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I. INTRODUCTION

Thank you for the opportunity to comment¹ on the "amended" PSD permit for the Russell City Energy Center Application Number 15487. CALifornians for Renewable Energy, Inc. ("CARE") objects to this permit. This also serves as a Complaint to Office of the Administrator of the U.S. Environmental Protection Agency (USEPA) and the California Air Resources Board (ARB) under 42 USC § 7604.² In the July 29, 2008 "Remand" of the United States Environmental Protection Agency (USEPA) Environmental Appeals Board ("EAB" or "Board") admonished the Bay Area Air Quality Management District ("BAAQMD" or "District") to "scrupulously adhere to all relevant requirements in section [40 C.F.R. § 124.10(d)] concerning the initial notice of draft PSD permits (including development of mailing lists), as well as the proper content of such notice" but the District failed to properly carry out this order.³

The District, like Pacific Gas and Electric (PG&E)⁴ claim that when the EAB reviewed the original PSD permit appeal by Mr. Simpson "[t]he EAB, found no substantive defects in the PSD permit and its decision denied review of each of the substantive claims raised in the appeal." The remand order from the EAB decision does not deny review of the substantive PSD issues raised by Mr. Simpson but states that permit must be re-noticed and that the appeal board refrains from opining on the substantive PSD issues raised by Mr. Simpson "at this time."

"The District's notice deficiencies require remand of the Permit to the District to ensure that the District fully complies with the public notice and comment provisions at section 124.10. Because the District's renoticing of the draft permit will allow Mr. Simpson and other members of the public the opportunity to submit comments on PSD-related issues during the comment

¹ These comments were prepared by Michael E. Boyd, Bob Sarvey, and Rob Simpson. The comments on environmental justice are sponsored by Lynne Brown.

² This Complaint also includes an attached ratepayers citizens *Complaint Petition* filed before the California Public Utilities Commission (CPUC) in the *Application of Pacific Gas and Electric Company for Expedited Approval of the Amended Power Purchase Agreement for the Russell City Energy Company Project (U39E)* under Docket A.08-09-007 at: <http://docs.cpuc.ca.gov/efile/CM/96544.pdf>

³ In re: Russell City Energy Center Permit No. 15487 USEPA EAB PSD Appeal No. 08-01

⁴ See September 10, 2008 testimony at page 1-5
<http://docs.cpuc.ca.gov/published/proceedings/A0809007.htm>

period, the Board refrains at this time from opining on such issues raised by Mr. Simpson in his appeal.”

Remand Order at page 3⁵

There are in fact several PSD related issues that the EAB appeals Board will have to review when the EAB is petitioned after the BAAQMD issues the draft permit. We have reviewed comments on the draft PSD permit from several major environmental organizations including the Sierra Club, Earth Justice, and Golden Gate University which we incorporate by this reference as if fully set forth by CARE and Rob Simpson. Despite claims otherwise the remand order from the EAB on the original Russell City PSD permit dismisses all substantive comments other than public notice requirement, this is simply not true. Major issues remain with this permit.

II. DISTRICT IS CIRCUMVENTING PUBLIC PARTICIPATION

The District continues to fail to implement 40 CFR 52.21, 40 CFR 124 and the Clean Air Act in its consideration of PSD permit for the Russell City Energy Center (RCEC). The District is circumventing public participation by failing to provide access to the administrative record. Petitioner(s)⁶ have requested access to the record Since September 11 2008 without satisfaction. After no less than 10 requests in writing in person and by telephone the District has provided limited response providing no basis for the permitting. It has been impossible for the public to participate with no discernible docket for the facility as would be provided if the EPA issued the permit. When the EPA issues PSD permits there is an accessible docket and supporting documentation available on the EPA website. The Notice that was included for the PSD Permit at the District's website⁷ failed to include a copy of the Application No. 15487.⁸ With no discernible docket at the District there is no way that the public can identify the basis for permitting actions to effectively participate.

⁵ For a electronic copy of the *Remand Order*;

See: [http://yosemite.epa.gov/OA/EAB_WEB_Docket.nsf/Filings%20By%20Appeal%20Number/EA6F1B6AC88CC6F085257495006586FB/\\$File/Remand...50.pdf](http://yosemite.epa.gov/OA/EAB_WEB_Docket.nsf/Filings%20By%20Appeal%20Number/EA6F1B6AC88CC6F085257495006586FB/$File/Remand...50.pdf)

⁶ Petitioner(s) are CARE, Rob Simpson, and Robert Sarvey.

⁷ See http://www.baaqmd.gov/pmt/public_notices/2008/15487/index.htm

⁸ A copy of the initial authority to construct (ATC) is also not provided on the District's website. On February 4, 2009 Rob Simpson request to see a copy of the Application No. 15487 at the District's Offices in San Francisco but none was provided.

The documents issued by the District are fatally flawed. The District has recently issued no less than 4 “fact sheets” for RCEC each in conflict with the others and none satisfying the requirements of 40 CFR 124.8.⁹ The public can not rely on any of the “Fact Sheets” issued by the District. The District has also issued 2 different “Public Notices” and 2 different Statements of Basis, 3 of the 4 “Fact Sheets” the 2 different Public Notices and the 2 different Statements of Basis all make false claims of propriety by claiming that this is an amendment of a PSD permit when no such permit has ever been issued. “The Air District is proposing to incorporate the changes that have been made to the proposed project into the Federal PSD Permit that was initially issued in 2002, including the new project site.” Fact sheet 1 and 2. "The initial project, proposed by an affiliate of Calpine Corporation, received all necessary air quality permits and was licensed by the California Energy Commission (CEC) in 2002." Fact sheet #3

The "amended" Permit fails to comply with 40 CFR 51.166 (2) "Within one year after receipt of a complete application, the reviewing authority shall ... (vii) Make a final determination whether construction should be approved, approved with conditions, or disapproved".

In the December 10, 2008 *Corrected Notice of Public Hearing and Notice Inviting Written Public Comment on Proposed Amended PSD Permit* the District states " [t]he project will utilize the Best Available Control Technology to minimize emissions of these air pollutants as required by 40 C.F.R. Section 52.21. The proposed project will not consume a significant degree of any PSD increment." The Notice goes on to state:

The proposed amended PSD Permit is a federal permit issued by the District on behalf of the United States Environmental Protection Agency (“EPA”). The District issues PSD permits under a Delegation Agreement with EPA. The District also participates in the California Energy Commission’s licensing process under state law and issues a District Authority to Construct incorporating the Energy Commission’s requirements. The District issued an Authority to Construct for the Russell City Energy Center jointly in the same document with the federal PSD Permit on November 1, 2007. District claims only the federal PSD Permit has been remanded, and only the federal PSD permit is being re-noticed. The Authority to Construct is not being reopened and this notice applies only to the proposed amended PSD permit.

⁹ 40 CFR 124.8 (3) For a PSD permit, the degree of increment consumption expected to result from operation of the facility or activity. (4) A brief summary of the basis for the draft permit conditions including references to applicable statutory or regulatory provisions.

CARE objects to this because the USEPA EAB revoked the PSD Permit on remand as was demonstrated in the second EAB Appeal¹⁰ where the EAB found there was no federal PSD Permit to Appeal. So there is no PSD permit to amend and therefore the so-called "amended Permit" is a faux substitute for the "draft permit, providing public notice fully consistent with the requirements of 40 C.F.R. § 124.10.32" as directed by the EAB.

III. BACT IS PART OF THE CAA AND THE PDOC INCLUDES THE DISTRICT'S BACT ANALYSIS THEREFORE CLEARLY THE PDOC AND DRAFT PSD PERMIT ARE INTERDEPENDENT

Congress enacted the PSD provisions of the Clean Air Act (CAA) in 1977 for the purpose of, among other things, “insu[ring] that economic growth will occur in a manner consistent with the preservation of existing clean air resources.”¹¹ The statute requires preconstruction approval in the form of a PSD permit before anyone may build a new major stationary source or make a major modification to an existing source¹² if the source is located in either an “attainment” or “unclassifiable” area with respect to federal air quality standards called “national ambient air quality standards” (NAAQS).¹³ EPA designates an area as “attainment” with respect to a given NAAQS if the concentration of the relevant pollutant in the ambient air within the area meets the limits prescribed in the applicable NAAQS. CAA § 107(d)(1)(A), 42 U.S.C. § 7407(d)(1)(A). A “nonattainment” area is one with ambient concentrations of a criteria

¹⁰ See In re: Russell City Energy Center Permit USEPA EAB Appeal No. 08-07

¹¹ CAA § 160(3), 42 U.S.C. § 7470(3).

¹² The PSD provisions 2 that are the subject of the instant appeal are part of the CAA’s New Source Review (NSR) program, which requires that persons planning a new major emitting facility or a new major modification to a major emitting facility obtain an air pollution permit before commencing construction. In addition to the PSD provisions, explained infra, the NSR program includes separate “nonattainment” provisions for facilities located in areas that are classified as being in nonattainment with the EPA’s national Ambient Air Quality Standards. See infra; CAA §§ 171-193, 42 U.S.C. §§ 7501-7515. These nonattainment provisions are not relevant to the instant case.

¹³ See CAA §§ 107, 160-169B, 42 U.S.C. §§ 7407, 7470-7492. NAAQS are “maximum concentration ceilings” for pollutants, “measured in terms of the total concentration of a pollutant in the atmosphere.” See U.S. EPA Office of Air Quality Standards, New Source Review Workshop Manual at C.3 (Draft Oct. 1990). The EPA has established NAAQS on a pollutant-by-pollutant basis at levels the EPA has determined are requisite to protect public health and welfare. See CAA § 109, 42 U.S.C. § 7409. NAAQS are in effect for the following six air contaminants (known as “criteria pollutants”): sulfur oxides (measured as sulfur dioxide (“SO₂")), particulate matter (“PM”), carbon monoxide (“CO”), ozone

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pollutant that do not meet the requirements of the applicable NAAQS. *Id.* Areas “that cannot be classified on the basis of available information as meeting or not meeting the [NAAQS]” are designated as “unclassifiable” areas. *Id.* The PSD Regulations provide, among other things, that the proposed facility be required to meet a “best available control technology” (“BACT”)¹⁴ emissions limit for each pollutant subject to regulation under the Clean Air Act that the source would have the potential to emit in significant amounts.¹⁵

The District processes PSD permit applications and issues permits under the federal PSD program, pursuant to a delegation agreement with the USEPA. The District’s regulations, among other things, prescribe the federal and State of California standards that new and modified sources of air pollution in the District must meet in order to obtain an “authority to construct” from the District.¹⁶

In addition to the substantive provisions for EPA-issued PSD permits, found primarily at 40 C.F.R. § 52.21, PSD permits are subject to the procedural requirements of Part 124 of Title 40 of the Code of Federal Regulations (Procedures for Decisionmaking), which apply to most EPA-issued permits.¹⁷ These requirements also apply to permits issued by state or local governments pursuant to a delegation of federal authority, as is the case here. Among other things, Part 124 prescribes procedures for permit applications, preparing draft permits, and issuing final permits, as well as filing petitions for review of final permit decisions. *Id.* Also, of particular relevance to this proceeding, part 124 contains provisions for public notice of and public participation in EPA

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(measured as volatile organic compounds (“VOCs”)), nitrogen dioxide (“NO₂”) (measured as NO_x), and lead. 40 C.F.R. § 50.4-12. See CAA §§ 107, 161, 165, 42 U.S.C. §§ 7407, 7471, 7475.

¹⁴ BACT is defined by the CAA, in relevant part, as follows:

The term “best available control technology” means an emissions limitation based on the maximum degree of reduction of each pollutant subject to regulation under this chapter emitted from or which results from any major emitting facility, which the permitting authority, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such facility through application of production processes and available methods, systems, and techniques, including fuel cleaning, clean fuels, or treatment or innovative fuel combustion techniques for control of such pollutant.

CAA § 169(3), 42 U.S.C. § 7479(3); see also 40 C.F.R. § 52.21(b)(12).

¹⁵ CAA § 165(a)(4), 42 U.S.C. § 7475(a)(4); see also 40 C.F.R. § 52.21(b)(5).

¹⁶ See Bay Area Air Quality Management District Regulation (“DR”) New Source Review Regulation 2 Rule 2, 2-2-100 to 2-2-608 (Amended June 15, 2005), available at <http://www.baaqmd.gov/dst/regulations/rg0202.pdf>.

¹⁷ See 40 C.F.R. pt. 124.5

permitting actions. See 40 C.F.R. § 124.10 (Public notice of permit actions and public comment period); *id.* § 124.11 (Public comments and requests for public hearings); *id.* § 124.12 (Public hearings).¹⁸

The District's Regulation 2 Rule 3 - 403 state "[w]ithin 180 days of accepting an [CEC Application for Certification] AFC as complete, the APCO shall conduct a Determination of Compliance [DOC] review and make a preliminary decision [PDOC] as to whether the proposed power plant meets the requirements of District regulations. If so, the APCO shall make a preliminary determination of conditions to be included in the Certificate, including specific BACT requirements and a description of mitigation measures to be required." Regarding the public notice requirement District's Regulation 2 Rule 3 - 404 goes on to state " [t]he preliminary decision [PDOC] made pursuant to Section 2-3-403 shall be subject to the public notice, public comment and public inspection requirements contained in Section 2-2-406 and 407 of Rule 2." Regulation 2 Rule 2 - 406 states " [t]he APCO shall make available for public inspection, at District headquarters, the information submitted by the applicant, and if applicable the APCO's analysis, and the preliminary decision to grant or deny the authority to construct including any proposed conditions... Furthermore, all such information shall be transmitted, upon the date of publication, to the ARB and the regional office of the EPA if the application is subject to the requirements of Section 2-2-405. Regulation 2 Rule 2 - 407 states " [i]f the application is for a new major facility or a major modification of an existing major facility, or requires a PSD analysis, or is subject to the MACT requirement, the APCO shall within 180 days following the acceptance of the application as complete, or a longer time period agreed upon, take final action on the application after considering all public comments. Written notice of the final decision shall be provided to the applicant, the ARB and the EPA..."

¹⁸ The requirement for EPA to provide a public comment period when issuing a draft permit is the primary vehicle for public participation under Part 124. Section 124.10 states that "[p]ublic notice of the preparation of a draft permit ... shall allow at least 30 days for public comment." 40 C.F.R. § 124.10(b). Part 124 further provides that "any interested person may submit written comments on the draft permit ... and may request a public hearing, if no public hearing has already been scheduled." *Id.* § 124.11.

In addition, EPA is required to hold a public hearing "whenever [it] ... finds, on the basis of requests, a significant degree of public interest in a draft permit(s)." *Id.* § 124.12(a)(1). EPA also has the discretion to hold a hearing whenever "a hearing might clarify one or more issues involved in the permit decision." *Id.* § 124.12(a)(2).

Since BACT is part of the CAA and the PDOC includes the District's BACT analysis therefore clearly the PDOC¹⁹ and draft PSD Permit are interdependent on the findings from the federal BACT analysis conducted by the District purportedly in 2002 and again in 2007. The PSD permitting procedures at the heart of this dispute were triggered by RCEC's application to the CEC, on November 17, 2006, to amend the CEC's original 2002 certification of RCEC's proposal to build a 600-MW natural gas-fired, combined cycle power plant in Hayward, California.²⁰ According to the District Air Quality Engineer who oversaw the RCEC's PSD permitting, the District, after conducting an air quality analysis, issued its PDOC/draft PSD permit, notice of which it published in the Oakland Tribune on April 12, 2007. Declaration of Wyman Lee, P.E. ("Lee Decl.") ¶ 2. RCEC originally filed for certification by the CEC in early or mid-2001, and was initially certified by the CEC on Sept. 11, 2002, pursuant to the *Warren-Alquist Act*, see supra. During the initial CEC certification process, which also incorporated the District permitting, the District issued a PDOC/Draft PSD Permit to RCEC in November 2001. However, the District did not proceed to issue a final PSD permit because RCEC withdrew plans to construct the project in the spring of 2003. See Letter from Gerardo C. Rios, Chief, Permits Office, U.S. EPA Region 9, to Ryan Olah, Chief Endangered Species Division, U.S. Fish and Wildlife Service (Jun. 11, 2007). The amended CEC certification and PSD permitting were required purportedly because RCEC afterwards proposed relocating the project 1,500 feet to the north of its original location²¹.

¹⁹ The District's process for permitting power plants is integrated with the CEC's certification process to support the latter's conformity findings, as reflected in the District's regulations specific to power plant permitting. See DR, Power Plants Regulation 2 Rule 3 §§ 2-3-100 to 2-3-405, available at <http://www.baaqmd.gov/dst/regulations/rg0202.pdf>. These regulations state that "[w]ithin 180 days of [the District's] accepting an [application for certification] as complete [for purposes of compliance review], the [District Air Pollution Control Officer] shall conduct a ... review [of the application] and make a "preliminary decision" as to "whether the proposed power plant meets the requirements of District regulations." Id. § 2-3-403. If the preliminary decision is affirmative, the District's regulations provide that the District issue a preliminary determination of compliance (PDOC) with District regulations, including "specific BACT requirements and a description of mitigation measures to be required." Id. The District's regulations further require that "[w]ithin 240 days of the [District's] acceptance of an [application for certification] as complete," the District must issue a final Determination of Compliance ("FDOC") or otherwise inform the CEC that the FDOC cannot be issued. Id. § 2-3-405.9

²⁰ See Declaration of J. Mike Monasmith ("Monasmith Decl.") 2, Att. A.

²¹ See Final PSD Permit, Application No. 15487 ("Final Permit") at 3.

IV. DISTRICT FAILS TO CONSIDER GREENHOUSE GAS EMISSIONS AS REGULATED POLLUTANTS

CARE also disagrees with the subject permit because it does not consider greenhouse gas emissions as regulated pollutants. Carbon Dioxide, CO₂, and Nitrous Oxide, N₂O, are components of the emissions expected from the Russell City Energy Center and yet they are not included as regulated emissions. The United States Environmental Protection Agency (USEPA) website²² recognizes the climate change impacts of these emissions and yet these impacts were not included as pollutants.

This project has been located so as to disparately place environmental burdens upon low-income, minority residents, and this project significantly increases emissions of greenhouse gases responsible for global warming. The United States Supreme Court has affirmed that “[t]he harms associated with climate change are serious and well recognized,” *Massachusetts v. EPA*, 549 U.S. 497, 127 S. Ct. 1438, 1455 (April 2, 2007).

In that case, the Supreme Court ruled that the Clean Air Act (CAA or Act) authorizes regulation of greenhouse gases (GHGs) because they meet the definition of air pollutant under the Act.²³ This is the provision entitling CARE to commence a civil action against the

²² <http://epa.gov/climatechange/index.html>

²³ 42 USC § 7604. Citizen suits

(a) Authority to bring civil action; jurisdiction

Except as provided in subsection (b) of this section, any person may commence a civil action on his own behalf—

(1) against any person (including (i) the United States, and (ii) any other governmental instrumentality or agency to the extent permitted by the Eleventh Amendment to the Constitution) who is alleged to have violated (if there is evidence that the alleged violation has been repeated) or to be in violation of (A) an emission standard or limitation under this chapter or (B) an order issued by the Administrator or a State with respect to such a standard or limitation,

(2) against the Administrator where there is alleged a failure of the Administrator to perform any act or duty under this chapter which is not discretionary with the Administrator, or

(3) against any person who proposes to construct or constructs any new or modified major emitting facility without a permit required under part C of subchapter I of this chapter (relating to significant deterioration of air quality) or part D of subchapter I of this chapter (relating to nonattainment) or who is alleged to have violated (if there is evidence that the alleged violation has been repeated) or to be in violation of any condition of such permit.

The district courts shall have jurisdiction, without regard to the amount in controversy or the citizenship of the parties, to enforce such an emission standard or limitation, or such an order, or to order the

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Administrator to perform such act or duty, as the case may be, and to apply any appropriate civil penalties (except for actions under paragraph (2)). The district courts of the United States shall have jurisdiction to compel (consistent with paragraph (2) of this subsection) agency action unreasonably delayed, except that an action to compel agency action referred to in section 7607 (b) of this title which is unreasonably delayed may only be filed in a United States District Court within the circuit in which such action would be reviewable under section 7607 (b) of this title. In any such action for unreasonable delay, notice to the entities referred to in subsection (b)(1)(A) of this section shall be provided 180 days before commencing such action.

(b) Notice

No action may be commenced—

(1) under subsection (a)(1) of this section—

(A) prior to 60 days after the plaintiff has given notice of the violation

(i) to the Administrator,

(ii) to the State in which the violation occurs, and

(iii) to any alleged violator of the standard, limitation, or order, or

(B) if the Administrator or State has commenced and is diligently prosecuting a civil action in a court of the United States or a State to require compliance with the standard, limitation, or order, but in any such action in a court of the United States any person may intervene as a matter of right.

(2) under subsection (a)(2) of this section prior to 60 days after the plaintiff has given notice of such action to the Administrator,

except that such action may be brought immediately after such notification in the case of an action under this section respecting a violation of section 7412 (i)(3)(A) or (f)(4) of this title or an order issued by the Administrator pursuant to section 7413 (a) of this title. Notice under this subsection shall be given in such manner as the Administrator shall prescribe by regulation.

