

September 21, 1998

President Richard A. Bilas
CA Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102-3298

Dear Sir:

We are grateful for the opportunity to comment on the Draft Environmental Impact Report (EIR) regarding the proposed divestiture of the Potrero Power Plant, and to articulate again the City and PG&E's mutual objectives. These objectives include ensuring that the Potrero Plant is operated in an environmentally appropriate way, that the Hunters Point Plant is shut down as soon as possible, and that regulators and power procedures are responsive to community concerns.

[Begin F1]

The City's main concerns regarding the divestiture, as analyzed in the Draft EIR, are the potential for human health effects due to increased particulate emissions and the regional implications of increased emissions of ozone precursors. San Franciscans should not have to endure the magnitude of increased emissions dismissed in this report as inconsequential. The public health of our citizens, and the attractiveness of the Bay Area as a place to do business, are inexorably tied to the quality of air we breathe and our attainment of environmental policy goals.

I encourage the State to consider these potential consequences in more depth, and to impose necessary mitigation measures. Appropriate measures may include (1) limiting Potrero Plant operations; and/or (2) obtaining air emission credits by achieving emission reductions in the local area.

[End F1]

Sincerely,

/s/

Kofi S. Bonner
Chief Economic Policy Advisor

cc. Gordon R. Smith, President & CEO
Pacific Gas & Electric Company

September 21, 1998

Mr. Bruce Kaneshiro
CPUC EIR Project Manager
c/o Environmental Science Associates
225 Bush Street, Suite 1700
San Francisco, CA 94104-4207

RE: Comments on the Draft EIR on PG&E's Electric Generation Asset Divestiture, A.988-01-008

Thank you for the opportunity to review the above referenced document. This letter and attachments provide the City and County of San Francisco's comments regarding the Draft Environmental Impact Report (DEIR). As you will see, our greatest concern is the increase in air emissions that will result from the project and potential adverse health impacts. We believe that the final EIR should address this issue in more depth, particularly with regard to local impacts and feasible mitigation measures. Our comments also address other areas including the use of the Analytical Maximum, land use, water resources, and hazards.

General/Summary Comments:

[Begin F2]

- The final EIR should identify, for any new power plants or transmission capacity that is assumed, the specific year in which these additions or replacements are assumed to be fully operational.

[End F2]

[Begin F3]

- In the final EIR please ensure that there is a clear correlation between the tables in the Executive Summary (Tables S.1, S.3, S.4, S.5, S.6, and Part of S.6) and the tables in Appendix G. For example, in Table S-1, the column headings should indicate the tables in Appendix G relied upon. Similar annotations to Appendix G should be provided for the remaining tables in the Executive Summary.

[End F3]

[Begin F4]

- The Draft EIR correctly points out the massive changes that are occurring in the utility industry here in California. In order to not underestimate the potential impact of these changed conditions, the environmental impacts of divestiture in the final EIR should start from an analysis of each divested plant's impact, based upon the plant's **physical** maximum output. This physical maximum output would be the maximum electricity each plant could produce, taking into account down times due to forced outages, maintenance periods, and any permit restrictions. Additional comments on this item are contained in Exhibit A, attached.

[End F4]

[Begin F5]

- *Page S-11, Section S.6 (Cumulative Impacts):* For Alternatives 2A and 2B, what are the underlying assumptions and data for the Year 2005?

[End F5]

[Begin F6]

- *Page S-16:* The DEIR concludes that “the environmentally superior alternative to the project is a combination of Alternative 2A, the bundling of Potrero, Contra Costa and Pittsburg and Alternative 3, the sale of the Geysers plant to the steam field operators . . . The magnitude of the impacts would be less than with the project, but the levels of significance of the impacts would be identical to the project.” This paragraph should be expanded to indicate: 1) what specific environmental impacts are decreased with Alternatives 2A and 2B and what is the level of decrease and 2) what is meant by the phrase “the levels of significance of the impacts would be identical”?

[End F6]

[Begin F7]

- *Page S-21, Table S.6; Also P. S-31, Table S-2:* Impact 4.5.5 is designated as significant for the proposed project and for Alternative 2A and 2B. For the proposed project the footnote states that the impact is “unavoidable”. What is meant by unavoidable? As explained below in the discussion on air quality, this impact can be mitigated. The reference to “unavoidable” should be deleted and Impact 4.5.5 identified as “S/M” -- “a potentially significant impact; impact would be reduced a less than significant by mitigation measures required in this report.” The final EIR should then add a discussion of available mitigation measures (plant output limits, emission offsets).

[End F7]

[Begin F8]

As discussed above re page S-16, greater explanation is needed for the designation of “L” and “G” for Alternative 2.

[End F8]

Land Use and Planning

[Begin F9]

- *Figure 4.1-1 (page 4.1-3) and Figure 4.1-4 (page 4.1-8)* should be amended to delete the pipeline to the Pier 70 Marine terminal and the terminal from the Potrero Plant site. Those properties are owned by the Port of San Francisco and will not be transferred with the sale. PG&E must seek an assignment of their lease to the purchase of the Potrero Plant.

[End F9]

Water Resources

[Begin F10]

- *Section 4.4.2 (Local Setting)* should discuss the environmental impact issues identified in the significance criteria presented in Section 4.4.3 (flood hazards, storm water runoff, public water supplies, water quality, and groundwater resources), especially the contribution of each plant to surface and groundwater quality and condition. Discussing these issues will provide support for the impact conclusions described in Section 4.4.4.

[End F10]

[Begin F11]

- For the Potrero Plant, the final EIR should include a figure illustrating monitoring wells and outfalls (in this or the Hazards section), and include any water quality data from those wells, if the information is necessary to support the impact analysis. This could be as brief as a list of chemicals of concern present in the water, with the data and figures provided in an appendix.[End F11] [Begin F12]The final EIR should also include a summary of chemicals discharged and a discussion of any NPDES compliance issues.[End F12]

[Begin F13]

- *Impact 4.4-2 (page 4.4-15)* introduces a new significance criteria -- violation of state or federal effluent limitations. This criteria should be included in Section 4.4.3.

[End F13]

[Begin F14]

- Section 4.4.4 should be expanded to address the proposed project's anticipated effect on each of the impact topics identified by the significance criteria in Section 4.4.3. Impacts should be discussed separately for each of the plants.

[End F14]

[Begin F15]

- Some of the existing NPDES permits will expire during the period covered by the impacts analysis. The final EIR should clarify whether the analysis assumes that the RWQCB will renew the permits without modification and the basis for this assumption.

[End F15]

[Begin F16]

- *Page 4.4-6 (Potrero Plant):* this section should cross-reference Part 4.4.9 (Hazards), and vice-versa, since there are major environmental contamination issues associated with the groundwater setting.

[End F16]

Air Quality

[Begin F17]

- It was difficult to determine which version of the must-run contract for Hunters Point is assumed in the DEIR. The final EIR should assume version C, given PG&E's Agreement with CCSF.[End F17] [Begin F18]The final EIR should also clearly state how by PG&E/City Agreement regarding the shutdown of Hunter's Point affects the assumptions and conclusions in this chapter. If the CPUC has not approved the PG&E Amendment regarding the Agreement by the time of the issuance of the final EIR, then the EIR should discuss how the scope of the project and impacts might change.[End F18]

[Begin F19]

- The final EIR should clarify what air quality retrofits are assumed and in what year. For any retrofits assumed to have occurred in 1998, the final EIR should check that such retrofits have actually been accomplished.

[End F19]

[Begin F20]

- The figures attached as Exhibit B represent CCSF's understanding of the emissions data assumed in the DEIR. Are these emissions calculations correct? Similar charts should be included in the final EIR.

[End F20]

[Begin F21]

- What measures are proposed to ensure that the actual emissions do not exceed those stated in the DEIR? The City suggests that regular monitoring and dissemination of monitoring results.

[End F21]

[Begin F22]

- As indicated on p. 4.5-18, the BAAQMD Regulation 9, Rule 11 establishes NO_x emission rate limits for power plants within its jurisdiction. It is our understanding that any new operator of these power plants will be required to operate in compliance with these NO_x emission rates, even if the new owner only purchases one plant. In year 2005, the NO_x emission rate limit under the “bubble” option is 0.018 pounds per million BTU. However, several scenarios referenced in Appendix G indicate that this limit is not satisfied. Specifically, in Tables G-2 and G-8, the average NO_x emissions for the Pittsburg facility are 0.020 lb/mmBTU; and in Tables G-6, and G-17, the average NO_x emissions for the Pittsburg facility are 0.023 lb/mmBTU.

[End F22]

[Begin F23]

- *Part 4.5.4 (Significance Criteria), page 4.5-50, second full paragraph:* Given the projected increase in 1999 Potrero Plant emissions relative to the no-project baseline (for example, a 56.8% increase in NO_x), did the CPUC consider whether the local area’s air quality-related health burdens constitute a “special circumstance” for significance considerations? If not, why not?

[End F23]

[Begin F24]

- *Part 4.5.4 (Significance Criteria), page 4.5-50, Criteria #1:* The significance criteria do not appear to account for the Bay Area’s non-attainment status for ozone and particulate matter (listed in Table 4.5-2, “Air Basin Attainment/Non-Attainment Designations”)> For example, “Prevention of Significant Deterioration” (PSD) is a standard typically used for attainment areas; “New Source Review” (NSR) is typically used in non-attainment area. Are PSD standards used for all criteria pollutants? If so, what is the rationale? (For example, one difference is that significance under an NSR standard can be triggered by 100 additional tons/year of NO_x; the Potrero Plant would emit 610 additional tons/year at the Analytical Maximum). Generally, it seems that the analysis should reflect the area’s non-attainment status because more stringent analyses may be appropriate for non-attainment pollutants.[End F24] [Begin F25]Also, were the numerical criteria for PM-10 significance derived from BAAQMD Regulations or other sources?[End F25]

[Begin F26]

- *Table 4.5-26:* Please explain the difference between the Hunters Point emissions levels in this table and in Table G-1 (334 v. 210 tons NO_x/year). Which levels were used to determine significance?

[End F26]

[Begin F27]

- *Page 4.5-32:* Even assuming that fossil-fueled plants would emit mainly particles PM_{2.5} or smaller, the DEIR analysis may be incomplete, since it does not appear to have accounted for the secondary formation of PM_{2.5} from NO_x and ROG emissions.

[End F27]

[Begin F28]

- *Page 4.5-62:* The DEIR appears to analyze only the primary impacts of NO_x and PM. The DEIR does not evaluate the secondary pollutant formation of ozone and particulate matter (for example, by using a photochemical model such as CAMx™ or UAMV). What is the rationale for not conducting such an evaluation?

[End F28]

[Begin F29]

- *Page 4.5-75, first full paragraph:* The last sentence of the paragraph states: “Based on the converse to that concept, the contribution of divestiture to overall cumulative ambient risk would be less than significant because the project-specific impact would be less than significant.” This approach contradicts the purpose of a cumulative impacts analysis. CEQA calls for agencies to identify situations where impacts in themselves are not significant, but could contribute to a significant effect in combination with the impacts of other projects.

[End F29]

[Begin F30]

- *Mitigation Measure 4.5-5 (page 4.5-81):* The DEIR concludes that even if Regulation 9, Rule 11 or its equivalent were applied to the divested plants, the 1997 Clean Air Plan would not be met if the plants were operated at the Analytical Maximum, and that this is a significant, unavoidable, temporary (until Year 2003) impact. No mitigation is proposed. As shown in the charts attached as Exhibit B, the increase in emissions will be substantial, especially on a cumulative basis. The impact of these increased emissions can be mitigated by at least the following means: (1) restricting operating hours and/or (2) obtaining air emissions offsets. The final EIR should include these or other mitigation measures to ensure less than significant levels of emissions.[End F30] [Begin F31]In addition, emissions after 2003 will still increase substantially with the project, as opposed to no project. Absent enforceable mitigation, what assurance is there that the emissions will not in fact be higher than projected after 2003, and thus trigger a significant impact?[End F31]

[Begin F32]

- *Page 4.5-70 (Cumulative (2015) Bay Area Analysis):* In order to produce a valid cumulative impacts analysis, the mobile and project sources for all criteria pollutants should be added together and the effects evaluated (as was done for carbon monoxide).

[End F32]

Hazards

[Begin F33]

- The analysis of hazards related to contamination of soil and groundwater at the Potrero Plant site is inadequate, and is not based on detailed information available at the time of publication of the DEIR. The Potrero Plant site is known to have substantial soil and groundwater contamination issues, as the Phase II report published in June 1998 (“Phase II Environmental Site Assessment: Pacific Gas and Electric Company, Potrero Power Plant, “by Fluor Daniel GTI) acknowledges.

[End F33]

[Begin F34]

- *Section 4.9.1 (Regional Setting), page 4.9-1 et seq:* This section discusses the regulatory framework for hazardous materials and site remediation (although omitting reference to Proposition 65 and local ordinances), but not any specific setting information. Please

include a summary of environmental conditions at and surrounding each plant. The final EIR should identify whether there any underground storage tanks present on the Potrero property and should also indicate that polyaromatic hydrocarbons were found at the former manufactured gas plant facility at Potrero.

[End F34]

[Begin F35]

- *Page 4.9-4 (Hazardous Materials And Waste):* Please discuss asbestos, PCB's lead-based paint and electromagnetic fields at the Potrero Plant in order to support the significance conclusions.

[End F35]

[Begin F36]

- *Page 4.9-5 (Potential Site Contamination):* Please reference the Phase II report published in June 1998 ("Phase II environmental Site Assessment: Pacific Gas and Electric Company, Potrero Plant," by Fluor Daniel GTI).[End F36] [Begin F37]Is there a schedule for remediation of the Potrero Plant site? If so, this should be included in the final EIR.[End F37] [Begin F38]Did the PEA done by PG&E determine if the site poses any current hazards to human health or the environment? If so, this should be discussed in the final EIR.[End F38]

[Begin F39]

- *Page 4.9-6, second full paragraph:* What is the current status of the "material recognized environmental conditions?"

[End F39]

[Begin F40]

- *Page 4.9-6, second full paragraph and page 4.9-15, third full paragraph:* Is PG&E doing the Phase II assessment and risk assessment voluntarily, or has it been directed to do these by a regulatory agency? If so, which regulatory agency is it? Who will determine what cleanup is required, and when it is performed?

[End F40]

[Begin F41]

- *Impact 4.9-1 (page 4.9-14):* What factors related to divestiture would accelerate remediation efforts at the Potrero Plant?[End F41] [Begin F42]What are the regulatory requirements that would require remediation by either the purchaser or PG&E?[End F42]

[Begin F43]

- The DEIR does not address how divestiture could affect the potential remedies proposed in the Phase II report for the Potrero Plant. For example, the Highest Ranking Alternative for Remedial Issue 1 -- Soil and Groundwater in the Central Site Area would require a plant shutdown of up to 30 days (see page 84 of the Phase II report). The final EIR should address the Phase II report and how such a shutdown relates to the "must-run" and economic assumptions of the analysis. The report estimates a total of over \$33 million in required remediation, so it is not a minor issue. If remediation is not accomplished prior to shutdown of the Hunters Point Plant, would a less-protective remedial alternative eventually have to be implemented because of the Potrero Plant's role in maintaining the San Francisco Operating Criteria reliability?

[End F43]

[Begin F44]

- *Mitigation Measure 4.9-1 (page 4.9-17):* The DEIR assumes early cleanup. The City is concerned, however, that divestiture could result in less timely and less effective remediation because of changes in site control, loss of access to records, introduction of new potentially responsible parties, and the lesser ability of a purchaser in a deregulated environment to absorb substantial increases in remediation costs.

[End F44]

[Begin F45]

Pages 4.9-16 and 17 summarize PG&E's intentions regarding retention of legal responsibility for cleanup and describe a process of regulatory oversight that it intends to follow. However, Mitigation Measure 4.9-1 only calls for PG&E to submit each plant's Risk Assessment to the CPUC and to the purchaser. In addition, the fourth full paragraph on page 3-5 states that "issues associated with the liability for environmental cleanup are expected to be resolved contractually between each new owner and PG&E."

An expression of intent by PG&E is inadequate, by itself, to assure that the sites will be cleaned up by PG&E once ownership is transferred. The City is concerned that PG&E's proposed responsibility for cleanup could be transferred, diluted, or avoided as a result of the divestiture unless PG&E enters into binding remediation commitments prior to sale.

