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In Pro per

**STATE OF CALIFORNIA**

Energy Resources Conservation  
And Development Commission

In the Matter of: ) Docket No. 98-AFC-3  
)  
)  
)  
The Application for Certification )  
For the Delta Energy Center) )  
\_\_\_\_\_) )

**COMMENTS  
OF CALIFORNIANS FOR RENEWABLE ENERGY, INC.  
ON  
PRESIDING MEMBER'S PROPOSED  
DECISION  
FOR THE  
DELTA ENERGY CENTER**

Respectfully submitted:  
January 26, 2000

\_\_\_\_\_  
MICHAEL E. BOYD  
PARTY IN INTERVENTION  
IN PRO PER

# *Californians for Renewable Energy, Inc.*

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## **COMMENTS ON PRESIDING MEMBERS PROPOSED DECISION FOR THE DELTA ENERGY CENTER**

### **I. INTRODUCTION**

Staff counsel Monica Schwebs [Mschwebs@energy.state.ca.us](mailto:Mschwebs@energy.state.ca.us) California Energy Commission prepared the “Joint Reply of the Bay Area Air Quality Management District and the California Energy Commission Regarding Environmental Justice Issues” PSD Appeal No. 99-76 filed January 18, 2000 with the US EPA Environmental Appeals Board (EAB) in Washington D.C. Intervenor CRE identifies this action as a “quid pro quo” in behalf of the BAAQMD in return for BAAQMD’s preparation of the Commission’s Air Impact Analysis. Intervenor CRE cites in his **RESPONSE TO APPLICANT’S MOTION FOR LEAVE TO FILE AND EXPEDITED MOTION TO DISMISS** dated December 30, 1999 before the EPA EAB that,

“Intervenor CRE contends that the PSD permit is issued by the Bay Area Air Quality Management District as a ministerial action as part of the California Energy Commission’s environmental review of the Application for Certification 98-AFC-3. The Air District acts as a consultant for the applicant to the CEC in preparing its Determination of Compliance to act as the Commission’s air impact analysis for this project. The petitioner’s appeal before the Board does not address the inherent conflict this creates between the AQMD’s regulatory authority in issuing a PSD permit, and acting as the applicant’s consultant on air impacts before the Commission.”

CEC’s recent action further amplifies the inherent conflict between CEC’s and BAAQMD’s acting as the applicant’s consultant and as a regulatory authorities at the same time. Now the roles of either party are reversed in that the Commission’s Environmental Justice Analysis, along with the Commission’s legal counsel is being provided as a gift, at the public’s expense to a supposed independent impartial air regulatory agency in the air permit process, BAAQMD. Intervenor CRE provided demographic data in graphical form to the Commission in Intervenor CRE’s *Rebuttal to Senior Staff Counsel Dick Ratliff’s Brief on the Delta Energy Center Project Alternatives* dated November 4, 1999. This demographic data was provided to Intervenor CRE by EPA Region IX Environmental Justice Division and is shown as figure 1. The BAAQMD has failed to prepare an Environmental Justice Analysis on this project and any such analysis should have been free from the “undue influence” of the Californian Energy Commission in its determinations. This action demonstrates both agencies’ intent to perpetrate discriminatory acts

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against the communities surrounding the Delta Energy Center and the Pittsburg District Energy Facility. They, BAAQMD and CEC, base their stated positions on <sup>1</sup>,

“Both BAAQMD and the CEC have evaluated the Petitioner’s concerns about environmental justice and believe that ...there will be no significant adverse impact to any individuals as a result of the construction of the proposed project, and thus there can be no disparate adverse impact on minority or low income individuals ...in the potentially affected area within five miles of the Delta Energy Center, the population is not predominately minority and low income – the population is 58% white, 23% Hispanic, 8 % black, 10% Asian, and 1% other with 10% living below the poverty line”

The CEC and BAAQMD have consistently failed to recognize the significance of (CEC exhibit 77c) from EPA Region IX Environmental Justice Division and this is further evidence of the

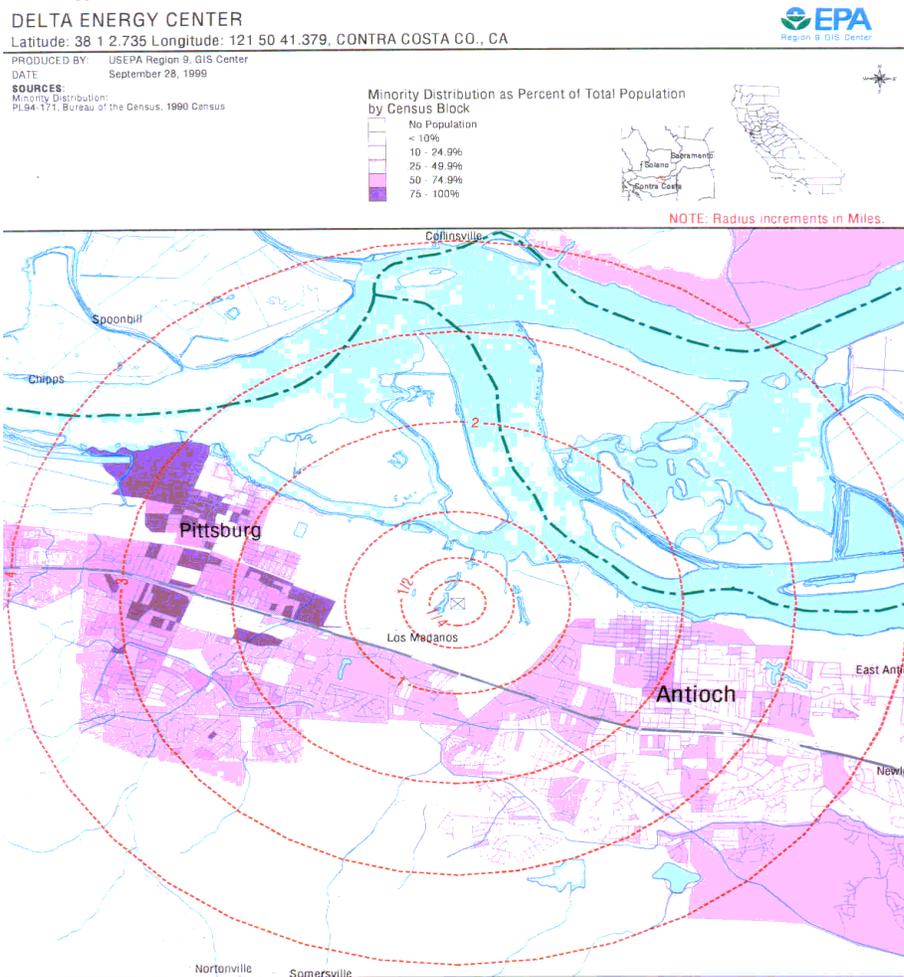


Figure 1 Minority Population as Percentage of Total Population [ ]=50-75% [ ]=75-100% Minority

<sup>1</sup> Before the Environmental Appeals US EPA Washington D.C., In the Matter of the Delta Energy Center PSD Appeal 99-76, “**Joint Reply of the Bay Area Air Quality Management District and the California Energy Commission Regarding Environmental Justice Issues** Jan. 18, 2000

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Commission's and BAAQMD's discriminatory act in failure to recognize this as significant evidence of a target minority population in the city of Pittsburg which meets the definition by federal Environmental Justice Guidelines as disparate adverse impacts on minority or low income individuals. Intervenor CRE presented these as evidence again in intervenor's 11/12/1999 CEC *Written Testimony and Identification of Witnesses for a November 18, 1999 Hearing on the Delta Energy Center (98-AFC-3) Socioeconomic, air quality, and public health*, and again in intervenor's testimony at its November 18, 1999 Hearing on the Delta Energy Center (98-AFC-3) Socioeconomic, air quality, and public health. In Intervenor CRE's comments I will utilize as evidence of the Commission's pattern of discrimination and failure to mitigate project impacts Exhibits 32, 55, 57, 62, 69, 70, 71, 75, 77, the transcript of the Commission's November 18, 1999 hearing, and the Presiding Members Proposed Decision.

Although the record has been closed and the Intended decision indicates that the project will be certified at this time. Intervenor CRE has consistently raised objection to the elimination of the Notice of Intention. Intervenor CRE's contention is that the Commission's waiver of the NOI requirements for this project precluded the completion of an adequate assessment of the "scope" of the project and its alternatives, as is required by CEQA. Further, Intervenor CRE contends that this is normally the portion of the CEQA process that identify the "scope" or "project objectives" of a project, as well as project alternatives, which are developed in a public process with public participation. This is commonly referred to as a "scoping hearing" on the project. By eliminating the NOI requirements without any other CEQA equivalent process you usurp the will of the public to meaningfully participate in the project's environmental review, which is in violation of CEQA. In a recent survey by the Energy Commission, distributed by the Public Advisors Office, 91% of the responding Intervenor **totally disagree** with staff and in this case the "Committee" that the Commission should support the "elimination of NOI".

This Presiding Member's Proposed Decision (PMPD) fails to adequately reflect intervenor's perception of the facts in this case. It provide further evidence of the Commission's failure mitigate significant project impacts by ignoring the evidence before it. Intervenor CRE has consistently cited evidence presented by intervenors, EPA Region IX Air Division, EPA Region IX EJ Division, BAAQMD, CARB and the Commission staff. The transcript of the

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November 18, 1999 hearing on air, public health, and socioeconomic impacts provides further evidence in this matter.

Intervenor CRE has consistently stated that the DEC is not the functional equivalent of CEQA. I am not alone in that thought. In a recent survey by the Energy Commission, distributed by the Public Advisors Office, 100% of the responding Intervenors **totally disagree** with staff and in this case the "Committee" that "CEC is functionally equivalent to CEQA. One Intervenor stated quite succinctly "It's the fox guarding the hen house". The Public Intervenors and general public participants are totally ignored by the commission and their comments made in public meetings or by way of letters are rejected.

Intervenor provides the following comments to the **PRESIDING MEMBERS PROPOSED DECISION** with deletions shown as in this **example** and additions shown in this **example**.

## **II.**

### **COMMENTS**

In the introduction to the PMPD the Commission discounts the intervenor 's arguments and evidence presented on page 3 with the statement,

“Although the Intervenors presented passionate arguments in support of their positions, the evidence of record clearly establishes that the project complies with all applicable federal, state, and local regulatory programs that are designed to protect the environment and public health.”

Intervenor CRE proposes to correct the decision starting from page 3 as follows:

Intervenors Californians for Renewable Energy, **Inc.** (CRE) and Community Health First (CHF) were active Intervenors in this proceeding. Both Intervenors expressed concern that project-related emissions would degrade air quality and cause detrimental health effects from toxic air contaminants. The Intervenors submitted copies of documents that were downloaded from the Internet in their efforts to show that the substances emitted by the project were dangerous to public health. Intervenor **CRE provided exhibit 57, “Letter from EPA Region IX to BAAQMD, dated September 23, 1999, offering comments on the Preliminary Determination of Compliance”, as evidence of the applicant’s and Commission’s failure to comply with EPA recommendations for mitigation. ~~Although the~~ The** Intervenors presented passionate arguments in support of their positions, the evidence of record clearly establishes that the project **complies fails to comply**

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with all applicable federal, state, and local regulatory programs that are designed to protect the environment and public health. Intervenor CRE provided for the record exhibits 32, 55, 57, 62, 69, 70, 71, 75, and 77. Exhibit 32 entered by intervenor CHF is the same as exhibit 77 a) EPA Region IX provided population density and threatened and endangered species identification geographical map of the Delta Energy Center proximity.

Intervenor CAP-IT was concerned about the installation and operation of particulate monitoring station in the Pittsburg-Antioch area. In the Commission's Decision on the Pittsburg District Energy Facility, the PDEF Applicant was directed to work with DEC and BAAQMD to purchase, install, and operate a new particular monitoring station in the project vicinity. Condition AQ-78 is included in his Decision to require DEC to coordinate with the PDEF and BAAQMD to purchase, install, and operate the new particulate monitoring station. DEC will also provide funding to retrofit the existing Pittsburg air monitoring station to collect data on toxic air contaminants. BAAQMD and the applicant failed to provide current air monitoring station data from the new particulate matter monitoring station. The monitoring stations results should have been made public, and made part of the record prior to issuance of the PMPD. The BAAQMD, applicant, and Commission decided in behalf of the public to with hold this information from the publics review and consideration in this matter. During the November 18, 1999 evidentiary hearing the applicant failed to respond to the question of CAP-IT, on the air monitoring station and it's data

As further evidence of the Commission, BAAQMD, and the Applicants attempt to with hold information from the public Intervenor CRE sites the transcript of the November 18, 1999 evidentiary hearing, starting at page 53

Cross-Examination by Ms. Lagana:

Question-Mr. Rubenstein, I have some questions regarding the air monitoring station that this project is sponsoring being installed in Pittsburg, well, actually Pittsburg/Antioch. the station was originally installed on September 19<sup>th</sup> at a location in Antioch, 1201west 10<sup>th</sup> street. And subsequently the bay area air quality management deems it unacceptable for various environmental reasons, Is that correct?

Answer -I was not involved in that review, but that is my understanding, yes.

Question-Okay. So the station is going to be removed to another location which bay area air quality has consented would be more appropriate to be in an environment that would not contaminate the results as the first location would have.

Answer- without judging what they said about the first location - -

Question-correct.

Answer-the answer is yes; the station will be moved to a new location where the bay area district has said that it would be suitably located.

Question- okay. When will that new site be in production? Do you have a guesstimate?

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Answer-No. I know that from a site visit I took there today, that site preparation work for the relocation actually is going to begin tomorrow. I don 't know exactly when the station will be, in fact, relocated. I could make some checks during a break and get that answer for you.

Question- Okay. I would like to know if it's the month of November or December.

Answer I will find that out for you.

Ms. Lagana

Question-since the station, Mr. Rubenstein, was supposed to be in production one year prior to your production of the - -of your power plant, right, prior to the project going into production through construction, there was the - -the station was supposed to be up and running and taking results. That was the requirement of the CEC, one year prior to production, two years after production.

Hearing Officer Gefter- What is your question for the witness?

By Ms. Lagana:

Question- The question is, will that set the time back, so we 're now going to be starting September 19th, we would be starting in November or December? So those two months, since the evidence –the data being accepted now, or taken now is not acceptable to the bay area air quality management, will the clock now be set at November or December rather than September?

Answer-I'm not sure. There are a couple things

I don't understand. First, - -

Question-Okay, - -

Answer- -is as I said, I don 't know what the bay area district 's determination was regarding the original site. So, I can 't say whether it 's because they thought the data were going to be inaccurate or not.

Answer- Yes, they did, I read the letter.”

Intervenor CRE objects to the Commission and BAAQMD’s failure to provide current air monitoring data and a local PM10 monitoring site as stipulated in the conditions of 98-AFC-1 the PDEF.