(c) Venue; intervention by Administrator; service of complaint; consent judgment

(1) Any action respecting a violation by a stationary source of an emission standard or limitation or an order respecting such standard or limitation may be brought only in the judicial district in which such source is located.

(2) In any action under this section, the Administrator, if not a party, may intervene as a matter of right at any time in the proceeding. A judgment in an action under this section to which the United States is not a party shall not, however, have any binding effect upon the United States.

(3) Whenever any action is brought under this section the plaintiff shall serve a copy of the complaint on the Attorney General of the United States and on the Administrator. No consent judgment shall be entered in an action brought under this section in which the United States is not a party prior to 45 days following the receipt of a copy of the proposed consent judgment by the Attorney General and the Administrator during which time the Government may submit its comments on the proposed consent judgment to the court and parties or may intervene as a matter of right.

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(d) Award of costs; security

The court, in issuing any final order in any action brought pursuant to subsection (a) of this section, may award costs of litigation (including reasonable attorney and expert witness fees) to any party, whenever the court determines such award is appropriate. The court may, if a temporary restraining order or preliminary injunction is sought, require the filing of a bond or equivalent security in accordance with the Federal Rules of Civil Procedure.

(e) Nonrestriction of other rights

Nothing in this section shall restrict any right which any person (or class of persons) may have under any statute or common law to seek enforcement of any emission standard or limitation or to seek any other relief (including relief against the Administrator or a State agency). Nothing in this section or in any other law of the United States shall be construed to prohibit, exclude, or restrict any State, local, or interstate authority from—

(1) bringing any enforcement action or obtaining any judicial remedy or sanction in any State or local court, or

(2) bringing any administrative enforcement action or obtaining any administrative remedy or sanction in any State or local administrative agency, department or instrumentality, against the United States, any department, agency, or instrumentality thereof, or any officer, agent, or employee thereof under State or local law respecting control and abatement of air pollution. For provisions requiring compliance by the United States, departments, agencies, instrumentalities, officers, agents, and employees in the same manner as nongovernmental entities, see section 7418 of this title.

(f) "Emission standard or limitation under this chapter" defined

For purposes of this section, the term "emission standard or limitation under this chapter" means—

(1) a schedule or timetable of compliance, emission limitation, standard of performance or emission standard,

(2) a control or prohibition respecting a motor vehicle fuel or fuel additive, or [1]

(3) any condition or requirement of a permit under part C of subchapter I of this chapter (relating to significant deterioration of air quality) or part D of subchapter I of this chapter (relating to nonattainment), [2] section 7419 of this title (relating to primary nonferrous smelter orders), any condition or requirement under an applicable implementation plan relating to transportation control measures, air quality maintenance plans, vehicle inspection and maintenance programs or vapor recovery requirements, section 7545 (e) and (f) of this title (relating to fuels and fuel additives), section 7491 of this title (relating to visibility protection), any condition or requirement under subchapter VI of this chapter (relating to ozone protection), or any requirement under section 7411 or 7412 of this title (without regard to whether such requirement is expressed as an emission standard or otherwise); [3] or

(4) any other standard, limitation, or schedule established under any permit issued pursuant to subchapter V of this chapter or under any applicable State implementation plan approved by the Administrator, any permit term or condition, and any requirement to obtain a permit as a condition of operations [4] which is in effect under this chapter (including a requirement applicable by reason of section 7418 of this title) or under an applicable implementation plan.

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BAAQMD and CEC as its delegate. CARE intends to do so after the expiration of the 60 day waiting period.

V. SPECIFIC "AMENDED" PSD PERMIT COMMENTS

1. Pursuant to Regulation 2-2-306, a non-criteria pollutant PSD analysis is required for sulfuric acid mist emissions if the proposed facility will emit H₂SO₄ at rates in excess of 38 lb/day and 7 tons per year. According to the statement of basis RCEC has agreed to permit conditions limiting total facility H₂SO₄ emissions to 7 tons per year and requiring annual source testing to determine SO₂, SO₃, and H₂SO₄ emissions. If the total facility emissions ever exceed 7 tons per year, then the applicant must utilize air dispersion modeling to determine the impact (in µg/m³) of the sulfuric acid mist emissions.” The permit is silent on whether the project could emit 38 pounds per day therefore a PSD analysis of sulfuric acid mist must be considered.

2. Page 159 of the Statement of basis states that the California 1 hour Ambient air quality Standard for NO₂ is not violated by the project. This statement is false as the California ambient air quality standard for NO₂ is 338 µg/m³ while the projects impact combined with background is 370 µg/m³ as shown in table 6 on page 159. The California Air Resource Board has promulgated new standards and established that deleterious health effects occur when NO₂ concentrations exceed 338 µg/m³.²⁴ The statement of basis on page 92 states the correct one

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(g) Penalty fund

(1) Penalties received under subsection (a) of this section shall be deposited in a special fund in the United States Treasury for licensing and other services. Amounts in such fund are authorized to be appropriated and shall remain available until expended, for use by the Administrator to finance air compliance and enforcement activities. The Administrator shall annually report to the Congress about the sums deposited into the fund, the sources thereof, and the actual and proposed uses thereof.

(2) Notwithstanding paragraph (1) the court in any action under this subsection to apply civil penalties shall have discretion to order that such civil penalties, in lieu of being deposited in the fund referred to in paragraph (1), be used in beneficial mitigation projects which are consistent with this chapter and enhance the public health or the environment. The court shall obtain the view of the Administrator in exercising such discretion and selecting any such projects. The amount of any such payment in any such action shall not exceed \$100,000.

²⁴ See <http://www.arb.ca.gov/research/aaqs/no2-rs/no2-doc.htm>

hour NO₂ California standard. Page 92 also states that the project does not violate the state 1 hour standard because the projects maximum impacts are 130 µg/m³ and background is 130 µg/m³. It is not clear in the permit which is the actual impact from NO₂ emissions.

3. Page 26 of the permit states, “A second potential environmental impact that may result from the use of SCR involves ammonia transportation and storage. The proposed facility will utilize aqueous ammonia in a 29.4% (by weight) solution for SCR ammonia injection, which will be transported to the facility and stored onsite in tanks. The transportation and storage of ammonia presents a risk of an ammonia release in the event of a major accident. This risk will be addressed in a number of ways under safety regulations and sound industry safety codes and standards, including the implementation of a Risk Management Program to prevent and respond to accidental releases.” The project if allowed to use SCR can eliminate the impact from transportation accidents by utilizing a technology called NO_xOUT ULTRA[®]. There are dozens of systems in service, one in Southern California at UC Irvine. The plant manager welcomes calls about the system (Jerry Nearhoof, 949 824 2781). Most of the UC campuses have decided not to risk bringing ammonia tankers thru campus or having to offload or storing ammonia. NO_xOUT ULTRA is being specified for new units at UCSD, University of Texas and Harvard. For Aqueous systems you need a tank, a control module, pumps, carrier air, and a vaporizer. The vaporizer requires some heat input to allow the system to drive off or vaporize the water. The resultant ammonia gas and carrier air is sent to an ammonia injection grid (AIG) which uniformly injects the ammonia in the flue gas just ahead of the SCR catalyst. In comparison, the NO_xOUT ULTRA system requires a tank for the urea. The urea is usually in a 50 to 32 % solution. Urea, has no vapor pressure. Has no smell. If it spills the evaporated water will leave behind a pile of crystal salts. There are no hazards labeling or training required for the operator and absolutely no risk to adjacent facilities or neighbors. Like aqueous ammonia NO_xOUT ULTRA needs controls to manage the input from the power plant indicating how much reagent the SCR requires. Like aqueous ammonia the system requires an air blower and heater to heat the air. The heated air goes to a decomposition chamber instead of a vaporizer. In the decomposition chamber, the urea solution is added. The water in the urea solution is vaporized and the additional heat required will then decompose the urea to ammonia. The gas/carrier air is then swept to the AIG and to the SCR. If the urea is pump is stopped and air is left in service the

chamber is sweep clear of ammonia in less than 7 seconds. So in an emergency, there is very little if any ammonia exposure. Other than the 7 seconds between the chamber and the AIG, the only exposure is the harmless urea. There is a premium for urea solutions vs. aqueous ammonia and the capital cost for the process vs. an aqueous ammonia system is competitive. The cost for a decomposition chamber is higher than an ammonia vaporizer, but the cost of urea storage is less than an ammonia tank due to all the hazard considerations. Since the ammonia will be transported thru an Environmental Justice community all precautions should be taken since the community already has a high number of toxic and hazardous materials stored and transported through it. Attachment 1 contains a brochure on the NO_xOUT ULTRA system.

4. Page 26 of the permits BACT analysis states,

The Air District also evaluated the potential for ammonia slip emissions to form secondary particulate matter such as ammonium nitrate. Because of the complex nature of the chemical reactions and dynamics involved in the formation of secondary particulates, it is difficult to estimate the amount of secondary particulate matter that will be formed from the emission of a given amount of ammonia. Moreover, the Air District has found that the formation of ammonium nitrate in the Bay Area air basin appears to be constrained by the amount of nitric acid in the atmosphere and not driven by the amount of ammonia in the atmosphere, a condition known as being "nitric limited". Where an area is nitric acid limited, emissions of additional ammonia will not contribute to secondary particulate matter formation because there is not enough nitric acid for it to react with. Therefore, ammonia emissions from the SCR system are not expected to contribute significantly to the formation of secondary particulate matter. Any potential for secondary particulate matter formation is at most speculative, and would not provide a reason to eliminate SCR as a control alternative.

The District has based its conclusion that the project area is nitric limited on a BAAQMD Office Memorandum from David Fairly to Tom Perardi and Rob DeMandel, "A First Look at NO_x/Ammonium Nitrate Tradeoffs, dated September 8, 1997. The District memorandum outlines two objectives. One, whether the Bay Area is ammonia limited, and two, to what extent reducing NO_x emissions would reduce ammonium nitrate. Among the findings presented in this memorandum, the District staff believes that ". . . San Jose and Livermore are not ammonia limited' during wintertime high particulate matter conditions; rather, these two areas are nitric acid limited. Other findings stated in the memorandum include recognition that the District analyses do not provide solid "...footing to do planning or to provide guidelines to industry for such tradeoffs [between NO_x and ammonium nitrate]." Thus, the District memorandum is very

specific to say that San Jose and Livermore, not the entire Bay Area air basin or the project location, are nitric acid limited, and that no guidelines have been formed to address the ammonia induced PM10/PM2.5 problem.

This project is located in the Hayward area of Alameda County, which is outside of the area where the District has made the determination; therefore, the District's contention that the increase in ammonia emissions from this facility would not cause any increase in PM10/PM2.5 emission impacts is not supported by the District memorandum. The District needs a site specific study to make such broad conclusions and an analysis needs to be conducted not only to evaluate the use of SCR but also to assess environmental impacts of secondary particulate and its effect on the deterioration of air quality in the BAAQMD. The project's PM 2.5 impacts may be much larger than modeled and should be subject to additional analysis.

The District needs to conduct a BACT analysis on the ammonia emission slip limit. Several Projects including the ANP Blackstone Project have 2 ppm ammonia slip limits which are designed to prevent additional particulate matter formation and limit the transportation of ammonia through the surrounding communities.

5. The statement of basis concludes that a CO limit of 4 ppm over 3 hours is BACT. (Page 32) That conclusion was determined from analyzing emissions data from the Metcalf Energy Center. The Metcalf energy center does not utilize an oxidation catalyst for CO emissions so to base the permit decision on a project that contains no CO abatement device when the proposed Russell City Project will have an oxidation catalyst is an inappropriate comparison. Several Projects have achieved a lower CO emissions rate in conjunction with a 2ppm NO_x limit. One is the Salt River Project in Arizona which meets a 2ppm NO_x limit and a 2ppm CO limit that has been verified by source testing. The Las Vegas Cogeneration facility has a 2ppm NO_x limit and a 2ppm CO limit.²⁵ Based on available information the district should choose a 2ppm CO limit for this project to comply with BACT.²⁶

²⁵ See <http://cfpub1.epa.gov/rblc/cfm/ProcDetl.cfm?facnum=25662&procnum=102130>

²⁶ See <http://cfpub1.epa.gov/rblc/cfm/ProcDetl.cfm?facnum=26002&Procnum=103714>

6. The district reports on page 41 of the permit that the Palomar Project has reduced NO_x start up emissions by introducing ammonia earlier in the start up cycle and using the OP-Flex system. “By taking these steps, the facility was able to optimize its operating procedures and bring down its startup emissions. The facility has reported encouraging results from the first few months of operating with these new techniques.” The district then eliminates the technology because only one quarterly report from the quarterly variance reports to the SDPCD is available on the success of the new technology. “It is not possible, however, to determine based on this limited data what reductions, if any, are attributable to OpFlex and what reductions are attributable to the operational changes the facility was able to make for its specific turbines. Moreover, the facility has operated only for a relatively limited period of time with these enhancements, and so it is difficult to determine from the limited data available so far what improvements can reliably be achieved throughout the life of the facility. Included as attachment 2 to these comments are three more Hearing Board Variance 4073; Quarterly Reports” that were acquired through a public records request. By utilizing earlier ammonia injection and utilizing the OP flex system the Russell City Power Projects start up emissions can be reduced drastically. Its must be required as BACT since it has been proved in operation for over a year and it will reduce the projects potential to violate the new California NO₂ standard and eliminate the deficient daily emission reduction credits needed for the facility as explained below.

7. Table B-12 on page 147 of the statement of basis lists the maximum daily NO₂ emissions of 1,553 pounds per day. The permit proposes to only offset 134.6 tons of NO₂ per year or 737.54 pounds per day. The ERC’s will not provide adequate mitigation for the potential 1533 pounds per day of NO₂ emitted by the project. The surrendered ERC’s only mitigate 49% of the projects daily NO₂ emission due to the excessive start up and shut down emissions. This could leave as much as 49% of the projects daily NO₂ emissions unmitigated. On days when violations of ozone standards occur the projects emissions would contribute to violations of the standard.

8. The ERC’s listed for the Russell City Energy Center have already been pledged to another Calpine Project in the BAAQMD. Certificate Number 687 for 43.8 tons of POC has

already been pledged to offset emission increases for the East Altamont Energy Center. Certificate Number 602 for 41 tons of POC was also allocated to the East Altamont Energy Center. Since these ERC's were subject to extensive scrutiny by the CEC, the SJVUAPCD and the public this transfer of ERC's should be subject to public notice and comment.

9. The BAAQMD now requires a fee for greenhouse gas emissions.²⁷ The license should acknowledge the green house gas fees to be paid to the BAAQMD. Greenhouse gas emissions are evaluated based on the natural gas consumption of the project. The ammonia slip will also contribute to greenhouse gas emissions from the project and should be included in the evaluation. The District should do a true BACT analysis on greenhouse gases and not just adopt the maximum allowable greenhouse gas emission per megawatt as specified by the State.

10. **Environmental Justice**^{LB} ---The District state on page 65 of the statement of basis "Another important consideration that the Air District evaluated is environmental justice. The Air District is committed to implementing its permit programs in a manner that is fair and equitable to all Bay Area residents regardless of age, culture, ethnicity, gender, race, socioeconomic status, or geographic location in order to protect against the health effects of air pollution. The Air District has worked to fulfill this commitment in the current permitting action." Other than issue the public notice in Spanish on its website for comments on this permit the district has done nothing different from any other permitting actions to evaluate the specific environmental justice impacts of this project on the minority community. The District believes by conducting a health risk assessment which it does for every project or modeling criteria pollutant impacts the district believes that its met its environmental justice obligation in the permitting process. The District reasoning is that since the modeling they performed meets their requirements for the general population the minority community can't possibly be harmed by the projects emissions. The very purpose of the environmental justice evaluation is to identify the minority population's health vulnerabilities and existing pollution and hazardous materials sources and identify how the project affects the minority community not the general population. The District evaluation falls short of even the basic environmental justice analysis.

Poor health and premature death are by no means randomly distributed in Alameda County. Low-income communities and communities of color suffer from substantially worse health outcomes and die earlier. Many studies note that these differences are not adequately explained by genetics, access to health care or risk behaviors but instead are to a large extent the result of adverse environmental conditions. The Russell City Power Project is sited in a geographic area already disproportionately burdened by illness and death. The presence of a disproportionate concentration of persons with asthma, chronic lung disease, congestive heart failure and other chronic conditions that are exacerbated by air pollution must factor into the decision of where to site this power plant. Especially because these populations affected by the power plant are predominately low-income communities of color. The minorities are not distributed throughout the population randomly but instead are concentrated disproportionately in proximity to the proposed Hayward site.

As noted in the CEC staff report, Hayward is more ethnically diverse, with a significantly larger, non-white population than Alameda County. In the two zip codes near the site 94544 and 94545 residents have a high mortality rate and on average they live five years less than the county-wide expectancy rate. Death rates from air pollution-associated diseases such as coronary heart disease, chronic lower respiratory disease, are substantially and statistically significantly higher than those for the County, representing an ongoing, excess burden of mortality. The rate of death from chronic lower respiratory diseases was 43 percent higher and the rate from coronary heart disease was 16 percent higher than the County rate. Hospitalizations due to air pollution-associated diseases are substantially higher in the zip codes close to the proposed site. From 2003 to 2005 the hospitalization rates for coronary heart disease, chronic obstructive pulmonary disease, congestive heart failure and asthma in the two zip codes nearest the proposed site, 94544 and 94545, was statistically significantly higher than Alameda County rates. Which means hospitalizations due to air pollution will not occur by chance. Specifically, hospitalization rates due to coronary heart disease was 60 percent higher; chronic obstructive pulmonary disease, 20 percent higher; congestive heart failure, 35 percent higher; and asthma

Continued from the previous page

²⁷ See <http://www.baaqmd.gov/pln/climatechange.htm#GHGFee>

CARE and Rob Simpson comments on the "amended" PSD permit for the
Russell City Energy Center Application Number 15487 and
Complaint to Office of the Administrator USEPA and ARB under 42 USC § 7604

hospitalization rates 14 percent higher than the County rate. A disproportionate burden of the cost of these preventable hospitalizations, particularly among the uninsured, is borne by Alameda County taxpayers. The fact that rates of these illnesses are significantly higher in the proposed plant area than in the rest of the County suggests a level of vulnerability in this population that is higher than the rest of the County. A proper Environmental Justice process begins with the demographic screening analysis which the CEC staff has performed and concluded that the majority of the community surrounding the RCEC is indeed minority. There is no dispute on that fact. At that point in the analysis the public participation process should have been used to define and evaluate environmental justice concerns. Community leaders and community stakeholders should have been consulted to identify their concerns. The District should have consulted with the county health agencies to identify existing health concerns. Then the District should have examined the synergistic effects of existing pollution that already exists in the community. In this community there are multiple environmental stresses. There is a railroad which passes through the area, there are truck terminals and other heavy industries and a sewage treatment plant in the affected community. The District has not identified and examined the existing local sources of criteria pollutants and toxic emissions and evaluated their impacts in conjunction with the emissions from the RCEC.

Environmental Justice Guideline's emphasize the importance of reaching out to the community and involving them in the development of the mitigation measures and alternatives. A good example of how this process is done is the community outreach that was performed by the CCSF in the SFERP proceeding. In that proceeding over 20 community meetings were held and the community was engaged in deciding appropriate mitigation measures and alternatives. Public advocacy groups were consulted and included in the decision making. Air Quality Monitoring stations were set up in the community to examine existing air quality in the affected community.²⁸

²⁸ See [http://www.energy.ca.gov/sitin~cases/sanfrancisco/documents/applicant/data response 1A12004-07-08 DATA RESPONSE-PDF](http://www.energy.ca.gov/sitin~cases/sanfrancisco/documents/applicant/data%20response%201A12004-07-08%20DATA%20RESPONSE-PDF)

The environmental justice argument against the RCEC is made even stronger by the fact that the risk assessment model may underestimate the health risk of substances that interact synergistically, as pointed out in the risk assessment guidelines. The potential for multiple and varied air and non-airborne pollutants to act synergistically, rather than additively as assumed by the risk assessment model, requires an analysis of the overall toxic burden associated with this Hayward location. Low-income, minority populations have historically been exposed to a much higher burden of environmental toxicity. The District's Environmental Justice Analysis does not accept the existing ordinate disease nor does it adequately measure the health risks associated with potential, synergistic interactions among the substances, profoundly important aspects of environmental justice.

Siting the Russell City Power plant in Hayward will disproportionately impact the geographic area, home to a comparatively high, non-white population that is already burdened by existing morbidity and mortality from disease associated with air pollution or other existing environmental factors. It is that burden that must be analyzed to truly determine if the minority population near the proposed power plant will be affected. The district is required to address environmental justice issues in the PSD process.²⁹ The 1998 EPA guidelines require Agencies to consider a wide range of demographic, geographic, economic, human health and risk factors. One of the three most important factors identified in the 1998 EPA guidelines is “whether communities currently suffer or have historically suffered from environmental health risks and hazards.” The 1998 EPA Guidelines require the agencies conducting an Environmental Justice Analysis to define the sensitive receptor analysis to the actual unique circumstances affecting the minority community not a generic definition of sensitive receptor that was utilized by the District and the CEC.