Mitigation Measure 4.9-1 should indicate requirements that PG&E include each purchase and sale agreement provisions that implement the assumptions made in the DEIR regarding PG&E's post-transfer responsibilities, and that PG&E will enter into an enforceable remediation agreement with one or more appropriate regulatory agencies prior to transfer of title.

[End F45]

[Begin F46]

- *Impact 4.9-3 (page 4.9-19); page 4.9-4:* In the final EIR, the paragraphs summarizing the properties of chemicals typically found at the power plants to be divested would be useful in the setting section. For the Potrero Plant, similar information should be provided for sodium hypochlorite, sodium bisulfite, and the solvents, degreasers and petroleum-based oils that, according to the last paragraph on page 4.9-4, are hazardous materials used at the plant. [End F46] [Begin F47] Lead-based paint is generally considered a hazardous material where building renovation or demolition is possible, and so should be discussed as applicable. [End F47]

[Begin F48]

- *Mitigation Measure 4.9-3 (page 4.9-21):* Even though PG&E personnel will continue to operate the divested plants after title is transferred, three business days seems too short a time for the new owner to review detailed documents and procedures for which it will be legally responsible as soon as title is transferred. The health and safety documents should be made available to the prospective purchasers sooner.

[End F48]

[Begin F49]

- *Impact 4.9-5 (page 4.9-23):* Site remediation often generates larger quantities of hazardous waste than typified by operations, although there is no information provided in the DEIR for these particular sites. The final EIR should clarify how the impact of remediation waste generation is included in Impact 4.9-1.

[End F49]

[Begin F50]

- *Impact 4.9-6 (page 4.9-24):* The DEIR does not provide information on whether EMF emissions at any plant would increase as a result of the project's assumed higher operations levels. If there would be increases, then at a minimum the purchaser should be required to mitigate the emissions in accordance with CPUC policy.

[End F50]

Local Cumulative Impacts

[Begin F51]

- Table 5.1 (page 5-12) and Section 4.5 (Air Quality) should rely on a current list of local projects near the Potrero Plant. Please contact the San Francisco Planning Department and the Port of San Francisco for updates to this list.

[End F51]

[Begin F52]

- The EIR analysis does not appear to fully address the cumulative impacts of the proposed project in combination with local projects. Several of the local projects listed (and several that should be added to the list) are localized generators of PM10 emissions. The surrounding community has concerns regarding the cumulative effect of these generators when viewed in combination with the Potrero Plant. Please expand the cumulative impacts assessment to address this issue.

[End F52]

Please do not hesitate to call me at (415) 558-6384 if you have questions regarding these comments, or if I can be of further assistance.

Sincerely,

/s/

Hillary E. Gitelman
Environmental Review Officer

cc: Kofi Bonner
Laurie Park
Elaine Warren
Dian M. Grueneich

Exhibit A
Use of the “Analytical Maximum” and
Need to Analyze Impacts Under the Physical Maximum

[Begin F53]

The DEIR (p. S-6) indicates that the new owners of the fossil-fueled plants would tend to operate at higher levels than PG&E’s continued ownership because of the following three factors: the portfolio effect; fuel procurement practices; and the ability of new owners immediately to participate in the direct access market. The DEIR also states (page S-8): “The ability of new owners to participate immediately in the direct access market is a key factor in this EIR’s assumption that new owners will tend to operate at higher levels than PG&E.”

The DEIR then proceeds to define an analytical maximum that somehow is supported to take into account all three of the above factors. The DEIR state: “It is expected that divestiture of the power plants will create a tendency for new owners to operate the plants at higher levels than in the 1999 Baseline Scenario. However, it is not possible to determine with any precision of which plants operations would increase at a particular plant.” (p. S-8) The report then defines a gas price level at which somehow all of the three above factors are considered, even though gas price level is really only directly related to the second factor.

Much of the remainder of the DEIR is based upon sophisticated system modeling, which produces operating levels that result from this arbitrary gas price assumption. However, many other assumptions also need to be made about the operation of the interconnected system, all of which can have an impact upon operating levels of the divested plants. Based upon all of these subjective factors, it is a stretch at best to conclude that the resulting “Analytical Maximum” and modeling results have any correlation to what can reasonably expected to be a limit to future changes in operations of the plants under divestiture.

[End F53]

[Begin F54]

In comparison, calculation of the operating level based upon the physical maximum, which the City proposes be included in the final EIR, is an easy exercise. At a minimum, the environmental effects of plant operation at the physical maximum levels (as defined above), should be displayed in the final EIR, in addition to those impacts calculated in the DEIR. The likelihood of reaching the physical maximum level of operation could be also addressed in the final EIR, so that decision makers can fully evaluate the possible impacts of divestiture.

[End F54]

The following questions and comments supporting our belief that environmental impacts should at least be investigated at the physical maximum operating level:

[Begin F55]

1. On page S-7, the DEIR states that a major assumption is that: “Both the PX and ISO continue to commit and dispatch the plants based upon minimum variable cost of operation, consistent with the requirements of the San Francisco Operating Criteria (SFOC) and the Bay Area Reliability Requirements (BARR) and local distribution system report requirements.” Very little with respect to the PX and the ISO stays constant these

days. The Federal Energy Regulatory Commission (FERC) is holding detailed settlement discussions with respect to the must run agreements, for all the plants that sell to the ISO, including those being divested. In addition, the ISO, in corporation with the transmission owners, are developing transmission planning criteria for the ISO system as a whole. In this process, they are trying to reconcile differences between the historical practices of each of the Transmission Owners and also interpret and apply WSCC and NERC criteria at a local level which is a change from past practice.[End F55] [Being F-56]Finally, PG&E has concurrently proposed major additions to their transmission system in the Bay Area which are not accounted for in the DEIR analysis.[End F56]

[Begin F57]

2. other “key assumptions” in the DEIR involve powerplants being added in San Diego and Nevada. Tremendous uncertainty exists as to where and when new generation will be added in the western region. The final EIR should explain what new powerplants are being assumed, the basis for that assumption, and some indication of how the impact analysis would change if either more or fewer new powerplants are developed than is assumed in the final EIR.

[End F57]

[Begin F58]

3. Section 3.4 of Attachment C describes “Factors that Could Produce Change.” These factors bolster our position that the final EIR needs to look at physical maximums for the plants being divested. The DEIR says that such factors are “too speculative to consider at this time” but it is not at all clear that these factors are more unlikely than many of the assumptions that are included in the Analytical Maximum cases.

[End F58]

[Begin F59]

4. As pointed out in the DEIR, p. C-2: “The first basic premise is that restructuring as directed through legislation and Commission decisions will lead to substantial, fundamental changes in how California’s electric utility system operates.

[End F59]

[Begin F60]

5. As pointed out in the DEIR, p. C-3, “if an operator can reduce costs by changing operating mode or reducing cost of fuel by even a small amount, sales from that unit can rise substantially.” The DEIR includes on single assumption – the 25% decrease in an owner’s gas cost – which is evidently meant to capture all of the effects of changes in operating mode and fuel costs. As explained above, use of a physical maximum in the final EIR will capture the impact of such changes without requiring numerous additional operation studies.

[End F60]

[Begin F61]

6. Section 3.1 and Section 3.2 point out a litany of factors that all lead to a conclusion that no one can predict with any certainty how operation of the divested plants might change. No attempt is made to indicate how the EIR reader knows that the Analytical Maximum captures these uncertainties. Use of the physical maximum in the final EIR will account for these uncertainties.

[End F61]

Note: Included with this comment were two pages of Exhibit B. Since these cannot be reasonably duplicated here on this web page they are not available electronically. Should the viewer require a copy of these, please contact Webmaster for a printed copy.

September 17, 1998

Hillary Gitelman
Office of Environmental Review
Department of City Planning
1660 Mission Street
San Francisco, CA 94103

Dear Ms. Gitelman:

The San Francisco Department of Public Health has reviewed the Draft Environmental Impact Report (EIR) for the Pacific Gas and Electric Company's Application for Authorization to Sell Certain Generating Plants and Related Assets Application No. 98-01-008. We are specifically concerned with the sale of the Potrero Plant in San Francisco. We would like to provide you with the following written comments on the EIR:

Comment 1. General Comment

[Begin F62]

Overall, we found the assessment of health impacts due to the anticipated changes in local air quality was limited. The report based its significance criteria mainly on existing administrative rules that set permissible exposure increments and limits. This approach ignores the breadth of human health effects that have been associated with specific air pollutants, and it ignores the concept of a linear dose-effect response relationship between these adverse health outcomes and incremental increases in pollution.[End F62] [Begin F63]A more complete risk assessment process of this project should reflect the available scientific evidence and should address the following:

A. Separate risk characterizations should be made for each criteria air pollutant. This is most important for "non-attainment" pollutants, ozone and particulates, but also relevant for nitrogen oxides for which emissions increases are the greatest.

[End F63]

[Begin F64]

B. Risk assessment should be done on a regional as well as local level.

[End F64]

[Begin F65]

C. Exposed populations should be identified and located, and sensitive subpopulations should be estimated.

[End F65]

[Begin F66]

D. The most sensitive health outcome for each pollutant should be as determined from consideration of all of the outcomes studies in the epidemiologic literature (i.e., cardio-respiratory mortality, hospital admissions and emergency room visits, exacerbation of chronic respiratory disease, etc.).

[End F66]

[Begin F67]

- E. The population health burden for incremental exposure changes should be estimated utilizing the slope of the exposure-response relationship, the population at risk and background outcome frequency.

[End F67]

We believe the approach outlined above is feasible and would provide a less ambiguous estimate of the population health impact of the proposed project.

[Begin F68]

Comment 2. Page 4.5-6 Last paragraph

- A. The paragraph summarizing the health effects of PM10 and PM2.5 should distinguish between health impacts due to chronic and acute exposure to PM10.
- B. The paragraph should reference studies on the impact of acute exposure to PM10, specifically, daily rates of respiratory and cardiovascular mortality, hospital admissions and emergency room visits as well as probability of asthma exacerbation. Since the US EPA criteria document referred to in the Draft EIR (page 4.5-84) reviewed ALL studies relating to both acute and chronic exposure to PM, it would be appropriate to use this criteria document and the associated staff report in addition to selected studies.

[End F68]

[Begin F69]

Comment 3. Page 4.5-12 1st full paragraph, Introduction to Risk Assessment

The last sentence states, "Information on risk assessment methodology is presented in the discussion of the Potrero Power Plant setting." The page number with this information should be referenced. Also cross reference what is in Appendix G and what is in the main document in terms of risk assessment methods.

[End F69]

[Begin F70]

Comment 4. Page 4.5-25 1st full paragraph

What residences are downwind from the power plant (as related to the wind rose on page 4.5-27)? The location and approximate population size of these areas should be stated.

[End F70]

[Begin F71]

Comment 5. Page 4.5-31 2nd full paragraph, Sentence 1

The sentence obscures effects due to chronic and acute exposures, doesn't refer to cardiovascular impacts, and downplays the relationship of daily concentrations of PM to mortality ("in some cases"). While there are still controversies in the observed PM-mortality relationships, they have been replicated in more than 50 studies, and they are at least as strong in terms of data quality as those for other outcomes.

[End F71]

[Begin F72]

Comment 6. Page 4.5-31 2nd full paragraph, Sentence 2

The sentence reads, “Most of these studies have shown relationships between PM exposure and respiratory effects during air pollution episodes in major metropolitan areas, where daily ambient air concentrations exceeded 300 $\mu\text{g}/\text{m}^3$.” The above statement is incorrect as relationships between PM and health effects have been shown at concentrations much lower than 300 $\mu\text{g}/\text{m}^3$; furthermore, the sentence in paragraph 2 of the following page, “Typical annual average concentrations of PM-10 at these cities ranged from 18-58 $\mu\text{g}/\text{m}^3$” directly contradicts the above statement. In addition, the word, “cardiopulmonary,” in the above statement should replace the word, “respiratory.”

[End F72]

[Begin F73]

Comment 7. Page 4.5-31 3rd full paragraph

Sentence 1 should read, “A draft report released by...reported that 1992 hospitalization rates for ... were higher in Bayview Hunters Point than any other part of San Francisco. Sentence 2 should use the past tense. Sentence 3 should begin, “To better understand the causes of the increased hospitalization rates.”

[End F73]

[Begin F74]

Comment 8. Page 4.5-32 2nd full paragraph

The first sentence states, “With regard to fine particles (PM_{2.5}), several studies cited in the EPA report indicate that significant increased hospitalization and respiratory symptoms occur when PM-2.5 24-hour concentrations increase by 20-25 $\mu\text{g}/\text{m}^3$ (Schwartz et al., 1994; 1996; Thurston et al., 1992, 1994).” There seems to be some confusion in how these studies were interpreted. These studies and others are describing *linear* relationships. When relative risks are presented, they use a realistic interval such as the interquartile range of concentrations in the study area or 10 or 20 $\mu\text{g}/\text{m}^3$ increases which could be observed from one day to the next. **These effects would be just as statistically significant with 1 $\mu\text{g}/\text{m}^3$ increases.**

[End F74]

[Begin F75]

Comment 9. Page 4.5-50 Significance Criteria #1

The source of the numerical criteria presented (5 $\mu\text{g}/\text{m}^3$ increase 24 hour average PM₁₀ and 1 $\mu\text{g}/\text{m}^3$ annual average increase) is not referenced.

[End F75]

[Begin F76]

Comment 10 Page 4.5-50 Significance Criteria #4

In sentence three and four, a numerical interval, 24 hour 20 $\mu\text{g}/\text{m}^3$ PM_{2.5} & annual 10 $\mu\text{g}/\text{m}^3$ PM_{2.5}, is established as the significance criteria. In sentence one, the significance criteria is the production of “increased respiratory ailments.” These criteria are inconsistent because where a

linear dose-effect relationship exists, any increase in exposure would be expected to result in a quantifiable increase in the burden of disease. (See comments 8 & 9.) Also, the references for the above numerical targets are not cited. It is possible that the study from which the above numerical limits have been derived may have used the term “significance” to connote significance or the term may reflect the authors own judgment. (see general comment above.) Finally, does the criteria consider only incremental increases only being considered or is the cumulative effect of air pollution being considered? How are expected number of days exceeding 20 µg/m³ determined? Why are these incremental increases for PM_{2.5} greater than the ones given for PM₁₀ in Criteria #1 when PM_{2.5} is a subset of PM₁₀?

[End F76]

[Begin F77]

Comment 11 Page 4.5-50 Significance Criteria #5

How does the recent Federal non-attainment designation of the Bay Area Region for ozone affect the determination of significant exposure and health impacts? Will any increases in ozone precursors, both ROG's and Nox, be consistent with the region's plans to come under future compliance?

[End F77]

[Begin F78]

Comment 12 Page 4.5-63 Table 4.5-29

There is an apparent error in the PM_{2.5} row. The power plant contributes 1.2 µg/m³ PM_{2.5} to ambient concentrations, but the ambient concentration after this contribution is listed as 1.2 µg/m³. There is a similar error in the next 2 columns.

[End F78]

Thank you for considering our comments. Please call Dr. Rajiv Bhatia at 252-3931 if you have any questions on our comments.

Sincerely,

/s/

MITCHELL H. KATZ, MD
Director of Health

cc: Rajiv Bhatia, Occupational and Environmental Health, D.P.H.

October 7, 1998

Mr. Bruce Kaneshiro
CPUC EIR Project Manager
c/o Environmental Science Associates
225 Bush Street, Suite 1700
San Francisco, CA 94104-4207

RE: Comments on the Draft EIR on PG&E's Electric Generation Asset Divestiture
(A.98-01-008)

Dear Mr. Kaneshiro:

[Begin F79]

The City and County of San Francisco submitted comments on September 21, 1998 on the Draft EIR regarding PG&E's ongoing divestiture project. We wish to offer the following supplement to those comments, with regard to the last sentence in my cover letter to President Bilas and the City's comment on Mitigation Measure 4.5-5 (DEIR, p. 4.5-81).

The purpose of the above-referenced comments from the City was to encourage the Commission to include, in the final EIR, a discussion of mitigation measures, to the extent such measures are available or appropriate. The City defers, of course, to the Commission's responsibility under CEQA to determine whether any mitigation measures are necessary or appropriate.

[End F79]

We thank you for the opportunity to provide this supplement to our prior comments.