Under Project Alternatives starting at page 19 of the PMPD the Commission’s description of intervenors positions requires several corrections as follows starting at page 27;

“CRE presented legal argument asserting that Staff s alternatives analysis violates CEQA because Staff focused too narrowly on Applicant s declared objectives and thereby eliminated other feasible alternatives that would more effectively prevent adverse environmental impacts. (CRE 11/2 Rebuttal Brief, p.2.) At the evidentiary hearing, CRE’s representative, Michael Boyd, questioned the definition of feasibility used by Staff, claiming that Staff s apparent emphasis on economic feasibility was inappropriate. (10/5 RT 101-102,114-116.) CRE contends that the Commission erred in exempting Applicant from the Notice of Intention (NOI) process, 15 that CRE believes is equivalent to the CEQA scoping process. (CRE Rebuttal Brief.) By eliminating the NOI process, CRE asserts that the public was denied the opportunity to meaningfully participate in the project’s environmental review. (*Ibid.*) CRE asserts that the Commission s siting process is not certified

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by the Secretary of the Resources Agency as required by Section 21080.5 of the Public Resources Code. CRE relies on the ~~arguments presented in the Petitioner's Brief in the matter of Brad Foster v. Energy Resources Conservation Development Commission, Case No. S-081009, that has been summarily denied by the California Supreme Court~~ passage into California law of amendments to the Warren-Alquist Act SB110 which mandates review of the Commission's environmental program by the California Resources Agency. CRE also claims that Staff failed to consider environmental justice issues in the alternatives analysis because, CRE believes, harmful air emissions in the Pittsburg area unfairly impact low income and minority communities. (CRE Rebuttal Brief, p.9.) CRE argues that the mitigation measures recommended by Staff and BAAQMD do not comply with EPA requirements. (*Ibid.*)

### COMMISSION DISCUSSION

Section 25540.6(b) of the Public Resources Code does not require an alternative site analysis for a cogeneration project at an existing industrial site. In this case, although the project does not meet the efficiency standards of Section 25134 to achieve cogeneration status under the Warren-Alquist Act, the evidence clearly establishes that DEC is conceived as a cogeneration plant since it will supply process steam and electricity to Dow. The Commission, therefore, finds a strong relationship between DEC and the existing industrial site as the result of the solicitation by Dow Chemical for this project. Accordingly, we believe that section 25540.6(b) is applicable to this case. ~~Intervenor CRE formally objects to the failure of the CEC to identify renewable energy supplies, or propose, or consider any renewable energy project, as the "environmentally preferred alternative" in the, "Delta Energy Center (98-AFC-3) Final Staff Assessment". Intervenor requested the CEC prepare and Environmental Impact Report on the proposed project in compliance with CEQA as the "environmentally preferred alternative" to this project is renewable energy which will provide near zero emission sustainable power generation in an area of regional non-attainment for ozone and PM10. The CEC's certified environmental program is under review by the California Resources Agency pursuant to SB110. Intervenor CRE believes that this analysis of alternatives fails to identify the "environmentally preferred alternative" as such, and therefore fails to comply with CEQA's requirements for alternatives and mitigation. As evidence of the legal basis for intervenor's position intervenor cites the CEQA Case "Citizens for Goleta Valley v. Board of Supervisors of Santa Barbara County," in which the Court of Appeals, "Held that: (2) failure of environmental impact report to consider alternative was improper."~~

We have, nevertheless, reviewed the evidence on alternative sites and technologies to ensure that all potential concerns were considered. This examination is necessarily limited to those sites within approximately one-half

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mile of the DEC site because of the operating characteristics of the steam line. We view this technical limitation as critical in assessing alternative site feasibility. Intervenor CRE states that the “Delta Energy Center (98-AFC-3) Final Staff Assessment” failed to meet the requirements of CEQA to clearly identify the “Proposed Pittsburg District Energy Facility site” as an “environmentally preferred alternative” to the proposed DEC. CRE identifies that the Commission is aware of the Applicants proposed amendment to the PDEF AFC is pending and will if approved meet the objective requirements of the Commission and the Applicant as sited for this project.

The Commission is not persuaded by Intervenor CRE’s argument that Staff focused on Applicant’s economic interests rather than on environmental impacts in reviewing the feasibility of alternative technologies or alternative sites. ~~Not only was no evidence presented to support this assertion, but the CEQA Guidelines instruct the lead agency to use the rule of reason in examining alternatives that achieve the project’s basic objectives. [Cal. Code of Regs, tit.14,15126.6(f).] We find that Staff complied with CEQA requirements and performed a balanced analysis that considered all relevant factors. Intervenor~~ Intervenor CRE believes that this analysis of alternative siting “environmentally preferred alternative sites” fails to identify alternative sites as such, and therefore fails to comply with CEQA’s requirements for alternative siting and mitigation. As evidence of the legal basis for Intervenor CRE’s position intervenor CRE cites the CEQA Case “Citizens for Goleta Valley v. Board of Supervisors of Santa Barbara County” in which the Court of Appeals, “Held that: (3) *alternative of development on a different site was not adequately considered.*” As such, the intervenor’s position is that this projects environmental document therefore fails to meet the requirements for CEQA. Intervenor CRE’s position is that this section fails to provide a technically accurate analysis of the beneficial effects on air emission of the reduced project in comparison with the proposed project. Intervenor CRE would like to note that the statement, “this smaller project would be less likely to meet project objectives and offers no environmental benefits when compared to the proposed project”, is technically incorrect in regards to environmental benefits. Further the compliance with the requirements for the applicant’s “economic” objectives should not be cited unless this alternative can be shown to be economically unfeasible. As evidence of the legal basis for Intervenor CRE’s position intervenor once again cites the CEQA Case “Citizens for Goleta Valley v. Board of Supervisors of Santa Barbara County” in which the Court of Appeals, “Held that: (1) *alternative of a smaller project was not shown to be economically unfeasible.*”

The evidentiary record indicates that the proposed alternative technologies do not meet project objectives and the proposed alternative sites are less advantageous than the project site. Since the project, as mitigated, will not create any significant impacts, none of the alternative sites in Pittsburg or Antioch could potentially reduce environmental impacts that do not exist. The option of a smaller project,

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such as a 240 MW cogeneration facility at the proposed site, was considered because it could potentially result in reduced air emissions, although it would include similar onsite project components, and similar linear facility routes. While Staff suggested the smaller facility would be more environmentally preferable, all of the potential adverse impacts associated with the proposed project will be mitigated to levels of insignificance just as they would be for a smaller project. Thus, there is no advantage to a smaller-sized project option. CRE's position is that the "Delta Energy Center (98-AFC-3) Final Staff Assessment" failed to meet the requirements of CEQA to clearly identify the "Proposed Pittsburg District Energy Facility site" as an "environmentally preferred alternative" and the reduced project alternative to the proposed DEC. CRE identifies that the Commission is aware of the Applicants proposed amendment to the PDEF AFC is pending and will if approved meet the objective requirements of the Commission and the Applicant as sited for this project. CRE disagrees with staff position that the potential adverse impacts associated with the proposed project will be mitigated to levels of insignificance as cited in intervenor's comments on air quality, public health, socioeconomic impacts and as presented in CEC exhibit 62.

While the no project alternative may temporarily avoid the project's potential impacts, the benefits of the project, which replaces older, inefficient generating facilities, would not be realized. Moreover, the industrially-zoned site is likely to be developed in any event, which would necessarily require a CEQA-based environmental impacts analysis and mitigation measures appropriate to the development of an industrial facility and similar to those required of DEC. CRE contends that the Commission should prepare a formal EIR pursuant to CEQA as its environmental program is pending review by the California Resources Agency. The no project alternative would therefore facilitate the cure sought by intervenor in that a CEQA compliant environmental document is prepared for industrial development at the proposed site that is consistent with local ordinances, state and federal laws.

~~While~~ We are sympathetic to the Intervenors view that renewable technologies are potentially less harmful to the environment than gas-fired technology. ~~the~~ The Commission is mandated to ensure the development of efficient generation sources that ~~can~~ meet the requirements of California's energy market and balanced this with the need to maintain air quality within federal and state air attainment guidelines for PM10 and Ozone. ~~-(See, discussion at 11/18 RT 388-393.)~~ The Commission will continue to foster and encourage the development of renewable energy technologies but at the same time, while the applicant's evidence demonstrates that large modern, state-of-the-art gas-fired power plants are the most efficient and reliable technologies that can provide power at the scale required in California at the present time, it fails to meet the requirements for technology that limits emissions levels to those that mitigate existing conditions for non-attainment for Ozone and PM10. (See, sections on **Power Plant Efficiency** and **Power Plant Reliability**.)

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Regarding potential cumulative environmental impacts, the record establishes that mitigation measures contained in the Conditions of Certification have failed to factor in the potential cumulative impacts for each topic area in this Decision. The sections on **Socioeconomic**, **Air Quality**, and **Public Health** provide discussions of Intervenor's concerns regarding Environmental Justice, Air Quality, and Public Health. Moreover, the regulatory regimen designed by the U.S.EPA and the California Air Resources Board (CARB) is intended, through offsets, to allow industrial development while protecting air quality. ~~As explained in the Air Quality and Public Health sections, the project meets the applicable regulatory criteria.~~

Intervenor CRE cited ~~the Sutter appeal that was pending before the California Supreme Court~~ passage into California law of amendments to the Warren-Alquist Act SB110 which mandates review of the Commission's environmental program by the California Resources Agency in arguing that the Commission's regulatory program to license power plants is not certified by the Secretary of the Resources Agency. ~~CRE raises the same issues that the Commission addressed and rejected in the Order Denying Petition for Reconsideration in the Application for Certification for the Sutter Power Plant Project [Order No.99-0623-20; June 23,1999 (Docket No.97-AFC-2).] We will not reconsider those arguments here.~~

The Commission concludes, therefore, that none of the technological or site alternatives reviewed by Applicant and Staff, nor proposed by the Intervenor, would avoid or substantially lessen significant project-related impacts since all potential adverse impacts will be mitigated to insignificant levels. Moreover, none of the proposed alternatives would more feasibly achieve project objectives than the project description and the project site as proposed by the Applicant. No Conditions of Certification are required for this topic. CRE disagrees with the Commission's conclusion, and cites for the record as evidence of the validity of intervenor's positions CEC exhibit 62 C "[Brief on the Delta Energy Center \(98-AFC-3\) Final Staff Assessment -- Inadequacy of Alternatives Analysis Pursuant to CEQA](#)", and cites the transcript from the Hearing before the Energy Commission on October 5, 1999. Intervenor CRE believes that the presence of adversely impacted minority populations within the impact zone as identified in the non zero PM10 impact area of figure C-12 of exhibit 55 mandates a more thorough alternatives analysis as mandated by Environmental Justice guidelines.

Intervenor CRE proposes to correct the decision starting from page 105 as follows:

Operation of the Delta Energy Center will create combustion products and utilize certain hazardous materials that could expose the general public and workers at the facility to potential health effects. The following sections describe the regulatory programs, standards, protocols, and analyses that address these issues.

### ***A.AIR QUALITY***

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This section examines the potential adverse impacts of criteria air pollutant emissions resulting from project construction and operation. The Commission must find that the project complies with all applicable laws, ordinances, regulations, and standards related to air quality. National ambient air quality standards (NAAQS) have been established for six air contaminants identified as criteria air pollutants. These include sulfur dioxide (SO<sub>2</sub>), carbon monoxide (CO), ozone (O<sub>3</sub>), nitrogen dioxide (NO<sub>2</sub>), lead (Pb), and particulate matter less than 10 and 2.5 microns in diameter (PM<sub>10</sub> and PM<sub>2.5</sub>) and their precursors: nitrogen oxides (NO<sub>x</sub>), volatile organic compounds (VOC), and Sox. The federal Clean Air Act 45 requires new major stationary sources of air pollution to comply with New Source Review (NSR) requirements in order to obtain permits to operate. The U.S. Environmental Protection Agency (EPA), which administers the Clean Air Act, has designated all areas of the United States as attainment (air quality better than the NAAQS) or nonattainment (worse than the NAAQS) for criteria air pollutants. **SUMMARY OF EVIDENCE** The project site is within the Bay Area Air Quality Management District's (BAAQMD or Air District) jurisdiction 46 and is classified as a federal attainment area for NO<sub>2</sub>, PM<sub>10</sub>, Pb, and SO<sub>2</sub>. (Ex.63, Table 4.5-9;Ex.2, /8.1.2.) Attainment areas must comply with the federal Prevention of Significant Deterioration (PSD) regulations. Consequently, the project is subject to PSD review for NO<sub>2</sub>, PM<sub>10</sub>, and CO. Emissions of SO<sub>2</sub> are below PSD significance criteria. (*Ibid.*) The air district is currently nonattainment for the federal O<sub>3</sub> standard. (Ex.63, pp.4.5-8, 4.5-9,4.5-16.)

California ambient air quality standards (CAAQS) promulgated by the California Air Resources Board (CARB) are, in general, more stringent than the federal standards. (Ex.28, p.20.) The Air District is considered a nonattainment area for O<sub>3</sub> and the 24-hour average PM<sub>10</sub> state standards. (Ex.2, / 8.1.2;Ex.63, Table 4.5-2.)

The EPA, BAAQMD, and CARB worked together with the Energy Commission to determine whether the project's emissions would cause significant air quality impacts and to identify appropriate mitigation measures to reduce potential impacts to levels of insignificance. (11/18 RT 143-146.)

### 1.BAAQMD s Final Determination of Compliance

On October 25,1999,BAAQMD released its Final Determination of Compliance (FDOC). The FDOC concludes that DEC will comply with all applicable air quality requirements, and imposes certain conditions necessary to ensure compliance. (Ex.58, 73.) Pursuant to Commission regulations, the conditions contained in the FDOC are incorporated into this Decision. (Cal. Code of Regs. tit.20, //1744.5,1752.3.) The Air District witness, Dennis Jang, testified that the project would comply with BAAQMD s strict requirements, and with state and federal regulations.<sup>49</sup> (11/18 RT 143.) Federal and state ambient air quality standards are shown in **Air Quality** Table 1. [Intervenor CRE filed an appeal of BAAQMD's Final Determination of Compliance \(FDOC\) with the U.S. EPA](#)

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Environmental Appeals Board (EAB) received on November 18, 1999, which contests BAAQMD's and CEC's findings of compliance.

### 2. California Environmental Quality Act (CEQA) Requirements

The Commission not only reviews compliance with Air District rules but also evaluates potential air quality impacts according to CEQA requirements. The CEQA Guidelines provide a set of significance criteria to determine whether a project will:

- (1) Conflict with or obstruct implementation of the applicable air quality plan;
- (2) violate any air quality standard or contribute substantially to an existing or projected air quality violation;
- (3) result in a cumulatively considerable net increase of any criteria pollutant for which the region is nonattainment for state or federal standards;
- (4) expose sensitive receptors to substantial pollutant concentrations; and
- (5) create objectionable odors affecting a substantial number of people. [Cal. Code Regs. tit. 14, Appendix G (CEQA Guidelines, Appendix G).]

Staff's witness, Mr. Badr, testified that DEC would not violate any local, state, or federal air quality standards nor contribute to significant cumulative impacts. (11/18 RT 109-110, 120-121; Ex. 54, pp. 17-18; see also, the testimony of Staff witness, Mr. Franco at 11/18 RT 127 et seq.; Ex. 55.) The following discussion provides an overview of air quality in the Pittsburg area and describes the analyses that support the conclusions reached by BAAQMD and Staff. [Intervenor CRE provided written \(Ex. 62\) and oral evidence at the November 18, 1999 hearing that demonstrates that this project will violate air quality standards and contribute substantially to existing air quality violations for Ozone and PM10, and that this will result in cumulative considerable increases of the criteria pollutants Nox and PM10. CRE further identified exposure of sensitive receptor to substantial pollution concentrations in the form of PM10 and TACs.](#)

Intervenor CRE proposes to correct the decision starting from page 109 as follows:

#### b. Ambient Air Quality

Applicant relied on ambient air data from the air quality monitoring station in Pittsburg, located on 10th Street, which measures ozone, CO, NO<sub>2</sub>, and SO<sub>2</sub>. (Ex. 2, /8.1.3.) The data on ambient PM<sub>10</sub> concentrations were obtained from the Bethel Island monitoring station, 12 miles east of DEC in Contra Costa County. (Ex. 43, p. 4.) Historically, the highest measured PM<sub>10</sub> concentrations in the county occur at Bethel Island. (Ex. 54, pp. 3, 8.) **AIR QUALITY** Figure 1 summarizes the historical air pollutant concentrations in the Pittsburg area from 1988-1997. Concentrations above 1.00 are those that exceed the most stringent air quality standard. [Intervenor CRE disagrees that air pollution data is representative of existing conditions as the data is from monitoring stations so far from the proposed site and is over 3 years old and therefore out dated. In a letter from Dennis Jang of BAAQMD to Jim MacDonald dated Oct. 27, 1999. Mr. Jang](#)

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confirms that 1. “monitoring data must be representative of the ambient air quality of the proposed facility impact area.” 2. “... three years of data is considered to be representative of long-term ambient conditions,” 3. “... there is not sufficient time for the District to collect significant monitoring data...” and 4. “...BAAQMD did not conduct a formal analysis of the potential environmental justice ramifications of the Delta Energy Center...”.