VI. COMMENTS AND REQUESTS FOR CLARIFICATION ON THE "AMENDED" PSD PERMIT STATEMENT OF BASIS

The Russell City Energy Center, described in detail in subsequent sections of this document, is a proposed 600 megawatt natural gas fired combined-cycle power plant, proposed to be built near the corner of Depot Road and Cabot Boulevard, in Hayward, CA. *SOB at page 3*

1. Is this the correct location or would the end of Depot road or the “southeastern shore of the San Francisco bay in the City of Hayward” be more accurate?
2. Could the site descriptions in question 1 affect public interest or informed participation?

The Energy Commission’s licensing decision is appeal able directly to the California Supreme Court. *SOB at 6*

3. Does the Energy Commission have other administrative appeal venues?
4. Could disclosure of other Energy Commission appeal venues affect public interest or informed participation?

The Air District Authority to Construct is appealable to the District’s Hearing Board and subsequently to the Superior Court of California. Federal PSD Permits are initially appealable the EPA’s Environmental Appeals Board in Washington, D.C., and subsequently to federal court. *SOB at 6*

5. Could someone appeal directly to Federal court or must they appeal to the EAB first?
6. Could disclosure of other appeal venues affect public interest or informed participation?

The proposed Russell City facility was initially licensed in 2002, but it was relocated and so its permits had to be updated. *SOB at 6*

7. Why was it relocated?
8. Could the reason for relocation affect public interest or informed participation?

The amended authority to construct (ATC) and the amended Federal PSD Permit were issued jointly in the same document, in accordance with the Air District’s administrative practice. *SOB at 6*

9. Is the PSD permit a component of the ATC or is the authority to construct valid without a PSD permit?

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²⁹ See http://www.epa.gov/compliance/resources/policies/ej/ej_permitting_authorities_memo_120100.pdf

The Air District's ministerial Authority to Construct permit is appealable only on the narrow issue of whether the Air District correctly incorporated the Energy Commission's conditions of certification in the Authority To Construct. That is, an error in transcribing a permit condition from the Energy Commission's license into the Authority to Construct is appealable, but an appeal cannot seek to revisit substantive issues of what permit conditions are appropriate and required, which are addressed during the CEC licensing process and on any appeals there from. *SOB footnote 2 at 6*

10. Did the District comply with CEC AQ-SC10?
11. Could the district be compelled to comply with this condition of the CEC decision?
12. Could this information affect public interest or informed participation?

AQ-SC10 In lieu of complying with AQ-SC7, AQ-SC8, and AQ-SC9, the project's combustion turbine/HRSO units shall be designed and built with equipment and control systems to minimize start-up times and emissions. These could include the Fast-Start technology with an integrated control system and a once-through Benson boiler design, appropriate system configuration and equipment to facilitate operating chemistry during starting sequences, and an auxiliary boiler. *CEC final Decision.*

All appeal avenues have therefore been exhausted, and the state-law Energy Commission license and District Authority to Construct are not subject to further review. *SOB at 7*

13. Is this statement correct?
14. Does the Authority to Construct comply with all current laws?
15. Is the Authority to Construct a document that has been published by the District?
16. Where can the public locate the Authority to Construct?
17. Please provide a copy of the Authority to Construct.
18. Could availability of the Authority to Construct affect public interest or informed participation?

The Environmental Appeals Board ruled that the Air District had not mailed notice of the proposed amended Federal PSD Permit to several parties that were entitled to it, and so it remanded the permit to the District to re-notice the proposed permit and provide the public with a further opportunity to comment. *SOB at 7*

19. Is this what the EAB remand stated?
20. Could further disclosure of details of the Remand affect public interest or informed participation?

The analysis of elements that are not being amended shows that the conditions from the initial permit that are not being changed meet current applicable legal standards for Federal PSD Permits, and that they would comply with current PSD requirements even if they were being proposed anew at this time. *SOB at 7*

21. What aspects of the PSD permit are in conflict with state law; which state law?

The Air District is not reopening the state-law permitting process that was completed under the Warren-Alquist Act (culminating with the Energy Commission's license for the project and the District's incorporation of the Energy Commission's licensing conditions into the Authority to Construct permit). Those permitting actions under state law are final and all avenues for appeal have been exhausted. The Environmental Appeals Board's remand of the Federal PSD Permit to be re-noticed does not implicate these state-law permits. They are separate legal entities and the Environmental Appeals Board has not questioned their continued validity. *SOB at 7*

22. Is this a correct statement?

23. What if prior permitting actions do not comply with present laws?

The District invites all interested parties to comment on the Draft Amended PSD Permit. The legal requirements for PSD Permits are contained in Section 52.21 of Title 40 of the Code of Federal Regulations (40 C.F.R. Section 52.21). Comments should address only the Federal PSD issues in this proceeding. The District is not considering any issues related to the state-law Authority to Construct permit or the California Energy Commission's license for the project, or any other non-PSD issues. *SOB at 7*

24. If this is the Statement of Basis for the Federal action and the District has raised issues in the statement, are all issues raised by the district part of the basis for this permit and thereby subject to comment by the public or is this merely a venue for the district to create a record without allowing public participation; i.e., is this an ad-hoc rationalization for an action the District has already taken?

25. Could this restriction of public participation affect public interest or informed participation?

The Russell City Energy Center is a proposed 600 megawatt ("MW") natural gas fired combined cycle power plant proposed to be built by Russell City Energy Company, LLC, which is owned 65% by a subsidiary of Calpine Corporation and 35% by General Electric Corporation. *SOB at 9*

26. Why was General Electric ownership not disclosed on the Public notice?
27. Could this information affect public interest or informed participation?

The proposed facility would be located at 3862 Depot Road, near the corner of Depot Road and Cabot Boulevard, in Hayward, CA. *SOB at 9*

28. Why was the address changed?
29. What is the Address identified in the Authority to Construct?

The facility was originally permitted in 2002, but was subsequently relocated approximately 1,500 feet north of the original site and required the facility's permits to be amended. *SOB at 9*

30. Exactly How far is the new site from the old site?
31. Could this information affect public interest or informed participation?

The Russell City Energy Center will consist of the following permitted equipment: S-1 Combustion Turbine Generator (CTG) #1, Westinghouse 501F, 2,038.6 MMBtu/hr maximum rated capacity, natural gas fired only; abated by A-1 Selective Catalytic Reduction System (SCR) and A-2 Oxidation Catalyst. *SOB at 10*

S-2 Heat Recovery Steam Generator (HRSG) #1, with Duct Burner Supplemental Firing System, 200 MMBtu/hr maximum rated capacity; Abated by A-1 Selective Catalytic Reduction (SCR) System and A-2 Oxidation Catalyst. *SOB at 10*

S-3 Combustion Turbine Generator (CTG) #2, Westinghouse 501F, 2,038.6 MMBtu/hr maximum rated capacity, natural gas fired only; abated by A-3 Selective Catalytic Reduction System (SCR) and A-4 Oxidation Catalyst. *SOB at 10*

S-4 Heat Recovery Steam Generator (HRSG) #2, with Duct Burner Supplemental Firing System, 200 MMBtu/hr maximum rated capacity; Abated by A-3 Selective Catalytic Reduction (SCR) System and A-4 Oxidation Catalyst. *SOB at 10*

S-5 Cooling Tower, 9-Cell, 141,352 gallons per minute. *SOB at 10*

S-6 Fire Pump Diesel Engine, Clarke JW6H-UF40, 300 hp, 2.02 MMBtu/hr rated heat input. *SOB at 10*

32. Please answer the following equipment questions.

Turbine Questions

- a. What are the identifying or serial numbers of the proposed turbines?
 - b. What year were they manufactured?
 - c. What year did Calpine acquire them?
 - d. How much did Calpine pay for the turbines?
 - e. Has Calpine sold any similar turbines in the last 3 years? If so for how much?
 - f. Are the turbines used?
 - g. If so, Have they been refurbished?
 - h. Where were they originally in service?
 - I. Provide emission records from their use.
 - J. Were emission reduction credits earned when the turbines were retired?
 - K. Please identify more efficient turbines or alternative configurations that would result in higher efficiency or reduced emissions.
33. Calpine's attorney represented the steam turbine may be removed from a partially built plant in another state. Please answer the above "turbine questions" for this equipment.
34. Is other equipment planned to be used that has been in use in other locations? If so please answer "turbine questions" for this equipment.
35. Does Calpine have any facilities planned or in operation that are more efficient or emit comparably fewer emissions than this facility?
36. Does Calpine's partner GE manufacture any more efficient or cleaner operating equipment than that which is proposed?
37. What is the estimated CO₂ output for this facility?
38. What would the CO₂ output be from the most efficient equipment available?
39. Could the answers to questions 30-36 affect public interest or informed participation?

Load Following: Facility would be operated to meet contractual load and spot sale demand, with a total output less than the base load scenario. *SOB at 11*

40. Does this mean that the facility can operate as a “peaker” ?
41. Could this affect the emission calculations?

EPA recently promulgated new amendments to the PSD regulations addressing PM2.5, and these amendments expressly incorporated the earlier guidance and made clear that for permit applications such as this one that were submitted and complete before July 15, 2008, permitting agencies should use the PM10 surrogate approach from the 1997 guidance. *SOB at 17 to 18*

38. When was this one submitted for public comment?
39. Is the permit subject to 40 CFR 51.166 (2) Within one year after receipt of a complete application, the reviewing authority shall (vii) Make a final determination whether construction should be approved, approved with conditions, or Disapproved?
40. What would be the effect of District compliance with 40 CFR 51.166?

See 73 Fed. Reg. 28231, 28349-50 (May 16, 2008) (to be codified at 40 C.F.R. § 52.21(i)(1)(xi)). The Air District expects shortly to be classified as “attainment” or “non-attainment” of the new PM2.5 standard by EPA. If the District is classified as “non-attainment”, PM2.5 will be regulated under the District’s NSR permitting program and will no longer be subject to PSD permit requirements. Permit applications such as this one that were received under the existing designation will continue to be processed under the PSD program using the surrogate approach as directed by EPA, however; *SOB footnote 7 at 18*

41. Has the District already been classified?
42. Would classification information, if already known, potentially affect public interest or informed participation?

U.S EPA lowered the 24-hour PM2.5 standard from 65 µg/m³ to 35 µg/m³ in 2006. EPA issued attainment status designations for the 35 µg/m³ standard on December 22, 2008. EPA has designated the Bay Area as nonattainment for the 35 µg/m³ PM2.5 standard. The EPA order will be effective in April 2009, 90 days after publication of the EPA findings in the Federal Register ³⁰

³⁰ See http://www.baaqmd.gov/pln/air_quality/ambient_air_quality.htm

43. Has the District already been classified?
44. Would classification information, if already known, potentially affect public interest or informed participation?
45. How would this process be different if the District processed this permit consistent with the new attainment status and without the surrogate approach?

Emissions rates in Table 8 are based on the emissions rates set forth in Section IV.A. above with one exception, sulfuric acid mist (H₂SO₄). Emissions of sulfuric acid mist are expected to be less than the PSD significance threshold of 7 tons per year, and the Air District is proposing an enforceable permit condition (Number 25) limiting sulfuric acid mist from the new combustion units to a level below the PSD trigger level. Compliance will be determined by use of emission factors (using fuel gas rate and sulfur content as input parameters) derived from annual compliance source tests. The annual source test will be conducted, as indicated in Condition number 34, to measure SO₂, SO₃, H₂SO₄ and ammonium sulfates. This approach is necessary because the conversion in turbines of fuel sulfur to SO₃, and then to H₂SO₄ is not well established. With this permit condition, sulfuric acid mist emissions will be less than the PSD significance threshold of 7 tons per year and the facility will not be subject to Federal PSD Permit requirements for sulfuric acid mist. *SOB footnote 9 at 18*

46. What is the Basis for “conversion” to be “not well established”?
47. What would it take to establish?
48. What Guarantee, that the emissions will not exceed the threshold limits for the other 364 day per year, exists?
49. What guarantee is there that the operator will not retest in the absence of oversight until compliance is demonstrated?
50. Can the district pre-establish an annual test dates to prevent test manipulation by retesting?

EPA has provided further guidance on how to implement this definition of “Best Available Control Technology” in its 1990 Draft New Source Review Workshop Manual (“NSR Workshop Manual”). EPA requires that the District implement the Best Available Control Technology requirement by conducting what EPA calls a “Top-Down BACT Analysis”. As described in EPA’s NSR Workshop Manual, a “Top-Down BACT Analysis” consists of five key steps... *SOB at 20*

51. It would appear that the District relied on the 1990 document for compliance how would reliance on present standards affect the permitting decision?

The majority of EPA's clarifications were proposed through a new definition of actual emissions at 40 CFR Subpart 51.166(f) and 40 CFR Subpart 52.21(f). Rather than revising the existing definition of actual emission (40 CFR 51.166(b)(21) and 52.21(b)(21)), which may continue to be used for other purposes under the PSD program, EPA's proposed new definition will only apply for determining increment consumption and providing exclusions to methods for determining increment analysis. Specifically, the proposed rule provides clarifications in the following eight areas.

1) Draft 1990 New Source Review Workshop Manual

EPA clarifies that, while some of the views expressed in the draft NSR Manual may have been promulgated in other EPA regulations, the draft NSR Manual is not a binding regulation and does not by itself establish final EPA policy or authoritative interpretations of EPA regulations under the NSR program. In addition, EPA proposes to establish regulations that supersede many of the recommended approaches for conducting the increments analysis set forth in the draft NSR Manual and other EPA guidance documents.³¹

The EPA's Environmental Appeals Board ("Board") has sometimes referenced the draft NSR Manual as a reflection of our thinking on certain PSD issues, but the Board has been clear that the draft NSR Manual is not a binding Agency regulation. See, *In re: Indeck-Elwood, LLC, PSD Permit Appeal No. 03-04*, slip. op. at 10 n. 13 (EAB Sept. 27, 2006); *In re: Prairie State Generating Company, PSD Permit Appeal No. 05-05*, slip. op. at 7 n. 7 (EAB Aug 24, 2006). In these and other cases, the Board also considered briefs filed on behalf of the Office of Air and Radiation that provided more current information on the thinking of the EPA headquarters program office on specific PSD issues.³²

NOx emissions as an ozone precursor are regulated under California law through the Energy Commission Licensing process and subsequent Air District Authority to Construct permit (discussed in more detail in Section II.A above). NO₂ is regulated under the Federal PSD program for sources in the Bay Area. *SOB footnote 11 at 21*

52. Does the intended permit comply with California's present NO₂ standard or does the District have authority to issue a permit that does not comply with California Law?

Kawasaki Heavy Industries purchased the XONON™ catalytic combustion technology from Catalytica Energy Systems in 2006. Kawasaki plans to use the XONON™ on its own turbines, but it is not known if Kawasaki will make the combustors available to other turbine manufacturers. *SOB at 24*

³¹ See <http://trinityconsultants.com/air.asp?cp=133>

³² See <http://www.epa.gov/EPA-AIR/2007/June/Day-06/a10459.htm>

53. What is the basis for this information being “not known” and what would it take for the district to know?

The annualized SCR cost figures are based on a cost analysis conducted by ONSITE SYCOM Energy Corporation, updated and adjusted for inflation by the District. These total 1999 annualized cost for SCR was adjusted for inflation by the District using the Consumer Price Index (2008 value = 1999 value x 1.32). Emerchem provided the updated cost information for the EMx. *SOB footnote 19 at 26*

54. Does the District have some basis that the consumer price index is a valid method of guesstimating today’s costs for SCR?

55. What would be a better method?

The CEC has modeled the health impacts arising from a catastrophic ammonia release and has found that the impacts would not be significant.³³ *SOB at 20*

56. Is it appropriate to use vintage data for present permitting or should the district consider potential impacts with contemporary data?

BAAQMD Office Memorandum from David Fairly to Tom Perardi and Rob DeMandel, “A First Look at NOx/Ammonium Nitrate Tradeoffs, dated September 8, 1997.
SOB footnote 21 at 27

57. Has the District or any others taken a second look since this 1997 Memorandum?

See Metcalf Energy Monthly BAAQMD CEM Reports, from 5/1/2005 to 1/31/2008. The Air District focused on data from days without startup or shutdown activity. When the turbines/heat recovery boilers are starting up or shutting down, Carbon Monoxide emissions are much higher than during steady-state operations as discussed in more detail in subsequent sections. By

³³ California Energy Commission (CEC), 2002a. Final Staff Assessment (FSA) and Addendum, published on June 2002. BAAQMD Office Memorandum from David Fairly to Tom Perardi and Rob DeMandel, “A First Look at NOx/Ammonium Nitrate Tradeoffs, dated September 8, 1997.

See “Towantic Energy Project Revised BACT Analysis”, RW Beck, February 18, 2000.

looking only at data from days without startups or shutdowns, the Air District has ensured that the limit it adopts will be appropriate for steady-state operating conditions.

SOB footnote 25 at 32

58. Will the Limit be appropriate for days with start up?
59. How often can the facility start up under this permit?
60. Has the impact of startup during shoreline fumigation time periods been disclosed?
61. Is it appropriate to use vintage data for present permitting or should the district consider potential impacts with contemporary data?

GE has declined to give emissions performance guarantees for start-up operations using the OpFlex™ software, explaining that startup emissions, by nature, are highly variable and dependent on specific plant equipment and configuration. (Telephone conversations with Bob Bellis and Derrick Owen, GE Energy on November 21, 2008.)

SOB footnote 37 at 41

62. Would a higher level of diligence or verification be appropriate than “telephone conversations” be appropriate for the district to make its determinations?

For all of these reasons, the Air District has eliminated the once-through boiler alternative as an appropriate BACT technology for startup emissions for a facility such as Russell City. The Air District has concluded that the adverse impacts of requiring a single-pressure steam turbine design outweigh the additional startup benefits that can be achieved. The Air District will continue to monitor the development of once-through boiler technologies, in particular the Siemens Flex Plant 30 design using a triple-pressure steam boiler. Such future developments could change the analysis regarding the tradeoffs between overall energy efficiency and startup performance. *SOB at 44*

63. Is this monitoring for potential modification of this permit or future permits?

The relocation and apparent redesign of the 29 percent aqueous ammonia tank and the ammonia facility as a whole will result in changes in impacts to off-site receptors in the event of an accidental spill of ammonia. The project owner prepared a new Off-Site Consequence Analysis (OCA) to evaluate the potential impacts of an ammonia spill with the new configuration. Staff reviewed the results of the OCA and found that the modeling was not consistent with previous modeling using the model SLAB. Staff cannot explain the discrepancies in the OCA modeling and thus conducted its own independent modeling using the U.S. EPA’s SCREEN3 model. The

results of this model show significant impacts off-site if an accidental release were to occur and fill the secondary containment area of 1,463 square feet with aqueous ammonia.³⁴

64. It appears that the referenced CEC staff report states more than the SOB contemplates. Is the Screen 3 model the appropriate model for this analysis?

65. Did the District review the CEC modeling or rely purely on the staff report?

HAZ-2: The project owner shall provide a Risk Management Plan (RMP) and a Hazardous Materials Business Plan (HMBP), (that shall include the proposed building chemical inventory as per the UFC) to the City of Hayward Fire Department and the CPM for review at the time the RMP plan is first submitted to the U.S. Environmental Protection Agency (EPA). The project owner shall include all recommendations of the City of Hayward Fire Department and the CPM in the final documents. A copy of the final plans, including all comments, shall be provided to the City of Hayward and the CPM once EPA approves the RMP. ³⁵

66. Did the applicant complete the prerequisite of HAZ-2?

67. Shouldn't the determination of the significance of catastrophic ammonia release be completed by the district after review of the Risk Management plan?

The project was originally permitted in 2002, before Fast Start technology was developed, and the applicant purchased its equipment at that time based on the initial permits. Retrofitting that equipment now to incorporate Fast Start technology would require a complete redesign of the project and the purchase of new equipment. Furthermore, Siemens stated that emissions performance cannot be guaranteed unless the company supplies a fully integrated power plant with Fast Start technology (i.e. Flex Plant 10). (Telephone conference on November 6, 2008 with Candido Veiga, Siemens Pacific Northwest Region Vice President and Benjamin Beaver, Siemens Pacific Northwest Sales Manager.) It therefore appears that the facility would have to dispose of the equipment it has already purchased for the project and buy an entirely new integrated system. *SOB at 26*

68. How would the BACT determinations be different if Calpine did not claim to have the Equipment in stock?

69. Does Calpine or GE have Equipment available that would be cleaner?

³⁴ See July 2007 CEC Final Staff Assessment (FSA) at 4.4- 2. See <http://www.energy.ca.gov/2007publications/CEC-700-2007-005/CEC-700-2007-005-FSA.PDF>

³⁵ See July 2007 CEC Final Staff Assessment (FSA) at 4.4- 6.

The facility has reported encouraging results from the first few months of operating with these new techniques.[] It is not possible, however, to determine based on this limited data what reductions, if any, are attributable to OpFlex and what reductions are attributable to the operational changes the facility was able to make for its specific turbines. Moreover, the facility has operated only for a relatively limited period of time with these enhancements, and so it is difficult to determine from the limited data available so far what improvements can reliably be achieved throughout the life of the facility. For all of these reasons, the Palomar data does not sufficiently demonstrate that there are specific, achievable emissions reductions to be gained simply from using the OpFlex technology itself. Further data will be needed to understand whether some or all of Palomar's proprietary approach for reducing emissions from its equipment can be adapted to other facilities.³⁶ *SOB at 41*

70. It would appear that the District has had an additional year and a half to obtain "encouraging results" from the Palomar facility. Why didn't the District update this info?

