



# BLACK & VEATCH

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DOCKET  
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DATE: MAY 12 1994

RECD MAY 13 1994

Sacramento Cogeneration Authority  
Procter & Gamble Cogeneration Project

B&V Project 23933  
B&V File 32.0406  
May 12, 1994

Mr. B. B. Blevins  
California Energy Commission  
1516 Ninth Street  
Sacramento, California 95814  
Attn: Docket Unit

Subject: Minor Comments and Clarifications  
on the Preliminary Staff  
Assessment

Attention: Mr. B. B. Blevins

Gentlemen:

Enclosed are twelve copies of our minor comments and clarifications on the Preliminary Staff Assessment (PSA) for the Procter & Gamble Cogeneration Project. We anticipate that the California Energy Commission will incorporate these comments into the Final Staff Assessment. If necessary, however, we can discuss these items at the upcoming PSA workshops.

Please contact me at (913) 339-2164 or Douglas Timpé at (913) 339-7214 if you have any questions on this material.

Very truly yours,

BLACK & VEATCH

*David M Lefebvre*

David M. Lefebvre

Enclosures

cc: Darrell Woo, CEC  
D. Parker, SCA  
R. Simms, Walsh Construction Company

SACRAMENTO COGENERATION AUTHORITY  
PROCTER & GAMBLE COGENERATION PROJECT  
REVIEW OF APRIL 15, 1994 PRELIMINARY STAFF ASSESSMENT

CLARIFICATIONS AND MINOR COMMENTS  
PROJECT DESCRIPTION

- (1) Page 7, first paragraph: Suggest change wording at end of first paragraph to say "... natural gas-fired **combustion turbine** ~~combined-cycle~~ cogeneration power plant..." This change will clarify that the project also includes the simple cycle combustion turbine, too.
- (2) Page 7, Construction Start Date: Construction could start as early as January 1995, rather than April 1995.
- (3) Page 10, Air Pollution Control, first paragraph: Should be changed to reflect the recent deletion of the emergency generator.
- (4) Page 11, Electrical Transmission System, third paragraph: "The switchyard will consist of a "ring" bus with three transformer positions ..." The "three" should actually be "two" since the project only has two stepup transformers.
- (5) Page 11, Electrical Transmission System: The following paragraph should be added for the secondary power source feed as follows.

"The project will also be interconnected with SMUD's existing 12 kV distribution system to provide a secondary power source to the project in the event that the 230 kV system is not available. The 12 kV source will enter the site from 83rd street."
- (6) Page 13, Wastewater System, first sentence: Should be revised to read "Wastewater from the project...will be collected by the wastewater collection system and discharged to Morrison Creek via Sacramento's storm drains system." rather than "Wastewater from the project...will be collected by the wastewater collection system and discharged to the County of Sacramento's sanitary sewer system." "Evaporative cooler" should be deleted to reflect the current project design.

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CLARIFICATIONS AND MINOR COMMENTS  
AIR QUALITY

- (1) Page 38, Simple Cycle, first paragraph: This paragraph says that the simple cycle unit will use evaporative inlet air cooling. This statement should be corrected to reflect the use of steam absorption chillers.
- (2) Page 44, first line: The very first line mentions "two of three CTGs". Since this discussion concerns the simple cycle unit, this language should be deleted.
- (3) Page 44, Start-up Emissions, last paragraph: The last paragraph mentions start-up emission rates for various pieces of equipment, including the cooling tower. Inclusion of the cooling tower in that context is inappropriate.

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CLARIFICATIONS AND MINOR COMMENTS  
PUBLIC HEALTH

- (1) Page 82, Project Specific, first paragraph, last sentence: Should be deleted since the diesel generator is no longer part of the proposed project.

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CLARIFICATIONS AND MINOR COMMENTS  
HAZARDOUS MATERIALS

- (1) Page 96, Hydrazine: The paragraph on hydrazine should change the reference to the SEPCO Project.

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**CLARIFICATIONS AND MINOR COMMENTS  
INDUSTRIAL SAFETY AND FIRE PROTECTION**

- (1) Page 111, first full paragraph, first sentence: "SCA 1993b" is not cited in the References.
  