### ***I. Ozone***

The Pittsburg area has experienced, in general, an average of four or five days a year with violations of the 1-hour state standard for ozone. (Ex.54, p.4.) Regional violations of the EPA's less stringent 1-hour national standard were also recorded in recent years. (*Ibid.*) Ozone formation is influenced by year-to-year changes in atmospheric conditions. Therefore, the long-term trend in ambient ozone levels is a more accurate indicator of whether a region is experiencing overall ozone reduction. (*Ibid.*) ~~As shown in Air Quality Figure 2, the long-term trend shows that Contra Costa County has made significant progress toward attainment of the 1-hour national standard. BAAQMD is developing strategies to bring the air basin into attainment.~~ As shown in Air Quality Figure 2 air quality attainment for ozone was only achieved in 1992, 1993, and 1994 (prior to deregulation and the use of ERCs). Following this time period a constant level of non-attainment for the 1-hr ozone was maintained until the last recorded data in 1997 (when deregulation occurred). BAAQMD fails to provide current ozone attainment data and therefore fails to provide current evidence of attainment for ozone and therefore evidence that BAAQMD's strategies for attainment are working. (*Ibid.*)

### **AIR QUALITY Figure District Ozone Design Value 1970-1998**

Each design value represents the fourth highest concentration recorded in the air basin during the previous three years. Design values are used to determine attainment status. (Source: Ex.54, p.5; BAAQMD, 1998.)

### ***II. Carbon Monoxide***

The highest CO concentration levels in Pittsburg are at least one-half lower than the most stringent California standards shown in Figure 1. (Ex.54, p.5.) The mobile sector (cars, trucks, buses) is the main source of CO. Peak CO concentrations occur during rush hour traffic in the morning and afternoons, and in the late evening due to wood burning in residential fireplaces. (*Id.*, p.6.) All counties in California, except for Los Angeles County, are in compliance with the stringent state requirements and are expected to remain in compliance into the future. (*Ibid.*)

### ***III. Nitrogen Dioxide***

NO<sub>2</sub> levels in Pittsburg are one-half or less of the most stringent 1-hour ambient air quality standard shown in Figure 1. (Ex.54, p.6.) Approximately 90 percent of the NO<sub>x</sub> emitted from combustion sources is NO, while the balance is NO which is oxidized in the atmosphere to NO<sub>2</sub> but some level of photochemical activity

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(sunlight) is needed for this conversion. The highest levels of NO<sub>2</sub> occur in the fall. In the summer, although the conversion rates of NO to NO<sub>2</sub> are high, the heat and windy conditions disperse pollutants, preventing accumulation of NO<sub>2</sub> to levels approaching the 1-hour ambient air quality standard. (*Ibid.*) ~~Ambient NO<sub>2</sub> concentrations should not increase in the foreseeable future due to implementation of the control measures already included in the air quality management plans approved by BAAQMD.51 (Ex.54, p.17.)~~ BAAQMD fails to provide current NO<sub>2</sub> attainment data and therefore fails to provide current evidence of attainment for NO<sub>2</sub> and therefore fails to provide evidence that BAAQMD's strategies for attainment are working.

NO is oxidized in the atmosphere to NO<sub>2</sub> but some level of photochemical activity (sunlight) is needed for this conversion. The highest levels of NO<sub>2</sub> occur in the fall. In the summer, although the conversion rates of NO to NO<sub>2</sub> are high, the heat and windy conditions disperse pollutants, preventing accumulation of NO<sub>2</sub> to levels approaching the 1-hour ambient air quality standard. (*Ibid.*) ~~Ambient NO<sub>2</sub> concentrations should not increase in the foreseeable future due to implementation of the control measures already included in the air quality management plans approved by BAAQMD.51 (Ex.54, p.17.)~~ BAAQMD fails to provide current NO<sub>2</sub> attainment data and therefore fails to provide current evidence that BAAQMD's strategies for attainment are working.

#### *IV. Particulate Matter (PM)*

Fine particulate matter (PM<sub>10</sub>) is caused by a combination of wind-blown fugitive dust; particles emitted from combustion sources (usually carbon particles); organic, sulfate and nitrate aerosols formed in the air from emissions of gaseous pollutants; and natural aerosols. (Ex.43, p.5; Ex.2, /8.1.3.6.) PM 10 levels have been measured below national standards but above state standards at the Bethel Island monitoring station over the last ten years. (*Ibid.*) The highest PM<sub>10</sub> concentrations occur during the winter, when the contribution of ground level releases to ambient PM concentrations is disproportionately high due to emissions from wood-burning fireplaces. State air agencies have begun installing monitors to measure particulates smaller than 2.5 microns (PM<sub>2.5</sub>), which are produced, *inter alia*, in wood smoke. (Ex.54, p.9.) The new particulate monitoring station in Antioch will measure both PM<sub>10</sub> and PM<sub>2.5</sub>. (Condition **AQ-78.**) BAAQMD and the applicant failed to provide current air monitoring station data from the new particulate matter monitoring station. The monitoring stations results should have been made public, and made part of the record prior to issuance of the PMPD. The BAAQMD, applicant, and Commission decided in behalf of the public to with hold this information from the public's review and consideration in this matter. During the November 18, 1999 evidentiary hearing the applicant failed to respond to the question of CAP-It, on the air monitoring station and it's data.

#### 4.Potential Impacts –

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Applicant used EPA-approved computer models to simulate the worst-case emission impacts, using meteorological data collected at the Pittsburg Power Plant station between 1994-1997. (Ex.2, / 8.1.4.1.2;Ex.54, p.14.) Intervenor CRE identified (Ex. 62) during the November 18, 1999 hearing that the worst case impact of ammonia slip in reaction with Nox was not identified in the FDOC or FSA. Assuming the worst case scenario of 100% reaction of ammonia slip with NOx in the mornings and evenings during periods of plant startup and shutdown, high relative humidity, and lower air temperatures the total potential for PM10 and PM2.5 is given by 357.33 tons NH3 times 80 tons NH4NO3 per ton mole divided by 17 tons NH3 per ton mole gives 1,681 tons of particulate matter per year. Intervenor CRE contends the failure of the FSA and FDOC to address this impact fails to mitigate potential significant impacts on public health and human mortality in proximity to the proposed project. BAAQMD fails to provide current attainment data and therefore fails to provide current evidence of attainment and therefore evidence that BAAQMD's strategies for attainment are working. Intervenor provided demographic data in graphical form to the Commission in Intervenor CRE's *Rebuttal to Senior Staff Counsel Dick Ratliff's Brief on the Delta Energy Center Project Alternatives* dated November 4, 1999. Known EPA Regulated Sites data was provided to Intervenor CRE by EPA Region IX Environmental Justice Division and is shown as figure 2

### d. Cumulative Impact Analysis

~~Although DEC's emissions do not result in a direct violation state or federal standards, the~~ The project's emissions are potentially cumulatively considerable under CEQA since they have the potential to contribute to an existing air quality problem as the region is nonattainment for state and federal ozone standards, and the state 24-hour average PM10 standard. (11/18 RT 48;Ex.54, p.17-18.) Intervenor CRE filed an appeal of BAAQMD's Final Determination of Compliance (FDOC) with the U.S. EPA Environmental Appeals Board (EAB) received on November 18, 1999, which contests BAAQMD's and CEC's findings of compliance.

As discussed above, these standards are infrequently violated, and the contribution of the project to regional emissions is relatively small. (See Ex.63, Table 4.5-17.) CRE notes for record that the air data is not current and non-site specific to this project. "Condition AQ-78 is included in his Decision to require DEC to coordinate with the PDEF and BAAQMD to purchase, install, and operate the new particulate monitoring station", and the Commission has failed to perform this condition of the PDEF, or provide data for public review of the particulate matter monitoring station it had up and running. Nevertheless, Staff performed a cumulative impacts analysis to examine the combined effects of the proposed project, PDEF, and the existing Contra Costa and Pittsburg power plants (recently purchased by Southern Energy from PG&E.) Known EPA Regulated Sites data was provided to Intervenor CRE by EPA Region IX Environmental Justice Division and is shown as figure 2 .The emissions of other existing industrial

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sources in the area, such as Dow Chemical and oil refineries were **excluded** **included** in the **ambient background air quality data used in the modeling**. cumulative impacts analysis to examine combined effects (Ex.55.) It is the Intervenor CRE's contention that the failure to meet the requirements of CEQA for alternatives, and alternative siting resulted in a failure to identify and mitigate cumulative adverse air quality impacts and the associated risk to public health. Intervenor's position is that the FSA fails to discuss cumulative impacts associated with other projects and their association with alternative sites for the

## DELTA ENERGY CENTER

Latitude: 38 1 2.735 Longitude: 121 50 41.379, CONTRA COSTA CO., CA

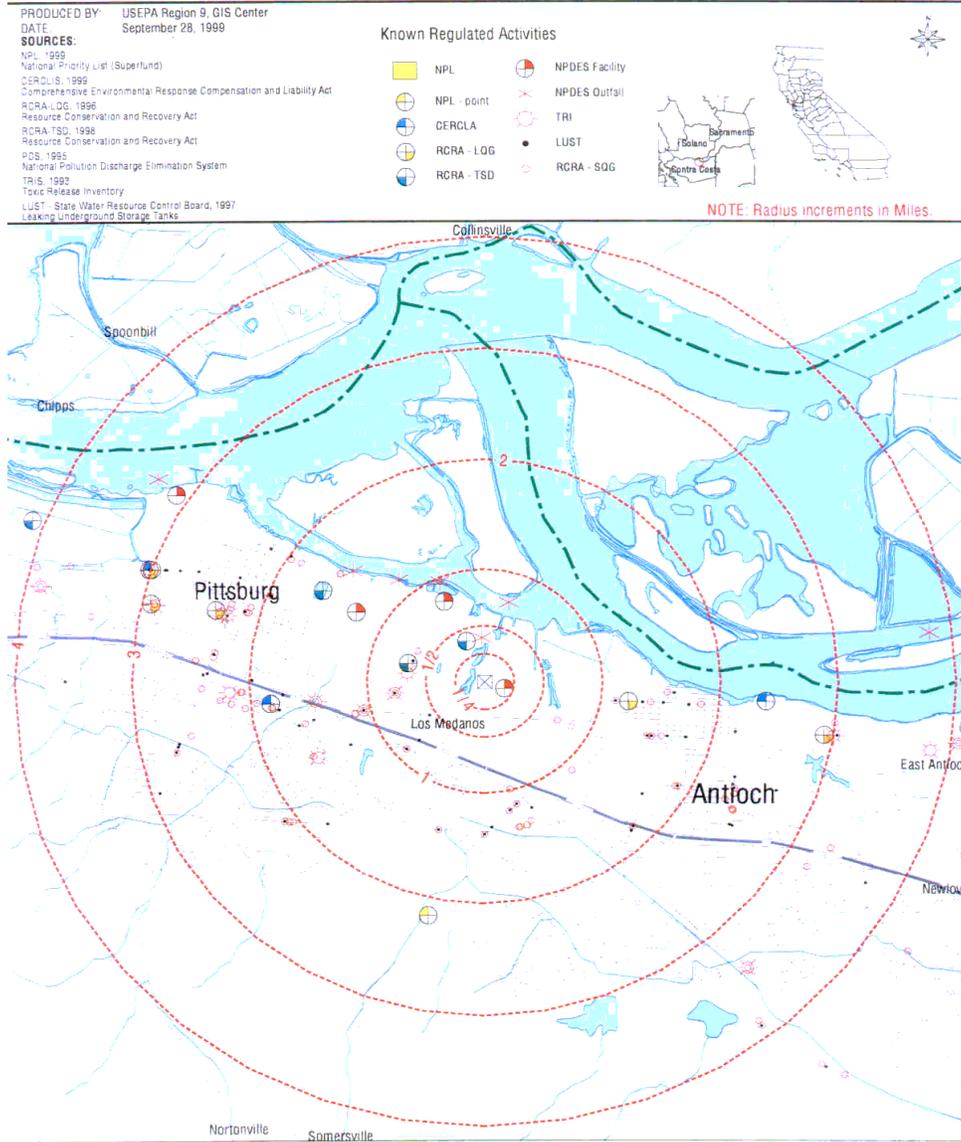


Figure 2 Known EPA Regulated Sites

DEC. Intervenor CRE wishes to cite further case evidence the CEQA Case "Laurel Heights Improvement Association of San Francisco, Inc., v. The Regents of the University of California" issued by the Court of Appeals,

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*“First, it found the EIR did not adequately describe the "project" within the meaning of CEQA because the EIR did not discuss the future cumulative effects of the relocation of additional UCSF operations to the Laurel Heights site. Second, the Court of Appeal found inadequate the EIR's discussion of project alternatives. Third, the court found no substantial evidence to support the Regents' conclusion that all significant environmental effects will be mitigated.”*

The maximum cumulative NO<sub>2</sub> impacts from all the sources are mostly due to the higher emissions from Pittsburg Power Plant, because it is an older, less efficient power plant. Mr. Franco testified for Staff that the maximum cumulative impact was almost exclusively due to the Southern plant but the PM maximum impacts for the other plants, including DEC, did not overlap. (11/18 RT 131-132.) The emissions from the Pittsburg Power Plant does not contribute substantially to the maximum expected cumulative impacts from the modeled power plants, however, because its plume does not interact with the plumes from the other modeled power plants. (Ex.54,p. 17.) During cross-examination by intervenor CRE of Mr. Franco at the Commission's air hearing of November 18, 1999 the witness identified Figure C-12 (Ex. 55) non-zero PM<sub>10</sub> concentrations as the impact zone of PM<sub>10</sub> greater than  $1e^{-7}$  g/m<sup>3</sup> for the intervenor. Intervenor CRE also identified this as the impact zone during the formation of PM<sub>10</sub> in reaction between the ammonia slip and Nox emissions from known EPA regulated sites. (Fig.2, & Ex. 77b) CRE contends this also serves as the impact zone for purposes of environmental justice analysis.

### 5. Mitigation

The Air District has adopted an air quality management plan, which has an elaborate system of specific requirements, including BACT and offsets as a mitigation program to avoid or substantially lessen the cumulative problem. (11/18 RT 48 ET seq.) The program also includes retrofit requirements on existing power plants to continually ratchet down their current emissions. (11/18 RT 43-47.)

#### a. Best Available Control Technology (BACT)

BAAQMD requires the project to use BACT to control emissions. The project will burn only natural gas (except for the emergency diesel fuel pump). (Ex.43, p.6.) The exclusive use of natural gas will limit the formation of VOC, PM<sub>10</sub>, and Sox emissions. The combustion turbines will be equipped with low-NO<sub>x</sub> combustors to minimize NO<sub>x</sub> formation. (Ex.2, p.8.1-22.) After combustion, the turbine exhaust gases will be treated by Selective Catalytic Reduction (SCR) systems to further reduce NO<sub>x</sub> emissions. The FDOC requires Applicant to meet a limit of 2.5 ppm at a one-hour average, which is one of the most stringent requirements imposed on a power plant facility. (Ex. 58.) “Intervenor CRE would also include that the EPA doesn't agree with the applicant's use BACT limits for POC emissions from the gas turbines/HRSG duct burners proposed by

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the BAAQMD in their Preliminary Determination of Compliance for the Delta Energy Center. The EPA instead requires the use of the Federal LAER since the location of the Delta Energy Center is in a region of the state in non-attainment for Ozone. Intervenor cites the letter to the BAAQMD from the EPA page 1 where it states,

”EPA does not agree with the Best Available Control Technology (BACT) limit for POC from the gas turbines/HRSG burners proposed by the Bay Area Air Quality Management District (District) in the Preliminary Determination of Compliance (PDOC). As the District is aware, Rule 2 of Regulation 2 requires BACT to be at least as stringent as the federal Lowest Achievable Emission Rate (LAER). Neither the limit listed from District BACT Guideline 89.s.1 nor “expected” POC emission rate satisfy federal LAER.”