71. Could further "encouraging results affect the districts determination or public interest and informed public participation?

See Ambient Air Quality Impact Report, Colusa Generating Station, Clean Air Act PSD Permit No. SAC 06-01, EPA Region 9, May 2008. The record from that permitting action shows that EPA Region 9 considered OpFlex and the Palomar facility in response to a comment on the startup BACT issue. That comment was subsequently withdrawn and so EPA never responded to it formally on the record. But the fact that the agency determined that BACT does not require OpFlex is evident from the fact that the permit does not require it. *SOB footnote 41 at 42*

72. Please consider the referenced comments on Colusa as if incorporated here as comments for this permit and respond appropriately?

Data for the Flex Plant 10 comparison come from a permit application the Air District has received for a facility proposing to use a Flex Plant 10 design, District Application #18542. The proposed Flex Plant 10 facility will have a heat input capacity of 1857 MMBtu/hr. The District adjusted the proposed Russell City project's emissions numbers proportionally to the capacity difference between the two facilities to achieve an "apples-to-apples" comparison. Calculations assume ISO standard conditions and 59°F. Data for Russell City assume no supplemental duct burner firing, because the proposed Flex Plant 10 does not use duct burners. *SOB footnote 42 at 43*

³⁶ Letter written by Daniel S. Baerman, Director of Electric Generation, San Diego Gas and Electric, regarding "Hearing Board Variance 4073; Quarterly Report". Submitted to Catherine Santos, Clerk of the Hearing Board for the San Diego County Air Pollution Control District, dated April 11, 2007 SOB at 41

73. Does this mean that the permit application #18542 is not using BACT; why?

California Energy Commission Decision for the Russell City Energy Center AFC, Alameda County (Sept. 11, 2002), at p. 67. *SOB footnote 65 at 62*

This determination was made based on a comparison of three individual models of combined-cycle combustion turbines using data from Gas Turbine World, an independent technical magazine that covers the gas turbine industry. See Final Staff Assessment, California Energy Commission Final Staff Assessment for the Russell City Energy Center AFC, Hayward California, June 10 2002 (P800-02-007), at 5.3-4. The turbines evaluated had nominal energy efficiencies of between 55.8% and 56.5%. During review of the September 2007 amendment to that decision, CEC staff “testified that the proposed changes would not change any of the findings or conclusions in the 2002 Decision.” Presiding Member’s Proposed Decision, Russell City Energy Center, Amendment No. 1 (01-AFC-7C), Alameda County, August 23, 2007 (CEC-800-2007-003-PMPD), at 57. *SOB footnote 66 at 62*

See Final Staff Assessment, California Energy Commission Final Staff Assessment for the Russell City Energy Center AFC, Hayward California, June 10 2002 (P800-02-007), at 5.3-4. *SOB footnote 67 at 62*

74. Again is it appropriate to use this vintage data for present permitting or should the district consider potential impacts with contemporary data?

[T]he state-law permitting process is not being reopened at this time. *SOB at 65*

75. Why is the District not opening the State-law process?

76. What would the effect on permitting be if the District did open the state law process?

77. In what ways would the existing state-law process not conform to present regulatory requirements, today’s emission standards, etc?

78. If this permit is found to contribute to a violation of state law, does the District have authority to issue this permit? Please cite specific statutory authority.

[T]he increased carcinogenic risk attributed to this project is less than 1.0 in one million, and the chronic hazard index and acute hazard index attributed to the emission of non-carcinogenic air contaminants are each less than 1.0. These risk levels are less than significant for project permitting purposes. The Air District reiterates these results here because they have informed the Air District’s conclusions that the control technologies chosen to comply with the Federal PSD Permit requirements will not have any significant adverse ancillary environmental impacts. Please see Appendix B for further information on the Health Risk Assessment *SOB at 65*

79. Is the modeling used for the Health risk assessment the same as it should be for the PSD permit?

The Air District has concluded that there are no significant impacts due to air emissions related to the Russell City Energy Center after all of the mitigations required by Federal and District Regulations and the California Energy Commission are implemented. There is no adverse impact on any community due to air emissions from the Russell City Energy Center and therefore there is no disparate adverse impact on an Environmental Justice community located near the facility. *SOB at 66*

80. Is there an Environmental Justice Community near the facility?

81. If so what languages are spoken in the community?

82. What languages did the district issue documents in?

83. What specific outreach did the District make in this community?

84.. Has anyone from the District visited this community?

85. What mitigations directly benefit this community or are not merely regional in nature?

86. Has anyone from the District visited the site?

To help the reader understand which requirements are part of the proposed amended Federal PSD Permit and which are based solely on state law requirements, the state-law requirements are presented in “strike-through” format below. *SOB at 67*

87. Please help the public understand which requirements are based State and Federal law and which requirements represent change of the existing state law requirements?

Within 180 days of the issuance of the Authority to Construct for the RCEC, the Owner/Operator shall contact the BAAQMD Technical Services Division regarding requirements for the continuous emission monitors, sampling ports, platforms, and source tests required by conditions 29, 30, 32, 34, and 43. The owner/operator shall conduct all source testing and monitoring in accordance with the District approved procedures. (Regulation 1-501)
SOB at 77

88. Has the applicant performed on the above condition or any condition of the Authority to Construct?

The proposed Russell City Energy Center Power Plant will emit the toxic air contaminants summarized in Table 6, "Maximum Facility Toxic Air Contaminant (TAC) Emissions". In accordance with the requirements of CEQA, BAAQMD Regulation 2-5, and CAPCOA guidelines, the impact on public health due to the emission of these compounds was assessed utilizing the air pollutant dispersion model ISCST3 and the multi-pathway cancer risk and hazard index model ACE. *SOB at 82*

89. Are District actions for other facility's PSD permits subject to CEQA?

Based upon the results given in Table B-1, the Russell City Energy Center project is deemed to be in compliance with the BAAQMD Toxic Risk Management Policy. *SOB at 83*

90. When was the health Risk assessment completed and by whom and should it be updated? If not, why not?

SUMMARY OF AIR QUALITY IMPACT ANALYSIS FOR THE RUSSELL CITY ENERGY CENTER December 8, 2008
SOB at 85

91. There appear to be differences between the Air Quality Impact analysis completed for the State permit and the one completed for the Federal permit. Please identify the differences?

92. Which (if any) document is correct and valid for state and federal permitting? When was the new modeling completed and by whom?

The EPA guideline models AERMOD (version 07026) and SCREEN3 (version 96043) were used in the air quality impacts analysis. Because an Auer land use analysis showed that the area within 3 km is classified as rural, the AERMOD option of increased surface heating due to the urban heat island was not selected. *SOB at 87*

93. The area to the East of the site is clearly highly developed, how would consideration of this fact affect the modeling results?

94. Table 2 of the newer air quality impact analysis is mostly blank. Please complete table 2.

95. Would complete information from table 2 be of interest to the public or promote informed participation?

Meteorological data was available from the Automated Surface Observing System (ASOS) at the Oakland International Airport for the years 2003-2007. The site is located 20.8 kilometers to the northwest of the RCEC. AERSURFACE (version 08009) was used to determine surface characteristics in accordance with USEPA's January 2008 "AERMOD Implementation Guide" at both the Oakland Airport and the RCEC project site. Based upon this comparison the Oakland ASOS data was considered representative of the RCEC project location and met all EPA data completeness requirements. *SOB at 87*

The meteorological data from Oakland would not seem indicative of Hayward Data as confirmed by the transcript of district employee Glen Long emails including.

96. Please provide data from 1 year of site specific monitoring.

Air Quality Modeling Results

The maximum predicted ambient impacts of the various modeling procedures described above are summarized in Table III for the averaging periods for which AAQS and PSD increments have been set. Shown in Figure 1 are the locations of the maximum modeled impacts. *SOB at 87*

97. Please provide complete impact tables for each modeling method.

98. Figure 1 on page 89 conflicts with figure 1 on page 158 which if any is to be relied on?

Soils and Vegetation Analysis

A detailed vegetation inventory in the project and impact area is also presented in the Russell City Energy Center AFC, Vol. I, May, 2001 and Russell City Energy Center AFC Amendment No. 1 (01- AFC-7), November 2006. *SOB at 90*

99. The impact area analysis (survey) was not updated for the 2006 amendment. Is there a possibility that vegetation may have changed in this last decade?

Some project area soils (Clear Lake, Danville, and Willows) are considered prime farmland soils when found in open field or agricultural areas, but none of the project facilities cross these soils in any other context than land that is zoned and used as urban, industrial land. *SOB at 90*

100. Does this statement confirm above concerns about "rural" classification?

There are 1.68 acres of seasonal wetlands on the 14.7-acre project site. *SOB at 91*

This statement appears to describe the original site as would all documents from that era.

101. Does this statement describe the present site?
102. What other data is reused from the original site?
103. Is it appropriate to use data from the wrong site?

Much of the historic salt marsh community within 1 mile of the site has been altered or eliminated by urban development, sewage treatment facilities, salt evaporation ponds, and the construction of dikes and levees to prevent flooding and intrusion of saltwater. *SOB at 91*

104. When was this determination made?
105. Does it describe the old site, as we are aware of no present salt evaporation ponds in the area?
106. How much of the Historic salt marsh community has been altered or eliminated?
107. Have there been restoration activities in the area since this statement was made?

Special environmental areas within a 1-mile radius of the project site include Cogswell Marsh, managed by the East Bay Regional Park District, the HARD marsh restoration project and Shoreline Interpretive Center, and a small section of Mt. Eden Creek. *SOB at 91*

108. Is the Don Edwards San Francisco Bay National Wildlife Refuge within 1 mile of the project site?

The California Department of Fish and Game, the U.S. Fish and Wildlife Service, and the California Coastal Conservancy launched a four- year public process to design a restoration plan for the South Bay Salt pond restoration Project. The final plan was adopted in 2008 and the first phase of restoration started later that year.

109. Is this within 1 mile of the site?
110. Have the above agencies been notified of the proximity to the site?
111. What is the actual distance to the waters of the San Francisco Bay?
112. Is the on site waterway affected by the tides?
113. What steps has the district taken to demonstrate consistency with the Coastal Zone Management act?
114. The Clean Water Act?

115. The Endangered Species Act?
116. The Migratory Bird Treaty Act?
117. What other Federal Act(s) should this permit be consistent with?

The project maximum one-hour average NO₂, including background, is 260 µg/m³. This concentration is below the California one-hour average NO₂ standard of 338 µg/m³. *SOB at 92*

118. Table 9 on page 116 states that the NO₂ emissions are 370 µg/m³. Which (if any) is correct and why is there such a large discrepancy?

The maximum annual RCEC NO₂ impact is 0.16 µg/m³. The maximum annual NO₂ background at the Fremont monitoring station between 2005 and 2007 was in 2005 at 28.2 µg/m³. *SOB at 92*

119. Would the Hunters Point San Francisco or Oakland monitoring stations be more indicative of Hayward air quality?
120. What would the result be using upwind monitoring like Hunters Point or Oakland?
121. Is there a provision for local monitoring?
122. If so why was Hayward not monitored?

Hayward has multiple freeways, industrial and bridge impacts that Fremont does not have and is impacted by the port of Oakland and denser uses in Oakland and San Francisco.³⁷

123. Is there a possibility that newer reference material is available that may lead to a different conclusion?

³⁷ (USEPA 1991, "Air Quality criteria for oxides of nitrogen").
(USEPA 1979, "Air Quality criteria for carbon monoxide").
(Zimmerman et al.1989, "Polymorphic regions in plant genomes detected by an M13 probe"
(USEPA 1979, "Air Quality criteria for carbon monoxide")
(Lerman, S.L. and E.F. Darley. 1975. Particulates, pp. 141-158. In: Responses of plants to air pollution, edited by J.B. Mudd and T.T. Kozlowski. Academic Press. New York.)
"A Screening Procedure for the Impacts of Air Pollution Sources on Plants, Soils, and Animals,"
December 1980

The Department will no longer recommend comparison of modeled impacts to the 1980 sensitivity thresholds. This document is out of print (has been for at least 10 years) and appears to be no longer used by EPA. Alan Schuler, P.E., Environmental Engineer Alaska Department of Environmental Conservation

Is the District familiar with this USEPA determination³⁸?

Please seek review of these materials and reference any newer data that has been used in other PSD permits or may be appropriate to validate or invalidate these reports.

124. Why does table 6 on page 93 reference a 4 hour averaging period for NO₂?

125. What would the 1 hour concentration be for start up and normal operation?

Growth Analysis

The proposed project will supply electricity to Northern California. The electricity from the new plant is expected to displace older, less efficient sources of electricity elsewhere in the region.
SOB at 93

126. Please identify the basis for this statement and exactly which older less efficient sources this refers to and when they will be decommissioned?

There will be little or no associated industrial, commercial, or residential growth as a result of this project. *SOB at 93*

127. Is this project based upon future need based upon growth projections?

The electrical generating capacity from the project will be introduced into a regional electrical supply grid and therefore not stimulate local growth. *SOB at 93*

128. Does this logic mean that no electric generation that feeds into the “grid” contributes to growth and therefore growth analysis is unwarranted in grid connected permitting?

³⁸ See <http://www.dec.state.ak.us/air/ap/docs/modeling%20DEC%20Guidance%20re%20PSD%20Soil%20and%20Vegetation%20Assessments%2012-11-07.pdf>

The entire permanent workforce is expected to commute from within Alameda County. *SOB at 93*

129. What are the emissions associated with temporary and permanent workers, like commuting?

The project was originally certified by the California Energy Commission in September, 2002. However, the site has been relocated approximately 1,500 feet to the north from the original location (1.24 miles east of Johnson Landing on the southeastern shore of the San Francisco Bay in the City of Hayward). *SOB at 99*

130. What is the actual distance from the original site to the new site?

131. What is the Actual distance from the site to Roberts Landing?

“Analysis of the potential adverse impacts on soils, flora and fauna should include existing vegetation types, the percent cover and biomass, spatial distribution and land use. Rare and endangered species and acidic wetlands should also be identified. Ozone concentrations and estimates of fluoride and heavy metal emissions must be supplied with pollutant baseline concentrations and pollutant contribution from all sources.” [*April, 1981 PSD Guidance Document at 9.4*]

132. How has the District complied with the above quoted PSD guidance document?

The Energy Commission certified the construction and operation of the RCEC in September 2002, on 14.7 acres in the City of Hayward (the City) Industrial Corridor at the southwest corner of the intersection of Enterprise Avenue and Whitesell Street, directly south of the City’s Water Pollution Control Facility (WPCF). The location is approximately two miles from the east entrance to the San Mateo-Hayward Bridge (State Route 92). Through the Petition to Amend, the project owner is now proposing to locate the facility west of the City’s WPCF between Depot Road and Enterprise Avenue, approximately 1,300 feet northwest of the original location (300 feet boundary to boundary). The new location will total approximately 18.8 acres with all parcels located within the City of Hayward.

CEC FSA 1- 2 July 2007

133. Does this statement describe the present site?

134. What other data is reused from the original site?

135. Is it appropriate to use data from the wrong site?

Under the leadership of Senator, the South Bay Salt Ponds were purchased in 2003 from Cargill Inc. Funds for the purchase were provided by federal and state resource agencies and several private foundations. The 15,100 acre purchase represents the largest single acquisition in a larger campaign to restore 40,000 acres of lost tidal wetlands to San Francisco Bay.

Shortly after the property was purchased, the California Department of Fish and Game, the U.S. Fish and Wildlife Service, and the California Coastal Conservancy launched a four- year public process to design a restoration plan for the property. The final plan was adopted in 2008 and the first phase of restoration started later that year.

136. What is the distance to the South Bay Salt Pond Restoration Project?

137. Has the District informed the public, Dianne Feinstein, stakeholders and agencies associated with the National Wildlife Sanctuary and Salt Pond restoration project of the exact proximity?

138. Could this information affect their interest and informed participation?

The ammonia emissions resulting from the use of SCR may have another environmental impact through its potential to form secondary particulate matter such as ammonium nitrate. Because of the complex nature of the chemical reactions and dynamics involved in the formation of secondary particulates, it is difficult to estimate the amount of secondary particulate matter that will be formed from the emission of a given amount of ammonia.

SOB at 109

139. How “difficult to estimate” is it to estimate would it be appropriate to make the effort?

However, it is the opinion of the Research and Modeling section of the BAAQMD Planning Division that the formation of ammonium nitrate in the Bay Area air basin is limited by the formation of nitric acid and not driven by the amount of ammonia in the atmosphere.

SOB at 109

140. When this opinion made and what was its basis?

Therefore, ammonia emissions from the proposed SCR system are not expected to contribute significantly to the formation of secondary particulate matter within the BAAQMD. The potential impact on the formation of secondary particulate matter in the SJVAPCD is not known.

SOB at 109

141. What would it require for the above potential impact to be “known”

This potential environmental impact is not considered adverse enough to justify the elimination of SCR as a control alternative.

SOB at 109

142. What is the threshold?

Table 7 (*SOB at 116*) summarizes the offset obligation of the RCEC.

The emission reduction credits presented in Table 7 exist as federally-enforceable, banked emission reduction credits that have been reviewed for compliance with District Regulation 2, Rule 4, “Emissions Banking”, and were subsequently issued as banking certificates by the BAAQMD under the applications cited in the table footnotes.

If the issued under any certificate exceeded 35 tons per year for any pollutant, the application was required to fulfill the public notice and public comment requirements of District Regulation 2-4-405. Accordingly, such applications were reviewed by the California Air Resources Board, U.S. EPA, and adjacent air pollution control districts to insure that all applicable federal, state, and local regulations were satisfied.

143. Please demonstrate the complete compliance history for the emission reduction credits creation and banking including any public notices.

(Information for certificate #30 is not available) SOB at 115

144. The above caption refers to an emission reduction credit for the facility. What rules apply to identification of Certificate sources?

145. Why are the emission reduction credits different in the CEC Decision?

AQ-SC11 The project owner shall surrender 12.2 tons per year of SO_x or SO_xequivalent emission reduction credits (ERCs) from certificate 989, 28.5 tons per year of POC ERCs, and 154.8 tons per year of NO_x, or an equivalent combination of NO_x and POC ERCs from certificates 602, 687, 688, and 855, prior to start of construction of the project.

CEC Final Decision at 86

146. Air Quality table 9 on page 116 appears to indicate that the facility would exceed current California NO₂ standards is this correct?

147. What Authority would allow the District to license the facility to exceed the California standard?

Pursuant to Regulation 2-2-306, a non-criteria pollutant PSD analysis is required for sulfuric acid mist emissions if the proposed facility will emit H₂SO₄ at rates in excess of 38 lb/day and 7 tons per year. However, RCEC has agreed to permit conditions limiting total facility H₂SO₄ emissions to 7 tons per year and requiring annual source testing to determine SO₂, SO₃, and H₂SO₄ emissions. If the total facility emissions ever exceed 7 tons per year, then the applicant must utilize air dispersion modeling to determine the impact (in µg/m³) of the sulfuric acid mist emissions. *SOB at 115*

148. Is there some basis in the emission profile that would inform the public of the expected Sulfuric Acid emission or reason to believe from the operation profile that the facility (as planned) would emit less than 7 tons per year or 38 pounds per day?

2. Emission Offsets

General Requirements

Pursuant to Regulation 2-2-302, federally enforceable emission offsets are required for POC and NO_x (as NO₂) emission increases from permitted sources at facilities which will emit 15 tons per year or more on a pollutant-specific basis. For facilities that will emit more than 35 tons per year of NO_x (as NO₂), offsets must be provided by the applicant at a ratio of 1.15 to 1.0. Pursuant to Regulation 2-2-302.2, POC offsets may be used to offset emission increases of NO_x.

SOB at 115

149. Please demonstrate how emission trading and offsets comply with the Federal requirements of the PSD permit and how they protect air quality.

It should be noted that in the case of POC and NO_x offsets, District regulations do not require consideration of the location of the source of the emission reduction credits relative to the location of the proposed emission increases that will be offset. Timing for Provision of Offsets
SOB at 113

150. Do Clean Air Act regulations require consideration of the location of the source of the emission reduction credits relative to the location of the proposed emission increases?

Pursuant to District Regulation 2-2-311, the applicant surrendered the required valid emission reduction credits to mitigate the emission increases for the facility prior to the issuance of the Authority to Construct on May 14, 2003. Pursuant to District Regulation 2, Rule 3, "Power Plants," the Authority to Construct was issued after the California Energy Commission issued the Certificate for the proposed power plant
SOB at 116

151. Are the emission credits contemporaneous for Federal purposes?

The District-operated Fremont-Chapel Way Monitoring Station, located 18.3 km southeast of the project, was chosen as representative of background NO₂ concentrations. Table V contains the concentrations measured at the site for the past 5 years (1996 through 2000).
SOB at 161

152. Oakland or hunters point would be more representative of Hayward air quality but the District should require 1 year of current local monitoring and consider the its reports of the effects of the port of Oakland on Hayward.

