxide, volatile organic compounds, and ammonia slip. In addition, we have concerns about the lack of both a control technology analysis and a discussion of the applicability to the CCPP project of a lower nitrogen oxides emission limit found in other power plant permits. We have enclosed our detailed comments. If you have any questions, please call me or Roger Kohn of my staff at (415) 744-1238.

Sincerely,

Gerardo C. Rios
Acting Supervisor, Permits Office
Air Division

cc: Ray Menebroker, ARB
Cheri Davis, CEC
Ronald Kino, Southern Energy Co.

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Enclosure 1
U.S. EPA Comments on BAAQMD PDOC
for Contra Costa Power Plant Unit 8

1. EPA disagrees with the District's carbon monoxide (CO) BACT determination. In the PSD permit issued by EPA to Calpine Corp. for the construction of a power plant in Sutter County (CA), the emission limit for CO is 4.0 ppmv at 15% O₂, averaged over one hour. This limit is listed in both the South Coast BACT Guidelines and the California Air Resources Board's BACT Clearinghouse database (available on those organizations' websites). The District should explain in the PDOC why 4 ppm is not possible, if it believes a higher limit is justifiable.
2. EPA disagrees with the District's VOC (volatile organic compounds) BACT determination. In our May 31, 2000 comment letter to the District on the Metcalf Energy Center PDOC, we discussed the reasons why we believe current VOC LAER is 1.0 ppm averaged over one hour. The District subsequently issued the Final Determination of Compliance with the 1.0 ppm limit. In order to satisfy the federal LAER requirement and be consistent in its power plant permits, the District should revise the VOC limit in the CAPP PDOC.
3. EPA recommends that the District lower the proposed ammonia slip limit in permit condition 20(e) from 10 ppm to below 5 ppm. A number of power plants in California have accepted a 5 ppm limit, e.g., High Desert Power Plant in San Bernadino County and Three Mountain Power in Shasta County. The California Air Resource Board document "Guidance for Power Plant Siting and Best Available Control Technology" also suggests a limit below 5 ppm, citing evidence that two power plants using SCR in Massachusetts have been permitted at 2 ppm and that several SCR manufacturers have now guaranteed levels as low as 2 ppm.
4. EPA believes that the PDOC does not provide enough information to the public about the District's BACT determination. While the PDOC does discuss the emission limits that the District has determined are BACT, it does not contain a BACT analysis. Such an analysis should be included in the PDOC to explain which possible control devices could be used to achieve the emission limits required as a result of the BACT analysis, and justify the District's choice. The lack of a discussion of possible control technologies and the justification for selecting two technologies, in this case selective catalytic reduction (SCR) and dry low-NO_x combustors (DLN), over others makes it more difficult for the public to understand the District's recommendation and make informed comments on the project.
5. EPA is aware of at least six power plant permits that have been issued with a NO_x LAER (Lowest Achievable Emission Rate, equivalent to BACT in California) limit of 2.0 ppm averaged over one hour, including Mystic Station and Fore River Station in Massachusetts. This limit should be discussed in the PDOC. EPA believes the District should either revise the NO_x limit in the PDOC to 2.0 averaged over one hour, or explain

why this limit is not applicable to the CCPP project.

6. In a March 24, 2000 letter to all air permitting authorities in Region 9, we stated that all BACT/LAER (lowest available emission rate) analyses for combined cycle gas turbine power plant projects must include consideration of ammonialess technologies such as SCONOX and Xonon. Since a BACT analysis was not included in the PDOC, there is no record of whether or not the District and the applicant considered these technologies, and if so, why one of them was not selected. As you know, these control technologies do not use ammonia as a reducing agent and therefore avoid the environmental impacts associated with SCR: secondary particulate formation as a result of ammonia slip, and the handling, transport, and storage of ammonia.

Furthermore, the CCPP project is subject to federal PSD requirements. Since EPA has delegated PSD authority to BAAQMD, the District is bound by the requirement in 40 CFR 52.21 to base its BACT determination in part on environmental impacts associated with various emission control technologies. Despite the fact that the District does not regulate ammonia emissions, the BACT determination made by the District for PSD purposes should evaluate, and document for public review, the environmental impacts of alternative control technologies.