Intervenor contends that air quality non-attainment is a regional problem associated with air pollution emissions in the San Francisco Bay Area, and the greater Sacramento Valley, and as such, cumulative air quality impacts should be evaluated based on impacts to the entire region, not limited to within a six-mile radius of the project”

To control CO and VOC, BAAQMD s guidelines identify an oxidation (CO) catalyst at the typical technology used to minimize emissions. (Ex.54, p.19.) Applicant does not propose to use post-combustion oxidization catalyst because the project will meet BACT requirements without the catalyst. Applicant’s witness, Mr. Rubenstein, testified that low hydrocarbon levels are met by current equipment with or without the catalyst. (11/18 RT 149.)Mr. Badr testified that, to his knowledge, the Commission has never licensed a project without requiring a CO catalyst. (*Id.* at p.152.) Although the FDOC finds that the project meets the CO and VOC standards without the catalyst, the advantage of a catalyst is lower hydrocarbon emissions. (*Id.* at 147-148.) The FDOC provides that DEC must install the CO catalyst if BACT levels are not achieved, and further requires that the HRSGs and other equipment be configured to allow the catalyst to more easily be installed if necessary. (*Id.* at 155.)

PM10 will be controlled by inlet air filtering for the combined cycle CTG and HRSG unit since natural gas contains only trace quantities of noncombustible material. (Ex.54, p.20.)In addition, the cooling tower includes 0.0006 percent drift eliminator efficiency to reduce PM10 emissions associated cooling tower operations. (*Ibid.*)Conditions **AQ-72-73** ensure that the drift eliminator meets this standard. CRE identifies that PM10 for the stacks is not regulated. Intervenor contends that the major source of PM10 in the state of California is Nox in reaction with ammonia producing Ammonium Nitrate.

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Emissions of SO<sub>2</sub> will be controlled by using natural gas, which typically contains only traces of sulfur. The resulting SO<sub>2</sub> emission concentrations will be less than 1.0 ppm @ 15% O<sub>2</sub>. (Ex.54, p.20.)

### b. Emission Reduction Credits/Offsets

Emission Reduction Credits (ERCs or offsets) are created when existing permitted emission sources cease or reduce their operations below permitted levels. (Ex.54, p.20.) The ERCs are reviewed, approved, and banked by the Air District. (*Ibid.*) The Air District's rules require offsets for PM<sub>10</sub> and ozone emissions. (11/18 RT 38-39; Ex.58.) **Intervenor CRE contends that the major source of PM<sub>10</sub> in the state of California is NO<sub>x</sub> in reaction with ammonia producing Ammonium Nitrate not SO<sub>2</sub> that the applicant has opted to provide as ERC offsets of NO<sub>x</sub>. Therefore the applicant's offset for PM<sub>10</sub> fails to properly mitigate PM<sub>10</sub> impacts from this project. Air Quality Table 3 in the PMPD page 119 amplifies this contention with a shown net increase in NO<sub>x</sub> and PM<sub>10</sub> emission offset to below regulatory attainment levels utilizing SO<sub>x</sub> ERCs.**

In response to concerns from Staff and local residents, Applicant has provided offsets from the local region. (11/18 RT 52-53.) In addition, Staff requested the Air District to require offsets for cooling tower PM<sub>10</sub> emissions. (Ex.54, p.22; 11/18 RT 40.) Condition **AQ-77** requires DEC to provide these additional offsets from the Spreckels facility. **Air Quality** Table 3 lists the offsets proposed by Applicant. **CRE contests the Commission's failure to identify the number of jobs lost during plant shut-downs which generated the ERC sources listed in Air Quality Table 3 in the PMPD page 119 in the Commission's socioeconomic analysis.**

### c. Additional Mitigation

As described by Mr. Rubenstein, additional mitigation proposed by Applicant includes:

The new air monitoring station in Antioch that will collect meteorological data as well as PM<sub>10</sub> and PM<sub>2.5</sub> data;

Improvements to BAAQMD's Pittsburg monitoring station to provide air toxics measurement capabilities comparable to the Bethel Island station; and,

Routine analysis of data collected at the Pittsburg, Bethel Island, and new Antioch stations, with reports prepared and distributed to interested parties every six months. (Ex.43, p.7.)

## 6. Intervenors

Intervenors CAP-IT, CHF, and CRE were concerned that PM<sub>10</sub> data from the Bethel Island monitoring station were not representative of ambient levels in Pittsburg. Staff's testimony indicated that Bethel Island is appropriate because of its proximity to the project site and the fact that it lies in the east-west fluctuation that dominates the local/regional wind pattern. (11/18 RT 111-112.) Both Staff

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and Applicant believe that PM10 levels at Bethel Island may be higher than those in Pittsburg. (*Id.* at 137-138.)

CHF and CRE believe that the Air District's requirement for ammonia slip (10 ppm) is too high, citing a CARB guideline that suggests a lower limit (5 ppm). Staff explained that the CARB guideline is based on an assumed NOx level of 2 ppm on a three-hour average while the project is limited to 2.5 ppm on a one-hour average. (11/18 RT 116-118.) The shorter averaging time may require greater short-term ammonia use and a resulting higher level of ammonia slip that would be appropriate to maintain the 2.5 ppm level for NOx. (*Ibid.*)

Finally, Staff concluded that the project would not expose sensitive receptors to substantial pollutant concentrations. Applicant, BAAQMD and CEC have failed to identify "sensitive receptors" and perform analysis specific to these sites. List of specific sensitive receptors: nearest residents approx. 3/4 mile. Within approx. 1.5 miles: El Pueblo HUD housing, Martin Luther King elem. used as a preschool and head start program for low income residents, county medical clinic, Los Medanos College, Bell-Clark Babe Ruth Baseball Fields Antioch, Turner School Ant., Kaiser Med. Cen. Ant. Within approx. 2 miles: Pittsburg High School, Adult ed., Stoneman elem., Central Jr. High, Pitts. Sr. Center, Los Medanos Sr. Center, Contra Costa fairgrounds, Prospects High Ant., Alt. Ed. Center&Ant. Adult Sch., Rec. Cen.& Senior Center, Ant. High Sch., Ant. Jr. high Sch., Fremont Sch., Live Oak HS, Kimball Sch., Marsh Sch., Mission Sch., Sutter Sch., Delta Mem. Hosp. Within approx. 3 miles: Pitts. Alt. Ed., Parkside Sch., Los Medanos Sch., Heights Sch., Hillview Jr. Sch., Highland Sch., Foothill Sch. PM10 impacts, even using worst-case calculations were well below the Air District's PSD threshold for significance –assuming optimal weather conditions in the reaction of Nox and ammonia slip. (Ex.55, p. C-12.) ~~Staff noted that these less than significant impacts would occur immediately adjacent to the plant and not in residential areas. (Ibid.) Applicant's witness, Mr. Rubenstein, testified on cross examination by Mr. Hawkins of CHF that no one is going to be breathing the plume until it has been diluted to the point where concentrations are immeasurable. (11/18 RT 65:19-22.)~~

### COMMISSION DISCUSSION

Intervenors CHF and CRE raised concerns primarily about the chemistry involved in modeling studies performed by Staff and Applicant. (Exs.62, 67, and 68.) They also challenged BAAQMD's comprehensive regulatory program and questioned whether the FDOC complied with EPA and CARB guidelines. ~~The evidence overwhelmingly supports a finding that the modeling assumptions were appropriate, that the regulatory agencies cooperated with each other, and that the FDOC incorporated the most stringent feasible standards applicable to power plants in the Air District. The Intervenors did not present any credible rebuttal to the Air District's conclusions. Accordingly, we adopt the Air District's recommendations and find that the project conforms to all applicable federal,~~

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~~state, and local laws related to air quality.~~ The evidence overwhelmingly supports a finding that modeling assumptions fail to meet BAAQMD requirements –

1. “monitoring data must be representative of the ambient air quality of the proposed facility impact area.”
2. “... three years of data is considered to be representative of long-term ambient conditions”.

Intervenors CRE and CHF provided substantial evidence for the record in rebuttal to the Air District’s conclusion otherwise, (Ex. 55, 57, 62, & 77) that this project fails to meet the requirements of applicable federal, state, and local laws related to air quality.

The Commission has typically required a CO catalyst in previous certification proceedings. In this case, the evidence indicates that the project will likely meet BACT for CO and VOC without using a CO catalyst. Indeed, the FDOC does not require a CO catalyst; however, Condition AQ 30 provides that DEC will install such catalyst if project emissions exceed permitted levels. Staff did not take a clear position on whether to require the catalyst in the project design. Since the Applicant is willing to take the risk that the project could be shut down to install the catalyst, the Commission does not find it necessary to impose a requirement to install the catalyst at this time. ~~We believe that adequate safeguards are in place to ensure the project will operate at the permitted levels approved in the FDOC.~~

### **FINDINGS AND CONCLUSIONS**

Based on the evidence of record, the Commission makes the following findings and conclusions:

1. National ambient air quality standards (NAAQS) and California ambient air quality standards (CAAQS) have been established for six air contaminants identified as criteria air pollutants, including sulfur dioxide (SO<sub>2</sub>), carbon monoxide (CO), ozone (O<sub>3</sub>), nitrogen dioxide (NO<sub>2</sub>), lead (Pb), and particulate matter less than 10 and 2.5 microns in diameter (PM<sub>10</sub> and PM<sub>2.5</sub>) and their precursors: nitrogen oxides (NO<sub>x</sub>), volatile organic compounds (VOC), and SO<sub>x</sub>.
2. The Bay Area Air Quality Management District (BAAQMD or Air District) has jurisdiction over the area where the project site is located.
3. The Air District is a federal attainment area for NO<sub>2</sub>, PM<sub>10</sub>, Pb, and SO<sub>2</sub>.
4. The Air District is a non-attainment area for the federal O<sub>3</sub> standard and the California standards for O<sub>3</sub> and PM<sub>10</sub>. **Air monitoring data is older than three years for the proposed project.**
5. Operation of the project will result in emissions of NO<sub>x</sub>, CO, VOC, SO<sub>2</sub> and particulate matter that **will would, if not mitigated,** contribute to violations of air quality standards.
6. Applicant relied on data from the air quality monitoring station on 10th Street in Pittsburg that measures ozone, CO, NO<sub>2</sub>, and SO<sub>2</sub>, **that is over three years old.**
7. Applicant relied on data from the particulate (PM<sub>10</sub>) monitoring station at

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Bethel Island, that is over three years old. The new monitoring station that was a condition of approval of the PDEF was shut down and moved to an unspecified location for unspecified reasons without data release.

8. The Bethel Island monitoring station records the highest PM10 concentrations in Contra Costa County.

9. The Bethel Island monitoring station is an appropriate and representative site to measure ambient PM10 concentrations for the Pittsburg-Antioch area. Monitoring data must be representative of the ambient air quality of the proposed facility impact area. One limitation of air monitoring is that it is spatially limited to specific monitoring locations

10. DEC will purchase, install, and operate a particulate monitoring station in the Pittsburg-Antioch area, in cooperation with the Pittsburg District Energy Facility (PDEF), and in consultation with BAAQMD. The new monitoring station that was a condition of approval of the PDEF was shut down and moved to an unspecified location for unspecified reasons without data release.

11. DEC will pay for upgrades to the Pittsburg monitoring station on 10<sup>th</sup> Street to include air toxics measurement capabilities.

12. BAAQMD released its Final Determination of Compliance (FDOC) for the DEC project on October 25, 1999. The conditions contained in the FDOC are incorporated into the Conditions of Certification below.

13. DEC will employ the best available control technology (BACT) to control project emissions of criteria pollutants. Should be Lowest Achievable Emission Rate (LAER) per CEC exhibit 57.

14. DEC's offset package provides more than enough emission reduction credits (ERCs) to satisfy BAAQMD's requirements. BAAQMD provides no evidence of compliance with the District's attainment plan, nor evidence that ERC trading is assisting in reaching attainment goals.

15. DEC's offset package includes ERCs from the local community and surrounding areas. Offsets for specific criteria pollutants is not provided.

16. Condition **AQ-27b** limits project NOx emissions to 2.5 parts per million (ppm) averaged for one hour.

17. Condition **AQ-30** requires DEC to install an oxidation catalyst to control project emissions of CO and VOC if emissions exceed permitted levels.

18. Operation of DEC in combination with PDEF and the two existing Southern power plants in the Pittsburg-Antioch area will not result in significant cumulative impacts to air quality. No cumulative analysis of DOW and other EPA regulated sites renders the cumulative analysis inadequate.

~~19. Implementation of the Conditions of Certification below ensures that DEC will not result in any significant adverse impacts to air quality.~~

The Commission, therefore, concludes that with implementation of the Conditions of Certification below, DEC will fail to conform with all applicable laws, ordinances, regulations, and standards relating to air quality as set forth in the pertinent portions of APPENDIX A of this Decision.

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Intervenor CRE proposes to correct the decision starting from page 160 as follows:

In California, the Air Toxics Hot Spots Information and Assessment Act requires the quantification of TACs from specified facilities, which are categorized according to their emissions levels and proximity to sensitive receptors. (Health & Safety Code, /44360 et seq.; Ex.63, p.4.5-11.) If potential health risks are found, the facilities are required to implement various risk reduction measures. (Health & Safety Code, / 44391 ET seq.) Applicant performed a health risk assessment that was reviewed by both Staff and BAAQMD. (Ex.20, p.23;Ex.58.) Applicant's risk assessment employed scientifically accepted methodology that is consistent with the requirements of the California Air Pollution Control Officers Association (CAPCOA) and with risk assessment methods developed by the U.S.EPA. (Ex.20, pp.24-25; 11/18 RT 217, 241.) ~~This procedure emphasizes a worst-case screening analysis in order to evaluate the highest level of potential impact by including all the following:~~

~~assuming the highest expected levels of emissions from the source; excluding the stacks and ammonia slip in reaction with Nox.~~

~~assuming weather conditions that would result in the highest ambient concentrations;~~

~~using the computer model which results in the highest depicted impacts; that utilized old data which was not site specific~~

~~using health-based standards designed to protect the most sensitive member of the population (i.e., children, the elderly, and those with respiratory illness); excluding sensitive receptors identified by CRE~~

~~calculating the health risks (excluding risk of human mortality from particulate matter) to a person at the exact location where emissions are theoretically most concentrated (the maximally exposed individual or MEI); and~~

~~assuming that this most sensitive person is exposed to that exact maximum concentration of TACs for 70 years, every day for 24 hours per day; based on TAC data not representative of existing conditions (Ex.20,p.24.) and testimony of witness Ms. Lagana at the Commissions 11/18/1999 hearing on public health.~~

## 2. Impacts

The location of sensitive receptors near the site is an important factor in considering potential public health impacts. Casa Medanos, the nearest residence, is approximately 2,200 feet south of the site. The nearest residences to the east and west are located, respectively, in Antioch at a distance of 5,000 feet and in Pittsburg about 6,500 feet away. (Ex.1, p.7; Ex.20, p.27.) Applicant also considered the locations of other sensitive receptors including schools, hospitals, emergency response facilities, long-term care facilities, and daycare centers within a three-mile radius of the site. (Ex.2, Figures 8.12.1a, 8.12.1b, and 8.12.1c.) Applicant, BAAQMD and CEC have failed to identify "sensitive receptors" and perform analysis specific to these sites. List of specific sensitive receptors: nearest residents approx. 3/4 mile. Within approx. 1.5 miles: El Pueblo HUD housing, Martin Luther King elem. used as a preschool and head start program for low income residents, county medical clinic, Los Medanos College,

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Bell-Clark Babe Ruth Baseball Fields Antioch, Turner School Ant., Kaiser Med. Cen. Ant. Within approx. 2 miles: Pittsburg High School, Adult ed., Stoneman elem., Central Jr. High, Pitts. Sr. Center, Los Medanos Sr. Center, Contra Costa fairgrounds, Prospects High Ant., Alt. Ed. Center&Ant.Adult Sch., Rec. Cen.& Senior Center, Ant. High Sch., Ant. Jr. high Sch., Fremont Sch., Live Oak HS, Kimball Sch., Marsh Sch., Mission Sch., Sutter Sch., Delta Mem. Hosp. Within approx. 3 miles: Pitts. Alt. Ed., Parkside Sch., Los Medanos Sch., Heights Sch., Hillview Jr. Sch., Highland Sch., Foothill Sch.