Regulation 2, Rule 1, Sections 426: CEQA-Related Information Requirements

As the lead agency under CEQA for the proposed RCEC Project, the California Energy Commission (CEC) will satisfy the CEQA requirements of Regulation 2-1-426.2.1 by producing their Final Certification which serves as an EIR-equivalent pursuant to the CEC's CEQA-certified regulatory program in accordance with CEQA Guidelines Section 15253(b) and Public Resource Code Sections 21080.5 and 25523
SOB at 117

153. How can the CEC be considered the lead agency when they have closed their administrative record so long before this permit?

- (a) Any public agency which is a responsible agency for a development project that has been approved by the lead agency shall approve or disapprove the development project within whichever of the following periods of time is longer:
- (1) Within 180 days from the date on which the lead agency has approved the project.
 - (2) Within 180 days of the date on which the completed application for the development project has been received and accepted as complete by that responsible agency.
- (b) At the time a decision by a lead agency to disapprove a development project becomes final, applications for that project which are filed with responsible agencies shall be deemed withdrawn. [Government Code Section 65952]

CEQA Section 15052. Shift in Lead Agency Designation (a) Where a Responsible Agency is called on to grant an approval for a project subject to CEQA for which another public agency was the appropriate Lead Agency, the Responsible Agency shall assume the role of the Lead

Agency when any of the following conditions occur:

(1) The Lead Agency did not prepare any environmental documents for the project, and the statute of limitations has expired for a challenge to the action of the appropriate Lead Agency.

(2) The Lead Agency prepared environmental documents for the project, but the following conditions occur:

(A) A subsequent EIR is required pursuant to Section 15162,

(B) The Lead Agency has granted a final approval for the project, and

(C) The statute of limitations for challenging the Lead Agency's action under CEQA has expired.

(3) The Lead Agency prepared inadequate environmental documents without consulting with the Responsible Agency as required by Sections 15072 or 15082, and the statute of limitations has expired for a challenge to the action of the appropriate Lead Agency.

(b) When a Responsible Agency assumes the duties of a Lead Agency under this section, the time limits applicable to a Lead Agency shall apply to the actions of the agency assuming the Lead Agency duties. [Note: Authority cited: Section 21083, Public Resources Code; Reference: Section 21165, Public Resources Code.]

Public Resources Code 25519 (h) Local and state agencies having jurisdiction or special interest in matters pertinent to the proposed site and related facilities shall provide their comments and recommendations on the project within 180 days of the date of filing of an application.

BAAQMD rules

2-3-403 Preliminary Decision: Within 180 days of accepting an AFC as complete, the APCO shall conduct a Determination of Compliance review and make a preliminary decision as to whether the proposed power plant meets the requirements of District regulations. If so, the APCO shall make a preliminary determination of conditions to Bay Area Air Quality Management District 2-3-3 be included in the Certificate, including specific BACT requirements and a description of mitigation measures to be required.

2-3-405 Determination of Compliance, Issuance: Within 240 days of the acceptance of the AFC as complete, the APCO shall issue and submit to the commission a Determination of Compliance. If the Determination of Compliance cannot be issued, the APCO shall so advise the Commission. When the AFC is approved by the Commission, the APCO shall ascertain whether the Certificate contains all applicable conditions. If so, the APCO shall grant an authority to construct.

1744.5. Air Quality Requirements; Determination of Compliance. (a) The applicant shall submit in its application all of the information required for an authority to construct under the applicable district rules, subject to the provisions of Appendix B(g)(8) of these regulations.

(b) The local air pollution control officer shall conduct, for the commission's certification process, a determination of compliance review of the application in order to determine whether the proposed facility meets the requirements of the applicable new source review rule and all other applicable district regulations. If the proposed facility complies, the determination shall specify the conditions, including BACT and other mitigation measures, that are necessary for compliance. If the proposed facility does not comply, the determination shall identify the specific regulations which would be violated and the basis for such determination. The determination

shall further identify those regulations with which the proposed facility would comply, including required BACT and mitigation measures. The determination shall be submitted to the commission within 240 days (or within 180 days for any application filed pursuant to Sections 25540 through 25540.6 of the Public Resources Code) from the date of the acceptance.

(c) The local district or the Air Resources Board shall provide a witness at the hearings held pursuant to Section 1748 to present and explain the determination of compliance.

(d) Any amendment to the applicant's proposal related to compliance with air quality laws shall be transmitted to the APCD and ARB for consideration in the determination of compliance.

[Note: Authority cited: Sections 25218(e) and 25541.5, Public Resources Code. Reference: Sections 25216.3 and 25523, Public Resources Code.]

15162. Subsequent EIRs and Negative Declarations

a(3)(C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative

154. The CEC approved the project on October 3, 2007 Is the District now the lead agency? Please process this application consistent with CEQA utilizing feasible alternatives.

§ 51.166 40 CFR Ch. I (7–1–08 Edition)

(q) *Public participation.* The plan shall provide that—

(1) The reviewing authority shall notify all applicants within a specified time period as to the completeness of the application or any deficiency in the application or information submitted. In the event of such a deficiency, the date of receipt of the application shall be the date on which the reviewing authority received all required information.

(2) Within one year after receipt of a complete application, the reviewing authority shall:

(i) Make a preliminary determination whether construction should be approved, approved with conditions, or disapproved.

(ii) Make available in at least one location in each region in which the proposed source would be constructed a copy of all materials the applicant submitted, a copy of the preliminary determination, and a copy or summary of other materials, if any, considered in making the preliminary determination.

(iii) Notify the public, by advertisement in a newspaper of general circulation in each region in which the proposed source would be constructed, of the application, the preliminary determination, the degree of increment consumption that is expected from the source or modification, and of the opportunity for comment at a public hearing as well as written public comment.

(iv) Send a copy of the notice of public comment to the applicant, the Administrator and to officials and agencies having cognizance over the location where the proposed construction would occur as follows: Any other State or local air pollution control agencies, the chief executives of the city and county where the source would be located; any comprehensive regional land use planning agency, and any State, Federal Land Manager, or Indian Governing body whose lands may be affected by emissions from the source or modification.

(v) Provide opportunity for a public hearing for interested persons to appear and submit written or oral comments on the air quality impact of the source, alternatives to it, the control technology required, and other appropriate considerations.

(vi) Consider all written comments submitted within a time specified in the notice of public comment and all comments received at any public hearing(s) in making a final decision on the approvability of the application. The reviewing authority shall make all comments available for public inspection in the same locations where the reviewing authority made available preconstruction information relating to the proposed source or modification.

(vii) Make a final determination whether construction should be approved, approved with conditions, or disapproved.

(viii) Notify the applicant in writing of the final determination and make such notification available for public inspection at the same location where the reviewing authority made available preconstruction information and public comments relating to the source

155 How does this project conform with the above Federal requirement?

156. What other rules have changed or mistakes have been discovered by the District since the issuance of the FDOC or Authority to Construct?

The PSD proceedings that are the subject of this case are embedded in a larger California “certification” or licensing process for power plants conducted by the California Energy Commission (“CEC”),

Remand at 1

The PSD provisions 2 that are the subject of the instant appeal are part of the CAA’s New Source Review (“NSR”) program, which requires that persons planning a new major emitting facility or a new major modification to a major emitting facility obtain an air pollution permit before commencing construction. In addition to the PSD provisions, explained *infra*, the NSR program includes separate “nonattainment” provisions.

Remand at 5

As applied to the notice violation, the allegation of error is considered to be the Permit in its entirety. *See In re Chem. Waste Mgmt. of Ind.*, 6 E.A.D. 66, 76 (EAB 1995) (holding that the Board, in accordance with its review powers under 40 C.F.R. § 124.19, is “authorize[d] * * * to review any condition of a permit decision (or as here, the permit decision in its entirety).”

Remand footnote 22 at 26

157. Is this permit being processed consistent with the EAB remand including the previous 3 statements?

AQ-SC10 In lieu of complying with **AQ-SC7**, **AQ-SC8**, and **AQ-SC9**, the project's combustion turbine/HRSG units shall be designed and built with equipment and control systems to minimize start-up times and emissions. These could include the Fast-Start technology with an integrated control system and a once-through Benson boiler design, appropriate system configuration and equipment to facilitate operating chemistry during starting sequences, and an auxiliary boiler. *CEC Final Decision at 86*

158. Had this requirement been supported by the Air District (as the concurrent El Segundo AFC) and Palomar the project would emit 48 tons or less instead of 86 tons of PM annually. Please process this application consistent with CEC AQ-SC10.

On February 19, 2008 the office of administrative law approved the new NO₂ standard of 338 µg/m³ which went into effect on March 20, 2008.

159. Please process this permit consistent with the present NO₂ standards.

2-2-414.3 For determining whether the emission increases from the new or modified facility would cause or contribute to an air quality standard violation or an exceedance of a PSD increment, an analysis of the existing air quality in the impact area of the new or modified facility that includes one year of continuous ambient air quality monitoring data. The continuous air quality monitoring data shall have been gathered over a period of at least one year preceding the receipt of a complete application. The APCO may approve a shorter period (but not less than four months) provided that the period of monitoring includes the time frame when maximum concentrations are expected. The APCO may approve modeling in lieu of ambient air quality monitoring for pollutants for which no air quality standard exists.

160. Please complete 1 year of continuous ambient air quality monitoring data in the impact area (Hayward)

Ecosystems occurring in these areas include those commonly encountered in the foothills of the Coast Ranges, such as oak woodland and valley/foothill grassland. Biological habitats within the project area consist primarily of coastal salt marsh, brackish/freshwater marsh, salt production facilities (evaporation ponds). *SOB at 90*

161. There have not been salt production facilities in the area for many years. Please disclose when the identified salt production facilities ceased operations and utilize current information for permitting

15154. Projects Near Airports

(a) When a lead agency prepares an EIR for a project within the boundaries of a comprehensive airport land use plan or, if a comprehensive airport land use plan has not been adopted for a project within two nautical miles of a public airport or public use airport, the agency shall utilize the Airport Land Use Planning Handbook published by Caltrans' Division of Aeronautics to assist in the preparation of the EIR relative to potential airport-related safety hazards and noise problems.

(b) A lead agency shall not adopt a negative declaration or mitigated negative declaration for a project described in subdivision (a) unless the lead agency considers whether the project will result in a safety hazard or noise problem for persons using the airport or for persons residing or working in the project area.

161. Please assess the potential impact to the Hayward and Oakland Airport and air quality impact to in-flight receptors.

The following document is incorporated into these comments:

From: Schuler, Alan E (DEC)

Sent: Tuesday, December 11, 2007 1:46 PM

Subject: PSD Vegetation and Soil Assessments³⁹

Also Incorporated for review by the District :

**Advanced Power Plant Development and Analyses Methodologies Final Report
Reporting Period: August 1, 2000 – June 30, 2006⁴⁰**

Associated Growth

“Associated Growth” is additional commercial, residential, industrial and other growth that the project may cause or induce. This type of growth is growth in the local workforce and support infrastructure necessary to serve the proposed facility. Examples include additional residential housing, retail suppliers, and additional schools and municipal services that would be necessary to accommodate any new workers that would come to the area to work in the facility. Examples also include any additional commerce or industry necessary to provide goods and services used by the facility, maintenance facilities to serve the facility, and other similar support operations. Emissions from “associate growth” are the emissions associated with this additional human and

³⁹ See

<http://www.dec.state.ak.us/air/ap/docs/modeling%20DEC%20Guidance%20re%20PSD%20Soil%20and%20Vegetation%20Assessments%2012-11-07.pdf>

⁴⁰ See

<http://www.netl.doe.gov/technologies/coalpower/fuelcells/seca/pubs/reports/UCI%20Final%20Report%20ODE-FC26-00NT40845.pdf>

economic activity generated as a result of the facility under review. The Air District undertook an associated growth analysis and found that there would be no significant associated growth.⁴
SOB at 16

Growth Analysis

The proposed project will supply electricity to Northern California. The electricity from the new plant is expected to displace older, less efficient sources of electricity elsewhere in the region. There will be little or no associated industrial, commercial, or residential growth as a result of this project. The electrical generating capacity from the project will be introduced into a regional electrical supply grid and therefore not stimulate local growth.
SOB at 93

162. These definitions of growth ignore the growth associated with increased electrical capabilities. Please assess the associated growth possibilities from an additional 600 megawatts of capacity. Please also assess the associated negative growth in sustainable generation.

Hereby incorporated into these comments:

September 8, 1988 MEMORANDUM ⁴¹

SUBJECT: EPA Region IX Policy on PSD Permit Extensions

FROM: Wayne Blackard, Chief New Source Section

SUBJECT: EPA Region IX Policy on PSD Permit Extensions

The project maximum one-hour average NO₂, including background, is 260 µg/m³. This concentration is below the California one-hour average NO₂ standard of 338 µg/m³. Nitrogen dioxide is potentially phytotoxic, but generally at exposures considerably higher than those resulting from most industrial emissions. Exposures for several weeks at concentrations of 280 to 490 µg/m³ can cause decreases in dry weight and leaf area, but 1-hour exposures of at least 18,000 µg/m³ are required to cause leaf damage. The maximum annual RCEC NO₂ impact is 0.16 µg/m³. The maximum annual NO₂ background at the Fremont monitoring station between 2005 and 2007 was in 2005 at 28.2 µg/m³. The total annual NO₂ concentration (project plus background) of 28.4 µg/m³ is far below these threshold limits (219.0 µg/m³). In addition, the total predicted maximum 1-hour NO₂ concentrations of 260 µg/m³ would be significantly less than the 1-hour threshold (7,500 µg/m³ or 3,989 ppm) for 5 percent foliar injury to sensitive vegetation (USEPA 1991, "Air Quality criteria for oxides of nitrogen"). *SOB at 92*

163. Please use current reference material like the CEC Pier nitrogen deposition report included in the EAB appeal 08-01

164. Please use correct emission data including the results of 1 year of impact area monitoring.

⁴¹ See <http://www.epa.gov/region07/programs/artd/air/nsr/nsrmemos/extnsion.pdf>

Continued on the next page

165. Please also analyze the effects on the adjacent Vernal pools and protected habitats.

Permit Expiration

As provided in 40 CFR 52.21(r), this PSD Permit shall become invalid if construction:
A. is not commenced (as defined in 40 CFR 52.21(b)(9)) within 18 months after the approval takes effect;.. The stack gas volumetric flow rates.

The system shall meet EPA Performance Specifications 40 CFR 52, Appendix E.

Each CEMS shall meet the applicable requirements of 40 CFR 60 Appendix B, Performance Specifications 2, 3, and 4, and 40 CFR Part 60 Appendix F, Procedure 1, and shall be certified and tested.

Deposited ammonia also can contribute to problems of eutrophication in water bodies, and deposition of ammonium particles may effectively result in acidification of soil as ammonia is taken up by plants.

Except as provided in the grandfathering provisions that follow, these final rules go into effect and must be implemented beginning on the effective date of this rule, July 15, 2008 in all areas subject to 40 CFR 52.21, including the delegated States.

Consistent with 40 CFR 52.21(i)(1)(x), wherein EPA grandfathered sources or modifications with pending permit applications based on PM from the PM10 requirements established in 1987, EPA will allow sources or modifications who previously submitted applications in accordance with the PM10 surrogate policy to remain subject to that policy for purposes of permitting if EPA or its delegate reviewing authority subsequently determines the application was complete as submitted. This is contingent upon the completed permit application being consistent with the requirements pursuant to the EPA memorandum entitled "Interim Implementation of New Source Review Requirements for PM2.5" (Oct. 23, 1997) recommending the use of PM10 as a surrogate for PM2.5. Accordingly, we have added 40 CFR 52.21(i)(1)(xi) to reflect this grandfathering provision.

2. Transition With this finalization of the new PM2.5 NSR implementation requirements under 40 CFR 51.165, States now have the necessary tools to implement a NA NSR program for PM2.5. After the effective date of the amended rule (that is, July 15, 2008, States will no longer be permitted to implement a NA NSR program for PM10 as a surrogate for the PM2.5 NA NSR requirements.

Most States will then need to implement a transitional PM2.5 NA NSR program under appendix S (as amended in this rulemaking action) until EPA approves changes to a State's SIP-approved NA NSR program to reflect the new requirements under 40 CFR 51.165. At this time, we do not believe it is appropriate to allow grandfathering of pending permits being reviewed under the

Continued from the previous page

PM10 surrogate program in nonattainment areas, mainly because of a State's obligations to expedite attainment and the fact that we had not established a similar precedent for transitioning from PM to PM10. [Fed. Reg. 28231, 28349-50 (May 16, 2008)]⁴²

166. The ammonia and other toxins effects on vegetation is ignored in the analysis. Please analyze.

During recent years, in response to an increased awareness of the adverse consequences of air pollution and environmental degradation, the government has enacted legislation that is of interest to lichenologists. This paper discusses the role of lichen research in the development of this legislation or in decisions made as a result of the legislation. The major acts of interest are the National Environmental Policy Act (NEPA) of 1969 and the Clean Air Act of 1970 and its 1977 amendments. Under NEPA, the federal government announced its commitment to maintain and enhance the environmental quality of the United States. Under the Clean Air Act, the Environmental Protection Agency was authorized to establish the National Ambient Air Quality Standards; the Prevention of Significant Deterioration Class I, II and III areas; and the "adverse impact" determination for Class I areas. After review of the air pollution literature, comparison of the effects of gaseous sulfur dioxide on photosynthesis in lichens and vascular plants showed that some lichens (1) may not be as sensitive as some crops, (2) may be more sensitive than some conifers, and (3) may be about as sensitive as some native herbs and shrubs. However, it appears that visible injury symptoms occur at lower doses in crops and conifers than in lichens. Evaluation of the lichen/air pollution research (e.g. mapping, laboratory and field fumigations, and ecological baseline studies) and a computer search of environmental impact statements showed that if the efforts of lichenologists are to be of use to government decision makers, the researchers must (1) use representative concentrations of pollutants, (2) use fluctuating exposures, in addition to constant concentrations, (3) use mixtures as well as single pollutants, (4) determine the importance of peak concentrations to long-term averages on effects, (5) develop dose-response curves for single and mixed pollutants, (6) relate laboratory results to field observations, (7) document changes in lichen communities related to measured concentrations of ambient pollutants, and (8) determine the significance of lichens in the structure and function of ecosystems.⁴³

167. Please analyze the effects on aquatic vegetation and lichens.

168. Please demonstrate how the project complies with NEPA

Startup and Testing of Siemens V84.3A Combustion Turbine in Peaking Service at Hawthorn Station of Kansas City Power & Light Company⁴⁴

⁴² See <http://edocket.access.gpo.gov/2008/pdf/E8-10768.pdf>

⁴³ See <http://www.jstor.org/pss/3242790>

⁴⁴ See <http://mydocs.epri.com/docs/public/TR-108609.pdf>

ASTM fuel sulfur analysis methods were updated to correspond with NSPS Subpart GG as revised July 2004.⁴⁵

The above linked documents are hereby incorporated into these comments

[40 CFR 124.13] (A comment period longer than 30 days may be necessary to give commenters a reasonable opportunity to comply with the requirements of this section. Additional time shall be granted under § 124.10 to the extent that a commenter who requests additional time demonstrates the need for such time.)

[40 CFR 124.8] Fact sheet (3) For a PSD permit, the degree of increment consumption expected to result from operation of the facility or activity.

(4) A brief summary of the basis for the draft permit conditions including references to applicable statutory or regulatory provisions and appropriate supporting references to the administrative record required by § 124.9 (for EPA-issued permits);

(5) Reasons why any requested variances or alternatives to required standards do or do not appear justified;

(6) A description of the procedures for reaching a final decision on the draft permit including:

(i) The beginning and ending dates of the comment period under § 124.10 and the address where comments will be received;

(ii) Procedures for requesting a hearing and the nature of that hearing; and

(iii) Any other procedures by which the public may participate in the final decision.

(7) Name and telephone number of a person to contact for additional information. and all variances that are to be included under § 124.63.

169. The District has not demonstrated compliance with the preceding laws. Please demonstrate compliance.

Under the federal Magnuson-Stevens Act and the Endangered Species Act, San Francisco Bay is considered critical habitat for certain fish species, such as Chinook salmon and Delta smelt, by the United States Fish and Wildlife Service and the National Marine Fisheries Service because

⁴⁵ See http://www.adeg.state.ar.us/ftp/rooft/pub/commission/p/08-007-P%20AEP%20Service%20Corp%20&%20Swepco-Hempstead%20Co%20Hunting%20Club/2008-12-03_Ex_116_Southern_Company_Calc_Method_3-03.pdf and http://www.baaqmd.gov/pmt/air_toxics/permit_modeling/psd_increment_consumption_status_report_4_16_08.pdf

the Bay plays an essential role in their life cycles. The Magnuson-Stevens Act requires that the National Marine Fisheries Service provide conservation recommendations to state agencies, such as the Commission, when a proposed project would have adverse impacts on essential fish habitat.

170. What efforts has the District taken to demonstrate consistency with the Magnuson-Stevens Act?

Dissolved oxygen is needed to support marine life and to help break down pollutants in the water. The amount of oxygen in the Bay is largely determined by the surface area of the Bay because primary sources of oxygen are: (1) churning waves that trap oxygen from the air; (2) the water surface, which absorbs oxygen from the air; and (3) the exposed mudflats, which both produce and absorb oxygen while the tide is out and transfer it to the water when the tide comes in.