Sincerely,

/s/

Kofi S. Bonner
Chief Economic Policy Advisor

cc: President Richard A. Bilas,
California Public Utilities Commission
Gordon R. Smith, President & CEO,
Pacific Gas and Electric Company

F. CITY AND COUNTY OF SAN FRANCISCO

F1 The EIR has conducted extensive analyses with regard to air quality and there is little evidence to suggest that this project, which includes the sale of the Potrero Power Plant in San Francisco, will result in significant health impacts, or other air quality impacts, from PM-10 or ozone precursors. The most important direct effect of the project is that changes will be required to BAAQMD Regulation 9, Rule 11. This is because Regulation 9, Rule 11 is currently written to apply to utility electric power generating steam boilers, and the new owner would not be a utility. Regulation 9, Rule 11 also must be modified because it applies a system-wide average to the NO_x emission concentration levels, and with the sale of the plants, there will be multiple owners of the Bay Area electric power generating steam boilers. This is assured because the Hunters Point Power Plant is no longer included in the auction and will continue to be owned by PG&E until it can be shut down. The EIR includes Mitigation Measure 4.5-5 that requires modifications to Regulation 9, Rule 11, or permit revisions, so that the end result would be that substantially equivalent emission rate limits as currently apply to PG&E would apply to any new owner.

BAAQMD Regulation 9, Rule 11 is critical to the substantial reductions that will be required of the electric generating steam boilers. As can be seen in the emission limits on page 4.5-18 of the DEIR, NO_x emission rates will drop about 90 percent between 1997 and 2005. The other key feature of Regulation 9, Rule 11 is the prohibition on oil burning, which will minimize fine particulate PM-10 and toxic emissions. BAAQMD is in agreement that Regulation 9, Rule 11 should apply to the new owner(s) of these power plants. The following is a quote from the BAAQMD comment letter (first page, second paragraph) on the DEIR:

The District is committed to modifying its Regulation 9, Rule 11 so that the rule will continue to apply to these power plants, regardless of ownership. Interested parties will get public notices this fall to discuss the proposed necessary rule changes. The intent is to achieve NO_x reductions at least equivalent to the current rule, with the same emission limits and deadlines as the current system wide schedule. The prohibition on oil burning, which will minimize fine particulate PM10/PM2.5 and toxic emissions, will of course also be retained in the rule.

Although the EIR identifies a potential for increased operation of the Potrero Power Plant, the electric generating steam boiler (Unit 3) will continue to use natural gas exclusively as a fuel (as required by Regulation 9, Rule 11 since 1995), which is the cleanest burning of the fossil fuels (see DEIR page 4.5-1), and the predominant winds blow the emissions out over the bay. Please see also responses to Comments 4-2 and F70.

Please see response to Comment F30 regarding the suggested mitigation measures for limiting Potrero plant operations and/or obtaining air emission credits.

Finally, with respect to the commenter's main concern about potential health effects related to particulate emissions (i.e., PM-10), some studies have indicated that any incremental increases in PM-10, such as during particular 24-hour periods when the ambient air already exceeds PM-10 standards, can cause health impacts. An in-depth study of those potential effects is not believed to be necessary or appropriate for review in this EIR, but may be necessary or appropriate in connection with reviews of environmental and community impacts of any development or expansion plans for these or other power plant sites. In addition, the purchase and sale agreement for these plants requires the owner to consult in good faith with the City and County of San Francisco about the impacts of any planned expansion or development of the Potrero Power Plant site.

Detailed responses to the commenter's concerns regarding potential health effect issues are provided in responses to Comments F62, F63, F66, F67, F68, F73, and F74.

- F2 Table S-3 (page S-13 in the DEIR) shows that the EIR assumes that the Pittsburg District Energy Facility (PDEF) will be on line by 2005 (as analyzed in Cumulative Variant 2) and that another new power plant in San Francisco will also be on line by 2005, either a new 480 MW power plant (analyzed in the primary cumulative impacts analysis) or a new 240 MW power plant in San Francisco, together with a new transmission line (under 2005 Cumulative Variant 1). It was considered too speculative to determine more precisely the year in which these plants would first be on line. The timing of plant retirements that are assumed to occur under various scenarios can be determined from data presented in Table 5.2 (see pages 5-17 and 5-18 of the DEIR).

As indicated in Chapter 5 (page 5-3) of the DEIR, it appears reasonably foreseeable, in light of the June 9, 1998 agreement between PG&E and the City and County of San Francisco, that generation and/or transmission facilities to serve the City of San Francisco and replace the Hunters Point Power Plant would be in place by 2005. Footnote 1 (page 5-3) explains that, since permitting for new generation or transmission facilities normally takes about two to three years and construction of new facilities requires approximately two years, it is reasonable to forecast that such activities would be complete by 2005. However, as footnote 1 also explains, it is possible that the Hunters Point Power Plant will not have closed precisely by 2005, in which case it is presumed that PG&E would continue to operate the Hunters Point plant at the minimum level necessary for reliability purposes, until the conditions necessary for closure of the plant were satisfied. As noted, the cumulative impacts analysis of the DEIR does not depend on the projects assumed within it having occurred by any particular year. If the Hunters Point plant were to be replaced by 2007 rather than 2005, for instance, the analysis would remain valid and applicable.

- F3 The commenter suggests that tables (G-1 to G-20) in Attachment G should include notes as to where in the DEIR the data are used. This would be a very time consuming and complex process since these tables are used as background or supporting data in varying

ways and in many places throughout the DEIR. However, for the sake of clarity, the following changes are hereby added:

To Table S.1 (and Table 3.1) the title is changed as follows:

PROJECTED POWER PLANT ANNUAL CAPACITY FACTORS^{a,g}

And the following footnote is added:

^g Capacity factors shown on this table are taken from Tables G-1, G-5, G-3, G-4, and G-6 and correspond to the fifth, sixth, seventh, eighth, and tenth columns of data from left to right on the table.

To Table S.3 (and Table 5.2) the title is changed as follows:

PROJECTED CUMULATIVE ANALYSIS POWER PLANT ANNUAL CAPACITY FACTORS^{a,i}

And the following footnote is added:

ⁱ Capacity factors shown on this table are taken from Tables G-1, G-3, G-4, G-5, G-6, G-9, and G-14 and correspond to the fifth, sixth, seventh, eighth, and ninth columns of data from left to right on the table.

To Table S.5 (and Table 6.1) the title is changed as follows:

PROJECTED ALTERNATIVES ANALYSIS POWER PLANT CAPACITY FACTORS^{a,f}

And the following footnote is added:

^f Capacity factors shown on this table are taken from Tables G-1, G-3, G-4, G-5, G-6, G-2, G-7, and G-8 and correspond to the fifth, sixth, seventh, eighth, ninth, and tenth columns of data from left to right on the table.

Information in Tables S.4 and S.6 is not directly correlated to the tables found in Attachment G. Therefore, Tables S.4 and S.6 remain unchanged.

- F4 Please refer to the responses to Comments F53 and F61.
- F5 Except for the unique differences being analyzed in Alternatives 2A and 2B (as explained on pages 6-16 and 6-17 of the DEIR), the underlying assumptions and data for the Year 2005 (Alternatives 2A and 2B) are the same as for the 2005 Cumulative Scenario, as described on pages 3-3 and 3-13 of the DEIR and also in Attachment G, pages G-7 to G-9.
- F6 The environmental impacts associated with Alternative 2B (no bundling of plants for sale) would generally be increased over those of the project, and not decreased as indicated by

the commenter. The environmental impacts of Alternative 2A (bundling the fossil-fueled plants for sale) would be decreased compared with the impacts of the project to the extent that the magnitude of the project's impacts are based on the potential for plant operation levels to rise under divestiture. This is because the tendency of new owners to generate more electricity than PG&E would be somewhat reduced under Alternative 2A compared to the project as proposed. (Please see page 6-16, third paragraph, of the DEIR for a more detailed explanation of this.) As an example, because it is assumed that power generation under Alternative 2A would be less than under the proposed project, there would be less change in the use of water resources by the plants and discharges into receiving water bodies would be less, resulting in reduced impacts to water quality and temperature and to aquatic biological resources. Similarly, decreased operations under Alternative 2A could result in reduced noise levels in the vicinity of the plants compared to the project. The precise amounts by which the impacts of Alternative 2A may be lessened in comparison to the project is not quantifiable. The analytical maximum capacities of the plants are the same under both the project and Alternative 2A; the implementation of Alternative 2A would merely lessen the likelihood that the plants would operate at such capacities. All of the impacts of Alternative 2 are discussed in Section 6.4 of the DEIR, pages 6-9 through 6-28. The discussion on page S-16 referenced in the comment is intended as a brief summary of Section 6.4. For additional details on impacts of the alternatives, the reader is referred to that section.

Regarding the phrase "the levels of significance of the impacts would be identical," this means that while the magnitude of impacts under Alternative 2A would be reduced, the significance level identified for each project impact would be the same under the alternative. In other words, while the impacts to water quality, for example, would be less under Alternative 2A than under the proposed project, the impact would be less than significant for both the alternative and the project. Table S.6 of the DEIR illustrates this relationship between the project and each alternative for all impacts identified in the environmental analysis.

- F7 Please see response to Comment F30.
- F8 As discussed in the response to Comment F6, Table S.6 of the DEIR illustrates the comparative magnitude of impacts between the proposed project and the project alternatives. The "L" indicates that the magnitude of the impact under the alternative would be less than under the project. Conversely, a "G" indicates that the impact would be greater under the alternative. Table S.6 is intended only as a summary/overview of the impacts of the project and alternatives. Substantial details on the impacts are provided in Chapter 4 for the project and in Chapter 6 for the alternatives.
- F9 In order to reflect the City's comment and for clarification, Figure 4.1-1 (page 4.1-3) and Figure 4.1-4 (page 4.1-8) are hereby amended as follows: The property boundary around the site will no longer include the pipeline to the Pier 70 Marine terminal and the terminal from the Potrero plant site. Please see the revised Figures 4.1-1 and 4.1-4 below. The

INSERT FIGURE 4.1-1

Click on the box to display Figure 4.1-1

POTRERO POWER PLANT SURROUNDING LAND USES

INSERT FIGURE 4.1-4

Click on the box to display Figure 4.1-4

POTRERO POWER PLANT SURROUNDING ZONING

commenter is correct that the lease (which is included in the sale) must be transferred by PG&E to the new owner, subject to approval by the Port of San Francisco.

- F10 The significance criteria listed in Section 4.4.3 are all of the water resources related criteria from CEQA Appendix G. The water resources changes associated with the project are from the potential operation of the plants at higher levels and from construction of minor facilities such as access roads and fences. The nature of the project is such that there would be no impacts to flooding and stormwater runoff quantity (effects on stormwater quality from construction is discussed). The environmental setting and effects on public water supplies are discussed in Section 4.12, Utilities and Service Systems. The setting for water quality, most importantly the NPDES permit limits and groundwater, are described in Section 4.4.2.
- F11 There are no project-related impacts on groundwater at the Potrero plant. Changes in cooling water use would not affect groundwater, since the water is taken from, and discharged to, Lower San Francisco Bay. Construction of the minor facilities or the remediation of soils may require groundwater dewatering. Any water quality concerns from these activities would be addressed in complying with the required permit conditions.
- F12 The DEIR contains descriptions of the discharge sources and the types of chemicals discharged from these sources in Section 4.4.2. A summary of the NPDES permits is provided in Section 4.4.1; the new owners would be required to comply with the existing permit conditions.
- F13 The significance criteria listed on page 4.4-13 of the DEIR are hereby amended as follows:
- cause substantial flooding, erosion, or siltation;
 - expose people or structures to flood hazards;
 - generate substantial storm water runoff;
 - contaminate a public water supply;
 - substantially degrade water quality; ~~or~~
 - substantially degrade or deplete groundwater resources; or
 - violate any state or federal effluent limits.
- F14 CEQA requires an EIR to focus on the significant or potentially significant effects of a project. The project would not result in substantial flooding, contamination of a public water supply, or any of the other occurrences identified as significance criteria in Section 4.4.3. It is therefore not required and it is unwarranted in the interest of conciseness (also mandated by CEQA) to include a series of impact statements declaring that no impact on flooding, water supply, etc. would occur with implementation of the project. Similarly, it is also unnecessary to provide separate impact statements and discussions for each of the power plants when the impacts identified and the discussions supporting them apply to each of the plants.

- F15 Impact 4.4-2 on page 4.4-15 is hereby amended to add the following after the fourth paragraph:

NPDES permits are issued by the Regional Boards for 5-year periods. The permittee is required to apply for renewal of the permit and provide considerable data to the Regional Board on historical discharges and water quality monitoring. The Regional Board may renew the permit with the existing permit conditions and discharge limitations or may issue more stringent limitations, depending on the water quality conditions of the receiving body and the performance of the discharger. Since there is no reason to predict otherwise at this time, this analysis assumes that the NPDES permits for the plants will be renewed with the same effluent limitations as currently exist.

According to 40 CFR 122.61, the NPDES permits would be transferred from PG&E to the new owner with the same permit conditions.

- F16 Given the way the DEIR is organized, the information related to groundwater contamination at the Potrero Power Plant is all in Section 4.9, Hazards, so the appropriate cross reference would be to that section. The following sentence is added to the DEIR at the end of the first paragraph on page 4.4-1.

The reader is also referred to Section 4.9, which contains a discussion of groundwater contaminants at the power plants.

- F17 The DEIR assumes that the Hunters Point Power Plant would be operating only to meet reliability. The commenter is correct that such operational regime is consistent with Version C of the Must Run Agreement.
- F18 On October 8, 1998, the CPUC issued Decision 98-10-029, which approved the agreement between PG&E and the City and County of San Francisco regarding the Hunters Point Power Plant. This agreement is summarized within the second complete paragraph on page 1-4 of the DEIR. The DEIR analysis is consistent with the terms of the agreement. Please see response to Comment F20 regarding DEIR assumptions with respect to future Hunters Point plant operations.
- F19 On page G-6 of Attachment G, the following statement is made:

All postulated emission control improvements listed in Appendix B, Table B-2 of PG&E's Fossil Plant PEA were incorporated into modeling, as well as the retirement of Pittsburg 3 and 4; however, Pittsburg 1 and 2, were assumed retained for voltage support, with SCR added to Pittsburg 2 to permit observance of the Bay Area air quality bubble standards in 2005.

During visits to each of the power plants during the winter and spring of 1998, the EIR preparers confirmed that the Proposed Retrofit Technology shown in Table B-2 of PG&E's

**TABLE B-2
HYPOTHETICAL NO_x RETROFIT CONTROL SCHEDULE
UNDER A FOUR BAY AREA PLANT NO_x BUBBLE**

Unit	Proposed Retrofit Technology	Timing	Projected NO _x Emissions (ppm) ^a
Contra Costa 6	Combustion Modifications	1998	90
	Low NO _x Burners (30% FGR ^b)	2000	24
	In-duct Selective Catalytic Reduction ^c	2003	10
Contra Costa 7	Low NO _x Burners (30% FGR ^b)	1997	24
	In-duct Selective Catalytic Reduction ^c	2003	10
Pittsburg 1-4	Combustion Modifications	1998	125
	Restrict Load Range	1999	125
	Cold Standby or Retire	2002	125
Pittsburg 5	Combustion Modifications	1997	75
	Low NO _x Burners	2001	30
	In-duct Selective Catalytic Reduction ^c (30% FGR ^b)	2003	10
Pittsburg 6	Combustion Modifications	1996	75
	Low NO _x Burners	2001	30
	In-duct Selective Catalytic Reduction ^c (30% FGR ^b)	2004	10
Pittsburg 7	Combustion Modifications	1997	50
	Conventional Selective Catalytic Reduction	2003	10
Potrero 3	Boiler Tuning	1996	150
	Combustion Modifications	1997	115
	Over-fire Air/FGR	1999	75
	Low NO _x Burners	2001	42
	Conventional SCR	2003	10
Hunters Point 2	Combustion Modifications	1998	125
	Cold Standby/Retire or Retrofit Controls	2002	
Hunters Point 3	Combustion Modifications	1998	125
	Cold Standby/Retire or Retrofit Controls	2002	
Hunters Point 4	Combustion Modifications	1996/7	105
	Over-fire Air/FGR/Low NO _x Burners	1999	30
	In-duct Selective Catalytic Reduction	2003	15

^a 1.0 ppm equals about 0.00121 lb/MMBtu at 3 percent excess oxygen.

^b FGR = Flue Gas Recirculation.

^c Selective Catalytic Reduction (SCR) technology requires the storage and use of aqueous ammonia at the plant sites. Facilities and practices would be designed to avoid spills and contain them in the unlikely event they occurred. Ammonia emissions are limited to 10 ppm (hourly) under BAAQMD Rule 9-11 paragraph 311. Current SCR technology also uses a vanadium pentoxide catalyst, which, if possible, would be returned to the manufacturer for metals recovery. If the catalyst cannot be returned, it would be disposed of as a hazardous waste.