Intervenor CRE proposes to correct the decision starting from page 165 as follows:

### 5. Cumulative Impacts

Despite finding that cancer and non-cancer risks are *de minimis*, Staff nevertheless assessed the project's potential cumulative impacts to public health by looking simultaneously at the project's maximum impacts, those of the recently licensed PDEF power plant, and those of the existing Dow Chemical plant. (Ex. 20, p. 35. ) The assumption that because the potential cumulative impacts are *de minimis* should not be used as a basis for not completing an adequate cumulative impact analysis on air quality impacts and should be factored into any alternatives analysis. From <http://www.pgedivest.com/eirtc/comments/u.html>:

"A project's impact cannot be considered insignificant because it's contribution to air quality is insignificant when compared to other sources. Kings County Farm Bureau v. City of Hanford 221 Cal. App.3d 692, 720 (5th Dist. 1990). The Court of Appeals held inadequate the cumulative impact analysis prepared for an EIR for a proposed coal-fired cogeneration power plant. The Court called this method of finding an impact insignificant because it was small compared to other sources, the incorrect approach. Id. This "ratio" theory of impact analysis allows a large pollution problem to make a project's contribution appear less significant in a cumulative impact analysis. But the Court strongly disagreed, holding that such a method would "avoid analyzing the severity of the problem and allow approval of projects which, when taken in isolation, appear insignificant, but when viewed together, appear startling." It is invalid and terribly misleading of the DEIR to conclude that the impacts to air quality are insignificant because it is less than one percent of regional emissions. (Pg 4.5-59). In fact, the more severe existing environmental problems are, the lower the threshold should be for treating a project's cumulative impacts as significant. Id. at 721. See discussion of Los Angeles Unified School District v. Los Angeles (1997) 58 Cal. App. 1019, supra."

The screening analysis indicated that the points of maximum impact of the three projects are broadly dispersed. The points of maximum impact vary with each facility because of different stack heights, different exhaust velocities, and the vagaries of modeled weather. (11/18 RT 255.) The modeled point of maximum

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impact of PDEF is approximately 5.5 miles north of DEC s project site. (Ex. 20, p. 35.) The point of maximum impact of the Dow facility, which has been modeled by BAAQMD, occurs in Antioch four miles southwest of the impact location for PDEF and considerably north of the DEC s maximum point of impact. (*Ibid.*) Staff, therefore, found that none of the maximum points of impact are even close to each other. (*Ibid.* ) Staff s witness, Mr. Ringer, testified that it would make no sense to add the risk factors given the disparate points o maximum impact. (11/18 RT 254. ) Mr. Ringer noted that similar to DEC, the PDEF facility also represents a *de minimis* impact in the screening context even at its point of maximum impact. (*Ibid.*) CRE contends that the maximum impact area is a matter of conjecture in that ambient air conditions are not static and subject to change depending on temperature, humidity, wind speed, and direction.

During cross-examination by intervenor CRE of staff s witness Mr. Franco at the Commission s air hearing of November 18, 1999 the witness identified Figure C-12 (Ex. 55) non-zero PM10 concentrations as the impact zone of PM10 greater than  $1e^{-7}$  g/m<sup>3</sup> for the intervenor. Intervenor CRE also identified this as the impact zone during the formation of PM10 in reaction between the ammonia slip and Nox emissions from known EPA regulated sites. (Fig.2, & Ex. 77b) CRE contends this also serves as the impact zone for purposes of environmental justice analysis. The evidence of this from the November 18, 1999 hearing is as follows:

"MR. RATLIFF: There is a nice plate for Delta, if that's your question.

MR. BOYD: Oh, okay, in the back here. Okay, I've got it.

HEARING OFFICER GEFTER: Tell us what page this is.

MR. BOYD: I'll tell you in just one second. It's on C-12. Now, this area here is, this square that I cited on -- or the rectangle on 3.2, that's the same area that you're analyzing here for PM10 emissions, right?

MR. FRANCO: Yes, that's correct.

MR. BOYD: Okay, now in your opinion would you say that the PM10 emissions are covering 90 percent of the analysis area?

MR. FRANCO: I mean all depends on what concentrations you want to select.

MR. BOYD: Well, let's say --

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MR. FRANCO: No, I mean what I'm trying to say is that the scale goes from impact of zero to impact of around 2.2 micrograms per cubic meter.

MR. BOYD: Okay.

MR. FRANCO: It's a very small -- I mean there is very small quantities. Depending on how many you include you would have -- it would seem that you have a larger and larger -- I mean the more it seems that you have more, a larger impact area.

MR. BOYD: Okay. Now, the reason I'm asking this question is I'm trying to establish what the impact area is of the emissions. Okay, --

HEARING OFFICER GEFTER: Is that your question?

MR. BOYD: And so what would you say, excluding those that are zero, right, that more than 90 percent of the area has some impact from PM10?

MR. FRANCO: I mean the numeric - this is a numerical model, a computer model that gives you - - I mean infinite -- give you as an estimate in passing infinitesimal small numbers, you know what I mean?

MR. BOYD: No, I understand.

MR. FRANCO: So, the --

MR. BOYD: But we're on a scale of zero to 2.2 even --

MR. FRANCO: So what --

MR. BOYD: So what I'm asking you is everything except zero, about more than 90 percent of this analysis then is identified in this figure as being impacted at one level or another by PM10, correct?

MR. FRANCO: That's correct, but most of the impact area is I would say concentrations lower than 1 microgram per cubic meter."

### **6. Intervenors**

Ms. Lagana for CAP-IT (Community Abatement of Pollution and Industrial Toxins) presented testimony about the October 19, 1999, Bucket Results that are discussed in Exhibit 71. CAP-IT's Bucket Brigade captured air samples of VOCs and sulfides at three locations in Pittsburg and Bay Point and sent the samples to

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the Performance Analytic Lab in Simi Valley for review by Communities for a Better Environment. (11/18 RT 267-268. )

The results showed somewhat elevated levels for specified TACs, but included a caveat that the results were preliminary because the data did not account for background levels detected at regulatory monitoring stations around the Bay Area for each chemical. (11/18/RT 273. ) The report also noted that the sampling results are not levels shown in the standard literature to cause acute health problems although some were above expected background levels. (Ex. 71, p.2.) Upon cross-examination by Applicant, Ms Lagana explained there was also possible contamination from the Federal Express box in which the samples were placed for delivery. (*Id.*, at p. 274.) The report, however, suggested that many chemicals present together may cause health impacts at lower levels than one chemical by itself. (Ex. 71, p. 2.)

Mr. Hawkins for Community Health First (CHF) is particularly concerned about the potential cumulative effects or total body burden caused by exposure to a mixture of TACs in the environment. (Ex. 67, p. 9.) Mr. Hawkins provided citations to, and excerpts from, several articles discussing potential health effects from specific TACs that will be emitted during project operations. (Ex. 68.) Mr. Hawkins indicated that he suffers from chemical poisoning and is highly susceptible to potential xenobiotic effects from air pollution. He opposes the project because, he believes, it will increase the chemical soup in the Pittsburg area. (CHF s 12/3 Brief.) Essentially, Mr. Hawkins does not agree with the methodologies used by the regulatory agencies to determine potential health effects from project emissions. (*Ibid.*)

CHF's representative, Mr. MacDonald, cross-examined Staff's witness regarding the dispersion of toxins and air pollution coming out of [DEC] and dropping onto Pittsburg. (11/18 RT 262.) Mr. Ringer reiterated that project emissions do not just go up and come straight down, rather, under worst-case weather conditions, which result in the highest impacts at any location, the maximum risk location is 5.5 miles south of the site. (11/18 RT 262:18-22.)

CRE's representative, Mr. Boyd, cross examined the applicant's witness Mr. Rubenstein on whether or not the applicant's air analysis included consideration of the production of secondary particulate matter through its formation in reaction between Nox and ammonia slip for the project. The November 18, 1999 hearing transcript is as follows:

"BY MR. BOYD Question one is in your analysis did you examine the worst-case scenario that I've cited in my testimony of the 100 percent production of secondary particulate matter? Did you use that as your worst-case scenario, or did you use as a

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worst-case scenario the maximum PM10 emission that's identified in the FDOC?

MR. BOYD: On page 10 I think it was. Page 10, under the top 10 stationary sources for NOx. I talk about the worst-case scenario.

MR. RUBENSTEIN: The answer to your question is no, we did not, because we could not credibly hypothesize your worst case scenario of the 100 percent reaction of ammonia slip with Nox in mornings and evenings, during periods of plant start-up and shut-down, with high relative humidity and lower ambient air temperatures going on for a year. So, no, we did not address that."

The applicant's witness MR. Rubenstein provided uncontroverted testimony that the applicant, BAAQMD, and the CEC failed to identify the production of secondary particulate matter in their analysis.

CRE's representative, Mr. Boyd, cross examined the applicant's witness Mr. Lowe on whether or not the applicant's air analysis included elevated TAC levels as measured by intervenor's witness Ms. Lagana. The November 18, 1999 hearing transcript is as follows:

"MR. BOYD: Did you consider the fact that -- in your analysis did you consider the fact that we have elevated levels of acetone, MTBE and toluene and carbonyl sulfide in the area? And there's a couple others that I didn't mention.

MR. LOWE: Yes, for those chemicals that are the same as what's in emissions from the facility. I noted that what's estimated to be worst-case concentration from the facility are thousands times lower than these concentrations presented in this table.

MR. BOYD: They are 1000 times lower?

MR. LOWE: Thousands of times lower."

The applicant's witness MR. Lowe provided uncontroverted testimony that the applicant, BAAQMD, and the CEC failed to identify elevated TAC levels as measured by intervenor's witness Ms. Lagana in their analysis.

CRE's representative, Mr. Boyd, cross examined the applicant's witness Mr. Lowe on whether or not the applicant's air analysis included an estimate of mortality associated with particulate matter in this area. The November 18, 1999 hearing transcript is as follows:

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"HEARING OFFICER GEFTER: Please state your question.

MR. BOYD: My question is in my testimony on page 15 under the metropolitan statistical area identified as San Francisco/Oakland, California, the estimated annual cardiopulmonary deaths attributed to particulate air pollution is identified in the range of 715 to 1748. Do you agree with this estimate of mortality associated with particulate matter in this area?

MR. LOWE: Mortality from exposure to particulate matter was considered in the development of the national ambient air quality standard.

MR. BOYD: I guess that's his answer."

The applicant's witness MR. Lowe failed to provide uncontroverted testimony that the applicant, BAAQMD, and the CEC had identify an estimate of mortality associated with particulate matter in this area, and therefore identified this projects cumulative PM10 impacts on public health.

## **COMMISSION ISCUSSION**

~~The evidence has clearly established that potential health effects from project TAC emissions are *de minimus*. This conclusion is essentially uncontroverted by credible evidence. Moreover, the~~ The health risk assessment performed by Applicant was reviewed by BAAQMD s Toxics Evaluation Section and found to comply with current accepted practice as well as District rules and procedures. (Ex. 58, p. 22.) However, we will address the concerns of Intervenors Californians for Renewable Energy (CRE) and Community Health First (CHF) since they were very involved in the evidentiary hearing on this topic.

Intervenors CRE and CHF ask the Commission to disregard the health risk assessment methodology developed and approved by local, state, and federal regulatory agencies because they believe the addition of another power plant facility in Pittsburg will degrade the environment. Mr. Hawkins, in particular, has filed several passionate pleas, demanding that the Commission halt the proceedings because of his preexisting personal disability from exposure to toxic chemicals. Mr. Hawkins filed a demand notice to correct or cure violations of the Bagley-Keene Open Meeting Act on this matter on December, 21 1999. According to Mr. Hawkins, his participation as an Intervenor in this proceeding could be viewed as David against Goliath, i.e., one citizen against the big power plant company and the governmental agencies involved in this case. Notwithstanding Mr. Hawkins views, the governmental entities that reviewed the data in his case are mandated to protect public health by using appropriate

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scientific protocol. ~~Employing that protocol establishes that DEC will not create or contribute to adverse public health impacts.~~

~~Although~~ Intervenors CRE and CHF challenged the data and the methodology employed by Applicant and Staff .  ~~, they did not present any convincing evidence to show that TAC emissions from the DEC project would result in adverse health effects. The Intervenors focus on the identification and amounts of pollutants produced by the facility was not persuasive in view of the well established scientific principle and expert testimony that dispersion patterns are more important than merely looking at the amounts of gross emissions. (Mr. Ringer's testimony at 11/18 RT 253.)~~

The Bucket Report, ~~which~~ was presented by CRE via testimony of Ms. Lagana .  ~~; did not provide useful evidence because it only measured TAC concentrations at a moment in time at specific locations not related to the locations of maximum impact for DEC. Moreover, the Report itself indicated that the samples could have been contaminated.~~ This ~~flawed~~ data appears in stark contrast to the years of data collected at BAAQMD s monitoring stations. ~~Thus, we were not persuaded by the results of this report.~~

### **FINDINGS AND CONCLUSIONS**

Based on the weight of the evidence, the Commission makes the following findings and conclusions:

1. Normal operation of he DEC facility will result in the routine release of criteria and non-criteria pollutants that have the potential to adversely impact public health.
2. Emissions of criteria pollutants, which are discussed in the Air Quality section of this Decision, ~~will~~ **may** be mitigated to levels consistent with those allowed under applicable law.
3. Applicant performed a health risk assessment, using well-established criteria, to analyze the potential adverse public health effects of non-criteria pollutants emitted by DEC. ~~Applicant failed to include the formation of secondary particulate matter and the associated effects of particulate matter on human mortality in the risk assessment analysis.~~
4. Acute and chronic non-cancer health risks from project operations will be insignificant. ~~CAP-IT TAC data appears in stark contrast to the years of data collected at BAAQMD s monitoring stations.~~
- ~~5. The risk of cancer from project operations will be insignificant.~~
- ~~6. Potential cumulative impacts that may result from the combined operations of PDEF, DEC, and the Dow Chemical facilities are *de minimus*.~~
- ~~7. Applicant s Phase I Environmental Site Assessment revealed no evidence of soil contamination at the site and no potential for adverse public health effects from construction related activities.~~

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5. ~~8~~. Pathogens that may be found in cooling tower drift will be reduced to levels of insignificance in conformance with applicable law, and the project's state-of-the-art drift eliminator will operate efficiently to control drift.

The Commission, therefore, concludes that the mitigation measures described in the evidence of record ensure that the project will ~~not~~ cause significant adverse impacts to public health from project-related activities. Implementation of the Condition of Certification below ~~will~~ fails to ensure that the project complies with all applicable laws, ordinances, regulations, and standards relating to public health as identified in the pertinent portion of APPENDIX A of this Decision.