7. The PDOC does not discuss the applicability of Maximum Achievable Control Technology (MACT) pursuant to section 112(g) of the Clean Air Act (CAA). The PDOC should either state that CCPP is a major source of hazardous air pollutants (HAPs) and propose a MACT determination for the project, or explain why CCPP is not a major HAP source. It is difficult for EPA and the public to determine whether or not CCPP is a major HAP source based on the emission calculations in Table B-6 in Appendix B because total emissions are not summed for each pollutant or for the facility as a whole. For additional information on this issue, please refer to our May 31, 2000 comment letter on the Metcalf Energy Center PDOC.

8. There is no discussion in the PDOC of whether or not the offsets will be surplus of all CAA requirements at the time they are used (i.e. when the final permit is issued). The Application for Certification submitted by Southern Company to the California Energy Commission notes that "BAAQMD staff made a preliminary review of these credits and confirmed that they were RACT-adjusted at the time of banking" (page 8.1-16). When EPA incorporated BAAQMD's New Source Review rules into the State Implementation Plan (SIP), the Agency identified the CAA requirement that emission reduction credits be surplus as a deficiency in BAAQMD rules (see 64 FR 3850, January 26, 1999). To correct this cited deficiency, the District amended its rules in May 2000 and added new section 2-2-423 that requires the District to demonstrate on an annual basis that all emission reduction credits for new major sources and major modifications are surplus of federal requirements. Although Rule 2-2-423 still must be modified to be fully SIP-approvable (see 65 FR 56284, September 18, 2000), if some or all of the emission reduction credits used for the CCPP project are not surplus, the District, in accordance with Rule 2-2-423, must make up the difference.

9. The PDOC indicates that most of the offsets proposed for the CCPP project were created prior to 1990. (Certificate #693 was issued in 1984.) However, BAAQMD staff has clarified that the Emission Reduction Credits (ERCs) for certificate #693 came from three other certificates, and that the District will not be using pre-1990 credits for federally required offsets for NOx and VOC. While this is not an issue for the CCPP project, we want to emphasize that Districts should not rely on pre-1990 credits for federal offsets unless their attainment plans contain detailed demonstrations that emissions associated with the use of those old credits have been included in the plans. The use of the pre-1990 credits for federal offset requirements should not be allowed in this or other projects unless the District's attainment plan specifically demonstrates that emissions from any new projects that rely on old credits have been accounted for as emissions growth in the plan. This policy is based on the August 26, 1994 EPA guidance memorandum from John Seitz, "Response to Request for Guidance on Use of Pre-1990 ERCs and Adjusting for RACT at Time of Use."
10. The PDOC does not address the air quality analysis requirement of PSD, which requires a demonstration that the project, in conjunction with applicable emissions from existing sources, will not cause or contribute to a violation of any applicable National Ambient Air Quality Standard (NAAQS) or PSD increment. While the air quality impact analysis in Appendix E addresses the requirements of the District's New Source Review rule, it does not address the analysis required by the federal PSD regulation at 40 CFR 52.21. Under the terms of the PSD Delegation of Authority agreement between BAAQMD and EPA, the District is obligated to ensure that its PSD permits meet all of the requirements of 40 CFR 52.21. The District should prepare an air quality analysis that documents whether or not the combined emissions from CCPP and other applicable sources threaten the NAAQS or PSD increments.
11. The PDOC lacks compliance requirements for VOC and PM-10. EPA recommends that the District require annual performance testing to verify compliance with the VOC and PM-10 emission limits, and ensure that the source's offset liability and modeling requirements do not have to be re-evaluated due to an inability to comply with its emissions limits. Also, a large power plant such as CCPP has high VOC emissions, which include hazardous air pollutants. Regular performance testing would enable the District to verify that the source has an effective oxidation catalyst to control VOC emissions.