Fossil Plant PEA was already installed or would be installed during 1998, and would be operable on each specified unit no later than January 1999.

- F20 With one exception, the charts prepared by the commenter are fair depictions of the emissions data presented in the DEIR. The one exception is for the A-Max scenario in year 1999. For both PM-10 and NO_x, the commenter's charts appears to be based on emissions data from Table G-5 of Attachment G of the DEIR. However, Table G-5 assumes that the Hunters Point Power Plant would be operated by a new owner of that plant under the A-Max scenario (i.e., at a reduced cost for natural gas). In contrast, the DEIR air quality analysis derives from emission data shown in Table 4.5-26, which assumes that PG&E would continue to own and operate the Hunters Point plant and would operate that plant at minimum levels to meet the San Francisco Operating Criteria, as explained in footnote "c" of that table. Instead of the values depicted on the commenter's charts, the DEIR values for the A-Max scenario in 1999 are 727 tons per year of PM-10 and 8,699 tons per year of NO_x.

It is noted that emissions estimates can be presented in various forms, such as tables or charts. The DEIR used the former, while the commenter requests that the former be supplemented with the latter in the Final EIR. Either form is adequate; thus, no supplementary charts have been prepared. However, since all comment letters become part of the Final EIR, the particular charts prepared by the commenter will become part of the Final EIR.

- F21 As discussed in the DEIR in the third paragraph on page 4.5-61, the project was found to cause some increase in emissions of criteria pollutants relative to existing and baseline cases. It is also noted in the same paragraph that these emissions are covered by existing air permits with the local air pollution control district. These existing permits already require the operator of a pollution source to both monitor its emissions and regularly report those emissions to the permitting agency. It is primarily by these means that these agencies ensure compliance of permitted sources with applicable air quality standards. These emissions data are available from these agencies for public review. The commenter expresses concern that actual emissions from the sources might exceed those stated in the DEIR and seeks some means of ensuring that this not occur. Since two of the fundamental bases for the analysis of air quality impacts from the project are that the Analytical Maximum capacities represent very conservative measures of potential future plant operations and that the sources could and would not exceed their permitted emission levels, this by itself assures that actual emissions would not exceed those stated in the DEIR.
- F22 In the 2005 cases reported in Tables G-2 and G-8, the results for the entire Bay Area bubble are 0.017 lb./MMBtu, so the plants would comply with the overall ceiling. These cases are in the form of "no project" cases, which assume retention of the "air bubble" option under BAAQMD Regulation 9, Rule 11, and use of such option by PG&E. In addition, these results are conservative because they include NO_x emissions occurring

during startup, which are not charged against the ceiling. The energy consumed during startup typically is equivalent to one to two full hours of operations and, because SCRs cannot be employed during most of the startup sequence, inclusion of startup emissions increases the average NO_x emission rate overall. The degree of impact, of course, increases with more frequent startups.

The commenter is correct with respect to interpretation of the results of the Analytical Maximum cases reported on Tables G-6, G-9, and G-17. Even when the effects of startups are eliminated, and even assuming that a modified “bubble” may be used to simultaneously encompass the Pittsburg and Contra Costa plants, the NO_x emission rate would still exceed the projected ceiling rate of 0.018 lb./MMBtu. This would mean that the new owner of the Pittsburg plant would have to either reduce production or install further emissions controls, or a combination of both, in order to stay in attainment with its air quality permit. For example, in the instance of Pittsburg Unit 1, a new owner would have to choose between installing increased NO_x emission controls on the unit and/or reducing the unit’s peak level of operations significantly. The latter case would also involve coordinating Pittsburg Unit 1 operation at its permitted lower levels of generation with the operations of the other remaining Pittsburg units in a manner that would ensure that the hourly total NO_x emissions from the entire plant remain below 0.018 lb./MMBtu. While the new owner would have several options from which to select as to how to comply with the emissions limitations, the new owner would have no choice but to comply with these limitations.

- F23 The DEIR did consider special circumstances for significance criteria. Even though the power plants proposed to be sold would continue to be governed by existing air quality permits, and would operate within the parameters of such permits, the EIR did not assume that compliance with all regulations would automatically mean that the project’s impact on air quality was less than significant. Particularly in light of agency and community concerns over air emissions and potential health impacts, the five significance criteria shown on page 4.5-50 and 4.5-51 were used to analyze the air quality effects of the project.
- F24 Significance criterion #1 on page 4.5-50 of the DEIR distinguishes between two different circumstances. Under circumstances where the background concentration of a given pollutant is less than the corresponding ambient air quality standard, the ambient air quality standard itself becomes the significance criterion. Under circumstances where the background concentration of a given pollutant is greater than the corresponding ambient standard, a concentration-based threshold identified under Prevention of Significant Deterioration (PSD) provisions is used as the significance criterion. In the Bay Area, the second circumstance applies to PM-10. (Note that standards for ozone are also violated in the Bay Area, but PSD provisions do not contain an ozone threshold. This is because ozone is evaluated in a fundamentally different way using emissions estimates rather than dispersion modeling techniques. It should also be noted that PSD provisions do not directly apply to the project because the project would not require the power plants to apply for new air quality permits. Specific PSD provisions are used to provide a

quantitative basis for evaluating qualitative significance criteria listed in the CEQA Guidelines.)

Under the second circumstance, PSD concentration-based thresholds were used as the significance criteria, because such thresholds provide the basis for evaluating dispersion modeling results (which are also defined in terms of concentrations). PSD provisions are included in BAAQMD Regulation 2, Rule 2, which is known as New Source Review (NSR). NSR also includes emissions-based criteria (e.g., pounds per day), but such criteria cannot be directly compared to concentration estimates.

The DEIR does, however, cite additional significance criteria, some of which are emissions-based. Significance criterion #2, for example, cites the BAAQMD-recommended emissions-based criteria for evaluating the significance of emissions increases from indirect sources. The *BAAQMD CEQA Guidelines* distinguishes between indirect sources, such as autos and trucks, which do not operate under BAAQMD permits, and direct sources, like power plants, which generally do operate under BAAQMD permits (BAAQMD, 1996). The emissions-based criteria cited as significance criterion #2 apply to indirect sources, not to direct sources. The DEIR air quality analysis adopts the BAAQMD approach.

Finally, page 4.5-51 of the DEIR describes significance criterion #5, a criterion developed specifically for this DEIR to address the issue of “nonattainment.” It achieves this purpose by linking power plant emissions changes to corresponding emissions forecasts contained in the BAAQMD’s *'97 Clean Air Plan*. The *'97 Clean Air Plan* was prepared specifically to address regional “nonattainment” for the state ozone standard, but it also contains PM-10 emissions forecasts and control measures that would address PM-10 concerns as well (BAAQMD, 1997).

- F25 The concentration-based PM-10 significance thresholds cited in the discussion of significance criterion #1 on page 4.5-50 of the DEIR were derived from BAAQMD Regulation 2, Rule 2, paragraph 2-2-233 (Significant Air Quality Impacts, PSD).
- F26 The 210 tons per year of NO_x as shown in Table 4.5-26 is the best estimate of minimum operations at the Hunters Point Power Plant in light of PG&E’s agreement with the City and County of San Francisco. This number was determined by an updated run of Table G-18. This is the amount that was used for the Hunters Point plant in the air quality analysis. While the emissions from the Hunters Point plant are relevant background (i.e., baseline) data, they were not used to determine significance because they are not part of the proposed project and are not expected to change from the 1999 baseline numbers. Table G-1 is a 1999 Baseline that assumes that the Hunters Point plant would sell power into the PX, when economically possible, in addition to just meeting reliability needs of the ISO to support the San Francisco peninsula.
- F27 Please see responses to Comments U14 and U22.

F28 Please see responses to Comments U14 and U22. The photochemical models mentioned (CAM_x; the Comprehensive Air Quality Model and UAMV, the nested grid version of the Urban Airshed Model) are competing tools used primarily for ozone modeling for the development of regional and statewide air quality plans. The UAMV model is used by the U.S. EPA to determine State Implementation Plan (SIP) compliance. Because of the level of detail that must go into these models (i.e., intense study of meteorological events, and data from all sources) and resulting uncertainty that is implicit in such models, they are generally not used for the analysis of individual projects.

F29 The commenter makes a valid point. The DEIR is revised to eliminate the idea that the cumulative impact can be presumed to be less than significant because the project-specific impact would be less than significant. However, the conclusion of “less than significant” is rooted in other bases. For example, the DEIR on page 4.5-75, first full paragraph, cites the Mission Bay SEIR, which notes that no authoritative regulatory body has adopted any standard to determine whether the risks posed by existing levels of toxic air contaminants should be considered acceptable and, in turn, whether cumulative increases in ambient risks should be considered significant. Without a scientifically accepted methodology or criterion, a conclusion regarding significance of the cumulative impact would be speculative. Some of the difficulty related to determining cumulative toxic effects relates to the methodology of determining Maximally Exposed Individual (MEI) locations and exposure levels for individual projects. This methodology is not practical for a future scenario with multiple regional stationary and mobile sources.

The lack of a criterion for evaluating cumulative air toxics impacts contrasts with criteria air pollutants (e.g., ozone, carbon monoxide, and nitrogen dioxide). With criteria air pollutants, both project-specific and cumulative impacts can be evaluated with reference to particular values, known as ambient air quality standards, since those values represent concentration levels below which public health and welfare effects can be presumed to be negligible. In contrast, the project-specific air toxics criterion of “10 in a million” risk does not represent a “safe” level where public health and welfare effects can be presumed to be negligible, but rather, the “10 in a million” criterion represents a policy decision by the air district as to the circumstances under which it will require emissions control technology of individual stationary sources. In addition, another possible source of cumulative air toxics criteria is the state’s Air Toxics “Hot Spots” Information and Assessment Act (AB 2588). Under AB 2588, commercial and industrial facilities emitting air toxics were required to prepare toxics emissions inventories, and based on those inventories, certain of those facilities were required to prepare health risk assessments. Based on the results of the health risk assessments, facilities were placed in one of three categories if their calculated risks exceeded 10 in a million: Level 1 (between 10 and 100 in a million risk), Level 2 (between 100 and 500 in a million risk), and Level 3 (greater than 500 in a million risk). For facilities whose risk levels are calculated to be less than 10 in a million, no formal public notification measures were required; thus, the criterion of 10 in a million is a benchmark under state law to distinguish among facilities on the basis of air toxics. But, once again, it is noted that health risk assessments prepared

under AB 2588 are facility-specific and that the categorization is made of each facility individually, not to a group of facilities in a given area on a cumulative basis. As such, the "10 in a million" criterion does not lend itself to cumulative air toxics impact assessment.

Also, it is noted that the project's contribution to the cumulative impact would not be cumulatively considerable. This can be demonstrated by comparing the ambient background risk with the Potrero Power Plant's contribution at the maximally exposed individual (MEI) location. The average background risk from toxic air contaminants was estimated by BAAQMD to be 303 in a million in 1995 (see page 4.5-12 of the DEIR). Eliminating the Potrero plant entirely would reduce the background risk at the MEI location by only 0.2 to 0.3 in a million (see Table 4.5-34 on page 4.5-73 of the DEIR), which essentially would leave the background risk unchanged. Recent changes to the CEQA Guidelines support the conclusion that such a contribution would not mean that cumulative impacts associated with the project would be significant. Paragraph (a)(4) of Section 15130 of the CEQA Guidelines now states that an EIR may determine that a project's contribution to a significant cumulative impact is *de minimus* and thus is not significant. A *de minimus* contribution means that the environmental conditions would essentially be the same whether or not the proposed project is implemented. As explained above, with or without the Potrero Power Plant, the risk from toxic air contaminants in ambient air in the vicinity of the plant would be expected to be on the order of 303 in a million and, therefore, the project's contribution would be *de minimus*.

Page 4.5-75 of the DEIR (first full paragraph) is hereby revised as follows:

With respect to the cumulative contribution to overall ambient risk from toxic air contaminants in the Bay Area (from all sources, including mobile and stationary), the Mission Bay SEIR notes that no authoritative regulatory body has adopted any standard to determine whether the risks posed by existing levels of toxic air contaminants should be considered acceptable and, in turn, whether possible increases in ambient risks could potentially be considered significant. Without a criterion, a conclusion regarding significance of the cumulative impact would be speculative.

In any event, the project's contribution to the cumulative impact would not be cumulatively considerable. This can be demonstrated by comparing the ambient background risk with the Potrero Power Plant's contribution at the MEI location. The average background risk from toxic air contaminants was estimated by BAAQMD to be 303 in a million in 1995 (see page 4.5-12). Eliminating the Potrero plant entirely would reduce the background risk at the MEI location by only 0.2 to 0.3 in a million (see Table 4.5-34), which essentially would leave the background risk unchanged. The CEQA Guidelines now state that an EIR may determine that a project's contribution to a significant cumulative impact is *de minimus* and thus is not significant. A *de minimus* contribution means that the environmental conditions would essentially be the same whether or not the proposed project is implemented.

As noted, with or without the Potrero plant, the risk from toxic air contaminants in the ambient air in the vicinity of the plant would be expected to be on the order of 303 in a million and, therefore, the project's contribution would be *de minimus*. The Mission Bay SEIR declines from adopting a significance criterion and, instead, assumes that the cumulative impact on ambient concentrations of toxic air contaminants would be significant since the project-specific impact would be significant. Based on the converse to that concept, the contribution of divestiture to overall cumulative ambient risk would be less than significant because the project-specific impact would be less than significant.

In addition, the following paragraph is hereby added after the third full paragraph on page 4.5-74 of the DEIR:

As discussed below under "Cumulative (2015) Bay Area Analysis," with respect to the cumulative contribution to overall ambient risk from toxic air contaminants in the Bay Area (from all sources, including mobile and stationary), no authoritative regulatory body has adopted any standard to determine whether the risks posed by existing levels of toxic air contaminants should be considered acceptable and, in turn, whether possible increases in ambient risks could potentially be considered significant. Without a criterion, a conclusion regarding significance of the cumulative impact would be speculative. In any event, as explained below, the project's contribution to the cumulative impact would not be cumulatively considerable.

- F30 The commenter suggests that additional mitigation measures (e.g., restricting operating hours or requiring air emission offsets) be included in the Final EIR to ensure that air quality impacts will be less than significant. Subsequent to submission of this comment letter, the commenter provided another letter addressing this same issue (see Comment F79). That later, clarifying correspondence requested "a discussion of mitigation measures, to the extent such measures are available or appropriate," and specifically deferred to the CPUC's responsibility to make the determination of whether any additional "mitigation measures are necessary or appropriate." As indicated in the discussion below, it does not appear that such potential additional mitigation measures are necessary or appropriate because they are not needed to address environmental impacts and/or are otherwise infeasible.

As noted in the comment, the DEIR identifies Impact 4.5-5 (inconsistency with the '97 Clean Air Plan) as a temporary unavoidable significant impact. Mitigation Measure 4.5-5 would eliminate the inconsistency by 2003. Mitigation Measure 4.5-5 is consistent with the strategy identified by the BAAQMD in Comment Letter E (see the second paragraph of page 1 of its letter dated September 23, 1998). The letter indicates that the BAAQMD is committed to modifying its Regulation 9, Rule 11 so that the rule will continue to apply to these power plants, regardless of ownership. The intent of the modification would be to achieve NO_x reductions at least equivalent to the current rule,

with the same emission limits and deadlines as the current system-wide schedule. The modification on oil burning (to minimize PM-10, PM-2.5, and toxic emissions) would be retained.

Limiting operating capacities has been considered for mitigating project effects, but as explained in some of the points below, such limitations would not be necessary or appropriate. Acceleration of the Regulation 9, Rule 11 schedule for NO_x emission rate reductions has also been considered, but has been rejected for the reasons given below. Based on many considerations, the EIR has determined that more restrictive limitations are not warranted to address the temporary inconsistency with the '97 *Clean Air Plan* that would result if the plants operated at their Analytical Maximum capacities. The following points further elaborate on reasons (including policy, cost, schedule, technical and legal issues) that further mitigation (beyond that identified in Mitigation Measure 4.5-5) is not considered feasible.