Intervenor CRE proposes to correct the decision starting from page 199 as follows:

Mr. Hawkins, for Intervenor Community Health First, sought to establish that cooling tower drift of constituents from the effluent used as cooling water might, when intermixed with rainwater, adversely affect biological resources. (10/3 RT 23:12-41:15.) Applicant presented the testimony of Ms. Brown who stated that USFWS conducted its endangered species analysis based upon an independent review of the biological resources information provided by the Applicant. (10/ RT 34:20-41:15; 35:18-24. ) According to Ms. Brown, the results were the following: Specifically in this case, based on all of the activities, including construction of the plant, that the project was not likely to adversely affect the salt marsh harvest mouse, the California Clapper Rail, the Delta smelt and its associated critical habitat, the Sacramento spilt tail, the Lange s Metalmark butterfly, the Antioch Dunes Evening Primrose and its associated habitat, and the Contra Costa Wallflower. (10/3 RT 36:12-23.) We determined that there was likely an adverse effect to the vernal pool fairy shrimp that the Applicant would be mitigating for at a ratio of three acres for every acre lost from the construction of the plant [and that mitigation was found to be acceptable]. (10/3 RT 36:23-37:6.)

Second, Mr. Hawkins attempted to establish the need for before and after water and soil sampling to determine the rainwater effects, intermixed with plant emissions, on biological resources. (10/3 RT 39:7-41:17; 52:19-56:19.) However, uncontroverted testimony established that such sampling is not a criteria element used by any regulatory agency to measure project impact on biological resources. (11/3 RT 57:1-19.) [Exhibit 32 entered by intervenor CHF is the same as exhibit 77 a\) EPA Region IX provided population density and threatened and endangered species identification geographical map of the Delta Energy Center proximity. CRE contests the failure of the biological resources analysis to address threatened and endangered species identified on said exhibit.](#)

Intervenor CRE proposes to correct the decision starting from page 312 as follows:

### 3. Potential Impacts

#### *a. Housing and Schools*

Applicant anticipates that most of the construction labor force will commute one hour or less each way to the job site and will not, therefore, adversely impact

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housing or schools. 160 (Ex. 50 at p. 3; 11/18 RT 284.) DEC will pay a one-time developer fee of \$5, 890 to the Pittsburg Unified School District. 161 In addition, Staff estimated that \$1.75 to \$2.25 million from annual property taxes paid by DEC would go to school districts in Contra Costa County. 162 (*Ibid.*) CRE contests the failure of the socioeconomic analysis to identify the number of jobs lost as the result of plant shut-downs used by the applicant as a source of ERCs.

### 3. Environmental Justice

No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.

- Title VI

Title VI itself prohibits intentional discrimination. The Supreme Court has ruled, however, that Title VI authorizes Federal agencies, including EPA, to adopt implementing regulations that prohibit discriminatory *effects*. Frequently, discrimination results from policies and practices that are neutral on their face, but have the *effect* of discriminating.<sup>2</sup> Facially-neutral policies or practices that result in discriminatory effects violate EPA's Title VI regulations unless it is shown that they are justified and that there is no less discriminatory alternative.

In July 1992, EPA published a report, entitled Reducing Risk for All Communities, which noted that minorities and low-income populations experience higher than average exposures to selected air pollutants, hazardous waste facilities, and other forms of environmental pollution. The report also documented some of the initiatives taken by US EPA program and regional offices to address communities in need. In 1993, Administrator Carol M. Browner reaffirmed the Agency's commitment to environmental justice

The U. S Environmental Protection Agency (EPA) defines environmental justice as:

The fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Fair treatment means no group of people, including racial, ethnic, or economic group should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, local, and tribal programs and policies. (EPA, *Final Guidance for Incorporating Environmental Justice Concerns in EPA's Compliance Analyses*, April 1998.)

In 1994, president Clinton issued Executive Order 12898 (Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations), which directed the U. S. Environmental Protection Agency (EPA)

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and all other federal agencies to develop environmental justice strategies that identify and address disproportionately high and adverse human health or environmental effects of [their] programs, policies, and activities on minority populations and low income populations. 165 (Executive Order 12898, February 11, 1994.)

The EPA's Final Guidance For Incorporating Environmental Justice Concerns in EPA's NEPA Compliance Analyses of April 1998 outlines the following steps:

- *Determine the actual or possible area of impact of the project. For this site it would include a worst-case scenario of all potential pollution from the project (All controls fail or possible burning of alternate fuel. Possible gas line rupture due to rail car derailment caused by deliveries or employees having to cross heavily used railroad tracks and being hit. All this, in combination with the many LPG, chlorine and ammunition trains.) Determine worst-case scenario for Delta water pollution. For this site it would include the facility being completely flooded and all stored chemicals entering the Delta. Such a disaster could have negative effects on the Delta and SF Bay. The project is situated in an area prone to flooding. Worst case scenario on groundwater contamination related to chemicals stored on site leaching into groundwater. Worst-case scenario sabotage.*
- *Definition of Minority: any population consisting of less than 50% caucasian.*
- *Definition of low income: In the absence of any local definition of low income the National poverty line is to be used. The California Department of Education recognizes families that qualify for free and reduced lunch as low income.*
- *With the possible impact area established, the minority and low income population within that area must be determined. Any population of 50% or more minority or low income qualifies, examples: the minority and low income population of a school district; the minority and low income population of a city; the minority and low income population of the downtown, uptown, westside, eastside; or by census block or tract. To keep it simple we have been defining minority populations by census blocks and low income by public schools and census blocks.*
- *An extensive EIR study of the existing, potential or foreseeable pollution that affects the EJ communities is then done. This includes the effects of lack of medical access, lead pipes and paint, disease patterns, planned new roads and industries. Whether there are subsistence farmers or gatherers of natural food supplies that might be affected by project. Do they depend on fishing to supplement their diet? Do they use ground water that might be contaminated by the project?*

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- *The results are compared to a larger non-minority, non low income community. In this case the designated community should be Marin County.*
- *At this point a determination can be made. If the study finds that the environmental quality within the EJ community is worse than the designated comparable community then the applicant cannot build unless they can show there is no other alternative (cost is not a factor) or that they will completely mitigate the effects on the EJ community.*
- *The applicant must conform to all other existing requirements.*

During cross-examination by intervenor CRE of staff's witness Mr. Franco at the Commission's air hearing of November 18, 1999 the witness identified Figure C-12 (Ex. 55) non-zero PM10 concentrations as the impact zone of PM10 greater than  $1e^{-7}$  g/m<sup>3</sup> for the intervenor. Intervenor CRE also identified this as the impact zone during the formation of PM10 in reaction between the ammonia slip and Nox emissions from known EPA regulated sites. (Fig.2, & Ex. 77b) CRE contends this also serves as the impact zone for purposes of environmental justice analysis. The evidence of this from the November 18, 1999 hearing is as follows:

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MR. BOYD: Oh, okay, in the back here. Okay, I've got it.

HEARING OFFICER GEFTER: Tell us what page this is.

MR. BOYD: I'll tell you in just one second. It's on C-12. Now, this area here is, this square that I cited on -- or the rectangle on 3.2, that's the same area that you're analyzing here for PM10 emissions, right?

MR. FRANCO: Yes, that's correct.

MR. BOYD: Okay, now in your opinion would you say that the PM10 emissions are covering 90 percent of the analysis area?

MR. FRANCO: I mean all depends on what concentrations you want to select.

MR. BOYD: Well, let's say --

MR. FRANCO: No, I mean what I'm trying to say is that the scale goes from impact of zero to impact of around 2.2 micrograms per cubic meter.

MR. BOYD: Okay.

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MR. FRANCO: It's a very small -- I mean there is very small quantities. Depending on how many you include you would have -- it would seem that you have a larger and larger -- I mean the more it seems that you have more, a larger impact area.

MR. BOYD: Okay. Now, the reason I'm asking this question is I'm trying to establish what the impact area is of the emissions. Okay, --

HEARING OFFICER GEFTER: Is that your question?

MR. BOYD: And so what would you say, excluding those that are zero, right, that more than 90 percent of the area has some impact from PM10?

MR. FRANCO: I mean the numeric - this is a numerical model, a computer model that gives you - - I mean infinite -- give you as an estimate in passing infinitesimal small numbers, you know what I mean?

MR. BOYD: No, I understand.

MR. FRANCO: So, the --

MR. BOYD: But we're on a scale of zero to 2.2 even --

MR. FRANCO: So what --

MR. BOYD: So what I'm asking you is everything except zero, about more than 90 percent of this analysis then is identified in this figure as being impacted at one level or another by PM10, correct?

MR. FRANCO: That's correct, but most of the impact area is I would say concentrations lower than 1 microgram per cubic meter."

The fact there is a protected population in the zone of impact of the project that is more than 50 percent minority was established through the uncontroverted testimony of staff's witness Ms. Stennick during cross examination by Intervenor Ms. Lagana as follows:

MS. LAGANA: Ms. Stennick, could you please tell me what is the population of the -- white population of the City of Pittsburg 1998, according to your submitted testimony in record?

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MS. STENNICK: Now, you want to know the total population --

MS. LAGANA: No.

MS. STENNICK: -- of the -- the total -- white population, the non-minority population for the --

MS. LAGANA: The white population of the City of Pittsburg. I figure everything else is nonwhite, so, what is the white in 1998?

MS. STENNICK: It's 18,730.

MS. LAGANA: No, percentage, please.

MS. STENNICK: Oh, I'm sorry, you wanted percentage?

MS. LAGANA: Please.

MS. STENNICK: 36.1 percent.

MS. LAGANA: Bingo! Doug, do you think that's a minority or majority?

MR. HARRIS: I'd like to object on the basis that the analogy she's drawing is different than the analogy we were drawing before in terms of impact area. The impact area is not bound by the geopolitical boundaries in Contra Costa County.

MS. LAGANA: Says who?

MR. HARRIS: It's bounded -- says the --

HEARING OFFICER GEFTER: Off the record.

(Off the record.)

HEARING OFFICER GEFTER: Ms. Lagana may ask the question of the witness.

MS. LAGANA: 36.1 percent white population in the City of Pittsburg. Would you conclude that that's a minority or a majority?

MR. BUCHANAN: I'm going to have to admit to being distracted while Ms. Stennick answered her cross. If she could please repeat her statistics, please?

MS. STENNICK: I was asked what the percentage of the white population was for the City of Pittsburg in 1998, and that was 36.1 percent.

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MR. HARRIS: This question is more appropriately addressed to Mr. Crisp.

MS. LAGANA: I'm sorry, Mr. Buchanan can't tell me if that's a majority number or minority number?

MR. HARRIS: Can we go off the record again?

HEARING OFFICER GEFTER: Yes, we're going to go off the record.

(Off the record.)

HEARING OFFICER GEFTER: Mr. Crisp.

MR. CRISP: And the question is?

MS. LAGANA: Given the statistic that Ms. Stennick provided, that the white population of the City of Pittsburg in 1998 in terms of percentage is 36.1, would you consider that number a majority or a minority?

HEARING OFFICER GEFTER: A minority of what? Of 100 percent?

MS. LAGANA: Of 100 percent.

HEARING OFFICER GEFTER: All right.

MR. CRISP: I would consider 36 percent to be a minority of 100 percent.

2. There must be an environmental impact that is high and adverse. **EPA Guidelines** April 1998, **5.0 METHODS AND TOOLS FOR IDENTIFYING AND ASSESSING DISPROPORTION-ATELY HIGH AND ADVERSE EFFECTS**: "A fundamental step for incorporating environmental justice concerns into EPA NEPA compliance activities is identifying minority and/or low-income communities that may bear disproportionately high and adverse effects as a result of a proposed action. Once these minority and/or low-income communities are identified and located, the potential for disproportionately high and adverse effects to these communities must be assessed. It is important to understand where such communities are located and how the lives and livelihoods of members of these communities may be impacted by proposed and alternative actions. Minority communities and low-income communities are likely to be dependent upon their surrounding environment (*e.g.*, subsistence living), more susceptible to pollution and environmental degradation (*e.g.*, reduced access to health care), and are often less mobile or transient than other populations (*e.g.*, unable to relocate to avoid potential impacts). Each of these factors can contribute to minority and/or low-income communities bearing disproportionately high and

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adverse effects. Therefore, developing an understanding of where these communities are located and how they may be particularly impacted by government actions should be a fundamental aspect of the EA and EIS development process.”

The federal guidance documents clearly intend this to apply to both health effect and environmental effects in the broader context. (CEQ Guidance, p.20. However the federal guidance indicates that high and adverse effects are the same a significant effects in a NEPA context. (CEQ Guidance, p.20; EPA Guidance, /3.2.2.) This is essentially the same as a significant adverse impact in a CEQA context, and is indicative of the relative intensity of the impact. (Ex.51, p.4.) Intervenor CRE provided written (Ex. 62) and oral evidence at the November 18, 1999 hearing that demonstrates that this project will violate air quality standards and contribute substantially to existing air quality violations for Ozone and PM10, and that this will result in cumulative considerable increases of the criteria pollutants Nox and PM10. CRE further identified exposure of sensitive receptor to substantial pollution concentrations in the form of PM10 and TACs. The applicant’s witness MR. Rubenstein provided uncontroverted testimony that the applicant, BAAQMD, and the CEC failed to identify the production of secondary particulate matter in their analysis. The applicant’s witness MR. Lowe provided uncontroverted testimony that the applicant, BAAQMD, and the CEC failed to identify elevated TAC levels as measured by intervenor’s witness Ms. Lagana in their analysis. The applicant’s witness MR. Lowe failed to provide uncontroverted testimony that the applicant, BAAQMD, and the CEC had identify an estimate of mortality associated with particulate matter in this area, and therefore identified this projects cumulative PM10 impacts on public health. Intervenor CRE cites this as evidence of impacts with the potential adverse impacts that are high and adverse within EJ guidelines.

3.The high and adverse impact must disproportionately affect minority/low income persons. In effect, the environmental effect ~~(or health hazard)~~ must appreciably exceed ~~the risk rate or impact on the general population or other appropriate~~ comparison group. (CEQ Guidance, p. 20.) The CEQ Guidance also states that a disproportionately high and adverse impact can occur from cumulative or multiple adverse exposures from environmental hazards, thus emphasizing the importance of cumulative impact analyses. (*Ibid.*)

Staff’s witness, Ms. Stennick, testified that the affected population is not predominantly minority or low-income. (11/18 RT 313,316.) First, Staff defined the affected area as a five-mile radius from the project based on ~~the potential for cumulative air quality (including toxic air contaminants) impacts in the vicinity.~~ data that would best hide the fact that Pittsburg is a EJ community (*Id.* at pp.315, 338.) Using data from the 1990 census as *not* recommended by the Guidance, Staff found that the population living within this radius is less than 50 percent

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minority, and far less than 50 percent low-income. (Ex.20, pp.256-260, Exs.51, 61.)

Since the 1990 census data were challenged by ~~several Interveners~~ the applicant as outdated, Staff acquired more recent demographic projections ~~but unclear data because it had data from outside the 5-mile radius that confirmed its prior conclusions:~~(1) a clear majority of the population within the five-mile radius (58 percent) are non-minority (Ex.61, Table 2);(2) the majority of all census tracts within (or partially within) the five-mile radius are non-minority (*Ibid.*); (3) the low-income population in the affected area is far below 50 percent (Ex.20, Table 8); and (4) the minority/low income population within the affected area is not meaningfully greater than that of the general population, including that of the geopolitical unit of Pittsburg (64 percent Hispanic/non white).(Ex.61,Table3.) Ms. Lagana for Intervener CAP-IT implied during cross-examination of Staff's and Applicant's witnesses that the affected area contained within the five-mile radius was too small, and that Staff should have included the entire geopolitical unit of the City of Pittsburg. (11/18 RT 344 et seq.) Staff disagreed because focusing on the geopolitical unit, without regard to impact, would have artificially inflated the minority population, a practice inconsistent with the federal guidance.<sup>168</sup> (Ex.61, p.2; EPA Guidance, /2.1.1,CEQ Guidance, p.19.) In comparing the overall population within the affected area to the population in the City of Pittsburg, however, Staff found that the demographic data do not reveal a significantly greater minority population within the city.<sup>169</sup> (11/18 RT 315.)