171. What effect will the project have on these resources?

The Hayward Shoreline consists of marshland, bay and sloughs, and comprises of remaining natural wetlands in California. It plays an important role in providing wintering habitat for waterfowl of the Pacific Flyway. During years of drought the area becomes particularly important to waterfowl by virtue of its large expanse of aquatic habitat and the scarcity of such habitat elsewhere. The area provides critical habitat for other wildlife forms, including such endangered, rare, or unique species as the peregrine falcon, white-tailed kite, golden eagle, California clapper rail, black rail, salt-marsh harvest mouse, and Suisun shrew. The existence of this wide variety of wildlife is due to the relatively large expanse of unbroken native habitat and the diversity of vegetation and aquatic conditions that prevail in the marsh. Man is an integral part of the present marsh ecosystem and, to a significant extent, exercises control over the widespread presence of water and the abundant source of waterfowl foods. The Hayward Shoreline represents a unique and irreplaceable resource to the people of the state and nation. Future residential, commercial, and industrial developments could adversely affect the wildlife

value of the area. It is the policy of the state and Nation to preserve and protect resources of this nature for the enjoyment of the current and succeeding generations.

172. How does this project protect these resources?

173. Oliver Salt Ponds is designated a “Rural Historic Landscape” How far is the project from the Oliver Salt Ponds and what has the District done to demonstrate consistency within the National Register of Historic Places.

The District must consult with the appropriate Federal, State and local land use agencies prior to issuance of a PSD permit preliminary determination. For the purposes of the Endangered Species Act (ESA), the District shall:

- Notify the appropriate Federal Land Manager (FLM) within 30 days of receipt of a PSD permit application. If the proposed project will impact a Class I area, notify the appropriate Federal Land Manager (FLM) no later than 60 days prior to issuing a public notice for the project.
- Notify the Fish and Wildlife Service (FWS) and EPA when a submitted PSD permit application has been deemed complete, in order to assist EPA in carrying out its nondelegable responsibilities under Section 7 of the ESA (PL 97-304).
- Notify applicants of the potential need for consultation between EPA and FWS if an endangered species may be affected by the project.
- Refrain from issuing a final PSD permit unless FWS has determined that the proposed project will not adversely affect any endangered species
- EPA/BAAQMD PSD DELEGATION AGREEMENT

174. Please demonstrate the Districts efforts to comply with the above provision of the PSD delegation agreement. Specifically also include records of consultation with the CEC, USFWS, Alameda County, City of Hayward, Alameda county public health Department, Army Corp of Engineers California Department of Fish and Game and the Federal land manager(s) with jurisdiction over the United States waters of the San Francisco Bay and shoreline.

All Email communications from Rob Simpson and District responses are hereby incorporated into these comments by reference.

The CEC record for the Eastshore Energy Center and Russell City Energy Center are hereby incorporated by reference into these comments.

All questions posed in these comments that lead to a response that could lead to a better way to permit this facility are in effect requesting that the better way be utilized.

The District is requested to forward all applicable comments and permit information including those in the EAB appeal 08-01 to USFWS and other applicable agencies for their determinations.

(NOTE REVISED ADDRESS)

“Notice of Public Hearing and Notice Inviting Written Public Comment on” Proposed Air Quality Permit for the Russell City Energy Center, Hayward, CA

The Bay Area Air Quality Management District (“District”) is proposing to issue an amended Prevention of Significant Deterioration (“PSD”) Permit for the Russell City Energy Center. Before doing so, the District is providing the public with notice of its proposal and an opportunity to review and comment on the proposed permit. The District is also holding a public hearing to provide the public with an opportunity to comment in person. The proposed Russell City Energy Center is a 600-megawatt natural gas fired combined-cycle power plant to be built by Russell City Energy Company, LLC, (50 W. San Fernando Street, San Jose, CA 95113) an affiliate of Calpine Corporation.

The proposed facility would be located at 3862 Depot Road, near the corner of Depot Road and Cabot Boulevard, in Hayward, CA.” *Notice*

Because the applicant address is placed first and in parenthesis and the (revised) site address is placed second and disjointed with an inaccurate reference to the sites proximity to Cabot Boulevard. The permit should be re-noticed.

A transcript of an August 18, 2008 email from Barbara McBride at Calpine to Weyman Lee at the District states: “Can you please change the name on the Russell City Energy Center Permit owner to Russell City Energy Company LLC and the address should be 3875 Hopyard Rd. #345 Pleasanton CA 94588. Thank you so much”

Because of the change in name and location of the applicant the permit should be re-noticed. Because the District identified Calpine but did not identify the other owner GE therefore the permit should be re-noticed. Because the notice and statement of basis do not reflect the new address identified by the applicant the permit should be re-noticed.

“The proposed power plant will consist of two combustion turbine generators, two heat recovery steam boilers, a steam turbine generator and associated equipment, a wet cooling system, and a diesel fire pump. The District initially issued a permit for the project in 2002, but it was subsequently relocated approximately 1,500 feet to the north. The permit therefore needs to be amended.” *Notice*

Wet cooling systems are often associated with large outbreaks of Legionnaires’ disease. Adequate consideration of the health risks of a wet cooling system has not been disclosed.

175. Please complete a Health Risk Analysis of the wet cooling system.

Because the District did not issue a PSD permit in 2002 and the relocation of the site has not been accurately disclosed the permit should be re-noticed.

“Under the proposed amended permit, the facility would be allowed to emit significant amounts of certain PSD-regulated air pollutants, including the following:

Nitrogen Oxides (as NO₂): 134.6 tons per year
Carbon Monoxide (CO): 389.3 tons per year
Particulate Matter (PM): 86.8 tons per year” *Notice*

Because the pollutants disclosed do not reflect other pollutants subject to PSD limits and the disclosed pollutants are not expressed in context of their effects on air quality the permit should be re-noticed.

176. Please disclose the amount of particulate matter “spare the air days” eliminates and the cost of “spare the air days” in comparison to the cost of emission reduction credits and licensing using current BACT instead of this permit scheme.

“The project will utilize the Best Available Control Technology to minimize emissions of these air pollutants as required by 40 C.F.R. Section 52.21. The proposed project will not consume a significant degree of any PSD increment.” *Notice*

Because the project does not propose to use the Best Available Control Technology the permit should be re-noticed.

Because the notice does not provide an accurate increment analysis or analysis on the effect on air quality the permit should be re-noticed.⁴⁶

The revised public notice is not consistent with the notification that the District sent to USFWS and other agencies. They were sent only the first address and the site was incorrectly described as the corner of Depot Road and Cabot Boulevard and “industrial” with no reference to the actual shoreline location. The actual location should be disclosed to the public and involved agencies.

VII. CONCLUSIONS

The remand order from the EAB decision does not deny review of the substantive PSD issues raised by Mr. Simpson but states that permit must be re-noticed and that the appeal board refrains from opining on the substantive PSD issues raised by Mr. Simpson. The District is circumventing public participation by failing to provide access to the administrative record.

Since BACT is part of the CAA and the PDOC includes the District's BACT analysis therefore clearly the PDOC and draft PSD Permit are interdependent on the findings from the federal BACT analysis conducted by the District purportedly in 2002 and again in 2007. Therefore the District should re-notice the PDOC along with a “new” draft PSD permit consistent with the requirements of the CAA and the District’s Regulations.

Because of the District’s failure to carry out the USEPA EAB Remand Order to "scrupulously adhere to all relevant requirements in section [40 C.F.R. § 124.10(d)] concerning the initial notice of draft PSD permits (including development of mailing lists), as well as the proper content of such notice" therefore this also serves as a Complaint to Office of the

⁴⁶ As in the CEC emission impacts air quality table 3 (utilizing the old PM standards)
Continued on the next page

Administrator of the U.S. Environmental Protection Agency (USEPA) and the California Air Resources Board (ARB) under 42 USC § 7604.

Respectfully submitted,



Michael E. Boyd President (CARE)
CALifornians for Renewable Energy, Inc.
Phone: (408) 891-9677
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5439 Soquel Drive
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E-mail: l_brown369@yahoo.com

cc.

A.08-09-007 CPUC electronic service list

Verification

I am an officer of the Complaining Corporation herein, and am authorized to make this verification on its behalf. The statements in the foregoing document are true of my own knowledge, except matters, which are therein stated on information and belief, and as to those matters I believe them to be true.

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

Executed on this 5th day of February, 2009, at San Francisco, California.



Lynne Brown Vice-President
CALifornians for Renewable Energy, Inc.
(CARE)

Continued from the previous page

http://www.baaqmd.gov/pmt/air_toxics/permit_modeling/psd_increment_consumption_status_report_4_1_6_08.pdf

CARE and Rob Simpson comments on the "amended" PSD permit for the
Russell City Energy Center Application Number 15487 and
Complaint to Office of the Administrator USEPA and ARB under 42 USC § 7604

CERTIFICATE OF SERVICE

I hereby certify that I have this day served a true copy of the *CARE and Rob Simpson comments on the "amended" PSD permit for the Russell City Energy Center Application Number 15487 and Complaint to Office of the Administrator USEPA and ARB under 42 USC § 7604*

Executed this 5th day of February, 2009 at Soquel, California.



Carol Paramoure
5439 Soquel Drive
Soquel, California 95073
(831) 465-9809

Mary D. Nichols
California Air Resources Board
1001 I Street
Sacramento, CA 95814

Lisa P. Jackson
Office of the Administrator
Environmental Protection Agency
Ariel Rios Building
Mail Code: 1101A
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

Attachment 1

NO_xOUT[®] ULTRA[™]

NO_x Reduction Process

TECHNICAL BENEFITS

- Simplified process, highly efficient urea conversion
- Non-hazardous materials throughout
- Low pressure operation
- Process controls designed to follow load and provide easy shutdown
- Liquid reagent system easily modified for dry urea feedstock
- Backed by Fuel Tech's proven start-up, optimization, and service experience

Smart, safe, and simple... NO_xOUT[®] ULTRA[™] provides SCR ammonia supply without the headaches of hazardous chemical handling.

Selective catalytic reduction (SCR) has become a standard for meeting the most stringent NO_x reduction requirements from power generation systems. Requiring ammonia (NH₃) as the reducing agent, operators of these systems have had little choice but to accept the handling issues, potential liability, and associated costs in using a hazardous chemical supply.

Fuel Tech's NO_xOUT[®] ULTRA[™] system is a new alternative that offers an ammonia feed from a safe urea supply. Available for new SCR systems and as a retrofit to existing applications, NO_xOUT[®] ULTRA[™] is a cost-effective solution that simplifies SCR operation.

Urea vs. NH₃

The advantages of a urea-based system over traditional anhydrous ammonia or aqueous supplies are clear. Anhydrous ammonia is classified as a hazardous chemical per CAA Section 112(r). As such, ammonia requires safety procedures to protect personnel, neighboring communities, and the environment from unforeseen chemical release. Reporting, record keeping, permitting, and emergency preparedness planning are generally

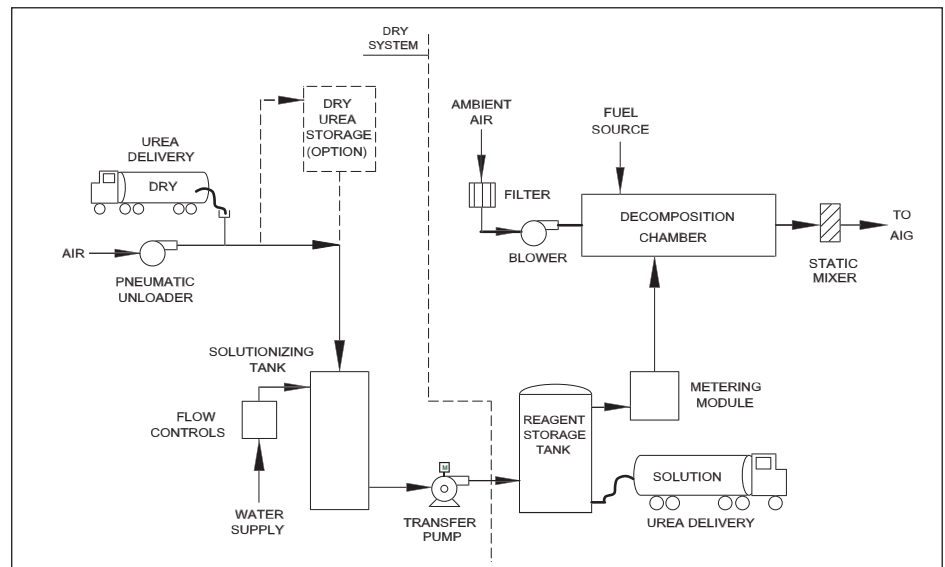
all needed with on-site ammonia storage. Aqueous ammonia-based systems also require specialized equipment, including pressure vessels, a heated vaporizer, and other features, and have significantly higher operating costs than urea-based systems.

In contrast, urea products are non-hazardous sources of ammonia, so their transport, storage, and use are greatly simplified. Fuel Tech has extensive, proven experience with urea-based systems, and the NO_xOUT[®] ULTRA[™] system is built on that solid foundation.

Other urea-to-ammonia conversion systems on the market work by hydrolyzing urea on-site. These processes are complex, expensive, and include a high pressure vessel containing ammonia. NO_xOUT[®] ULTRA[™] is a more economical and easier way to generate ammonia.

Design Simplicity

The NO_xOUT[®] ULTRA[™] process provides ammonia for SCR systems by decomposing urea to feed the traditional ammonia injection grid (AIG). The process relies on post-combustion reactions in a chamber designed to



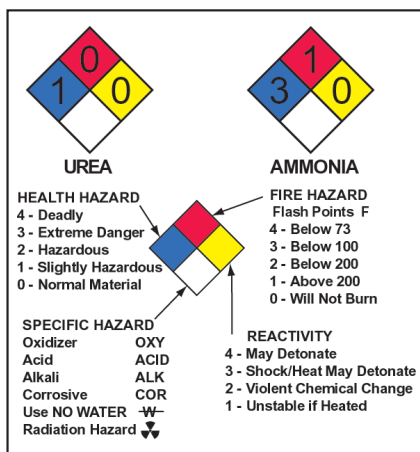
control urea decomposition in a specified temperature window (600-1000 °F). The NOxOUT® ULTRA™ system is simple, consisting of a blower, decomposition chamber, chemical pumping system, urea storage, and process controls.

Filtered ambient air is fed into the chamber through the use of a blower with automatic dampers to control discharge flow and pressure. A burner is fired downstream of the dampers, and an aqueous urea solution supplied by the storage and pumping system is sprayed into the post-combustion gases through the injectors. The urea is efficiently converted to ammonia in the decomposition chamber, and that ammonia feeds the AIG for a traditional SCR system.



System Options

The NOxOUT® ULTRA™ system can be customized for each application.



For larger systems, an in-duct gas-to-gas heat exchanger can be supplied to preheat the process air and minimize operating costs.

The liquid portion of the system can be supplied with dilution water capability to accommodate delivery of concentrated reagent solutions.

The dry urea system components can be supplied to provide flexibility for reagent selection.

New Process, Proven Technologies

The NOxOUT® ULTRA™ process incorporates commercially proven features of Fuel Tech's other NOx reduction products. Urea storage, pumping, metering, and injection are all standard to the NOxOUT® product

line, first introduced in 1990. The NOxOUT CASCADE® process relies on careful duct and gas flow dynamics design. The NOxOUT SCR® system relies on the conversion of urea to ammonia for SCR reactions. So while NOxOUT® ULTRA™ is a new product to our mix of process solutions, the established technologies and know-how of Fuel Tech make it a uniquely reliable urea conversion system.



The NOxOUT® ULTRA™ system has all the benefits of direct ammonia supply for SCR without the cost, safety and environmental concerns associated with ammonia handling. More cost-effective than urea-hydrolyzing processes, NOxOUT® ULTRA™ from Fuel Tech is a smart choice for simplifying SCR operation with a urea-to-ammonia conversion process.

For more information on NOxOUT ULTRA™ programs available from Fuel Tech, call, fax, or write Fuel Tech at:

Fuel Tech, Inc. • 512 Kingsland Drive • Batavia, IL 60510
 Phone 800.666.9688 • 630.845.4500 • Fax 630.845.4501
 www.fueltechnv.com • webmaster@fueltechnv.com



Attachment 2

Pack, Heidi K.

From: Hunt, Kelly [KHunt@Semprautilities.com]
Sent: Thursday, April 12, 2007 3:06 PM
To: Kellogg, Kellie; Pack, Heidi K.; Moore, Steve ; Miller, Taylor; Baerman, Daniel; Waller, Fred A.; Hardman, Charles; Blackburn, Suzanne; Annicchiarico, John; Haury, Evariste
Subject: Updated: Palomar Energy Center Variance Report - 4073 1st Quarter 2007
Attachments: Hearing Board Quarterly Report for 1st Quarter 2007.pdf

Ms. Kellogg,

Please find attached an updated copy of the 1st quarter report to the Hearing Board for 2007. This report ~~supersedes the submission made on 4/11/07~~ and is intended for the Hearing Board meeting to be held on April 26, 2007. I apologize for any inconvenience this may have caused you. This report covers the items required by Condition F.3. of the Board's April 27, 2006 order for Variance 4073. In addition, this report covers Enforcement Condition 1 concerning compliance with required increment of progress.


If you have any questions, please feel free to call me at 760-432-2504.

Kelly Hunt

Generation Compliance Manager
San Diego Gas & Electric
2300 Harveson Place, SD1473
Escondido, CA 92029
760-432-2504 (Office)
760-432-2510 (Fax)
khunt@semprautilities.com

4/25/2007



A  Semptra Energy™ company

Daniel Baerman
Director of Electric Generation
2300 Harveson Place
Escondido, CA 92029
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dbaerman@semprautilities.com

April 11, 2007

Ms. Catherine Santos
Clerk of Hearing Board for the
San Diego County Air Pollution Control District
San Diego County Administration Center, Room 402
1600 Pacific Highway
San Diego, CA 92123

Re: Hearing Board Variance 4073; Quarterly Report

Dear Ms. Santos and Members of the Board:

Set forth below is SDG&E's 2007 first quarter report to the Hearing Board. This report will cover the items required by Condition F. 3. of the Board's April 27, 2006 order for Variance 4073. In addition, this report will cover Enforcement Condition 1 concerning compliance with required increments of progress. Information is provided first concerning the increments of progress to place the balance of the information into context.

1. Increments of Progress [Order, Enforcement Condition 1]

The increments of progress table attached to the Board's order is included with this letter as Attachment 1. The primary events are as follows:

SDG&E personnel and District staff have met several times, shared data, and continued an ongoing dialogue concerning the permit amendment application and preparation of an amendment to rule 69.3.1. SDG&E timely filed the permit application on May 31, 2006. A rule amendment concerning Rule 69.3.1 is still under consideration by District staff and SDG&E and District staff met on February 16, 2007 to discuss the matter further.

Petitioner has timely satisfied all increments of progress within Petitioner's control. The increments of progress table also includes District staff and other third-party actions concerning rule development and permit processing. These actions were included in the increments of progress solely to describe the third-party actions necessary to resolve the regulatory issues prompting the variance. SDG&E will defer to District staff to provide an update to the Board on District's processing of SDG&E's permit application submittal, rule development and a possible revised schedule.

2. Engineering or operational alternatives [Order, Condition F.3 (1)]

Information concerning engineering or operational alternatives considered by Petitioner to ensure maximum control of emissions as recommended by District staff was included in the application for amended permit conditions submitted on May 31, 2006. SDG&E included information concerning reductions related to early ammonia injection and installation of a new software program being developed by General Electric for turbines such as those operating at Palomar ("OpFlex"). SDG&E also included information concerning seven other potential alternatives as requested by District staff.

On December 20, 2006, at District staff's request, Petitioner provided additional information regarding engineering and operational alternatives, including additional evaluation of early ammonia injection and economic impacts of several potential alternatives.

In addition, OpFlex, a General Electric turbine control system software was installed in mid-October, 2006. The turning process allows combustion turbines to minimize emissions between 20 and 60% load, by optimizing the fuel flow to the four gas stages in each combustion can. This precisely controls the flame for optimum combustion to minimize emissions. There were no equipment or hardware changes.

3. NOx Emissions Data [Order, Condition F.3 (2)]

Information concerning NOx emissions from the facility during the period of the 1 year variance to present is included in attachment 2. Emissions were within applicable permit limits.

4. Turbine Start Up Activity and NOx Emissions [Order, Condition F.3 (3)]

Turbine start up activity and NOx emissions data associated with turbine start up is included in Attachment 2. Emissions were within limits established in Variance 4073. Emissions were reduced to the maximum extent feasible primarily by starting only one turbine at a time, by early injection of ammonia, by the installation and utilization of OpFlex and by completing start up as quickly as feasible. SDG&E continues to collect information on each start and adjust its system and start up procedures to minimize the duration of start up and associated emissions.

5. Other Data

A summary how the plant has reduced NOX emissions by various controls that it has established since the inception of the variance is included as attachment 3.