- 1) The time available for new owners to evaluate the engineering feasibility and effectiveness of adding pollution control equipment as required by Regulation 9, Rule 11, is already very limited and further acceleration of the schedules is not feasible. Furthermore, the Executive Summary of the October 23, 1995 BAAQMD staff report noted that the amendments to Regulation 9, Rule 11 were designed to allow greater flexibility in complying with the rule to take advantage of new advanced "pollution prevention" low NO_x combustion technology, and to reduce the cost of compliance while maintaining equivalent NO_x reductions. The amendments were not expected to result in any adverse environmental impacts. The BAAQMD indicated that incorporation of advanced low NO_x combustion "pollution prevention" technology could reduce dependence on add-on "tailpipe" technology such as selective catalytic reduction (SCR). Forcing acceleration of emission controls could result in new owners choosing to implement short-term measures, which would interfere with the flexibility to consider longer-term and more effective strategies, such as unit retirement or repowering, that may be ultimately more beneficial to the environment than short term solutions undertaken to address a short-lived impact that is not certain to happen.
- 2) Complex planning, coordination and technical issues would be raised by any effort to accelerate controls, limit emissions or capacity factors, particularly given the must-run status of the plants and, in the case of the Potrero Power Plant, the role it plays in providing for electric reliability in San Francisco (see DEIR, Section 4.12).
- 3) The BAAQMD-administered emissions banking system, which provides offsets or "credits," was set up in the context of the issuance or modification of air permits for new or modified stationary sources. In contrast, this project involves existing, permitted sources that may increase their emissions, but these increases would be within the conditions and limitations of existing permits. As such, the project lies outside of the context from which emissions banking was established and therefore, there are no clear rules or guidelines to apply. Use of emissions credits to offset the temporary impact identified for the project would be infeasible. The remedy for the identified potential inconsistency with the '97 *Clean Air Plan* is through revision of

the applicable air rules to ensure their continued applicability (included as a mitigation measure in the DEIR) and through revision of the plan, if necessary, which BAAQMD intends to do as evidenced in its comment letter on the DEIR. It should be noted that more stringent power plant emissions controls would be one of many possibilities under consideration in the event that BAAQMD determines that additional control measures are necessary during the next plan update cycle.

- 4) It would be impractical to implement a mitigation measure that would affect four power plants (until closed, all emissions from Hunters Point Power Plant would still be considered in determining consistency with the '97 *Clean Air Plan*) that could have as many as three different owners (assuming that Pittsburg and Contra Costa Power Plants are sold as a package). Plan consistency depends upon all Bay Area electric power-generating steam boilers, and such capacity restrictions at four plants would complicate ISO dispatch and could potentially compromise electric reliability.

F31 The impact assessment compares future air quality in 2005 (after 2003) to the existing environment. With the implementation of Mitigation Measure 4.5-5, which requires substantially the form and stringency of the current BAAQMD Regulation 9, Rule 11, NO_x emissions will be reduced from current levels even if the fossil-fueled plants were to operate at their Analytical Maximum capacities. The effectiveness of Mitigation Measure 4.5-5 is portrayed in the following table (Table F31), which summarizes the NO_x data presented in Tables 4.5-23, 4.5-24, and 4.5-25 of the DEIR. The assumptions for the Analytical Maximum scenarios are very conservative so that the Analytical Maximum capacity forecasts do not understate the future maximum operating levels of the plants (please refer also to response to Comment F54).

TABLE F31
NO_x EMISSIONS (TONS PER YEAR)

Power Plant	1999 Baseline	2005 Analytical Maximum without Mitigation	2005 Analytical Maximum with Mitigation
Potrero	389	906	188
Contra Costa	711	1,389	244
Pittsburg	3,000	4,922	1,142

F32 The commenter refers to the 2015 cumulative analysis for carbon monoxide presented in the DEIR. Such analysis was prepared in response to a request by City and County of San Francisco staff to analyze that year as an extension of the (2015) cumulative analysis presented in the Mission Bay SEIR. With respect to concentration estimates, the Mission

Bay SEIR evaluates only carbon monoxide, not the other criteria air pollutants, and thus, the extension of that evaluation in the DEIR evaluates only carbon monoxide.

The DEIR's analysis year for cumulative effects, with the exception noted above, is year 2005. Please see Tables 4.5-29, 4.5-31, and 4.5-32 and the corresponding discussion on page 4.5-70 of the DEIR for an evaluation of cumulative (2005) concentrations of criteria air pollutants, including carbon monoxide, nitrogen dioxide, sulfur dioxide, PM-10, and PM-2.5. The tables mentioned above were prepared with a method designed to account for mobile and stationary sources of air pollution. As explained in footnote "a" in these tables, a conservative background concentration is assumed for the criteria air pollutants by using the 2nd highest value recorded over a three year period at a BAAQMD monitoring station. These values are actual measured values of recent outside air that include air pollutants from all sources. The 2005 cumulative project increment is then added to these background levels. The 2005 cumulative project increment added is for the stationary sources at the power plants because the mobile sources from the power plants are already accounted for in the current background used to project the future background and Section 4.6 (Transportation and Circulation; page 4.6-2) of the DEIR found that possible increases from the project would be negligible in comparison to existing traffic volumes. The inclusion of other cumulative mobile and stationary source emissions in 2005 is accounted for by the conservative nature of the future background concentrations that are used. There is no information to indicate that other future projects would result in creating higher 2005 background levels than are forecasted in the EIR, and, for the most part, criteria air pollutant levels seem to be trending downward in the regions being analyzed.

- F33 PG&E's contractor, Fluor Daniel GTI, has completed a Phase II Environmental Site Assessment and Risk Assessment for each plant to be divested, including the Potrero Power Plant. The findings of the Phase II Environmental Site Assessment and Risk Assessment for the Potrero Power Plant are summarized here. Results of the Phase II Environmental Site Assessment and Risk Assessment for the Geysers Power Plant are summarized in the response to Comment T10. Findings of the Phase II Environmental Site Assessment and Risk Assessment for the Pittsburg and Contra Costa Power Plants are summarized in the staff-initiated text changes in Chapter 4 of this document.

Page 4.9-6 of the DEIR (second complete paragraph) is hereby revised as follows:

PG&E has completed ~~is conducting~~ Phase II testing to determine the nature, extent and potential costs to remediate identified contaminants. A Risk Assessment also was prepared as part of the Phase II report. ~~is in preparation.~~

The findings and conclusions of the Phase II investigations do not modify the analysis nor conclusions of the DEIR. However, page 4.9-6 of the DEIR (following second complete paragraph) is amended as follows to reflect the information presented in Fluor Daniel GTI's Phase II Environmental Site Assessment for the Potrero Power Plant:

The purpose and objectives of the Phase II Environmental Site Assessment for the Potrero Power Plant were:

- to collect and evaluate environmental data on soil, groundwater and sediment conditions at the Potrero Power Plant;
- to use the environmental data collected to perform a Baseline Health Risk Assessment and determine hypothetical cleanup levels on the basis of the findings of the Health Risk Assessment and a review of the regulatory requirements; and
- to develop and present reasonable approaches for remediating impacted soil, groundwater and sediment.

Fluor Daniel GTI performed the following field investigations during the Phase II study:

- drilled 55 soil borings;
- hand augered 8 soil borings;
- collected and analyzed 198 soil samples from the borings;
- collected and analyzed 8 surface debris samples;
- collected 12 offshore sediment samples and analyzed 3 of the 12 samples;
- installed 36 temporary groundwater monitoring wells;
- collected and analyzed groundwater samples from the temporary monitoring wells;
- collected and analyzed groundwater samples from 10 of 13 existing monitoring wells;
- performed slug tests and passive water level monitoring at wells; and
- measured liquid levels in all accessible well points.

Various soil samples were analyzed for volatile organic compounds (VOCs) (EPA Method 8260), polynuclear aromatic hydrocarbons (PAHs) (EPA Method 8310), phenols (EPA Method 8270), total petroleum hydrocarbons (TPH) (EPA Method 8015), polychlorinated biphenyls (PCBs) (EPA Method 8081), metals (EPA Methods 6000, 7000, and 7196), cyanide (EPA Method 9010), asbestos, (EPA Method 600), and general soil chemistry using a variety of methodologies.

Sediment samples were analyzed for PAHs (EPA Method 8310) and TPH (EPA Method 8015).

Surface debris samples were analyzed for VOCs (EPA Method 8260), PAHs (EPA Method 8310), phenols (EPA Method 8270), TPH (EPA Method 8015), PCBs (EPA Method 8081), and cyanide (EPA Method 9010).

Groundwater samples were analyzed for VOCs (EPA Method 8260), PAHs (EPA Method 8310), phenols (EPA Method 8270), TPH (EPA Method 8015), PCBs (EPA Method 8081), metals (EPA Methods 6000, 7000, and 7196), and cyanide (EPA Method 9010).

The Phase II Assessment report presented extensive discussions of the findings of these various analyses. The major areas of potential concern at the Potrero Power Plant, as reported in the Phase II report, include:

- the former manufactured gas plant area, especially the locations of PG&E's current fuel tank farm and the Customer Energy Services / Safety, Health & Claims area, where TPH, metals, PAHs, nitrogen compounds, phenols, and VOCs were found;
- areas of the plant where materials formerly were stored on bare earth, where VOCs, TPH, PAHs, and PCBs were found;
- areas of artificial fill, where VOCs, TPH, PAHs, metals, cyanide, and phenols were found;
- old Station A, where TPH, PAHs, and metals were found;
- former fuel storage sites, where TPH, PAHs, and metals were found;
- former sugar house, where VOCs, TPH, PAHs, metals, and asbestos were found;
- former oil sludge sump site, where VOCs, TPH, and PAHs were found;
- various fuel spills or leaks, where TPH and PAHs were found;
- former diesel dump tank, where TPH was found;
- former paint and solvent storage area, where TPH, PAHs, and metals were found;
- railroad spur area, where TPH and PAHs were found;
- debris on site, where TPH and PAHs were found; and
- groundwater at various locations, where TPH, metals, PAHs, VOCs, and cyanide were found.

Included in the Phase II Assessment report was a Baseline Health Risk Assessment to determine whether concentrations of chemicals detected in soil and groundwater at the Potrero plant present an unacceptable risk to human health and the

environment given the assumptions made for the risk assessment. Contaminants of concern were selected on the basis of test results. An exposure assessment provided information on potential receptor populations, potential exposure routes, exposure parameters, algorithms for calculating the exposure dose, and chemical fate and transport modeling.

The exposure assessment considered the following potential receptor populations: on-site plant workers, on-site construction workers, hypothetical site visitors, and hypothetical future recreation users. Exposure routes that were identified included inhalation, incidental ingestion, and dermal contact with soils, groundwater, and surface water.

The results of the Risk Assessment indicated that acceptable risk limits are exceeded for a hypothetical future on-site worker exposed to chemicals of potential concern in surface soil, and for a hypothetical future construction worker exposed to chemicals of concern in groundwater. Chemicals of concern in the soils included benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, indeno(1,2,3-cd)pyrene, and dibenz(a,h)anthracene. Chemicals of concern in groundwater included benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, indeno(1,2,3-cd)pyrene, and dibenz(a,h)anthracene. In addition, the results of modeling analysis indicated that arsenic, chromium, cyanide, lead, nickel, selenium, mercury, acenaphthene, acenaphthylene, naphthalene, phenanthrene, and benzene may discharge to the Bay within 100 years.

The conclusions of the Risk Assessment indicated that soil and groundwater remediation should be carried out at the Potrero Power Plant site in order to protect the health and safety of future workers.

On the basis of the findings of the Phase II investigation and the Risk Assessment, Fluor Daniel GTI specified six remedial issues: (1) soil and groundwater contamination in many locations of the central area of the site, primarily including TPH in soil, non-aqueous phase liquids (i.e. liquids that do not mix with water) in wells, and TPH, PAHs, cyanide, and metals in groundwater; (2) potential threats to San Francisco Bay water quality from non-aqueous phase products in several wells, and from carbon-rich debris at various locations; (3) petroleum hydrocarbons in groundwater; (4) cyanide in groundwater; (5) unused conduits to the Bay; and (6) PAHs and metal contamination in shallow soil.

Remedial alternatives were presented in the Phase II report for each remedial issue. The findings and conclusions of the Phase II investigation and the Risk Assessment do not modify the analysis nor the conclusions of this section.

Refer to Comment F36 for the proper Phase II reference citation.

F34 Page 4.9-1 of the DEIR (paragraph 1) is hereby revised as follows:

...the Asbestos Hazard Emergency Response Act; Proposition 65; and the Toxic Substances Control Act.

Page 4.9-3 of the DEIR (at end of Regional Setting) is hereby amended with a new paragraph as follows:

Pertinent local ordinances that regulate hazardous materials and hazardous waste include San Francisco's Hazardous Materials Ordinance, which provides for safe handling of hazardous materials in the City; San Francisco's Underground Storage Tank regulations, which require cleanup of underground tank sites at the time of tank removal; and San Francisco's Maher Ordinance, which mandates a site history study, a soil testing report, and a remediation plan prior to excavation in certain areas of the City built on fill.

As the commenter noted, summaries of environmental conditions at each plant were not included in the Regional Setting section of the DEIR. These summaries are instead provided individually in the Local Setting, Section 4.9.2. For the Potrero Power Plant, the discussion of local environmental conditions begins on page 4.9-3.

According to information presented in the Phase I Environmental Site Assessment for the Potrero Power Plant, the plant site currently has no underground storage tanks. (This information can be found on page 5-11 of the Phase I report.)

The presence of subsurface PAHs at the Potrero plant site is known and was mentioned in the DEIR on page 4.9-5 (bottom paragraph), and again on page 4.9-6 (second full paragraph). PAHs were reported in the Phase II Environmental Site Assessment report for the Potrero Power Plant, as is described in the response to Comment F33.

- F35 The presence of asbestos-containing materials and PCBs at the Potrero Power Plant had been noted as "material recognized environmental conditions" in the Phase I Environmental Site Assessment for the Potrero Power Plant. This was mentioned on page 4.9-6 (second full paragraph) of the DEIR. Asbestos-containing waste and PCB-containing waste at the Potrero Power Plant are handled according to existing hazardous waste regulations. For a discussion of the findings of the subsequent Phase II Environmental Assessment, please refer to the response to Comment F33.

For a discussion of lead-based paint, please see the response to Comment F47.

Electromagnetic fields are discussed separately as Impact 4.9-6 of the DEIR, which is found on page 4.9-24.

- F36 Page 4.9-25 of the DEIR is hereby amended with the following additional reference:

Fluor Daniel GTI, Phase II Environmental Site Assessment: Potrero Power Plant, prepared for Pacific Gas and Electric Company, San Francisco, California, June 1998.

Also please see the response to Comment F33.

- F37 No remediation schedule for the Potrero Power Plant site has been set as yet.
- F38 The PEA done by PG&E for the Potrero Power Plant discussed hazardous materials and potential site contamination at the plant site. (This discussion can be found on pages 4-85 through 4-87 of the PEA.) Pertinent information presented in PG&E's PEA regarding hazards is included in the DEIR in the discussion of potential site contamination beginning on page 4.9-5. The PEA found that the site does not pose any current hazards to human health or the environment.
- F39 The current status of the "material recognized environmental conditions" at the Potrero Power Plant remains as described in the DEIR on page 4.9-6. For a discussion of site information presented in the subsequent Phase II Environmental Assessment, please refer to the response to Comment F33.
- F40 PG&E performed the Phase II Site Assessment and the Risk Assessment for the Potrero Power Plant site voluntarily. The relationship between the Phase I Assessment, Phase II Assessment and Risk Assessment is discussed in the DEIR on page 4.9-15 (third paragraph). PG&E was not directed to prepare these documents by a regulatory agency.

The need for site cleanup on the basis of risks to human health or to the environment is to be determined by the findings of the Risk Assessment, as is described in the DEIR, page 4.9-17. This Risk Assessment has now been completed, as is discussed in the response to Comment F33. Cleanup would be done in accordance with remediation plans drawn up by PG&E's remediation contractor, in consultation with the San Francisco Department of Public Health and the San Francisco Bay Regional Water Quality Control Board. A timetable for cleanup would be prepared at that time.

- F41 Environmental contaminants are known to be present at the plants to be divested, but cleanup of contamination on private property is required by government agencies only if, in the judgment of those agencies, the contaminants pose a threat to site occupants, to public health, or to the environment. At present, such conditions do not occur at the Potrero Power Plant or at any of the other plants to be divested. Divestiture, therefore, is the primary process that is promoting accelerated cleanup at these plant sites.