In addition, CCPP must obtain a title V operating permit from the District, which will undergo EPA review. If VOC and PM-10 compliance requirements are not added via the NSR process or under title V gap filling requirements later, it is not clear that the source would be have "periodic monitoring sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the permit", as required by 40 CFR Part 70 (40 CFR 70.6(a)(3)(B)).
12. The PDOC does not explicitly require annual Relative Accuracy Test Audits (RATA) for the CEMS. Although condition 43 requires that the CEMS be maintained in

accordance with acid rain regulations, the PDOC should clearly state the regulatory requirement for annual RATAs instead of relying on a high level reference to 40 CFR Parts 75. Appendix B of Part 75 (Section 2.3.1) requires that RATAs for NO_x and the diluent be conducted semiannually, or under certain conditions which are likely to apply to CCPP, annually. An annual RATA should also be required for CO. EPA policy is that any CEMS used to demonstrate compliance with a BACT limit should undergo an annual RATA. Since the source is already required to conduct annual RATAs for NO_x and the diluent pursuant to acid rain regulations, the additional cost of doing a RATA for CO at the same time is minimal.

13. Pursuant to Section 7 of the Endangered Species Act (ESA), 16 U.S.C. § 1536, and its implementing regulations at 50 CFR Part 402, EPA is required to ensure that any action authorized, funded, or carried out by EPA is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of such species' designated critical habitat. EPA has determined that this PSD permitting action for the CCPP triggers ESA Section 7 requirements. EPA is therefore required to consult with the U.S. Fish and Wildlife Service (FWS) and/or the National Marine Fisheries Service (NMFS) if an endangered species or threatened species may be present in the area affected by the permit project and EPA's action (i.e., permit issuance) may affect such species. EPA is also required to confer with the FWS and the NMFS on any action which is likely to jeopardize the continued existence of any species proposed for listing (as endangered or threatened) or result in the destruction or adverse modification of habitat proposed to be designated as critical for such species.

Since EPA has delegated its PSD authority to the District, the PSD permit that the District will issue to CCPP is considered a federal action, and cannot be issued until the consultation process has concluded.

**STATE OF CALIFORNIA
Energy Resources Conservation
and Development Commission**

In the Matter of:)	Docket No. 00-AFC-1
)	
Application for Certification for Southern)	PROOF OF SERVICE
Energy Delta's CONTRA COSTA)	<i>[*Revised 8/23/2000]</i>
<u>POWER PLANT UNIT 8 (CCPP)</u>)	

I, **CHESTER HONG**, declare that on **December 4, 2000** I deposited copies of the attached **CONTRA COSTA POWER PLANT UNIT 8 PRELIMINARY DETERMINATION OF COMPLIANCE** in the United States mail at Sacramento, CA with first class postage thereon fully prepaid and addressed to the following:

DOCKET UNIT

Send the original signed document plus the required 12 copies to the address below:

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DOCKET UNIT, MS-4
*Attn: Docket No. 00-AFC-1
1516 Ninth Street
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* * * *

In addition to the documents sent to the Commission Docket Unit, also send individual copies of any documents to:

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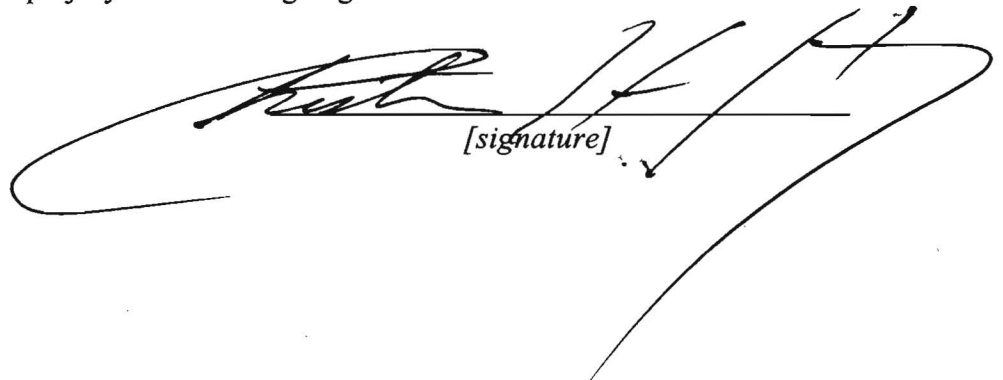
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I declare under penalty of perjury that the foregoing is true and correct.



[signature]

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