Other questioning by Interveners Californians for Renewable Energy (CRE) and Community Health First (CHF) ~~suggested that Staff's affected area radius was too broad, and should have been more tightly drawn.~~ (11/18 RT 341-343.) In public comment, Mr. MacDonald for Intervener CHF postulated that the EPA Guidance requires identification of populations smaller than the census tract level, and that even three individuals could constitute a pocket that defines an environmental justice issue ~~for the area that was shown to be affected in the air study for CEC.~~ This study showed a greater area of affect than the 5-mile radius. Each and every pocket of minority and low income communities within the affected area can be designated an EJ community.(11/18 RT 369-370.)

According to Applicant's witness, Mr. Crisp, the characteristics of a population in any particular geographic or political jurisdiction have little to do with whether there's an issue of environmental justice; the data must be relevant to the project's potential impact area. (*Id.* at p.348.) An inquiry of demographics at the sub-census tract level performed by Mr. Crisp uncovered no evidence of highly concentrated protected populations at that level. (11/18 RT 342-343.) Regarding the second element of the analysis (a high and adverse impact), both Staff and Applicant determined that the project does not constitute a high and adverse environmental impact or hazard, in either a direct or cumulative context. (11/18 RT 313 [Stennick], 293,297 [Crisp].) According to Staff and Applicant, the project does

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not present any significant environmental risk to *any* population.<sup>170</sup> (*Ibid.*) The CEC and BAAQMD have consistently failed to recognize the significance of (CEC exhibit 77c) from EPA Region IX Environmental Justice Division and this is further evidence of the Commission's and BAAQMD's discriminatory act in failure to recognize this as significant evidence of a target minority population in the city of Pittsburg which meets the definition by federal Environmental Justice Guidelines as disparate adverse impact's on minority or low income individuals. Intervenor CRE presented these as evidence again in petitioner's 11/12/1999 CEC *Written Testimony and Identification of Witnesses for a November 18, 1999 Hearing on the Delta Energy Center (98-AFC-3) Socioeconomic, air quality, and public health*, and again in petitioner's testimony at it's November 18, 1999 Hearing on the Delta Energy Center (98-AFC-3) Socioeconomic, air quality, and public health.

As discussed in the **Air Quality** section, the project emits PM10 and ozone precursors that could potentially create significant cumulative impacts because the air district is not in attainment for the federal ozone or state 24 hour PM10 standards. ~~Staff performed a worst case cumulative impacts analysis for PM10 and NO2, including the combined worst case emissions of DEC, the PDEF project, and the existing operation of the two Southern power plants. (Ex.55.) The modeling results for DEC indicated that for both PM10 and NO2, the potential impacts were well below state and federal air quality standards. (Ex.55, pp. C-10, C-11, C-12.)~~ Staff notes that ~~these insignificant~~ impacts were found to occur immediately adjacent to the DEC site and not in residential areas. (*Ibid.*) ~~Staff, therefore, concluded that the maximum PM10 concentrations from the four modeled facilities do not overlap and there are no significant cumulative impacts from criteria pollutants. (11/18 RT 132-140.)~~

~~Staff asserts this conclusion is supported by project compliance with BAAQMD's regulatory program requiring emissions offsets that, as a matter of law, will reduce the project's potential contribution to cumulative effects to levels of insignificance under CEQA.<sup>171</sup> (Staff 12/3 Brief on Socioeconomic et al.) Regarding public health (i.e., emissions of toxic air contaminants, or TACs) standard risk assessments were performed by Applicant, Staff, and BAAQMD. The calculations indicated that the potential risk for cancer or other health effects would be *de minimis*, not cumulatively considerable, and will not contribute a significant cumulative impact. (See **Public Health** section of this Decision.) Regarding the third element of the environmental justice analysis (whether project effects fall disproportionately on a minority/low income population), Staff and Applicant determined there is no disproportionate impact on minority/low income populations.<sup>172</sup> (11/18 RT 313 [Stennick]; 139 [Crisp].) According to Applicant, since the minority/low income population in the affected area is less than 50 percent and the project will not result in adverse impacts to~~

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~~public health or the environment; there are no disproportionate impacts to evaluate. (Ex.51, p.10.)~~

Intervenor CRE submits the following document in its entirety as a rebuttal to CEC Staff's, Applicant's and BAAQMD's Environmental Justice testimony: **U.S. Environmental Protection Agency's Final Guidance for Incorporating Environmental Justice Concerns in EPA's NEPA Compliance Analyses**, April 1998. If not already part of the record it is admissible under Commission's regulations (Cal. Code of Regs., tit. 20, 1212.) "hearings need not be conducted according to technical rules relating to evidence and witnesses." This code was quoted by applicant in a letter of Opposition to Intervener Joe Hawkins' Petition for Disqualification of Testimony From DEC.

In addition, note the following Rebuttal to: **SUPPLEMENTAL ENVIRONMENTAL JUSTICE DATA AND ANALYSIS Report for the Delta Energy Center Power Plant Project (98-AFC-3) dated Nov 3, 1999**. Testimony of Amanda Stennick.

- Testimony of Amanda Stennick: page 1, paragraph 2, basically states staff chose 5-mile radius to determine presence of minorities. In Stennick's own supplemental testimony (page 2 paragraph 1 line 6) she quotes EPA's Guidance to define the term affected area "as that area which the proposed project will or *may* (my emphasis) have an effect on." Testimony of Guido Franco A Modeling Assessment of Cumulative Air Quality Impacts of the Pittsburg District Energy Facility and Other Incremental Sources dated May 3, 1999 (sponsored by Staff, EXHIBIT 55). Mr. Guido Franco confirms there is no difference in air modeling between 98-AFC-1 and 98-AFC-3. He re-submitted the air study for 98-AFC-1 for the air study of 98-AFC-3. Since the affected area is determined by this modeling how does staff explain affected area for 98-AFC-1 as 1.5 miles and the affected area of 98-AFC-3 as 5 miles? The modeling maps show Bay Point, Pittsburg, Antioch and Oakley as the most affected area. Reference pages 5-3, 5-4, 5-5, 5-6, 5-7, 5-8, 5-9, 5-10 of A Modeling Assessment of Cumulative Air Quality Impacts of the Pittsburg District Energy Facility and Other Incremental Sources, May 3, 1999 (prepared for California Energy Commission, Final Written Testimony, Docket #98-AFC- I, Contract Number 700-98-006) by Joseph S. Scire, Certified Consulting Meteorologist.

Testimony of Amanda Stennick continues on page 2, paragraph 1, and line 3: "A minority population exists if the minority population percentage of the affected area is fifty percent or greater than the affected area's general population. The Guidance does not define the term "affected area", however it states that the analyst should interpret the term "as that area which the proposed project will or may have an effect on.'" This statement is taken completely out of context and does not imply that the study is merely based on total minorities to non-minorities but on pockets of minorities and low-income that is made up of more than 50%

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with in the affected area. EPA's Compliance Guidance April 1998, 1.2 Principles/Philosophy of this Guidance, paragraph 4, page 7. "The sensitivity to environmental justice concerns should sharpen the focus of the analysis. While the analytical tools to be used are similar, the analysis should focus both on the overall affected area population and on smaller areas and/or communities within the affected area". Paragraph 7, page 7 of EPA's Guidance: "Environmental justice concerns may lead to more focused analyses, identifying significant effects that may otherwise have been diluted by examination of a larger population or area. Environmental justice concerns should always trigger the serious evaluation of alternatives as well as mitigation options." **2.1.1 Minority and Minority Population**, paragraph 2, page 11 of EPA's Guidance. "The fact that census data can only be disaggregated to certain prescribed levels (e.g., census tracts, census blocks) suggests that pockets of minority or low-income communities, including those that may be experiencing disproportionately high and adverse effects, may be missed in a traditional census tract-based analysis (my emphasis). Additional caution is called for in using census data due to the possibility of distortion of population breakdowns, particularly in areas of dense Hispanic or Native American populations. In addition to identifying the proportion of the population of individual census tracts that are composed of minority individuals, analysts should attempt to identify whether high concentration "pockets" of minority populations are evidenced in specific geographic areas." Paragraph 4, page 11 of EPA's Guidance. "A factor that should be considered in assessing the presence of a minority community is that a minority group comprising a relatively small percentage of the total population surrounding the project may experience a disproportionately high and adverse effect. This can result due to the group's use of, or dependence on, potentially affected natural resources, or due to the group's daily or cumulative exposure to environmental pollutants as a result of their close proximity to the source. The data may show that a distinct minority population may be below the thresholds defined in the IWG key terms guidance on minority population. However, as a result of particular cultural practices, that population may experience disproportionately high and adverse effects. For example, the construction of a new treatment plant that will discharge to a river or stream used by subsistence anglers may affect that portion of the total population. Also, potential effects to on- or off-reservation tribal resources (e.g., treaty-protected resources, cultural resources and/or sacred sites) may disproportionately affect the local Native American community and implicate the federal trust responsibility to tribes." Even if information is broken down by census tract it is clear there are at least submitted by CH2Mhill, Nov 8, 1999.

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- Testimony for Calpine/Bechtel **POLICY AND REGULATORY CONTEXT**, Page 2, paragraph 2: "The Federal initiative is based primarily on Title VI of the Civil Rights Act of 1964. California has no equivalent of Title VI and, consequently, has developed no statewide environmental justice policy. While the California Environmental Quality Act (CEQA) requires a review of environmental impacts, there is no requirement to further determine the extent to

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which those impacts are distributed on minority or low-income segments of the affected population. For this reason, although the CEC must comply with the non-discrimination provisions of the Civil Rights Act, there is no requirement for a state agency or commission to conduct an Environmental Justice analysis.” Rebuttal: Staff Report for 98-AFC-3, page 277, paragraph 3 SOCIOECONOMIC RESOURCES Amanda Stennick, **ENVIRONMENTAL JUSTICE**: “President Clinton's Executive Order 12898, ‘Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations’ was signed on February 11, 1994. The order required the US Environmental Protection Agency (USEPA) and all other federal agencies to develop environmental justice strategies. The USEPA subsequently issued Guidelines that require all federal agencies and state agencies receiving federal funds (my emphasis) to develop strategies to address this problem. The agencies are required to identify and address disproportionately high and adverse human health or environmental effects of their programs, policies and activities on minority populations and low-income populations.”

- *Testimony for Calpine/Bechtel, ENVIRONMENTAL JUSTICE page 2, paragraph 4: “Notwithstanding the requirement of BAAQMD to comply with Title VI and with EPA’s implementing regulations, there is no requirement to address Executive Order 12898, Environmental Justice. The executive Order applies to federal only.” Rebuttal: Staff Report for 98-AFC-3, page 277, SOCIOECONOMIC RESOURCES, Amanda Stennick, ENVIRONMENTAL JUSTICE: “President Clinton's Executive Order 12898, 'Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations' was signed on February 11, 1994. The order required the US Environmental Protection Agency (USEPA) and all other federal agencies to develop environmental justice strategies. The USEPA subsequently issued Guidelines that require all federal agencies and state agencies receiving federal funds, to develop strategies to address this problem. The agencies are required to identify and address disproportionately high and adverse human health or environmental effects of their programs, policies and activities on minority populations and low-income populations.”*

- Testimony for Calpine/Bechtel, ENVIRONMENTAL JUSTICE, page 3, paragraph 5: 1. There must be a minority or low-income population in the impact zone Presidential Executive Order 12898 refers to populations of low-income and minority people. It is important to differentiate a population from a community, neighborhood, or other small geographic area. Focusing solely on neighborhoods, for example, would ignore impacts on members of a low-income population that do not live in a neighborhood that would be classified as "low-income." While some agencies' guidance, and many EISs, use the terms *population, community, and neighborhood* interchangeably, the only term used in the Presidential

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Executive Order is population. As a result, its applicability encompasses individuals who may be geographically dispersed. In determining whether an impact falls disproportionately on minority or low-income populations, this testimony also considers the entire low-income and minority population in the affected area so as not to exclude those who do not live in a geographic area that might be classified as "minority" or "low-income." Rebuttal: EPA Guidance April 1998, **1.2 Principles/Philosophy of this Guidance**, paragraph 4, page 7, "The sensitivity to environmental justice concerns should sharpen the focus of the analysis. While the analytical tools to be used are similar, the analysis should focus both on the overall affected area and population and on smaller areas and/or communities within the affected area." Paragraph 7, page 7, "Environmental justice concerns may lead to more focused analyses, identifying significant effects that may otherwise have been diluted by examination of a larger population or area. Environmental justice concerns should always trigger the serious evaluation of alternatives as well as mitigation options." **2.1.1 Minority and Minority Population** paragraph 2, page 11, "The fact that census data can only be disaggregated to certain prescribed levels (*e.g.*, census tracts, census blocks) suggests that pockets of minority or low-income communities, including those that may be experiencing disproportionately high and adverse effects, may be missed in a traditional census tract-based analysis. Additional caution is called for in using census data due to the possibility of distortion of population breakdowns, particularly in areas of dense Hispanic or Native American populations. In addition to identifying the proportion of the population of individual census tracts that are composed of minority individuals, analysts should attempt to identify whether high concentration "pockets" of minority populations are evidenced in specific geographic areas." Paragraph 4, page 11, "A factor that should be considered in assessing the presence of a minority community is that a minority group comprising a relatively small percentage of the total population surrounding the project may experience a disproportionately high and adverse effect. This can result due to the group's use of, or dependence on, potentially affected natural resources, or due to the group's daily or cumulative exposure to environmental pollutants as a result of their close proximity to the source. The data may show that a distinct minority population may be below the thresholds defined in the IWG key terms guidance on minority population. However, as a result of particular cultural practices, that population may experience disproportionately high and adverse effects. For example, the construction of a new treatment plant that will discharge to a river or stream used by subsistence anglers may affect that portion of the total population. Also, potential effects to on- or off-reservation tribal resources (*e.g.*, treaty-protected resources, cultural resources and/or sacred sites) may disproportionately affect the local Native American community and implicate the federal trust responsibility to tribes." Page 38, last paragraph, "Minority and/or low-income communities are often concentrated in small geographical areas within the larger geographically and/or economically defined population center targeted for study. Minority

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communities and low-income communities may comprise a very small percentage of the total population and/or geographical area.”

- Testimony for Calpine/Bechtel, page 4, paragraph 2, “2. A high and adverse impact must exist. In accordance with the spirit of the Executive Order and its implementation through the National Environmental Policy Act (the federal equivalent of CEQA), a high and adverse impact is considered in this testimony to generally be synonymous with *significant* adverse human health or environmental effects. The CEQ (1997) Guidance indicates that, when determining whether effects are disproportionately high and adverse, agencies are to consider whether the risks or rates of impact "are significant (as employed by NEPA) or above generally accepted norms." Under NEPA and CEQA the term "significant" has special meaning, considering both the context in which the impact would occur and the relative intensity of the impact.” Rebuttal: EPA Guidelines April 1998, **5.0 METHODS AND TOOLS FOR IDENTIFYING AND ASSESSING DISPROPORTIONATELY HIGH AND ADVERSE EFFECTS:** “A fundamental step for incorporating environmental justice concerns into EPA NEPA compliance activities is identifying minority and/or low-income communities that may bear disproportionately high and adverse effects as a result of a proposed action. Once these minority and/or low-income communities are identified and located, the potential for disproportionately high and adverse effects to these communities must be assessed. It is important to understand where such communities are located and how the lives and livelihoods of members of these communities may be impacted by proposed and alternative actions. Minority communities and low-income communities are likely to be dependent upon their surrounding environment (*e.g.*, subsistence living), more susceptible to pollution and environmental degradation (*e.g.*, reduced access to health care), and are often less mobile or transient than other populations (*e.g.*, unable to relocate to avoid potential impacts). Each of these factors can contribute to minority and/or low-income communities bearing disproportionately high and adverse effects. Therefore, developing an understanding of where these communities are located and how they may be particularly impacted by government actions should be a fundamental aspect of the EA and EIS development process.”