Divestiture is expected to accelerate remediation because site cleanup has been factored into, and is an integral part of, the divestiture process. PG&E has been planning for remediation since the divestiture process was initiated. The Phase I and Phase II Environmental Site Investigations have been completed and published, remedial options have been developed and are under discussion, and funds have been set aside by PG&E to

pay for the cleanup. All of these actions were taken with divestiture in mind. PG&E has assumed responsibility for legally required remediation of all existing areas of contamination at the plants, as is discussed in the DEIR starting at the bottom of page 4.9-16.

Please also see the response to Comment F42.

- F42 The California Environmental Protection Agency (Department of Toxic Substances Control) or the San Francisco Department of Public Health could require site remediation if either agency determined independently that conditions at the Potrero Power Plant posed a threat to public health or to the environment. The San Francisco Bay Regional Water Quality Control Board could require site remediation if it determined that conditions at the Potrero Power Plant posed a threat to water quality. The Department of Toxic Substances Control is currently overseeing the Potrero plant site with respect to environmental issues.

Other laws, ordinances, and regulations, including asbestos regulations, lead-based paint regulations, San Francisco's Maher Ordinance, the City's underground storage tank regulations and so on, control the scope and extent of cleanup work at active project sites, but do not trigger site remediation *per se*.

Should PG&E's Risk Assessment and subsequent agency discussions determine that site remediation is warranted at the Potrero Power Plant, the "Site Designation Process Under the Unified Agency Review of Hazardous Material Release Sites" would be used to guide the process. This is described on page 4.9-17 of the DEIR (top paragraph).

Also please see the response to Comment L36.

- F43 The divestiture process has included the identification of site contamination as part of due diligence, as witnessed by the Phase I Environmental Site Investigation, the Phase II Environmental Site Investigation, and the Risk Assessment. The findings of the Phase II report and Risk Assessment for the Potrero Power Plant are summarized in the response to Comment F33. Under terms of the Purchase and Sale Agreement, PG&E has agreed to be responsible for any legally required remediation of existing contaminated soil and groundwater at the divested plants and therefore will be financially responsible for such remediation activities. Current "must-run" provisions will be considered in remediation planning. The determination of which particular remediation strategies will be ultimately pursued, and how such strategies relate to system reliability, will not be affected by divestiture. The issue of how remediation activities are carried out while system reliability is maintained will need to be addressed regardless of who owns the Potrero Power Plant when such activities are undertaken.
- F44 The current situation at the Potrero Power Plant regarding site contamination was described in the DEIR starting on page 4.9-5. Supplementary information generated by the Phase II Environmental Site Assessment is summarized in the response to Comment F33, above.

This setting information indicates that the Potrero plant site does have areas of contamination, and that those areas have been contaminated for years. Although PG&E has accepted responsibility for cleanup of existing contamination, PG&E would have little incentive to accelerate environmental cleanup without divestiture. Even though the Department of Toxic Substances Control is overseeing the Potrero plant site with respect to environmental issues, PG&E is currently under no regulatory mandate to perform remediation.

With regard to costs, all funds necessary to perform remediation would be set aside in advance through the divestiture process. The fact that PG&E has accepted responsibility for site cleanup means that the new owners will not have to pay any of the remediation costs for soil and groundwater contamination existing prior to sale. Divestiture would not create any new potentially responsible parties as to existing contamination.

Divestiture is expected to promote timely and efficient site remediation. The Phase I and Phase II investigations were driven by the divestiture process. Please refer to the response to Comment F41 for further elaboration on why divestiture will promote remediation.

Regarding possible loss of access to records, all environmental documentation is being provided to bidders as well as to interested public agencies, thus divestiture is not expected to result in "loss of access to records," as stated by the commenter. Under Mitigation Measure 4.9-3, PG&E will provide to the new owner copies of all safety-related documentation. Although the new owners will be responsible for ensuring that their operations are in compliance with applicable laws, this informational material may assist new owners in understanding worker health and safety issues and procedures and in meeting all safety and legal obligations regarding hazardous materials handling, emergency plans and storage. For further clarification, the bolded Mitigation Measure 4.9-3 that appears on page 4.9-21 of the DEIR, and in Table S.2 on page S-36 of the DEIR, is hereby revised as follows:

For the plants subject to this proceeding, PG&E shall provide the new owners with copies of all safety-related documentation, for each respective plant, with all of PG&E's material, non-privileged informational materials and training documents (not including records relating to PG&E personnel) regarding worker health and safety, emergency plans and hazardous materials handling and storage. This material shall be indexed and organized in a manner that is readily accessible to the new owner.

Because the above information is now reflected in the mitigation measure statement, the first sentence of the first full paragraph on page 4.9-21 of the DEIR is hereby deleted.

- F45 The commenter is concerned that "PG&E's proposed responsibility for cleanup could be transferred, diluted, or avoided as a result of the divestiture unless PG&E enters into binding remediation commitments prior to sale."

Each purchase and sale agreement for the plant sites will specify all cleanup provisions for which PG&E is assuming responsibility. Each purchase and sale agreement will be reviewed by the CPUC prior to its approval of the sale, ensuring that PG&E's commitments to remediation will be spelled out in the agreement and understood by all parties involved, and will be enforceable.

The CPUC review process will ensure that PG&E complies with the environmental responsibilities. Remediation will be done by PG&E under full regulatory agency oversight. As is described on page 4.9-17 of the DEIR, the appropriate lead agency at each plant would be selected by means of the "Site Designation Process Under the Unified Agency Review of Hazardous Material Release Sites."⁶ Moreover, Mitigation Measure 4.9-1 requires PG&E to provide to the CPUC written evidence that the Risk Assessment has been provided to not only the buyer of the plant, but to the Department of Toxic Substances Control, the local county health department, and the relevant Regional Water Quality Control Board (RWQCB).

Also, please see the response to Comment F41.

F46 Page 4.9-19 of the DEIR (first bulleted paragraph) describes the properties of petroleum-based products; the paragraph is hereby revised as follows:

Power plants typically store petroleum products for fuel, lubricants, solvents, degreasers, oils, and other uses.

Page 4.9-20 of the DEIR (bulleted paragraphs) is hereby amended to include the following:

- Sodium bisulfite (NaHSO₃). Sodium bisulfite is a mild chemical reducing agent. It is relatively non-toxic, as bisulfite is commonly used as a food preservative. Some individuals experience an allergic reaction when they ingest food containing bisulfite ions. Sodium bisulfite is used at power plants to dechlorinate cooling water; the bisulfite removes any excess hypochlorite remaining in the water after the once-through cooling water pass. In pure form, sodium bisulfite is a white, crystalline solid with a slight sulfurous odor. Routes of exposure include inhalation of dust or direct contact. At the plants, it is formulated in aqueous solution. Concentrated solutions of the chemical could be irritating to skin and mucous membranes. Sodium bisulfite is nonflammable, but it emits toxic fumes when exposed to fire or is heated to decomposition.
- Sodium hypochlorite (NaOCl). Sodium hypochlorite is a moderately corrosive oxidizing agent. Typically, it is handled in aqueous solutions having a mild "chlorine" odor. Sodium hypochlorite is the active ingredient in household bleach; its oxidative property whitens clothing, but can also cause fabrics to fade or discolor. It is toxic to aquatic life, and is used for

⁶ California Health and Safety Code, Division 20, Chapter 6.65, January 1, 1997.

chlorination of cooling water at power plants that use a once-through cooling system. It acts to prevent algae and residual buildup on the inside of the condenser tubes. It is mildly toxic to humans and can cause irritation of skin, eyes, and mucous membranes upon direct contact.

See the response to Comment N47 for additional amendments to page 4.9-20 of the DEIR.

- F47 The commenter expresses concern regarding the presence of lead-based paint at the Potrero Power Plant. Lead-based paint is no longer used at the plant, but some surfaces are still coated with lead-based paint that was applied years ago. Lead-based paint can therefore be considered a potential site contaminant.

Page 4.9-6 of the DEIR (middle of the page, at the end of the Potential Site Contamination section) is hereby amended as follows:

Lead-based paint was not mentioned as a recognized environmental condition in the Phase I Environmental Site Assessment, nor was it identified as a problem in the Phase II Environmental Site Assessment. However, lead-based paint is found on equipment throughout the Potrero Power Plant. Lead, a heavy metal, is toxic to humans when ingested repeatedly, particularly to young children. When lead-based paint adheres to the surface of the materials it covers, it poses little health risk and is not considered to be a hazardous waste. Delaminated or chipped lead-based paint, however, can cause a potential human health threat if the paint chips are ingested. Lead dust, which can also be inhaled, may present a possible health risk to construction workers and the public during demolition of a structure covered with lead-based paint. Lead-based paint that has separated from a structure could also contaminate nearby soil.

Prior to any demolition work at the Potrero Power Plant, a paint survey would be required to identify the locations and quantities of lead-based paint, as well as the lead content of the paint. If the survey were to identify lead-based paint, the plant would be required to comply with applicable federal, state and local requirements for the handling, removal, and disposal of lead-based paint and lead dust. The key applicable requirements include the federal OSHA, Cal/OSHA, and BAAQMD regulations, CCR Title 22 regulations relating to the disposal of lead-containing wastes, San Francisco's Hazardous Materials Ordinance, and Chapter 36 of the City's Building Code.

Chapter 36 of the San Francisco Building Code establishes requirements for property owners and contractors who engage in activities that remove or disturb lead-based paint on the exteriors of buildings and steel structures. The ordinance contains performance standards, including establishment of containment barriers that are at least as effective at protecting human health and the environment as those in the most recent *Guidelines for Evaluation and Control of Lead-Based Paint Hazards* promulgated by the U.S. Department of Housing and Urban Development. Under

Chapter 36, any building completed prior to 1978 is presumed to have been painted with lead paint unless proven otherwise.

Specific elements of this ordinance, implemented and enforced by the San Francisco Department of Building Inspection, include a requirement for a containment barrier around any work involving lead paint. For activities involving abrasive blasting, hydroblasting, scraping, or sanding of lead-painted exterior surfaces, a HEPA (high-efficiency) vacuum may be required. Burning, torching, or similar activities are prohibited. Following completion of work involving lead paint, all visible lead paint contaminants must be removed from the work site. In addition, the ordinance requires the notification of the Department of Building Inspection and posting of a sign at the work site where lead paint is being disturbed.

As plant conditions warrant, lead-based paint at the Potrero Power Plant is abated and handled in accordance with all applicable regulations. When handled properly, lead-based paint is not considered a hazard.

- F48 As is described on page 4.9-21 of the DEIR, PG&E intends to provide the new owners with all of PG&E's nonprivileged informational materials and training documents regarding worker health and safety, emergency plans, and hazardous materials handling and storage. This disclosure will be made during the bidding process.

The commenter has misunderstood the "three day" provision of Mitigation Measure 4.9-3. The requirement "at least three business days prior to transfer of title" that is specified in the mitigation measure refers only to the disclosure form to be signed by the new owner documenting that the mitigation has been performed as required.

Furthermore, as is described on page 4.9-21 of the DEIR, PG&E personnel will continue to operate the divested plants for two years after the sale, which would give the new owners ample time to familiarize themselves with the documents.

- F49 The issue that concerns the commenter—proper disposal of hazardous waste generated by remedial activities—would be covered in the Site Remediation Plan that guides each cleanup. The Site Remediation Plan would be subject to review by the lead agency. Divestiture would act to accelerate the process of remediation, but would not change the amount of waste that would ultimately result from any remediation.

Page 4.9-17 of the DEIR (first full paragraph, first sentence) is hereby revised as follows:

For each location to be remediated, PG&E intends to prepare a Site Remediation Plan that will specify measures to be taken to protect workers and the public from exposure to potential site hazards and certify that the proposed remediation measures would clean up the contaminants, properly dispose of wastes generated, and protect public health in accordance with federal, state, and local requirements.

- F50 The nature and significance of electromagnetic fields, including a summary of CPUC policy regarding this issue, are discussed in the DEIR under Impact 4.9-6 on page 4.9-24. Electromagnetic fields are not power plant “emissions.” As is discussed in the DEIR, the existence of electromagnetic fields generated by electrical equipment does not constitute a significant project impact that would require mitigation. The reduction of EMF field using no- and low-cost methods as proposed by the commenter is applicable to newly constructed or upgraded utility facilities. The divestiture of the power plants does not include new or upgraded facilities
- F51 The list of projects presented in Table 5.1 was originally provided by PG&E on April 2, 1998. Within a week prior to publication of the DEIR, each of the planning jurisdictions, including the San Francisco Planning Department, were contacted to update the list. Consequently, Table 5.1 was up to date as of publication time. In response to the comment, the San Francisco Planning Department and the Port of San Francisco were contacted and an additional list of projects was obtained. As noted below, these projects have been added to Table 5.1. Please see response to Comment F52 for a discussion of an updated cumulative effects analysis.

Table 5.1 of the DEIR (page 5-12) is hereby amended to include the following additional projects known or anticipated by the San Francisco Planning Department and the Port of San Francisco:

Project Name	Description
<p>Potrero Power Plant</p> <p><u>MUNI Diesel Coach Operating Division Facility</u></p>	<p><u>The project would relocate a MUNI diesel coach operating facility from Fisherman’s Wharf to Indiana Street at Islais Creek. The facility would house the storage, dispatch, and fueling of a fleet of 165–200 buses. During Phase I, scheduled to begin in 1999, a 66,000-square-foot building would be constructed for bus maintenance, offices, and training facilities. The 5.32-acre site would also include bus parking and washing and fueling facilities. Phase II would occur on an adjacent 2.4-acre parcel and would include construction of more maintenance facilities and bus parking. This application also includes a temporary relocation of MUNI’s Woods bus maintenance facility to a site immediately adjacent to the MUNI Diesel Coach Operating Division Facility. This property would be used by MUNI for one to two years while the Woods facility is renovated. (Case No. 88.700E)</u></p>
<p><u>CrushCom</u></p>	<p><u>This project includes a concrete/rock-crushing operation, with recycling of the aggregate. It is currently crushing concrete debris from the recently-demolished Geneva Towers. CrushCom has a 5-year lease to operate on the Port of San Francisco’s Western Pacific Opportunity Area, a waterfront site bounded by Illinois Street on the west, 25th Street on the north, Cesar Chavez Street on the south, and the Bay on the east. (Case No. 97.711E)</u></p>

Project Name	Description
<u>MUNI Metro East</u>	<u>Located on the western half of the Western Pacific Opportunity Area described above, this project entails construction of a maintenance and storage yard for light rail cars associated with the MUNI Third Street Light Rail Project. The project entails development of the 13-acre site with a maintenance facility, tracks, overhead electric lines, and a storage yard for up to 100 light rail cars. The project would relieve crowding at an existing facility at San Jose and Geneva Avenues. It would be constructed in two phases, with the first phase (constructing facilities for 60–70 cars) beginning construction in 2001 and ending in 2002. Environmental review of this project is covered in the EIR/EIS for the Third Street Light Rail Project. (Case No. 96.281E)</u>
<u>NORCAL West Coast Recycling Facility</u>	<u>NORCAL will utilize an existing warehouse located on Pier 96 to ship recycled materials to foreign markets. NORCAL has signed a multi-year lease from the Port of San Francisco for use of the property. The San Francisco Planning Department's Office of Environmental Review determined on July 21, 1998 that this project was categorically exempt under CEQA.</u>
<u>USA Coach</u>	<u>USA Coach proposes to relocate its bus operations currently located in the South of Market area of San Francisco to Pier 96. The company is currently in lease negotiations with the Port of San Francisco. The proposed project would be a bus maintenance and storage facility that would be located in an existing shed on Pier 96.</u>
<u>Mission Valley Rock Operation</u>	<u>This project entails shipment of concrete rubble from an existing bulk cargo terminal at Pier 92. This lease with the Port of San Francisco represents a continuation of bulk cargo use that has been ongoing at Pier 92 for decades.</u>
<u>Tidewater Sand and Gravel Facility</u>	<u>This project is an expansion of the existing sand and gravel operation on Pier 92 that Tidewater Sand and Gravel has been carrying on since 1981. The company extracts sand and gravel from the Bay and dries it on site. The project, approved in April 1998, expanded the company's lease boundary, providing them more space to pile drying sand and gravel.</u>
<u>Bedrock RediMix</u>	<u>This existing operation on Pier 90 is a concrete batch mixing facility. The terms of the lease were amended to add 10,000 square feet to the existing 30,000 sq. ft. of leased space and to extend the three-year lease an additional five years. The project is intended to improve the operator's efficiency, but does not entail any increased operations. (Case No. 95.319E)</u>
<u>ASL Private Storage</u>	<u>This project entails moving an existing private mini-storage facility from Mission Bay to Pier 90. Sea-going cargo containers will be placed on a currently vacant 127,000-square-foot paved lot.</u>

Project Name	Description
<u>Specialty Crushing, Inc.</u>	<u>This 90,000-square-foot concrete-crushing facility has been operating on Pier 94 since January 1996, recycling construction debris from the demolished Embarcadero Freeway. Their lease has expired and they are currently operating on a month-to-month basis. It is currently unknown whether the company will apply for a new lease. (Case No. 94.109E)</u>

F52 The updated list for the Mission Bay/Potrero/Bayview-Hunters Point area includes a wide variety of projects. Some are very small in size and would clearly have a negligible impact on air quality. Others are larger in size, such as the Bayview-Hunters Point Redevelopment Area and Mission Bay projects, but would generate PM-10 primarily through mobile sources. Mobile-source emissions of PM-10 would be distributed over a wide geographic area, not just in the immediate vicinity or even just in San Francisco. The geographic area of impact would be defined by the locations of the origins and destinations of individual vehicle trips generated by these projects. In other cases, the projects themselves would reduce the number of stationary PM-10 sources by converting industrial land uses into residential or commercial land uses.