- (2) Page 113, seventh bullet: The project's site arrangement (Figure 3.3-1 of AFC and amended as indicated in SCA's April 7, 1994 submittal to the CEC) shows the road configuration for the project. SCA believes that adequate perimeter access is available in the event that a need for emergency vehicles onsite arises. Consequently, no emergency vehicle turnarounds on the project site roads are proposed.

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CLARIFICATIONS AND MINOR COMMENTS  
WASTE MANAGEMENT

- (1) Page 127, First sentence: "...must be replaced every to 10 years..." should be changed to "...must be replaced every 6 to 10 years..."

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CLARIFICATIONS AND MINOR COMMENTS  
NOISE

NOISE

- (1) Page 136, NOISE: Table 1: NOISE: Table 1 lists the ambient noise levels recorded during the site survey. The first five  $L_{eq}$  values given for Location 2 should be 57.0, 60.0, 59.0, 59.5, and 61.0, rather than 60.0, 59.0, 59.5, 61.0, and 60.5.
- (2) Page 139, Impacts, first paragraph: Should be corrected to state that the construction period will last approximately 23 to 25 months, not 21 months.
- (3) Page 148, NOISE-2: The typographical error in "project owner" should be corrected.



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CLARIFICATIONS AND MINOR COMMENTS  
WATER RESOURCES

- (1) Page 159, Surface Water, second paragraph: "The average annual temperature is 60°F" should read "60.6°F" (AFC, p. 6.3-1).
- (2) Page 160, last paragraph, first sentence: The sentence should read "The proposed project will rely on water from the American and Sacramento Rivers ..." rather than "The proposed project will rely on local groundwater under the site blended with water from the American and Sacramento Rivers..." This discussion should clarify that the project will obtain all of its water from the City of Sacramento and that the City obtains its raw water from predominately surface water, but also some groundwater.
- (3) Page 164, Water Quality, first paragraph, last sentence: Replace "supplier" with cleaning contractor (AFC, p. 6.3-13).
- (4) Page 164, Water Quality, first paragraph, second sentence: Delete "evaporative cooler blowdown," since the evaporative cooler has been replaced by a steam absorption chiller.
- (5) Page 165, Water Quality, second full paragraph: This paragraph indicates that project process wastewater will be discharged to Morrison Creek only if such wastewaters cannot be discharged into Sacramento Regional Wastewater Treatment Facility (SRWTF) sewers. The PSA should reflect the fact SCA has applied for an NPDES permit for process wastewater discharges because of the SRWTF concerns about TDS levels. No attempt has been made to force the SRWTF to accept process wastewaters from this project.
- (6) Page 165, Flood Hazard, first paragraph, last line: "no base flood elevation determined." should read "no base flood elevations determined."
- (7) Page 174, Flood Hazard: The reference is incorrect. Should be SCA 1993, page 3-11.

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CLARIFICATIONS AND MINOR COMMENTS  
SOIL RESOURCES

- (1) Page 182, Project Site, last paragraph: In the last paragraph on the page, the reference for the 42 foot 100-year flood elevation seems to be mistaken since it seems to refer to a Sacramento Power Authority 1993 filing instead of any SCA filing.
- (2) Page 183, fourth full paragraph: The statement is made that the majority of the site will be covered with impervious surfaces. The majority of the site will be aggregate surfaced which will not be an impervious surface.

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CLARIFICATIONS AND MINOR COMMENTS  
SOCIOECONOMICS

- (1) Page 250, second full paragraph: Delete "evaporative cooler," since the evaporative cooler has been replaced by a steam absorption chiller. In the last sentence, delete the phrase "...before being discharged to Sacramento County's sanitary sewer system."

SACRAMENTO COGENERATION AUTHORITY  
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CLARIFICATIONS AND MINOR COMMENTS  
LAND USE

- (1) Page 263, Regional and Vicinity Description, second paragraph:  
The CEC states that the plant is located at the northeast corner  
of a 30 acre site. The area referred to is 50 acres.