SDG&E appreciates the ongoing cooperation of both the District staff and the Hearing Board concerning development of variance conditions, permit conditions and rule requirements. SDG&E is committed to managing the Palomar Energy Center in a manner that complies with all applicable air quality regulatory requirements.

If you have any questions on the above subject matter, please don't hesitate to reach me at (760) 732-2501.

Sincerely yours,



Dan Baerman

Cc: Heidi Gabriel-Pack
Steven Moore
John Annicchiarico
Evariste Haury
Jason LaBlond
Suzanne Blackburn
File# 3.1.1.4.2.2

SAN DIEGO AIR POLLUTION CONTROL DISTRICT HEARING BOARD

Palomar Energy Center

PROPOSED INCREMENTS OF PROGRESS

(As of 4/11/07)

	<u>MILESTONE</u>		<u>DATE</u>	
	Description	Permit Modification	Rule Change	Variance(s)
1	Variance 4068 hearing for 90-day issued			2/9/06
2	Emergency Variance 4069 for condition 21 issued to enable early ammonia injection.			2/23/06
3	<i>Palomar submits request for Rule Change to APCD</i>		3/6/06	
4	<i>APCD requests more data for rule change</i>		3/14/06	
5	<i>Mtg. with APCD concerning Data Requests</i>		3/30/06	
6	<i>Additional mtg. with APCD (Steve Moore) concerning Data Requests</i>		4/4/06	
7	<i>SDG&E submits requested data to APCD (Moore)</i>		4/7/06	
8	SDG&E submits summary of requested Permit Modification topics to APCD (covering matters of concern to staff beyond start up)	4/7/06		
9	Mtg. with APCD – QA/QC Plan Addendum (relating to some permit amendment topics)	4/11/06		
10	Request for Permit Modification Fee Estimate submitted to APCD by SDG&E	4/11/06		
11	<i>APCD (Moore) submits new data request to SDG&E (replaces 3/30 & 4/4 requests)</i>		4/14/06	
12	<i>Data submitted to APCD (Moore)</i>		4/25/06	
13	Variance 4073 Hearing			4/27/06
14	<i>Mtg. scheduled with APCD and CEC (in response to 4/7 letter from SDG&E) to discuss permit and rule amendment issues</i>	5/3/06 (COMPLETED 5/3/06)	5/3/06 (COMPLETED 5/3/06)	
15	Proposed Permit Pre-application Mtg. with APCD and CEC –	5/19/06 (COMPLETED		

Proposed Increments of Progress

October 11, 2006

Page 1 of 3

			5/9 & 5/23/06)		
16	Proposed Permit Application Submittal		5/31/06 (COMPLETED 5/31/06)		
17	Quarterly Progress Update (April – June) to Hearing Board				July 27, 2006 (Completed)
18	APCD Permit Application Completeness Review	Respond to APCD data requests while in process	June – July 2006 (Completed)		
19	<i>APCD drafts rule change</i>			<i>April – June 2006</i>	
20	Quarterly Progress Update (July - September) to Hearing Board				October 27, 2006 (Completed)
21	<i>APCD holds public workshop on rule amendment</i>			<i>July 2006</i>	
22	<i>APCD publishes draft rule for public comment</i>	<i>30-day public notice required</i>		<i>August 2006</i>	
23	<i>APCD prepares final rule adoption documents</i>	<i>Final rule and “staff report” are prepared for County Board of Supervisors review and adoption</i>		<i>September 2006</i>	
24	<i>Air Quality Advisory Committee</i>	<i>Appointed committee reviews and advises the Board</i>		<i>October 2006</i>	
25	<i>Board adoption of rule</i>	<i>Upon adoption, SDAPCD considers rule to be the version for compliance</i>		<i>October 2006</i>	
26	Proposed Permit Modification (ATC/PDOC) published for public comment	30-day public comment period	October 2006		
27	Final ATC/FDOC revisions	Final language that incorporates public comments is developed	November 2006		
28	Final ATC/FDOC Issued		November 2006		

29	SDG&E petitions CEC for companion amendment of Conditions of Certification (CoC)		December 2006		
30	Quarterly Progress Update (October - December) to Hearing Board				Completed January 25, 2007
31	CEC issues amendment of CoC		March 2007		
32	Quarterly Progress Update (January - March) to Hearing Board				April 26, 2007

Attachment 2

CT1 YTD Summary			CT2 YTD Summary		
	Tons	#		Tons	#
2Q06	9.23	18,460	2Q06	9.28	18,560
3Q06	8.61	17,220	3Q06	8.95	17,900
4Q06	8.63	17,260	4Q06	9.70	19,400
1Q07	8.88	17,760	1Q07	8.73	17,460
Total	35.35	70,700	Total	36.66	73,320
Note: Total NOx includes startup emissions.			Note: Total NOx includes startup emissions.		
CT1 Startup YTD Summary			CT2 Startup YTD Summary		
	Tons	#		Tons	#
2Q06	3.19	6,380	2Q06	3.64	7,280
3Q06	1.38	2,760	3Q06	1.10	2,200
4Q06	0.52	1,040	4Q06	0.52	1,040
1Q07	0.38	760	1Q07	0.43	860
Total	5.47	10,180	Total	5.69	10,520

- ¹ Data gathered from CEMS Startup/Shutdown Incident Reports
- ² Data gathered from CEMS Monthly Aggregate Reports
Opsflex installed on CTG1 on Oct 13, 2006.
Opsflex installed on CTG2 on Oct 12, 2006

OPFLEX AND EARLY AMMONIA INJECTION EFFECTS ON STARTUP EMISSIONS PALOMAR ENERGY CENTER

Subject:

This Evaluation assesses the effects of two major Palomar Energy Center efforts to reduce startup emissions.

Discussion:

Early Ammonia Injection is a SDG&E project to minimize NOx emissions during the startup process by reducing and optimizing the temperature at which ammonia is injected to the SCR's, thereby reducing NOx emissions during the startup process. The original control system allowed ammonia injection when the temperature at the SCR increased to 550 deg F during the plant startup process. This temperature was chosen to provide a safety margin above the required SCR operating temperature. If ammonia is injected at too low of a temperature, the SCR is not effective, there can be elevated ammonia slip, and there is potential for poisoning of the SCR catalyst.

Palomar personnel have analyzed the temperature requirements for the SCR and evaluated the risks associated with low temperature ammonia injection, along with the benefits of emissions reductions obtained by lowering the injection temperature. The evaluation indicated that a significant lowering of the temperature was possible, as long as close attention was paid to the environmental conditions at all locations surrounding the catalyst. The temperature set point for ammonia injection was lowered in two steps as a prudent sequence to confirm the benefits and minimize risk. The first setpoint was lowered during the summer 2006. The setpoint was lowered again to 485 deg F in October 2006.

OpFlex is a General Electric proprietary software improvement that manages the fuel splits and fuel temperature control to minimize NOx and CO emissions at part load, and significantly reduces NOx during the startup process. The turbines can now be operated down to approximately 45% load and remain in compliance with all operating emissions limitations. The NOx produced during the startup process is also minimized approximately 25% to 45%, although not to the point of compliance with the 2.0 ppmvd@15% O2 permit limit.

OpFlex was installed in mid-October, 2006. Subsequent to the installation, Palomar Operations has studied the emissions enhancements OpFlex provides, and has made adjustments to the startup process to take advantage of these enhancements to reduce startup emissions. There have been no extended startups since the installation of OpFlex, so the extended startup procedure has not yet been optimized.

Results:

OpFlex and the final adjustment to the enhanced ammonia injection setpoint were implemented at approximately the same time in mid October, so the emissions improvements attributable to

each are somewhat difficult to assign. However, this analysis endeavors to separate the projects and summarize the success of each.

With the SCR at normal operating temperature, ammonia injection can lower startup-related NOx concentrations by approximately 10.0 ppm. At base load, this equates to approximately 45 lbs/hr reduction of NOx mass emissions. This mass emissions reduction remains relatively constant even at reduced operating loads if sufficient NOx is present in the exhaust stream from the turbine.

During a typical hot start following a nightly shutdown, the enhanced, lowered temperature setpoint for ammonia injection allows the ammonia to be injected approximately 60 to 90 minutes earlier than the original setpoint (550 deg F) would have allowed. This provides for a reduction of at least 45 lbs NOx produced during the hot startup. The early ammonia injection NOx reduction for an extended startup will be even greater, conservatively estimated to be 60 lbs NOx per extended start.

OpFlex lowers the NOx produced by the turbine during the startup process at all loads above approximately 25%. The NOx is lowered enough above 45% load that in conjunction with the SCR, the stack emissions are reduced below the permit limit of 2.0 ppmvd@15% O2.

Plant Operations personnel have optimized the startup process to take advantage of this reduction of NOx above 25%. When plant conditions allow, the turbine is immediately ramped to approximately 43%, so that the turbine exhaust emissions are high only for the first 20 – 30 minutes of operation, and the magnitude of these high emissions are greatly reduced above 25%.

Recent normal startups following a typical nightly shutdown have resulted in NOx emissions of 28 lbs NOx, and 10 lbs. CO. For NOx, these results are the combination of OpFlex and early ammonia injection. Prior to the OpFlex and early ammonia projects, a typical regular startup would have produced approximately 120 lbs of NOx and 35 lbs of CO. (Note: Startups early in the project life produced highly variable emissions results). All of the CO reduction for recent startups is attributable to the shorter startup allowed by OpFlex, while 45 lbs. of NOx reduction are attributable to early ammonia injection, and 47 lbs. attributable to OpFlex. See the Summary Table below:

Summary:

Early ammonia injection and OpFlex have both been highly successful in reducing emissions during normal startups. The emissions during an extended startup will also be greatly reduced, although more testing and optimization is required before the results can be quantified. The table below is illustrative of starts after an overnight shutdown of one turbine, which has been a typical mode of operation during the past year. Somewhat higher emissions could occur for longer shutdowns.

Regular Startup Summary Table:

	Startup Emissions before Opflex/Early NH3	Reduction Attributable to Early NH3 Inj.	Reduction Attributable to OpFlex	Recent Regular Startup Results – Note 1 (Nov. 2006 – Feb. 2007)
NOx (lbs.)	120	45	47	28
CO (lbs.)	35	0	25	10

Note 1: Excludes startups after lengthy shutdown (>24 hours) or after HRSG forced cool down for maintenance.

Pack, Heidi K.

From: Hunt, Kelly [KHunt@Semprautilities.com]
Sent: Friday, April 13, 2007 8:54 AM
To: Waller, Fred A.; Pack, Heidi K.; Hartnett, Gary; LaBlond, Jason
Subject: FW: Palomar Energy Exceedances Covered Under Variance 4073, March 2007 YTD
Importance: High
Attachments: PEC Exceedance Covered Under Variance 4073 March 2007YTD.pdf

Please see email below.

Kelly Hunt

Generation Compliance Manager
San Diego Gas & Electric
2300 Harveson Place, SD1473
Escondido, CA 92029
760-432-2504 (Office)
760-432-2510 (Fax)
khunt@semprautilities.com

From: Waller, Fred A.
Sent: Friday, April 06, 2007 5:07 PM
To: Hunt, Kelly
Subject: Palomar Energy Exceedances Covered Under Variance 4073, March 2007 YTD
Importance: High

Kelly,
Please forward this Report of Violation to APCD Compliance (Mr. Jason LaBlond, Mr. Gary Hartnett and copy Ms. Heidi Gabriel-Pack).

Mr. LaBlond,
In a previous telephone conversation we discussed the reporting requirements of APCD Rule 19.2(d)(3)-Report of Violation. You indicated that an email notification to you will suffice to meet the reporting requirements. Additionally, Ms. Heidi Gabriel-Pack, approved monthly reporting of violations which are covered under Variance 4073.

In previous months in 2006, SDG&E had provided a monthly summary report of Violations/Exceedances covered under Variance 4073 to you and copied Mr. Gary Hartnett and Ms. Heidi Gabriel-Pack. SDG&E is submitting this summary report to notify the District of one exceedance in March 2007 covered by Variance 4073 which occurred at the Palomar Energy Center, 2300 Harveson Place, Escondido, CA 92009 .

If you have any questions, please feel free to call.

Fred Waller
Environmental Specialist-Generation
Office: 760 432 2507
Cell: 619 778 6029

SDGE
Palomar Energy Center
APCD Application Number 976846

Event	Date	Stack/ Unit	Clock Hour	Pollutant	Magnitude	Unit of Measure	Permit Condition/Limit	Cause/Reason	Comments	Date Reported to District
1	4/3/06	1	9:00	N/A	5 hrs 48 Min	Hrs/Mins	AQ-39: 4 hour startup duration	Typical extended startup	Covered under Variance #4068	8/10/06
2	4/3/06	1	10:00	N/A	5 hrs 48 Min	Hrs/Mins	AQ-39: 4 hour startup duration	Typical extended startup	Covered under Variance #4068	8/10/06
3	4/3/06	2	9:00	N/A	5 hrs 15 Min	Hrs/Mins	AQ-39: 4 hour startup duration	Typical extended startup	Covered under Variance #4068	8/10/06
4	4/3/06	2	10:00	N/A	5 hrs 15 Min	Hrs/Mins	AQ-39: 4 hour startup duration	Typical extended startup	Covered under Variance #4068	8/10/06
5	5/5/06	1	6:00	NOx	128.4	Lbs/hr	AQ 21: 100 lbs/hr	Early NH3 Injection during Startup	Covered under Variance #4073	5/12/06
6	5/5/06	2	5:00	NOx	143.9	Lbs/hr	AQ 21: 100 lbs/hr	Early NH3 Injection during Startup	Covered under Variance #4073	5/12/06
7	5/8/06	1	7:00	NOx	106.3	Lbs/hr	AQ 21: 100 lbs/hr	Early NH3 Injection during Startup	Covered under Variance #4073	5/12/06
8	5/9/06	2	7:00	NOx	122.5	Lbs/hr	AQ 21: 100 lbs/hr	Early NH3 Injection during Startup	Covered under Variance #4073	5/12/06
9	5/10/06	2	6:00	NOx	121.4	Lbs/hr	AQ 21: 100 lbs/hr	Early NH3 Injection during Startup	Covered under Variance #4073	5/12/06
10	5/13/06	2	8:00	NOx	124.7	Lbs/hr	AQ 21: 100 lbs/hr	Early NH3 Injection during Startup	Covered under Variance #4073	5/16/06
11	5/14/06	2	8:00	NOx	123.3	Lbs/hr	AQ 21: 100 lbs/hr	Early NH3 Injection during Startup	Covered under Variance #4073	5/16/06
12	5/15/06	1	3:00	NOx	101.3	Lbs/hr	AQ 21: 100 lbs/hr	Early NH3 Injection during Startup	Covered under Variance #4073	5/16/06
13	5/16/06	2	8:00	NOx	141.1	Lbs/hr	AQ 21: 100 lbs/hr	Early NH3 Injection during Startup	Covered under Variance #4073	5/16/06
14	5/30/06	2	0:00	N/A	2 hrs 19 min	Hrs/Mins	AQ 40: 2 hour startup duration	Typical regular startup	Covered under Variance #4073	8/10/06
15	6/4/06	1	10:00	N/A	2 hr 26 min	Hrs/Mins	AQ 40: 2 hour startup duration	Typical regular startup	Covered under Variance #4073	7/9/06
16	6/13/06	1	19:00	NOx	117.3	Lbs/hr	AQ 21: 100 lbs/hr	Early NH3 Injection during Startup	Covered under Variance #4073	7/9/06
17	6/13/06	1	19:00	N/A	2 hr 5 min	Hrs/Mins	AQ 40: 2 hour startup duration	Typical regular startup	Covered under Variance #4073	1/11/07

SDGE
Palomar Energy Center
APCD Application Number 976846

Event	Date	Stack/ Unit	Clock Hour	Pollutant	Magnitude	Unit of Measure	Permit Condition/Limit	Cause/Reason	Comments	Date Reported to District
18	6/15/06	1	10:00	N/A	2 hr 9 min	Hrs/Mins	AQ 40: 2 hour startup duration	Typical regular startup.	Covered under Variance #4073	7/9/06
19	6/16/06	2	6:00	N/A	2 hr 9 min	Hrs/Mins	AQ 40: 2 hour startup duration	Typical regular startup.	Reported in error. Was not a violation.	7/9/06
20	6/16/06	2	6:00	NOx	109.9	Lbs/hr	AQ 21: 100 lbs/hr	Early NH3 Injection during Startup	Covered under Variance #4073	8/10/06
21	7/2/06	1	9:00	N/A	5 hrs 32 Min	Hrs/Mins	AQ-39: 4 hour startup duration	Typical extended startup.	Covered under Variance #4068	8/10/06
22	7/2/06	1	10:00	N/A	5 hrs 32 Min	Hrs/Mins	AQ-39: 4 hour startup duration	Typical extended startup.	Covered under Variance #4068	8/10/06
Aug 2006: No events to report.										
Sept 2006: No events to report.										
23	10/11/06	1	11:00	N/A	4 hr 45 min	Hrs/Mins	AQ 39: 4 hour startup duration	Extended startup.	Covered under Variance #4073	11/13/06
24	10/12/06	2	6:00	N/A	2 hr 20 min	Hrs/Mins	AQ 40: 2 hour startup duration	Typical regular startup.	Covered under Variance #4073	11/13/06
25	10/12/06	2	6:00	NOx	223.5	Lbs/hr	AQ 21: 100 lbs/hr	Early NH3 Injection during Startup	Covered under Variance #4073	11/13/06
26	10/12/06	1	3:00	NOx	127.5	Lbs/hr	AQ 21: 100 lbs/hr	Early NH3 Injection during Startup	Covered under Variance #4073	11/13/06
27	November 2006: No events to report.									
28	December 2006: No events to report.									
29	January 2006: No events to report.									
30	February 2006: No events to report.									
31	03/21/07	1	15	N/A	2 hrs 2 min	Hrs/Mins	AQ 40: 2 hour startup duration	Regular startup with generator testing required by WECC.	Covered under Variance #4073	4/9/07

Events 1, 2, 3 and 4 (exceedance of Extended Startup duration limit) were not reported in April 2006 due to confusion over the Reporting requirement of Rule 19.2(d) and the existing Variance 4068.
Event 14 was not reported in the July 2006 monthly report due to oversight made during the CEMS report review process.

SDGE
Palomar Energy Center
APCD Application Number 976846

Event Date	Stack/Unit	Clock Hour	Pollutant	Magnitude	Unit of Measure	Permit Condition/Limit	Cause/Reason	Comments	Date Reported to District
Event 18									
Event 18 was not a violation of AQ 40: 2 hour Regular Startup duration limit. On 6/16/06 CTG 2 was actually started up within the 2 hour limit.									
Event 17									
Event 17 was not reported in the July 2006 monthly report due to oversight made during the CEMS report review process.									
Event 19									
Event 19 was not reported in the July 2006 monthly report due to oversight made during the CEMS report review process.									

**COUNTY OF SAN DIEGO
AIR POLLUTION CONTROL DISTRICT HEARING BOARD
BOARD ORDER**

ADMINISTRATIVE ITEM:

B. Submission of the quarterly report to the APCD Hearing Board from San Diego Gas & Electric per Condition No. F.3 and Enforcement Condition 1 concerning compliance with required increment of progress of Petition 4073.


ACTION:

There being no motion made, the Air Pollution Control District Hearing Board, unable to discuss the report due to a lack of a quorum, acknowledged the submission of the report and at the discretion of the Board, continued this item to a future date. Member Rodriguez would be provided a copy of the report to review and if she determined that there needs to be further discussion on this report, the Clerk of the Board will schedule a special meeting of the Hearing Board to address concerns.

THOMAS J. PASTUSZKA
Clerk of the Hearing Board

Kellie C. Kellogg, Deputy Clerk



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COUNTY OF SAN DIEGO
BOARD OF SUPERVISORS

2007 JUL 13 AM 8:44

THOMAS J PASTUSZKA
CLERK OF THE BOARD
OF SUPERVISORS

Daniel Baerman
Director of Electric Generation
2300 Harveson Place
Escondido, CA 92029
Tel: 760-432-2501
dbaerman@semprautilities.com

July 11, 2007

Ms. Kellie Kellogg
Clerk of Hearing Board for the
San Diego County Air Pollution Control District
San Diego County Administration Center, Room 402
1600 Pacific Highway
San Diego, CA 92123

Re: Hearing Board Variance 4073; Quarterly Report

Dear Ms. Kellogg and Members of the Board:

Set forth below is SDG&E's second quarter 2007 report to the Hearing Board. This report will cover the items required by Condition F. 2. of the Board's April 26, 2007 order for Variance 4073. In addition, this report will cover Enforcement Condition 1 concerning compliance with required increments of progress. Information is provided first concerning the increments of progress to place the balance of the information into context.

1. Increments of Progress [Order, Enforcement Condition 1]

The increments of progress table attached to the Board's order is included with this letter as Attachment 1. The primary events are as follows:

SDG&E personnel and District staff have met several times, shared data, and continued an ongoing dialogue concerning the permit amendment application and preparation of an amendment to rule 69.3.1. SDG&E responded to the District on May 4, 2007, agreeing to the language of the draft S/A issued on April 20, 2007. SDG&E was informed on July 9, 2007 that the District intends to issue the final S/A no later than July 26, 2007. A rule amendment workshop concerning Rule 69.3.1 has been scheduled for August 3, 2007 by District staff. ✓

2. Engineering or operational alternatives [Order, Condition F.2 (1)]

No additional information to report at this time.