However, among the projects listed in Table 5.1 (as supplemented in response to Comment F52), there are six that would have the potential to significantly affect local PM-10 concentrations because they include stationary sources that could potentially generate substantial amounts of direct PM-10. These six projects include: (1) the Construction and Building Materials Supply Center at Piers 90 and 92, which would include a concrete recycling facility and two ready mix batch plants; (2) the RMC Lonestar Pier 90 Lease, which would include a concrete ready-mix facility; (3) Crushcom, which would include a concrete/rock-crushing operation; (4) Tidewater Sand and Gravel Facility, which would extract sand and gravel from the Bay and dry it on site; (5) Bedrock RediMix, which would include a concrete batch mixing facility; and (6) Specialty Crushing, Inc., which would include a concrete crushing facility.

PM-10 emissions generated by these projects would depend upon a number of variables including the exact industrial processes to be used, the size of the equipment and machinery, and the amount of material throughput. Also, PM-10 emissions and corresponding cumulative PM-10 concentrations would be affected by conditions and limitations set forth in air permits issued by BAAQMD. Unlike the projects generating only mobile-source emissions, these projects would include substantial new stationary emissions sources, and as such, these projects would be subject to BAAQMD regulations that will require implementation of Best Available Control Technology (BACT) and may also require offsets if certain trigger levels would be met. BACT, in this context, could include use of fine sprays or filters or other techniques to reduce direct PM-10 emissions.

Since the variables cited above and the specific emissions controls that would be required by BAAQMD are unknown, an estimate of the cumulative PM-10 concentration from

these six sources cannot be made at this time. However, given BAAQMD's regulatory authority and control over the PM-10 emissions sources associated with these projects, it is not clear whether their cumulative effect would be significant. Nonetheless, when further defined, these projects would be subject to separate, project-specific environmental review by the City and County of San Francisco and/or the Port of San Francisco and other agencies with jurisdiction over their operation, at which time the potential for these impacts to occur would be fully evaluated.

The local background concentrations of PM-10 do occasionally exceed the 24-hour state standards and the project would contribute PM-10 to the environment. However, the small additional amount of PM10 contributed by the project should not be considered cumulatively significant even in light of the arguably serious nature of the already existing problem. Furthermore, the state 24-hour PM-10 standard is only one-third of the federal 24-hour PM-10 standard. By adopting the more restrictive standard, California has increased the controls on PM-10, but this strict standard is being met in only one county (Lake County) of the 58 counties in California. In light of the recently reviewed federal 24-hour PM-10 standard (which remains $150 \mu\text{g}/\text{m}^3$), a background level of $50 \mu\text{g}/\text{m}^3$ may not be a severe environmental condition.

In any event, the proposed divestiture's contribution to cumulative PM-10 impacts would not be cumulatively considerable. Recent changes to the CEQA Guidelines support the conclusion that just because the total of the proposed divestiture in combination with other cumulative projects (in addition to the background concentration) would be above the 24-hour state PM-10 standard, $50 \mu\text{g}/\text{m}^3$, does not mean that the project's contribution to a significant cumulative impact is cumulatively considerable and, thus, significant. Paragraph (a)(4) of Section 15130 of the CEQA Guidelines now states that an EIR may determine that a project's contribution to a significant cumulative impact is *de minimus* and, thus, is not significant. A *de minimus* contribution means that the environmental conditions would essentially be the same whether or not the proposed project is implemented.

Table 4.5-29 shows that PM-10 concentrations would be higher under the 2005 Cumulative Analytical Maximum scenario than the 1999 baseline conditions. However, since the modeled cumulative increase (difference between the two scenarios) in local PM-10 concentrations would essentially be the same with or without the project's negligible contribution of $0.8 \mu\text{g}/\text{m}^3$, the project's contribution to any significant cumulative impact would be considered *de minimus* given that the background concentration is estimated to be $57 \mu\text{g}/\text{m}^3$. Because this project would result in less than a $1 \mu\text{g}/\text{m}^3$ increase on the maximum day (which is even less than the PSD annual average significance limit), the effect of the project is clearly *de minimus* with respect to PM-10. On this basis, it is determined that the project would not result in a cumulatively considerable impact to local PM-10 concentrations. It is also that the $5.0 \mu\text{g}/\text{m}^3$ significance threshold used in the DEIR for evaluating PM-10 concentration impacts was used in determining the significance of PM-10 impacts in the CEC's decision on the San Francisco Energy Company's

Cogeneration Project (Docket No. 94-AFC-1). The CEC decision notes that U.S. EPA characterized the $5.0 \mu\text{g}/\text{m}^3$ increment as the “level below which it would not require any impact analysis on the ground that such impact levels are simply insignificant, even ‘in [the] most stringent regulatory context (i.e., the 24-hour average).’”

- F53 The likelihood that new owners of the fossil-fueled plants would tend to operate at higher levels than PG&E, and the methods used to evaluate this potential change, are discussed in the DEIR in Chapter 3. Refer to Section 3-5 for discussions of the factors that could produce change as a result of divestiture, including incentives for new owners to operate at higher levels.

The commenter argues that subjective considerations were used to develop the concept of the “Analytical Maximum” scenario that were used in the analysis. However, the Analytical Maximum case was carefully developed in the DEIR to take into account all three possible reasons for future higher operation rates by new owners: the portfolio effect, fuel procurement practices, and the new owner’s ability immediately to participate in the direct access market. As to the portfolio effect, the modeling assumed that the plants were owned by single owners. Regarding direct access, the modeling assumed that the new owners would have the opportunity to participate in that market. The model assumed that low gas prices would simulate extraordinarily beneficial fuel procurement practices.

The Analytical Maximum case was developed to represent a very high, but still plausible, level of hourly operations consistent with each plant’s forced outage rate and maintenance schedule. On an hour-by-hour basis, the Analytical Maximum would not violate the reliability constraints (e.g., scheduled outages for maintenance), supply/demand constraints, or transmission constraints that could never be intentionally ignored in the real world. In balancing hourly loads and resources it was assumed that, regardless of new ownership, generation from the divested plants would not be able to displace must-run, must-take hydro, and very low-priced coal-fired generation. Thus, the Analytical Maximum scenario was employed to determine a realistic maximum level of generation for a new owner whose operations rate would always be constrained by demand for electricity.

The most straightforward way to implement each Analytical Maximum forecast presented in the DEIR was to lower the hypothetical fuel cost so much that operation of the fossil-fueled plants being divested would essentially be preferred over all other fossil-fueled plants not being divested. The lower gas prices reflect not only potential access to discounted gas contracts, but also lower transaction and cycling costs due to greater potential for direct access sales and a lack of a generation portfolio to support cycling operations. (Please see the response to Comment E2 for additional information.) These assumptions produced an Analytical Maximum level of operations that was reduced from each plant’s physical maximum only to a degree necessary to reflect inviolate, real-world impediments.

In any event, in the case of the Potrero Power Plant, the Analytical Maximum and the physical maximum cases would be very similar. In neither case can the three combustion turbines (CTs) run more than 10 percent of the time due to BAAQMD rules. It is implausible that the CTs would operate even as much as 10 percent of the time because they run on diesel, must continue to contribute to the demands of the San Francisco Operating Criteria, and are dispatched as Must Run Category C units by the ISO. The physical maximum capacity factor for the Potrero 3 boiler unit in 1999 would be 88 percent when forced and planned outages and deratings are taken into account. Thus, the physical maximum possible capacity factor for the entire Potrero plant (including the CTs) would be 54.6 percent, only about 10 percent higher than the 1999 Analytical Maximum case. In this instance, because the Potrero plant operating at its physical maximum would produce such a small amount of additional generation when viewed in the context of the State of California as a whole, the Analytical Maximum is not very much less than the physical maximum and certainly captures the maximum potential environmental impacts of divestiture.

- F54 Please see the response to Comment F53. The Analytical Maximum capacity factors used in the DEIR are less than the corresponding physical maximum values. The physical maximum, however, is not an appropriate measure to use in analyzing project effects because of its real-world implausibility. The likelihood of a plant running at its physical maximum is nil given the system constraints, the limitations on electricity demand (e.g., low demand in the middle of the night limits plant potential output), and the economic considerations faced by any owner.

In addition, calculating the physical maximum might be done easily, but the results could not easily be incorporated into the SERASYM™ model to assess hypothetical cumulative impacts. The analytical maximum takes into account system constraints and therefore is realistic; the physical maximum does not and is not.

- F55 The commenter notes that we live in a changing world and that “very little with respect to the PX and ISO stays constant these days.” It is agreed that the operations of the PX/ISO may change in the future. However, no plausible potential changes of which the EIR preparers are aware would do away with requirements for system reliability or with the objective of procuring minimum cost generation. The case evaluated in the Analytical Maximum scenario in the DEIR considered that plant operations would increase to an extent that would fully capture any credible foreseeable changes in system operations. Please see the responses to Comments F53 and F54.

- F56 The modest transmission modifications that PG&E is now completing with respect to imports into the City are reflected in the 1999 Baseline and the 1999 Analytical Maximum cases. These are described in the DEIR in Chapter 3 and summarized on pages S-7 and S-8.

More significant transmission projects are reflected in the 2005 Cumulative Impacts case entitled “Variant 1.” This variant is described in the DEIR on page 3-13, bottom

paragraph. It is also explained in Table 5.2 in the DEIR, starting on page 5-17 (refer to note “e”). The results of the 2005 Cumulative Impacts case, including all variants, are presented in the DEIR in Table 5.2.

- F57 The commenter correctly acknowledges that there is uncertainty as to where and when new power plants will be added to the power grid in the western region. Chapter 5, Cumulative Impacts, of the DEIR, addresses the potential for environmental impacts to occur from the development of new power plants in combination with the divested PG&E power plants in 2005. Specifically, Section 5.2.2 (pages 5-3 to 5-7 of the DEIR) discusses reasonably foreseeable future power plant development throughout California (including new generation to replace the Hunters Point Power Plant in San Francisco). In recognizing the uncertainty surrounding the development of these plants, the DEIR states on page 5-5 that “it is unknown at this time which of these power plants, if any, will eventually be constructed.” To avoid underestimating the localized effects of the proposed project together with cumulative projects, most of the power plants that are discussed in Section 5.2.2 as proposed new plants were excluded from the detailed cumulative modeling and analysis on pages 5-16 to 5-42 of the DEIR. First of all, the development of these plants was considered to be too speculative to include them in the analysis. Secondly, as described on pages 5-2 and 5-7 of the DEIR, development of new power plants would increase the overall generation capacity in California, thereby decreasing the likelihood that the plants proposed for divestiture would operate at higher levels in the future. As described on page 5-2 of the DEIR, the exception to this premise is that all future projects deemed necessary to support localized demand for electricity by 2005 are carried forward into the analysis. The discussion under Section 5.3, Potential Cumulative Impacts, on page 5-16 of the DEIR, summarizes those power plants that are assumed to be developed under the various cumulative scenarios.

As mentioned above, the DEIR explains that an increase in overall generating capacity resulting from the development of new power plants would decrease the tendency of new owners of the divested power plants to increase operations at such plants. This suggests that an increase in the number of new power plants being developed would result in a decrease in generation at the divested power plants. Conversely, the development of fewer new power plants would increase the tendency for the new owners of the divested plants to maximize the operation of those plants. This concept is illustrated in Table 5.2 (pages 5-17 and 5-18 of the DEIR), which shows annual plant capacity factor estimates for each of the four plants being divested under various cumulative scenarios. Of the three cumulative scenarios shown in Table 5.2, the Variant 2 scenario represents the scenario with the greatest overall generating capacity in terms of number of plants and the size of plants. When compared to the basic 2005 Cumulative Analytical Maximum, the annual plant capacity factor at each of the divested power plants decreases. If the excluded power plants described in Section 5.2.2 were included in the modeling, it is anticipated that the annual plant capacity factor of the divested plants would be even lower than is shown in Table 5.2.

Following publication of the DEIR, subsequent SERASYM™ modeling was completed for San Diego Gas and Electric Company's (SDG&E) proposed divestiture of its electric generating facilities, a refueling facility and long-term power supply contracts. The results of these modeling efforts are presented in SDG&E's *Mitigated Negative Declaration and Initial Study California Public Utilities Commission, San Diego Gas and Electric Company's Application No. 97-12-039, Proposal for Divestiture*, published on October 13, 1998. The analysis determined that because of increased transmission capability into the San Diego region, not known at the time of DEIR publication, the proposed Otay Mesa Power Plant described in Section 5.2 of the DEIR would not be need to meet projected demands. The modeling completed for SDG&E's proposed divestiture showed that the removal of the Otay Mesa Power Plant, in addition to other system-wide upgrades, resulted in no increase in capacity factors at the PG&E plants being divested from the capacity factors presented in the DEIR. In summary, the conclusions of these more recent modeling efforts would not affect the conclusions in the DEIR.

- F58 Section 3.4 of the DEIR (pages 3-4 and 3-5) (not of Attachment C) must be read in context with Section 3.5 of the DEIR. Section 3.4 does not list these factors "as too speculative to consider at this time." Section 3.4 lists and discusses the types of factors that could produce environmental change, e.g., changes in the amount of energy generated at a particular plant or in the number of employees at such plant. Section 3.5 then describes the DEIR's assumptions concerning the changes that divestiture would reasonably foreseeably effect, e.g., new owners having a tendency to generate more electricity than PG&E. The Analytical Maximum capacity factors go beyond capturing these reasonably foreseeable changes so as to conservatively depict the potential impact of the project.
- F59 The analysis to the extent feasible accounts for the possible range in changes from restructuring. Attachment C discusses the rationale for how the effects of restructuring were separated from those of divestiture, and how the incentives of new owners might differ from those of PG&E. Note that the sentence quoted by the commenter relates to restructuring, and not to divestiture.
- F60 The commenter suggests that the use of the physical maximum in the Final EIR would capture all of the effects of changes in operating mode and fuel costs, rendering use of the Analytical Maximum unnecessary. Please see the responses to Comments F53 and F54 regarding the Analytical Maximum and physical maximum concepts.

The change in fuel prices that was used in the Analytical Maximum case was misunderstood by the commenter. The fuel price used in the analysis was 25 percent cheaper than the cheapest natural gas projected to be available in California in each month considered. In each month of 1999 and 2005 where the Analytical Maximum estimates were made, the cheapest gas was projected to be available to the Cool Water plant in the Mojave desert. This projection is due to the near complete absence of inter- and intra-state gas transmission charges. Since gas service to the plants projected for divestiture incurs much larger gas transportation charges, the forecasted monthly price of natural gas fuel for

the PG&E plants proposed for divestiture are significantly higher in the basecase. Thus, the reduction in fuel price employed in the Analytical Maximum cases was significantly more than 25 percent below (depending upon the month and year) the fuel price assumed in the baseline case if PG&E were to retain the plants.

In addition, the operational studies using the Analytical Maximum scenario have already been completed, making the suggested implementation of the physical maximum an unnecessary exercise that would not affect the conclusions of the DEIR.