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CLARIFICATIONS AND MINOR COMMENTS  
VISUAL RESOURCES

- (1) Page 276, Project Description, first paragraph: The Procter & Gamble plant should be referred to as P&G rather than G&G.
- (2) Page 307, CEC Staff's Proposed Mitigation Measures, first line: The "in" should be "is".

SACRAMENTO COGENERATION AUTHORITY  
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CLARIFICATIONS AND MINOR COMMENTS  
TRAFFIC AND TRANSPORTATION

- (1) Page 356, Truck Traffic, second paragraph: This paragraph should reflect that three (not two) chillers will be delivered to the site.
- (2) Page 357, Traffic and Transportation Table 6: This table should be corrected as follows to reflect the current delivery schedule.
  - Two combined cycle gas turbine generators (Weight: 200,000 lbs; Size: 10'5" x 23'5") and two combined cycle gas turbines (Weight: 160,000 lbs; Size: 13'6" x 56'6") will be delivered to the site in May 1996.
  - One simple cycle gas turbine generator (Weight: 200,000 lbs; Size: 10'5" x 23'5") and one simple cycle gas turbine (Weight: 160,000 lbs; Size: 13'6" x 56'6") will be delivered to the site in May 1996.
  - Deliveries for the steam turbine, STG generator, HP Economizer - Front, HP Economizer - Rear, LP superheater, and exhaust stack are scheduled for June 1996.
  - Deliveries for the main transformer and the feedwater preheater are scheduled for February 1996 and May 1996, respectively.
- (3) Page 369, first paragraph: There is a typographical error (impacts) in the next to last line.
- (4) Page 372. The second paragraph under Additional Mitigation includes a misspelling of the word "outside" as outhside.

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CLARIFICATIONS AND MINOR COMMENTS  
FACILITY DESIGN

- (1) Page 381, Staff Proposed Additions to Applicant Proposed Criteria:  
The CEC stipulates a value of  $S=1.5$  in the design of anchored flat-bottom tanks. On page 7 of Appendix C1 of the AFC, a value of  $S=1.2$  was identified as appropriate for the site based on the soils investigation. On page 393 of the PSA the value is identified as 1.2. On page 468 of the PSA the value of 1.2 is identified with the CEC concurring with the proposed mitigation for seismic shaking on page 471. The following change is suggested to item 8 on page 381. "8. For AWWA D100 anchored flat-bottom tank design, the coefficients  $Z=0.75$ ,  $K=2.0$ , and  $S=1.2$  should be used."

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CLARIFICATIONS AND MINOR COMMENTS  
FACILITY RELIABILITY

- (1) Page 417, Water Supply Reliability, first sentence: Inlet air cooling for the simple cycle gas turbine generator will be accomplished using a steam absorption chiller rather than an evaporative cooler. Consequently, water use at the project will be primarily for cooling tower makeup (as indicated by the CEC) and to feed the demineralizer. The phrase "...simple cycle gas turbine generator's evaporative inlet air cooler" should be replaced with "demineralizer."



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CLARIFICATIONS AND MINOR COMMENTS  
TRANSMISSION SYSTEM ENGINEERING

- (1) Page 435, Existing Facilities and Related Systems, first paragraph, third line: The typographical error in "kV" should be corrected.
- (2) Page 436, Summary of Applicant's Proposal, last paragraph: This paragraph should reflect that the 69 kV line will be used to supply back-up power to the project.

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CLARIFICATIONS AND MINOR COMMENTS  
GEOLOGICAL HAZARDS AND RESOURCES

- (1) Page 468, Liquifaction, last line: The typographical error with the word "liquefaction" should be corrected.



CALIFORNIA ENERGY COMMISSION  
(Docket Unit - 12 copies required)

Docket Unit, MS-4  
1516 Ninth Street  
Sacramento, CA 95814

I am and was at the time of the service of the attached paper over the age of 18 years and not a party to the proceeding involved.

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

A handwritten signature in cursive script, reading "Douglas C. Tjive", is written over a solid horizontal line.

Attachment

## INTERNAL DISTRIBUTION LIST

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