3. NOx Emissions Data [Order, Condition F.2 (2)]

Information concerning NOx emissions from the facility during the previous quarter is included in Attachment 2. Emissions were within applicable permit limits.

4. Turbine Start Up Activity and NOx Emissions [Order, Condition F.2 (3)]

Turbine start up activity and NOx emissions data associated with turbine start up is included in Attachment 2. Emissions were within limits established in Variance 4073. Emissions were reduced to the maximum extent feasible primarily by starting only one turbine at a time, by early injection of ammonia, by the installation and utilization of OpFlex and by completing start up as quickly as feasible. SDG&E continues to collect information on each start and adjust its system and start up procedures to minimize the duration of start up and associated emissions.

5. Other Data [Order, Condition F.2 (4)]

No further data has been requested by the Board at this time.

SDG&E appreciates the ongoing cooperation of both the District staff and the Hearing Board concerning development of variance conditions, permit conditions and rule requirements. SDG&E is committed to managing the Palomar Energy Center in a manner that complies with all applicable air quality regulatory requirements.

If you have any questions on the above subject matter, please don't hesitate to reach me at (760) 732-2501.

Sincerely yours,

A handwritten signature in black ink, appearing to read 'Dan Baerman', with a long horizontal flourish extending to the right.

Dan Baerman

Cc: Heidi Gabriel-Pack
Steven Moore
John Annicchiarico
Evariste Haury
Jason LaBlond
Suzanne Blackburn
File# 3.1.1.4.2.2

Attachment 2

CT1 Quarterly Summary		
	Tons	#
Apr-07	2.17	4,340
May-07	2.48	4,960
Jun-07	2.74	5,480
Total	7.39	14,780

Note: Total NOx includes startup emissions.

CT1 Startup Summary		
	Tons	#
Apr-07	0.00	0.00
May-07	0.07	143.85
Jun-07	0.03	54.35
Total	0.10	198.20

CT2 Quarterly Summary		
	Tons	#
Apr-07	2.65	5,300
May-07	2.69	5,380
Jun-07	2.52	5,040
Total	7.86	15,720

Note: Total NOx includes startup emissions.

CT2 Startup Summary		
	Tons	#
Apr-07	0.03	63.13
May-07	0.15	307.98
Jun-07	0.14	271.20
Total	0.32	642.31

CT1 YTD Summary		
	Tons	#
3Q06	8.61	17,220
4Q06	8.63	17,260
1Q07	8.88	17,760
2Q07	7.39	14,780
Total	33.51	67,020

Note: Total NOx includes startup emissions.

CT1 Startup YTD Summary		
	Tons	#
3Q06	1.38	2,760
4Q06	0.52	1,040
1Q07	0.38	760
2Q07	0.10	200
Total	2.38	4,760

CT2 YTD Summary		
	Tons	#
3Q06	8.95	17,900
4Q06	9.70	19,400
1Q07	8.73	17,460
2Q07	7.86	15,720
Total	35.24	70,480

Note: Total NOx includes startup emissions.

CT2 Startup YTD Summary		
	Tons	#
3Q06	1.10	2,200
4Q06	0.52	1,040
1Q07	0.43	860
2Q07	0.32	640
Total	2.37	4,740

Data gathered from CEMS Startup/Shutdown Incident Reports
 Data gathered from CEMS Monthly Aggregate Reports
 Opsflex installed on CTG1 on Oct 13, 2006.
 Opsflex installed on CTG2 on Oct 12, 2006

There have been no excess emissions as defined in Board Order 4073 on April 26, 2007

SAN DIEGO AIR POLLUTION CONTROL DISTRICT HEARING BOARD
 COUNTY OF SAN DIEGO
 Palomar Energy Center BOARD OF SUPERVISORS

2007 MAY 14 AM 8:35

PROPOSED INCREMENTS OF PROGRESS

(As of 4/26/07)

THOMAS J PASTUSZKA
 CLERK OF THE BOARD
 OF SUPERVISORS
DATE

MILESTONE

	Description	Permit Modification	Rule Change	Variance(s)
1	Variance 4068 hearing for 90-day issued			2/9/06
2	Emergency Variance 4069 for condition 21 issued to enable early ammonia injection.			2/23/06
3	Palomar submits request for Rule Change to APCD		3/6/06	
4	APCD requests more data for rule change		3/14/06	
5	Mtg. with APCD concerning Data Requests		3/30/06	
6	Additional mtg. with APCD (Steve Moore) concerning Data Requests		4/4/06	
7	SDG&E submits requested data to APCD (Moore)		4/7/06	
8	SDG&E submits summary of requested Permit Modification topics to APCD (covering matters of concern to staff beyond start up)	4/7/06		
9	Mtg. with APCD – QA/QC Plan Addendum (relating to some permit amendment topics)	4/11/06		
10	Request for Permit Modification Fee Estimate submitted to APCD by SDG&E	4/11/06		
11	APCD (Moore) submits new data request to SDG&E (replaces 3/30 & 4/4 requests)		4/14/06	
12	Data submitted to APCD (Moore)		4/25/06	
13	Variance 4073 Hearing			4/27/06
14	Mtg. scheduled with APCD and CEC (in response to 4/7 letter from SDG&E) to discuss permit and rule amendment issues	5/3/06 (COMPLETED 5/3/06)	5/3/06 (COMPLETED 5/3/06)	
15	Proposed Permit Pre-application Mtg. with APCD and CEC –	5/19/06 (COMPLETED)		

Proposed Increments of Progress

October 11, 2006

Page 1 of 3

	Description		Permit Modification	Rule Change	Variance(s)
			5/9 & 5/23/06)		
16	Proposed Permit Application Submittal		5/31/06 (COMPLETED 5/31/06)		
17	Quarterly Progress Update (April - June) to Hearing Board				July 27, 2006 (Completed)
18	APCD Permit Application Completeness Review	Respond to APCD data requests while in process	June - July 2006 (Completed)		
19	<i>APCD drafts rule change</i>			<i>April - June 2006</i>	
20	Quarterly Progress Update (July - September) to Hearing Board				October 27, 2006 (Completed)
21	<i>APCD holds public workshop on rule amendment</i>			<i>July 2006</i>	
22	<i>APCD publishes draft rule for public comment</i>	<i>30-day public notice required</i>		<i>August 2006</i>	
23	<i>APCD prepares final rule adoption documents</i>	<i>Final rule and "staff report" are prepared for County Board of Supervisors review and adoption</i>		<i>September 2006</i>	
24	<i>Air Quality Advisory Committee</i>	<i>Appointed committee reviews and advises the Board</i>		<i>October 2006</i>	
25	<i>Board adoption of rule</i>	<i>Upon adoption, SDAPCD considers rule to be the version for compliance</i>		<i>October 2006</i>	
26	Proposed Permit Modification (ATC/PDOC) published for public comment	30-day public comment period	October 2006		
27	Final ATC/FDOC revisions	Final language that incorporates public comments is developed	November 2006		
28	Final ATC/FDOC		November		

	Description	Permit Modification	Rule Change	Variance(s)
	Issued	2006		
29	SDG&E petitions CEC for companion amendment of Conditions of Certification (CoC)	December 2006		
30	Quarterly Progress Update (October - December) to Hearing Board			Completed January 25, 2007
31	CEC issues amendment of CoC	March 2007		
32	Quarterly Progress Update (January - March) to Hearing Board			April 26, 2007; completed
33	Extension of Regular Variance Granted			April 26, 2007
34	See Tentative Rule Schedule for Rule 69.3.1, Exhibit 2 to Board Order Granted April 26, 2007.	May-December, 2007		
35	Quarterly Progress Update (April - June) to Hearing Board			July 26, 2007;
36	Quarterly Progress Update (October-December) to Hearing Board			January 17, 2008

**COUNTY OF SAN DIEGO
AIR POLLUTION CONTROL DISTRICT HEARING BOARD
BOARD ORDER**

ADMINISTRATIVE ITEM:

B. Submission of the quarterly report to the APCD Hearing Board from San Diego Gas & Electric per Condition No. F.3 and Enforcement Condition 1 concerning compliance with required increment of progress of Petition 4073

ACTION:


ON MOTION of Member Rodríguez, seconded by Member Reider, the Air Pollution Control District Hearing Board accepted the quarterly report and directed San Diego Gas & Electric to provide the Board with revised Increments of Progress, reflecting the testimony of County Counsel representing the APCD. The revision to the Increments of Progress Schedule (IOPS) pertained to the accurate reflection of issuance of authority to construct or permit to operate. The revised IOPS is to be submitted to the Air Pollution Control District Hearing Board for the meeting of October 25, 2007.

AYES: Rodríguez, Tonner, Reider

ABSTAIN: Rappolt

RECUSED: Gabrielson

THOMAS J. PASTUSZKA
Clerk of the Hearing Board

By 
Kellie C. Kellogg
Deputy Clerk

**COUNTY OF SAN DIEGO
AIR POLLUTION CONTROL DISTRICT HEARING BOARD
BOARD ORDER**

ADMINISTRATIVE ITEM:

B. Submission of the quarterly report to the APCD Hearing Board from San Diego Gas & Electric/Palomar Energy Center per Condition No. F.3, and Enforcement Condition 1 concerning compliance with required increment of progress of Petition 4073.

ACTION:

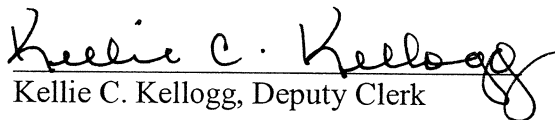
ON MOTION of Member Gabrielson, seconded by Member Tonner, the Air Pollution Control District Hearing Board accepted the report from San Diego Gas & Electric.

AYES: Rappolt, Gabrielson, Tonner


ABSENT: Rodriguez

THOMAS J. PASTUSZKA

Clerk of the Hearing Board


Kellie C. Kellogg, Deputy Clerk



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COUNTY OF SAN DIEGO
BOARD OF SUPERVISORS

2007 OCT 11 PM 3:17

THOMAS J PASTUSZKA
CLERK OF THE BOARD
OF SUPERVISORS

Daniel Baerman
Director of Electric Generation
2300 Harveson Place
Escondido, CA 92029
Tel: 760-432-2501
dbaerman@semprautilities.com

October 11, 2007

Ms. Kellie Kellogg
Clerk of Hearing Board for the
San Diego County Air Pollution Control District
San Diego County Administration Center, Room 402
1600 Pacific Highway
San Diego, CA 92123

Re: Hearing Board Variance 4073; Quarterly Report

Dear Ms. Kellogg and Members of the Board:

Set forth below is SDG&E's third quarter 2007 report to the Hearing Board. This report will cover the items required by Condition F. 2. of the Board's April 26, 2007 order for Variance 4073. In addition, this report will cover Enforcement Condition 1 concerning compliance with required increments of progress. Information is provided first concerning the increments of progress to place the balance of the information into context.

1. Increments of Progress [Order, Enforcement Condition 1]

Referenced below are the increments of progress table attached to the Board's order; the primary events are as follows:

SDG&E personnel and District staff have met several times, shared data, and continued an ongoing dialogue concerning the permit amendment application and preparation of an amendment to rule 69.3.1. SDG&E responded to the District on May 4, 2007, agreeing to the language of the draft S/A issued on April 20, 2007. SDG&E was updated by the District on October 8, 2007 on the progress of the issuance of the final S/A. The District intends to issue to final S/A no later than November 30, 2007. A rule amendment workshop concerning Rule 69.3.1 was held on August 3, 2007 by District staff.

2. Engineering or operational alternatives [Order, Condition F.2 (1)]

No additional information to report at this time.

3. NOx Emissions Data [Order, Condition F.2 (2)]

Information concerning NOx emissions from the facility during the previous quarter is included in Attachment 2. Emissions were within applicable permit limits.

4. Turbine Start Up Activity and NOx Emissions [Order, Condition F.2 (3)]

Turbine start up activity and NOx emissions data associated with turbine start up is included in Attachment 2. Emissions were within limits established in Variance 4073. Emissions were reduced to the maximum extent feasible primarily by starting only one turbine at a time, by early injection of ammonia, by the installation and utilization of OpFlex and by completing start up as quickly as feasible. SDG&E continues to collect information on each start and adjust its system and start up procedures to minimize the duration of start up and associated emissions.

5. Other Data [Order, Condition F.2 (4)]

SDG&E received a letter dated September 14, 2007 from the District requesting a cold start and source test. The cold start and source test is scheduled to occur during the period of October 21, 2007 and October 26, 2007. District staff will be onsite to witness the test.

SDG&E appreciates the ongoing cooperation of both the District staff and the Hearing Board concerning development of variance conditions, permit conditions and rule requirements. SDG&E is committed to managing the Palomar Energy Center in a manner that complies with all applicable air quality regulatory requirements.

If you have any questions on the above subject matter, please don't hesitate to reach me at (760) 732-2501.

Sincerely yours,

A handwritten signature in black ink, appearing to read 'Dan Baerman', with a long horizontal flourish extending to the right.

Dan Baerman

Cc: Heidi Gabriel-Pack
Steven Moore
John Annicchiarico
Evariste Haury
Jason LaBlond
Suzanne Blackburn
File# 3.1.1.4.2.2

CT1 3q07 NOx Summary

	Tons	#
Jul-07	3.01	6,011
Aug-07	3.21	6,419
Sep-07	2.97	5,932
Total	9.18	18,362

Note: Total NOx includes startup emissions.

CT1 Startup Only Summary

	Tons	#
Jul-07	0.33	658
Aug-07	0.17	341
Sep-07	0.19	386
Total	0.69	1,386

CT2 3q07 NOx Summary

	Tons	#
Jul-07	3.38	6,766
Aug-07	3.26	6,513
Sep-07	3.20	6,410
Total	9.84	19,689

Note: Total NOx includes startup emissions.

CT2 Startup Only Summary

	Tons	#
Jul-07	0.09	180
Aug-07	0.10	208
Sep-07	0.09	173
Total	0.28	561

CT1 YTD NOx Summary

	Tons	#
4Q06	8.63	17,260
1Q07	8.88	17,760
2Q07	7.39	14,780
3Q07	9.18	18,362
Total	34.08	68,162

Note: Total NOx includes startup emissions.

CT1 YTD Startup Only

	Tons	#
4Q06	0.52	1,040
1Q07	0.38	760
2Q07	0.10	200
3Q07	0.69	1,386
Total	1.69	3,386

CT2 YTD NOx Summary

	Tons	#
4Q06	9.70	19,400
1Q07	8.73	17,460
2Q07	7.86	15,720
3Q07	9.84	19,689
Total	36.13	72,269

Note: Total NOx includes startup emissions.

CT2 YTD Startup Only

	Tons	#
4Q06	0.52	1,040
1Q07	0.43	860
2Q07	0.32	640
3Q07	0.28	561
Total	1.55	3,101

Data gathered from CEMS Startup/Shutdown Incident Reports

Data gathered from CEMS Monthly Aggregate Reports

Opsflex installed on CTG1 on Oct 13, 2006.

Opsflex installed on CTG2 on Oct 12, 2006

There have been no excess emissions as defined in Board Order 4073 on April 26, 2007

**COUNTY OF SAN DIEGO
AIR POLLUTION CONTROL DISTRICT HEARING BOARD
BOARD ORDER**

ADMINISTRATIVE ITEM:

B. Submission of the quarterly report to the APCD Hearing Board from San Diego Gas & Electric per Condition No. F.3 and Enforcement Condition 1 concerning compliance with required increment of progress of Petition 4073.

ACTION:

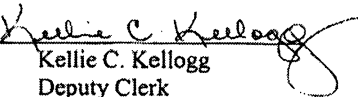
ON MOTION of Member Gabrielson, seconded by Member Rodriguez, the Air Pollution Control District Hearing Board accepted the report.

AYES: Rappolt, Rodriguez, Gabrielson, Tonner

ABSTAIN: None

THOMAS J. PASTUSZKA

Clerk of the Hearing Board

By 
Kellie C. Kellogg
Deputy Clerk

COUNTY OF SAN DIEGO
BOARD OF SUPERVISORS

2008 JAN 14 AM 8:40

THOMAS J PASTUSZKA
CLERK OF THE BOARD
OF SUPERVISORS

Daniel Baerman
Director of Electric Generation
2300 Harveson Place
Escondido, CA 92029
Tel: 760-432-2501
dbaerman@semprautilities.com



January 13, 2008

Ms. Kellie Kellogg
Clerk of Hearing Board for the
San Diego County Air Pollution Control District
San Diego County Administration Center, Room 402
1600 Pacific Highway
San Diego, CA 92123

Re: Hearing Board Variance 4073; Quarterly Report

Dear Ms. Kellogg and Members of the Board:

Set forth below is SDG&E's fourth quarter 2007 report to the Hearing Board. This report will cover the items required by Condition F. 2. of the Board's April 26, 2007 order for Variance 4073. In addition, this report will cover Enforcement Condition 1 concerning compliance with required increments of progress. Information is provided first concerning the increments of progress to place the balance of the information into context.

1. Increments of Progress [Order, Enforcement Condition 1]

Referenced below are the increments of progress table attached to the Board's order; the primary events are as follows:

SDG&E personnel and District staff have met several times, shared data, and continued an ongoing dialogue concerning the permit amendment application and preparation of an amendment to rule 69.3.1. SDG&E responded to the District on May 4, 2007, agreeing to the language of the draft S/A issued on April 20, 2007. The District issued the final S/A on November 6, 2007. A rule amendment workshop concerning Rule 69.3.1 was held on August 3, 2007 by District staff.

2. Engineering or operational alternatives [Order, Condition F.2 (1)]

No additional information to report at this time.

3. NOx Emissions Data [Order, Condition F.2 (2)]

Information concerning NOx emissions from the facility during the previous quarter is included in Attachment 1. Emissions were within applicable permit limits.

4. Turbine Start Up Activity and NOx Emissions [Order, Condition F.2 (3)]

Turbine start up activity and NOx emissions data associated with turbine start up is included in Attachment 2. Emissions were within limits established in Variance 4073. Emissions were reduced to the maximum extent feasible primarily by starting only one turbine at a time, by early injection of ammonia, by the installation and utilization of OpFlex and by completing start up as quickly as feasible. SDG&E continues to collect information on each start and adjust its system and start up procedures to minimize the duration of start up and associated emissions.

5. Other Data [Order, Condition F.2 (4)]

SDG&E received a letter dated September 14, 2007 from the District requesting a cold start and source test. The cold start and source test occurred on October 22, 2007. District staff was onsite to witness the test. The District has the source test report and raw data as requested.

SDG&E appreciates the ongoing cooperation of both the District staff and the Hearing Board concerning development of variance conditions, permit conditions and rule requirements. SDG&E is committed to managing the Palomar Energy Center in a manner that complies with all applicable air quality regulatory requirements.

If you have any questions on the above subject matter, please don't hesitate to reach me at (760) 732-2501.

Sincerely yours,



Dan Baerman

Cc: Heidi Gabriel-Pack
Steven Moore
John Annicchiarico
Evariste Haury
Jason LaBlond
Suzanne Blackburn
File# 3.1.1.4.2.2

CT1 4q07 NOx Summary		
	Tons	#
Oct 07	2.59	5,179
Nov 07	2.92	5,831
Dec 07	3.52	7,038
Total	9.02	18,048

Note: Total NOx includes startup emissions.

CT1 Startup Only Summary		
	Tons	#
Oct 07	0.18	356
Nov 07	0.13	262
Dec 07	0.03	52
Total	0.34	670

CT2 4q07 NOx Summary		
	Tons	#
Oct 07	2.63	5,255
Nov 07	3.47	6,949
Dec 07	3.37	6,732
Total	9.47	18,936

Note: Total NOx includes startup emissions.

CT2 Startup Only Summary		
	Tons	#
Oct 07	0.00	0
Nov 07	0.29	573
Dec 07	0.09	173
Total	0.37	747

CT1 12-Mo NOx Summary		
	Tons	#
1Q07	8.88	17,760
2Q07	7.39	14,780
3Q07	9.18	18,362
4Q07	9.02	18,048
Total	34.48	68,950

Note: Total NOx includes startup emissions.

CT1 12-Mo Startup Only		
	Tons	#
1Q07	0.38	760
2Q07	0.10	200
3Q07	0.69	1,386
4Q07	0.34	670
Total	1.51	3,016

CT2 12-Mo NOx Summary		
	Tons	#
1Q07	8.73	17,460
2Q07	7.86	15,720
3Q07	9.84	19,689
4Q07	9.47	18,936
Total	35.90	71,805

Note: Total NOx includes startup emissions.

CT2 12-Mo Startup Only		
	Tons	#
1Q07	0.43	860
2Q07	0.32	640
3Q07	0.28	561
4Q07	0.37	747
Total	1.40	2,808

Data gathered from CEMS Startup/Shutdown Incident Reports

Data gathered from CEMS Monthly Aggregate Reports

Opsflex installed on CTG1 on Oct 13, 2006.

Opsflex installed on CTG2 on Oct 12, 2006

There have been no excess emissions as defined in Board Order 4073 on April 26, 2007