- F61 Please see the responses to Comments F53 and F54. The commenter provides no reasonable rationale for why use of the hypothetical physical maximum could more accurately account for future uncertainties in plant operations. On the other hand, the DEIR analysts, CPUC staff, and commenters have not identified any scenario that would allow future generation levels to exceed the Analytical Maximum scenario that was evaluated in the DEIR. The Analytical Maximum approach yields a realistic upper bound on possible generation without considering the highly implausible physical maximum levels of generation.
- F62 The approaches used in the DEIR to address the health impacts from exposure to increases in PM-10 and PM-2.5 emissions go beyond those typically carried out under CEQA. The levels chosen were not based on administrative rules, but were based on levels that have shown to cause statistically significant health effects. EIRs usually compare the estimated concentration increases with the ambient air standards to test for significance. This was done in the EIR when comparing increases from divestiture with baseline emissions to determine if the project would contribute to a violation of a standard. In the case of particulate matter, background measurements indicated that the state PM-10 standard has already been exceeded on occasion. Therefore, the significance threshold identified in significance criterion #1 (see DEIR page 4.5-50) was used, which is based on the BAAQMD definition for a measurable contribution to a standard violation. For criterion #1, the significance threshold is 5 micrograms per cubic meter for a 24-hour average increment and 1 microgram per cubic meter for an annual average increment.

To be conservative, the DEIR also compares contributions from the entire plant emissions (existing emissions plus emissions from divestiture) with PM-10 increases that are considered to cause significant health effects based on relative risk coefficients for particulate matter exposure. Although the DEIR did not use a rigid statistical approach, the preparers relied on the information on relative risks that were reported by EPA in the Particulate Matter Criteria Document (USEPA, 1996a) and in the EPA-OAQPS Staff Paper (USEPA, 1996b) to determine if the contributions from the plants would result in acceptable levels. The PM-10 concentrations reported in the DEIR are for worst-case receptors and are not indicative of typical exposure levels in the region. Average levels around the plants, which are actually more representative of public exposure, are about one-tenth of these maximum levels. This is principally because the public is usually not located within the prevailing wind direction from the plants. The DEIR does not ignore

the breadth of human health effects related to particulate matter exposure. It does not state that there is a threshold below which there are no impacts, nor does it reject the possibility of a linear dose-response effect extrapolated to zero, even though the studies cited in the literature do not conclusively reject the potential for a threshold exposure level (see USEPA, 1996a, Vol. III, pp. 12-22 through 12-24). Instead, the DEIR relies on the information pertaining to relative risk coefficients reported in the literature to establish exposure levels that may cause significant health effects. The ranges showing significant effects were increases of 20 to 50 $\mu\text{g}/\text{m}^3$. There is even greater uncertainty when increases range from 10 to 20 micrograms per cubic meter. This uncertainty is described further in response to Comment F74.

References:

U.S. Environmental Protection Agency, *Air Quality Criteria for Particulate Matter*, EPA/600/P-95/001cF, April 1996a.

U.S. Environmental Protection Agency, *Review of the National Ambient Air Quality Standards for Particulate Matter, Policy Assessment of Scientific and Technical Information*, EPA-452/R-96-013, July 1996b.

- F63 The impact analysis used the ambient air standards which are health-based. Therefore, it was not necessary to carry out separate risk assessments for the criteria pollutants. For criteria pollutants, such as PM-10, that already exceed the state ambient air standards, strict limitations on concentration increases which are related to measurable thresholds as identified in the BAAQMD PSD regulation were used to determine whether the project would cause health effects. Since the ambient air standards for the other criteria pollutants (NO_2 , SO_2 , and CO), which are health-based, were not exceeded as a result of the project, the health effects were considered less than significant.
- F64 The DEIR focused on the worst-case potential impacts from plant emissions, which involved local receptors. The modeled impacts from the plant emissions on receptors farther away in the region were found to be considerably lower than the local impacts and thus do not require further analysis.
- F65 The DEIR focused on the worst-case off-site receptors at residences and at locations that included sensitive receptors, such as schools. Since the modeled concentrations at these receptors were found to be less than significant, levels at sensitive receptors farther from the plants would be even lower. Therefore, further analysis for all exposed populations was not carried out because the levels are less than significant. Please also see response to Comment F67 regarding identification of exposed populations.
- F66 The approaches used to assess the health effects from the project considered the most sensitive health outcomes. For toxic substances that are not criteria pollutants, the EIR used the methods consistent with AB 2588. For criteria pollutants, the ambient air standards were used to assess impacts, since they are health-based standards. For criteria pollutants that occasionally exceed an ambient air standard, such as particulate matter,

more restrictive concentration increases were used, based on measurable concentration thresholds and relative risk coefficients. However, studies in the literature that are cited in the EIR show large variations and uncertainties in relative risks for various endpoints, especially for moderate increases in particulate matter. Since the relative risks for many of these endpoints overlap, the risks for all endpoints were grouped together, and the general term “respiratory-related health effects” was considered in the DEIR. Various health effect endpoints from exposure to particulate matter were described on pages 4.5-7, 4.5-31, and 4.5-32 of the DEIR.

- F67 Based on discussions with staff at the BAAQMD in determining the proper CEQA analyses, it was agreed that population health burden should not be included in the analysis, because of uncertainties in the population demographics and greater uncertainties in estimating actual exposure by these populations. Instead, it was agreed that the EIR should focus on the maximum incremental risk at the worst-case receptor and to determine if the estimated increases are significant.
- F68 Studies cited in the literature indicate that health impacts from acute and chronic exposure to particulate matter are closely related. The EPA Criteria Document states that long-term exposure often reflects the net sum of acute events that took place in a year (USEPA, 1996, V III, P 12-138 and 12-139). Thus, long-term (chronic) health effects associated with exposure to particulate matter are likely to reflect some combination of acute and chronic effects.

The paragraph in the DEIR referred to in the comment describes some of the effects of exposure to particulate matter. It was not intended to provide an exhaustive description of all of the health effects, many of which are very similar. The literature cited in the paragraph in the DEIR are examples of the numerous studies that have been carried out. Many of these studies relied on the same data sets with slightly different interpretations. The EPA Criteria Document for particulate matter and the EPA Staff Assessment report are good compendia of these studies. The last paragraph on page 4.5-7 is hereby amended as follows to include these compendia:

Several studies that EPA relied on for their staff report have shown an association between exposure to particulate matter, both PM-10 and PM-2.5, and respiratory ailments or cardiovascular disease (Pope *et al.*, 1992; Thurston *et al.*, 1992; Burnett *et al.*, 1995). Other studies have related particulate matter to increases in asthma attacks (Whittemore and Korn, 1980; Pope *et al.*, 1991). In general, these studies have shown that short-term and long-term exposure to particulate matter can cause acute and chronic health effects. The EPA Criteria Document and the EPA Staff Report on Particulate Matter (USEPA, 1996a, and 1996b) are compendia of the many studies related to health effects from particulate matter exposure. Fine particulate matter (PM-2.5), which can penetrate deep into the lungs, causes more serious respiratory ailments. These studies, along with information provided by

EPA in the 1996 staff report, were used as the basis for evaluating the impacts of PG&E emissions of PM-10 and PM-2.5, on public health.

- F69 The following language is hereby added to the end of the last sentence of the first full paragraph on page 4.5-12 of the DEIR:

...(pages 4.5-26 through 4.5-32).

The commenter also requests that Appendix G be cross referenced for risk assessment methodology information. Upon inspection, there is no risk assessment or methodology information contained within Appendix G and, thus, no further response is required.

- F70 As related to the wind rose (Figure 4.5-2 of the DEIR) for the Potrero Power Plant, the nearest residences and population centers are located to the west and southwest (e.g., Potrero Hill) and south (e.g., Bayview/Hunters Point) of the plant sites. This can be seen to some extent on Figure 2.2 and, for the immediate plant vicinity, Figure 4.1-4 provides local zoning designations surrounding the site. Per the predominate winds shown on Figure 4.5-2 (southwest, west-southwest, west and west-northwest), the areas downwind of the site are all off-shore in San Francisco Bay. Only a few percent of the days annually are winds observed that would cause the nearby population centers to be down wind of the power plant (i.e., winds from the east). Please see the response to Comment 4-2, for which a special wind rose was developed further illustrating this point. The commenter suggests that the approximate population sizes of these areas be stated. Population data is presented in Section 4.2.2 of the DEIR on the local population size for the Potrero area.
- F71 The sentence was intended to give a general description of some of the potential effects of exposure to particulate matter and was not intended to include all possible health effects. However, it does identify both respiratory and cardiac related effects as possible outcomes. A more comprehensive description is given earlier in the document (DEIR page 4.5-7, third through fifth paragraphs) in which both acute and chronic respiratory effects and cardiovascular effects are identified. The sentence in the DEIR that is referred to by the commenter identifies mortality as one of the outcomes from exposure to particulate matter, and was not intended to downplay this potential effect.
- F72 The sentence referred to (second full paragraph on page 4.5-31 of the DEIR) does not state that only areas with high short-term levels of particulate would result in health effects. It does cite several prominent studies that show health effects in cities during air pollution episodes. In several of these studies, short-term (24-hour average) levels exceeded 300 micrograms per cubic meter. The statement in the second paragraph that refers to typical annual average background levels ranging from 18 to 58 micrograms per cubic meter in these cities is not inconsistent with the high particulate matter levels that were observed during episodes. These differences between annual average concentrations and high short-term levels are typical for many urban areas.

The second sentence of the second full paragraph on page 4.5-31 of the DEIR is amended as follows:

~~Most~~ Many of these studies have shown relationships between particulate matter exposure and cardio-pulmonary effects during air pollution episodes in major metropolitan areas, where daily ambient air concentrations exceeded 300 micrograms per cubic meter $\mu\text{g}/\text{m}^3$.

F73 Page 4.5-31 of the DEIR (third full paragraph) is hereby amended as follows:

“A draft study report released by the Bayview Hunters Point Health and Environmental Assessment Task Force (Aragon and Grumbach, 1997) reported that 1992 hospitalization rates for asthma, hypertension, diabetes and congestive heart failure ~~are~~ were higher in ~~this area~~ Bayview Hunters Point than any other part of San Francisco. However, the draft study ~~does~~ did not identify the cause(s) of the observed increased respiratory problems, and ~~does~~ did not consider individual pollutant exposure. To better understand the causes of the increased ~~incidences~~ hospitalization rates, a detailed study would have to be carried out...”

F74 By citing the relative risks that were reported for a 20-25 microgram per cubic meter increase in PM-2.5 concentration, the DEIR does not reject the possibility of a linear relationship between exposure and health effect, although the EPA Criteria Document on Particulate Matter (USEPA, 1996a) indicates that the interpretation of specific concentration-response relationships is the most problematic issue when determining if the response is linear. This is due to the absence of clear evidence on the mechanisms for various health effects at lower concentration exposure levels (USEPA, 1996a, p. 13-87). Although most models assume a linear, no-threshold underlying relationship that potentially extend to zero concentrations, the existing data do not rule out the possible existence of an underlying non-linear, threshold relationship. The studies reported in the EPA Criteria Document indicate that there is considerable variability in the relative risks with estimates varying by a factor of 5 when concentration increases of 10 micrograms per cubic meter are considered. Information in the Criteria Document showed less variability in relative risks for a 20–25 microgram per cubic meter increase. In addition, Volume III of the Criteria Document (pages 10A-12 through 10A-17) states that total respiratory tract deposition of particulate matter reaches a minimum in the size range between 0.2 microns and 1.0 micron. The information on deposition in the Criteria Document is confirmed by another study (Raabe, 1984). This is important because it is the size range expected for a considerable portion of particulate matter emissions from gas-fired steam boilers (U.S. EPA, 1998). In effect, of all particle sizes, these particles are the least likely to be trapped in the lungs and the most likely to be expelled from the lungs during breathing. This information adds to the uncertainty of health effects from exposure to emissions from gas-fired boilers at the PG&E units, although this factor would reduce concern from particles of this size.

In choosing levels that could be used to judge the health effects from the project emissions, the EIR followed the methods used by EPA when establishing new fine particulate matter standards. In its Policy Assessment of Scientific and Technical Information for Particulate Matter (USEPA, 1996b), the Office of Air Quality Planning and Standards states on page VII-1:

A final decision (on PM-2.5 standards) must draw upon scientific information about health effects and risks, as well as judgments about how to deal with the range of uncertainties that are inherent in the scientific evidence and analyses. The Staff's (EPA) approach to informing these judgments is based on a recognition that the available health effects evidence generally reflects a continuum consisting of levels at which scientists generally agree that health effects are likely through lower levels at which the likelihood and magnitude of the response becomes increasingly uncertain. This approach is consistent with the requirements of the NAAQS provisions of the Clean Air Act and with how EPA and the courts have historically interpreted the Act. These provisions do not require the Administrator to establish NAAQS at a zero-risk level but rather at a level that avoids unacceptable risks and, thus, protects public health with an adequate margin of safety.

With regard to evaluating the significance of changes in plant operations due to divestiture (direct project impacts as opposed to total plant operations), the more restrictive significance criterion #1 was used (as defined on page 4.5-50 of the DEIR), in which 24-hour PM-10 concentration increases exceeding 5 micrograms per cubic meter was considered to be significant.

CEQA analysis depends upon determining what is a significant environmental impact and does not assume that any increase is significant, even if the increase is linear or could be linear. With this in mind this EIR does not use a standard that a one particle increase in PM-10 would be a significant impact. Rather, the EIR uses significance standards based on concentrations that have shown more certain health effects.

Reference:

Raabe, O., *Deposition and Clearance of Inhaled Particles*, chapter in *Occupational Lung Disease*, Gee, J, K. Morgan, and S. Brooks, Editors, Raven Press, 1984.

- F75 The PM-10 significance criteria mentioned on numbered item 1 on page 4.5-50 are taken from BAAQMD Regulation 2, Rule 2 as mentioned in the second sentence of that DEIR paragraph. Thus, there is no need to modify this text.
- F76 Please see response to Comment F74 for the first part of the comment regarding how 24-hour average and annual average significance criteria were selected. The significance levels identified in the comment were used to evaluate the consequences of total plant operations (existing plus project impacts). The cumulative effect is included, since the EPA information on relative risks coefficients was based on concentration increases over typical urban background levels, which included other sources.

The increases for PM-10 are not less than those for PM-2.5. They are the same, because it is assumed that all of the emissions from the plant are less than 2.5 microns. The incremental increases mentioned in the comment regarding criterion #1 are for both PM-10 and PM-2.5. The increases referred to in criterion #1 are related increases from divestiture as compared with the baseline environmental conditions. The concentration increases identified in criterion #1 are more restrictive than criterion #4, because #1 deals with emissions changes from the divestiture project, whereas #4 includes total plant emissions (baseline plus divestiture). The response to Comment F74 provides an explanation on the rationale for choosing the numerical targets, and it cites the documents that were relied upon.

The comment regarding the number of days exceeding 20 micrograms per cubic meter refers to Tables 4.5-30 and 4.5-33 in the DEIR. These tables show the number of days that the contributions from the plants (baseline plus divestiture) are expected to exceed certain intervals. The frequencies on the tables identify the number of days in a year that specified threshold levels would be exceeded at the worst-case receptor if a year of daily operations were input to the model. The year of daily operations was derived from SERASYM™ model runs based on energy demand. Tables 4.5-30 and 4.5-33 show that there are no days in which the 20 microgram per cubic meter threshold would be exceeded.

F77 The change in designation for the national ozone standard does not affect significance criterion #5 (on page 4.5-51 of the DEIR) since that criterion was developed to assess consistency of the project with the '97 *Clean Air Plan*, which was prepared to address the nonattainment status of the Bay Area with respect to the more stringent state ozone standard, not the national ozone standard.

F78 The PM-2.5 values shown in Table 4.5-29 represent the specific time period and the value added to the representative background value. For example, 1999 Baseline PM-2.5 values listed in Table 4.5-29 as 1.2/1.2 indicate that, for the first value of 1.2, the expected 1999 Baseline value for Potrero would be 1.2 µg/m³. The second 1.2 indicates that the Potrero plant contribution, when added to the background value of "ND" (i.e., no data), is also 1.2 µg/m³. Any confusion stems from the fact that there are no values currently available for PM-2.5 backgrounds, and there will be none available for several years until the BAAQMD completes its initial PM-2.5 monitoring program. To eliminate any confusion, Table 4.5-29 (and similar values for Tables 4.5-31 and Table 4.5-32) is hereby amended to read as follows:

For particulate matter (PM-2.5), 24-hour values for the following columns are all changed to read:

1999 Baseline	1999 Analytical Maximum	2005 Cumulative Analytical Maximum
1.2/ <u>ND</u> ±2	1.7/ <u>ND</u> ±7	2.0/ <u>ND</u> ±2

F79 Please see responses to Comments F30 and F31.