- Testimony for Calpine/Bechtel, page 7, last paragraph **Sources of Demographic Data:** “First, school enrollment data for the 1998-99 school year were collected for the Pittsburg and Antioch Unified School Districts. The school enrollment data cannot be used. To begin, these limited school data sets are not usable for the environmental justice analysis by themselves because they encompass only a fraction of the total population (*i.e.*, school-age children who attend public schools). Further, public school enrollment data cannot be considered a statistical sample of the total, since they are neither random nor representative, and encompass only about one-third of the total population. Public school data reveal nothing about families and households without children

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nor those with children in private schools. And they reveal nothing about the low-income populations (since eligibility for the free or reduced-price lunch program is based on incomes higher than poverty, and not all eligible students participate in the program). Finally, they are compiled at such a high level of aggregation (i.e., by school) that they cannot be used to indicate demographic characteristics of the DEC impact zone.” Rebuttal: The problem of childhood hunger is not simply a moral issue. Scientific evidence suggests that children who are hungry are less likely to become productive citizens. A significant body of medical data provides compelling evidence that hungry children, even those who experience only mild malnutrition during the critical stages of their development, may suffer negative life-altering consequences. Children who are denied an adequate diet may suffer abnormal brain, cognitive, and psychological development, which, if not corrected, can be irreparable. Hungry children have a harder time learning in school; they have shorter attention spans, and suffer more absences due to illness. A child who is unequipped to learn because of hunger and poverty is more likely to be poor as an adult. Over 8 million children live in working poor families. Free and reduced lunch programs are not a gift of public funds but are based on the ability of families to properly feed their children. It is more than appropriate to use these program guidelines in determining low-income families. **EPA Guidelines** April 1998, **2.1.2 Low-Income Population**, page 12, paragraph 1, line 4: “In conjunction with census data, the EPA NEPA *analyst should also consider state and regional low-income and poverty definitions as appropriate*. In identifying low-income populations, agencies may consider as a community a group of individuals living in geographic proximity to one another or set of individuals (such as migrant workers or Native Americans) where either type of group experiences common conditions of environmental exposure.”

- Testimony for Calpine/Bechtel, page 6, last paragraph line 3 “As set forth immediately above, the California Energy Commission and Calpine/ Bechtel have satisfied the federal requirements related to environmental justice by performing the analysis using the best available data (my emphasis), the 1990 Census data. Page 10, last paragraph, “Further, for this testimony, population information was obtained from a variety of sources. Data were used from the smallest level of aggregation available in order to detect any pockets of minority or low-income population that might be obscured by averaging over large areas.” Rebuttal: **SUPPLEMENTAL ENVIRONMENT JUSTICE DATA AND ANALYSIS** (Docketed Nov.03, 1999) pages 3, 4, 5, maps and tables showing increase in minority population; **EPA Minority and Low-Income Maps** by census block 1990 census. EPA Minority and low-income maps clearly refute Calpine/Bechtel’s claims that they used “smallest level of aggregation available”. Calpine/Bechtel acknowledges that Census block information is available but then discounts its importance with a statement that we believe can only be interpreted at best, as a lack of comprehension of EPA guidelines. Page 8, paragraph 2, line 6 of applicant’s testimony: “However, they are only available at the Census block group level. This level of aggregation in the Pittsburg-Antioch area homogenizes

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results over very large areas; revealing little about the specific impact zone around the DEC facility.”

In addition, note the following rebuttal to: **Testimony for AFC of DEC;** CH2Mhill, September, 1999; Richard C. Hunn, Jr., Senior Environmental Planner:

- Testimony of Mr. Hunn: page 8, Section 3, Summary A. line 10, “Sensitive Receptors, including schools, hospitals, emergency response facilities, long-term care facilities and day care facilities...are discussed in further detail as part of the analysis of hazardous materials handling.” Page 18, line 1, “There are sensitive receptor facilities (such as schools, daycare facilities, convalescent centers, or hospitals) near the project site.” It is clear that sensitive receptors are near the project but no EJ study was done to determine minorities and low-income population at this site. Page 19, paragraph 3, confirms that Calpine has an existing co-generation plant. If they already have a plant that is providing Dow Chemical with electricity and steam, why do they need another one? Since they don't need additional capacity for Dow, have they considered an alternative site for the plant as per EJ guidelines? Page 18, Section C, Operational Impacts, does not identify what materials will be coming in by rail. There is no information on the possibility of train derailment, crash, tanker car rupture or worst-case scenario. Example: A rail car or tanker truck carrying LPG or hydrochloric acid could be damaged and spill contents (hit by truck or train bringing in supplies to plant). Consider also that munitions cars from Concord Naval Weapons Station, which travel tracks adjacent to plants, could be involved.

In a letter from Dennis Jang of BAAQMD to Jim MacDonald dated Oct. 27, 1999. Mr. Jang confirms that 1. “monitoring data must be representative of the ambient air quality of the proposed facility impact area.” 2. “... three years of data is considered to be representative of long-term ambient conditions,” 3. “... there is not sufficient time for the District to collect significant monitoring data...” and 4. “...BAAQMD did not conduct a formal analysis of the potential environmental justice ramifications of the Delta Energy Center...” Clearly BAAQMD did none of the Environmental Justice studies required of it.

In reviewing the qualifications of CEC's staff, applicant's witnesses and BAAQMD's staff I can not find where they have shown the technical ability and knowledge to be certified by the state of California pursuant to part 5 of Division 26 of The Health and Safety Code.

Applicant, BAAQMD and CEC have failed to identify “sensitive receptors” and perform analysis specific to these sites. List of specific sensitive receptors: nearest residents approx. 3/4 mile. Within approx. 1.5 miles: El Pueblo HUD housing, Martin Luther King elem. used as a preschool and head start program for low income residents, county medical clinic, Los Medanos College, Bell-Clark

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Babe Ruth Baseball Fields Antioch, Turner School Ant., Kaiser Med. Cen. Ant. Within approx. 2 miles: Pittsburg High School, Adult ed., Stoneman elem., Central Jr. High, Pitts. Sr. Center, Los Medanos Sr. Center, Contra Costa fairgrounds, Prospects High Ant., Alt. Ed. Center&Ant.Adult Sch., Rec. Cen.& Senior Center, Ant. High Sch., Ant. Jr. high Sch., Fremont Sch., Live Oak HS, Kimball Sch., Marsh Sch., Mission Sch., Sutter Sch., Delta Mem. Hosp. Within approx. 3 miles: Pitts. Alt. Ed., Parkside Sch., Los Medanos Sch., Heights Sch., Hillview Jr. Sch., Highland Sch., Foothill Sch.

Applicant, BAAQMD and CEC have failed to provide relevant ambient criteria and toxic statistics for “sensitive receptors”. *Toxic Air Contaminant Control Program*, Bay Area Air Quality Management District [937 Ellis Street; SF, CA 94109]. Annual Report 1997, Volume I, Page 10, AIR TOXICS AMBIENT MONITORING NETWORK states “Monitoring is considered the definitive method for establishing ambient pollutant concentrations. One limitation of air monitoring is that it is spatially limited to specific monitoring locations.” The Pittsburg monitor is west of the above named “sensitive receptors”, the Concord monitor is so far Southwest (approx.10 miles) of Pittsburg that it is not even in the air stream coming from or going to Pittsburg, and the Bethel Island monitor is too far East (approx. 11.5 miles) and readings diluted by a secondary air mass from the North to be of any statistical use.

- Applicant, BAAQMD and CEC have failed to identify potential foreseeable sources of pollution. Truck and car traffic are on the rise with new home and mall construction, City of Pittsburg is planning to become a Port Authority, which will result in higher truck, and marine caused air pollution. With all of the power plants in Pittsburg, the city is planning on capitalizing on its Enterprise Zone by enticing big polluting industry with low electric bills. Air Liquide industrial gas manufacturing plant has already filed its Negative Declaration with Pittsburg. With deregulation of the electric industry, it is foreseeable that the two, already existing, gas-fired power plants and the 3 GWF petroleum coke-fired power plants will substantially increase their output and pollution. It is also foreseeable that a worse case scenario should include trucks carrying hazardous material may be hit when crossing nearby tracks and/or hazardous material or munitions rail car derailment. This type of analysis is crucial in determining Environmental Justice issues.<sup>22</sup> minority and low-income populations within a 5-mile radius of the project (see EPA’s Minority Distribution and Density maps). Even by using CEC’s 1999 Census tract map a clear minority population is identified.

- Testimony of Amanda Stennick continues on page 2, paragraph 2. “The Guidance states that a demographic comparison to the next larger geographic area or political jurisdiction should also be presented to place population characteristics in context when determining whether impacts fall disproportionately on minority and low-income populations. Staff used the City

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of Pittsburg (the political jurisdiction within which the DEC would be constructed) as the appropriate unit of geographic analysis. Comparing the affected area, which has a total minority population of 42%, to the City of Pittsburg, which has a total minority population of 63.9%, indicates that the affected area does not constitute a minority population that is disproportionately affected by the DEC. Rebuttal: 99% of Pittsburg is within the 5-mile radius with an approximate population of 55,000. On page 4, Testimony of Amanda Stennick, her submitted table for 1999 shows total population of affected area as 148,052. Pittsburg is within the 5-mile radius, with a smaller population. Methodology used by CEC's staff is questionable since the next larger political jurisdiction was not used.

### 5. Public Comment

Mr. MacDonald, who represented Intervenor CHF, presented testimony that he is a Trustee of the Pittsburg Unified School District and that he voted for Resolution 99-32, adopted by the School District on October 13, 1999. (Ex.69.) This Resolution asks the EPA to declare Pittsburg an Environmental Justice Community. Mr. MacDonald also presented public comment indicating his view that BAAQMD's programs are unfair to minorities and low-income populations. (11/18 RT 367 ET seq.) As mentioned previously, Mr. MacDonald argued that the census tract data should have been disaggregated to smaller units to better identify the affected minority populations within the affected area as shown in air study. (*Id.* at p.369.)

Mr. Bill Forrest presented comment indicating that he was concerned about potential disparate impact on minority communities from project-related activities. He wanted assurance that the project would not cause cancer or other ill effects. (11/18 RT 352 ET seq.) Intervenor CRE was further denied due process by the Hearing Officer in the denial of intervenor's law full written notice of witnesses for socio-economics in intervenor's written testimony of November 12, 1999. The Hearing Officer scheduled the hearing on socio-economics (environmental justice) for after midnight on November 18, 1999 despite being noticed as the first item on the Commission's version of the internet agenda. The one witness of the intervenor remaining after midnight, Rev. Bill Forrest, was forced by the Hearing Officer to speak as a member of the public. Intervenor CRE additionally provided a copy of Rev. Forrest's resume in advance of the meeting. His experience as an investigator for the EEOC alone qualifies him as an expert on this matter. Intervenor CRE provides this transcript as evidentiary in the Hearing Officer's prejudice in favor of the applicant and against the petitioner in this matter.

Mr. Darrell Turner, Political Action Chair for the NAACP, Northern California Section of the State Conference, presented comment stating that his organization is satisfied the project will not cause negative effects to the minority community.

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Mr. Turner never presented any evidence that he had the authority to speak for the NAACP, as such his comments are his own (11/18 RT 100.) Mr. Turner also believes that the project will provide economic benefits to the Pittsburg community. (*Ibid.*) Mr. Tony Baca, Vice President of the Central Labor Council of Contra Costa County, indicated that his organization is satisfied that the project will provide economic benefits to the community. (11/18 RT 101.) Unions represent less than 16% of the working class.

Mr. William Leroy, a local resident, was concerned that the project would cause pollution detrimental to public health. He also objected that city infrastructure facilities would provide services to the project at taxpayer expense. (11/18 RT 102 ET seq.)

### **COMMISSION DISCUSSION**

The evidence is uncontroverted that there will not be a large influx of construction workers to the Pittsburg-Antioch area. As a result, there will not be any significant impacts on school, housing, medical, and emergency services in the Pittsburg-Antioch area. The project represents major economic benefits to the community from the property and sale tax revenues that will accrue over the life of the project. Property taxes will go to the City of Pittsburg to pay for infrastructure improvements in the Los Medanos 3 Redevelopment District Area. Regarding the issue of environmental justice, the Commission believes it is appropriate to rely on the federal guidance documents in developing an environmental justice analysis protocol at the state level. As stated above, we consider the air districts PSD authority a sufficient nexus with the certification process to warrant this review, as appropriate, on a case-by-case basis. The Commission is satisfied that the environmental justice analysis in this case was consistent with the guidance documents. Although the Intervenors claimed there are pockets of minority/low-income populations in the affected area, they did not present credible evidence to show that a smaller demographic unit would have affected the analysis. Nor did they show that the project would result in significant impacts to any population within the affected area. Accordingly, we find that the project does not raise concerns of environmental justice. Public comment expressing fears about cancer or other health effects from project operation were considered in our review. However, the evidence presented by expert witnesses clearly establishes that the project will comply with the applicable laws and regulatory programs that are designed to protect public health.

### **FINDINGS AND CONCLUSIONS**

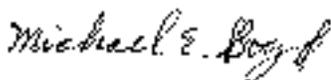
Based on the evidence of record, the Commission makes the following findings and conclusions:

1. DEC has agreed to hire members of the California Unions for Reliable Energy (CURE) to construct, operate, and maintain the plant.

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2. There will be no major influx of construction workers and their families to the area because DEC will recruit its workforce from thousands of eligible skilled construction workers within one hour commuting distance of the project.
  3. Project-related socioeconomic impacts on schools, housing, medical, and emergency services will be insignificant.
  4. CURE will provide apprenticeship training programs for qualified, local residents at no cost to taxpayers.
  5. DEC will pay a one-time developer fee of \$5,890 to the Pittsburg Unified School District.
  6. Approximately \$1.75 to \$2.25 million from annual property taxes paid by DEC will go to school districts in Contra Costa County.
  7. The Contra Costa County Fire Protection District (Fire District) will receive a one-time fire facilities fee assessed at \$0.15 per square foot for each project structure.
  8. The Fire District will receive property tax benefits paid by DEC to the Los Medanos 3 Redevelopment District at approximately \$1 million per year over the life of the project, providing more than sufficient funding to support the necessary level of fire protection to both DEC and PDEF.
  9. During construction, DEC will spend \$5 to \$10 million in the local area and the project will generate \$412,500 to \$825,000 in sales tax.
  10. The construction payroll of \$36 million and the annual operation payroll of \$1.2 million will generate economic benefits in the local community.
  - ~~11. Applicant and Staff engaged in extensive public outreach activities to facilitate public participation in the certification process.~~
  - ~~12. The affected area potentially subject to project related impacts is a five mile radius around the site.~~
  - ~~13. The affected population within the five mile radius is not predominately minority or low income.~~
  - ~~14. The project does not present a high and adverse impact, either directly or cumulatively, to the environment or public health.~~
  - ~~15. There is no disproportionate impact from project related activities on minority or low income populations.~~
  - ~~16. There is no persuasive evidence of environmental justice issues in this case.~~
  - ~~17. Implementation of the Conditions of Certification will ensure that project related activities do not impose any significant adverse socioeconomic impacts.~~
- ~~The Commission, therefore, concludes that with implementation of the Conditions of Certification, the project will conform with all applicable laws, ordinances, regulations, and standards relating to socioeconomics as identified in the pertinent portions of APPENDIX A of this Decision~~



Michael E. Boyd 1-26-2000