I. Air Quality Data

The Gas Company™

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June 1, 1994

Ms. Melanie Smith
Robert Bein, William Frost & Associates
14725 Alton Parkway
Irvine, CA 92713

Dear Melanie:

Per our telephone conversation this afternoon, please find the enclosed emissions and fuel consumption information for the natural gas engines to be installed at the Cambria desalter. I have also included an analysis commissioned by The Gas Company on Sea Water scrubbing of exhaust gas. The study was performed by Energy and Environmental Research Corporation and is provided as a resource for the EIR.

The tables below summarize the emissions information currently available form both Waukasha and Caterpillar (specifications enclosed):

Waukasha VHP3600GSI Rich Burn			VHP3600GL Lean Burn	
Pollutant	Uncontrolled gm/hp-hr	Controlled gm/hp-hr	Uncontrolled gm/hp-hr	Controlled gm/hp-hr
NOx	11.0	0.3	1.5	Sea Water
CO	8.0	0.5	2.65	Sea Water
ROG	0.25	0.06	1.0	Sea Water

Caterpillar G3512 Rich Burn			G3512 Lean Burn	
Pollutant	Uncontrolled gm/hp-hr	Controlled gm/hp-hr	Uncontrolled gm/hp-hr	Controlled gm/hp-hr
NOx	10.5	0.15*	1.3	Sea Water
CO	10.5	0.5	1.7	Sea Water
ROG	0.20	0.2	0.4	Sea Water

* Provided by Houston Industrial Silencing.

Both lean burn and rich burn emissions data are provided. Lean burn combustion technology is used in the sea water scrubbing process. If catalytic reduction is required, in lieu of the sea water scrubbing, then the rich burn engine will be used with catalytic control.

It appears the next step toward the completion of the EIR and permitting documents is the determination of the BACT limits. It is recommended that we conduct a pre-permit review with the SLOAPCD of the proposed emissions and control technologies. Please let me know what I can to help facilitate this meeting.

Sincerely,

Duane A. Selby
Core Account Executive

Enclosures: Caterpillar Specifications
Letter from Houston Industrial Silencing
Houston Brochure
Johnson Matthey Brochure
Waukasha Specifications
EER Proposal (Exhaust Gas Scrubbing with Sea Water)

CC: Greg Luke (with Caterpillar Specs, Waukasha Specs, EER Proposal)
Jim Monninger (with Caterpillar Specs, Waukasha Specs)

AIR POLLUTION
CONTROL DISTRICT
COUNTY OF SAN LUIS OBISPO

INTERIM ENVIRONMENTAL IMPACT REPORT GUIDELINES

THE ASSESSMENT OF AIR QUALITY IMPACTS FROM URBAN DEVELOPMENT

This document provides a set of guidelines to assist local planners and project consultants in the assessment of potential air quality impacts from urban and industrial development. These guidelines define the criteria used by the District to determine when an air quality analysis is necessary, the type of analysis that should be performed, and the significance of the impacts predicted by the analysis.

Project Analysis

Table 1 defines the threshold criteria used by the District to determine the type and scope of projects requiring an air quality assessment. These criteria are directed primarily toward the indirect emissions (i.e., motor vehicles) associated with urban and industrial development. The list is not comprehensive and should be used for general guidance only. In general, any proposed project which has the potential to emit greater than or equal to 10 lbs./day of Reactive Organic Gases (ROG), Oxides of Nitrogen (NOx), Sulfur Dioxide (SO_2), or PM10 should be submitted to the District for review. The project will be analyzed for potential air quality impacts, and appropriate mitigation measures proposed.

Most of the air quality analysis techniques recommended by the District involve the use of simple computer models to calculate the potential emissions and ground-level impacts from various urban development projects. Included in this packet is a summary of the appropriate local conditions and other input variables to be used with the URBEMIS #3 and CALINE4 models. These are two of the most common models used in urban impact assessment and are available from the California Air Resources Board (ARB) for a nominal fee. When the use of other air quality models is proposed or required, the user should first consult with the District for guidance and approval.

Significance Criteria

The District has established four separate categories of evaluation for determining the significance of project impacts: 1.) Comparison of calculated project emissions to District emission thresholds; 2.) Consistency with the District's 1991 Clean Air Plan; 3.) Comparison of predicted ambient pollutant concentrations resulting from the project to State and Federal health standards; and 4.) The existence of special conditions which apply to certain projects.

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1.) Comparison To APCD Emission Thresholds

Table II presents the threshold criteria established by the District to determine the significance of long-term emissions from a project. Emissions which equal or exceed the designated threshold levels are considered significant and should be mitigated. A summary description of appropriate mitigation measures for urban development projects is included in this packet. Most of the strategies recommended focus on transportation control measures designed to reduce vehicle trips and vehicle miles travelled. In addition, site design standards are included which serve to encourage pedestrian-friendly, transit-oriented development. Building design criteria address energy-conserving, environmentally-friendly design. These mitigation measures are based on a tiered approach, with the following bench marks: 10 lbs/day, 25 lbs./day and 25 tons/year of ROG, NOx, SO_2, or PM10 emitted.

Short-term emissions from project construction or other temporary activities should also be evaluated and mitigated if necessary. Guidelines for analysis and determination of impact significance for construction activities have been included in this packet.

2.) Consistency with the District's 1991 Clean Air Plan

A consistency analysis is required for a Program Level EIR, and may be necessary for a Project Level EIR, depending on the project being considered. Examples of projects and programs requiring a consistency analysis include: General Plan Updates and Amendments, Specific Plans, Area Plans, large residential developments and large commercial/industrial developments. The consistency analysis should evaluate the following questions:

- Are the population projections used in the area plan equal to or less than those in the 1991 CAP for the same area?

- Is rate of increase in vehicle trips and miles travelled less than or equal to the rate of population growth for the same area?

- Have all applicable land use and transportation control measures been included in the plan to the maximum extent feasible?

If the answer to all of the above questions is yes, then the proposed project or plan is considered to be consistent with the CAP. If the answer to any one of the questions is no, then the emissions reductions projected in the CAP may not be achieved, which could delay or preclude attainment of the state ozone standard. This would be considered inconsistent with the Clean Air Plan.

3.) *Comparison to Standards*

Table III lists the existing State and Federal ambient air quality standards. These standards are designed to protect public health from the adverse impacts of air pollution. When air quality dispersion modeling is required to determine the potential ground-level impacts caused by project emissions, the predicted pollutant concentrations are compared to the applicable State and Federal standards. A project is considered to have significant impact if its emissions are predicted to cause or contribute to a violation of any State or Federal ambient air quality standard. If the predicted standard violation resulted from the application of a "screening-level" model or calculation, it may be appropriate to perform a more refined modeling analysis to more accurately estimate project impacts. If a refined analysis is not available or appropriate, then the impact must be mitigated to insignificance, or a finding of overriding considerations made by the permitting agency.

4) *Special Conditions*

Project impacts may also be considered significant if one or more of the following special conditions apply:

a. If a project has the potential to emit toxic or hazardous air pollutants, impacts may be considered significant due to increased cancer risk for the affected population, even at a very low level of emissions. Such projects must prepare a risk assessment to determine the potential level of risk associated with their operations. The District should be consulted on any project with the potential to emit toxic or hazardous air pollutants. Pursuant to the requirements of California Health and Safety Code Section 42301.6 (AB 3205) and Public Resources Code Section 21151.8, subd. (a)(2), any new school, or proposed industrial or commercial project site located within 1000 feet of a school, <u>must</u> be referred to the District for review.

b. If a project has the potential to cause an odor or other nuisance problem which could impact a considerable number of people, then it may be considered significant. A project may emit a pollutant in concentrations that would not otherwise be significant except as a nuisance, for example hydrogen sulfide (H_2S).

c. If a project is located near a sensitive receptor, such as a school, hospital or senior citizen facilities, it may be considered significant even if other criteria do not apply. The health effects of a project's emissions may be more pronounced if they impact a considerable number of children, elderly, or people with existing infirmities.

The APCD should be consulted whenever any of these special conditions apply.

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AIR POLLUTION
CONTROL DISTRICT
COUNTY OF SAN LUIS OBISPO

CONSISTENCY DETERMINATION

Consistency with the District's 1991 Clean Air Plan (CAP) may be established if the following criteria are met:

1. There are no significant conflicts between the proposed project, applicable control strategies, and the District's 1991 Clean Air Plan.

2. A significant increase in population growth beyond the projections used in the CAP will not result from the development of any new or modified desalination facilities proposed.

3. A significant increase in emissions of nonattainment pollutants, or their precursors, will not result from the implementation of this project.

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