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**STATE OF CALIFORNIA
ENERGY RESOURCES CONSERVATION AND DEVELOPMENT
COMMISSION**

In the Matter of the Application for a Small
Powerplant Exemption for Chevron U.S.A.'s
Richmond Cogeneration Facility

Docket No. 86-SPPE-1

**STAFF'S RESPONSE TO PETITION AND SUPPLEMENTAL PETITION TO
MODIFY SMALL POWERPLANT EXEMPTION TO REMOVE LIMITATION ON
SALES OF EXCESS POWER**

INTRODUCTION

The Energy Commission Staff ("Staff") joins Petitioner Chevron U.S.A. Inc. ("Chevron") in its Petition and Supplemental Petition seeking to modify the 1987 Small Power Plant Exemption ("SPPE") and specifically recommends that the Commission exert its authority under Public Resources Code section 25218 to delete conditions "C," "D," and "E" from the Findings and Orders of the 1987 Commission SPPE Decision. Attached hereto, and marked "Exhibit A," is a true and correct copy of Findings and Orders "C," "D," and "E" from the 1987 Commission SPPE Decision.

Condition "D" imposes a limitation on sales of electrical power in excess of 5 megawatts (MW) annually and condition "E" imposes a limitation on sales of electrical power in excess of 1 MW during the 2,000 hours of PG&E's lowest load

demand per year. Condition “C” requires Chevron to annually report monthly power generated and fuels consumed.

Attached hereto and marked “Exhibit B” and “Exhibit C” are true and correct copies of analyses authored by California Energy Commission staff members Matthew Layton and David Vidaver, respectively. Staff’s analysis confirms that there would be increased efficient energy production and no significant impacts associated with the removal of the limitation on sales of excess power by deleting conditions “C,” “D,” and “E” from the Commission’s SPPE Decision as requested by the Petitioner. In fact, deletion of conditions “C,” “D,” and “E” from the Commission’s SPPE Decision may reduce air pollutant emissions by reducing Chevron’s reliance on outdated boilers.

POINTS AND AUTHORITIES

Public Resources Code section 25218(e):

In addition to other powers specified in this division, the commission may do any of the following:

...

(e) Adopt any rule or regulation, or take any action, it deems reasonable and necessary to carry out the provisions of this division.

Petitioner has correctly proceeded under Public Resources Code section 25218(e) since Chevron’s Richmond Cogeneration Facility is exempt from the site certification and amendment process pursuant to Public Resources Code section 25541. The deletion of conditions “C,” “D,” and “E” from the

Commission's SPPE Decision is reasonable and necessary to carry out the provisions of Public Resources Code section 25001.

Public Resources Code section 25001:

The Legislature hereby finds and declares that electrical energy is essential to the health, safety and welfare of the people of this state and to the state economy, and that it is the responsibility of state government to ensure that a reliable supply of electrical energy is maintained at a level consistent with the need for such energy for protection of public health and safety, for promotion of the general welfare, and for environmental quality protection.

Staff concurs with Petitioner that the state needs increased electricity supply and that the public interest would be served by removing the excess sales limitation imposed by conditions "D" and "E" and the attendant reporting obligations under condition "C." Furthermore, by deleting the excess sales conditions, the Commission would enable the Petitioner to increase electricity generation and optimize the facility's efficient operation. In so doing, the Commission would protect public health and environmental quality by enabling Chevron to increase efficient output of electricity without increasing emissions. In fact, it may even reduce emissions.

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CONCLUSION

Based on the foregoing Points and Authorities, the underlying Petition and attached exhibits, the Energy Commission Staff recommends that the Commission remove conditions “C,” “D,” and “E” from the Findings and Orders of the 1987 Commission SPPE Decision.

Respectfully Submitted,

May 3, 2007

Kenneth D. Celli
Senior Staff Counsel
California Energy Commission

STATE OF CALIFORNIA
State Energy Resources
Conservation and Development Commission

In the Matter of:
Application for a Small Powerplant
Exemption for CHEVRON USA'S
RICHMOND COGENERATION FACILITY

Docket No. 86-SPPE-1

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COMMISSION DECISION

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CHIEF COUNSEL OFFICE

October 7, 1987

P800-87-010

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PROOF OF SERVICE (REVISED _____)
FILED WITH ORIGINAL _____
SACRAMENTO ON _____

EXHIBIT A

least eighteen (18) months before the time of withdrawal and notify PGandE of its intent to reenter the utility system at least two (2) years before the time of reentry. (ER 6, section 6.4.2, p. 6-9);

C. As required by the 1986 Electricity Report, Chevron U.S.A. shall provide to the Commission an annual operations report describing on a monthly basis power generated and fuels consumed, using forms approved by the Commission (ER 6, section 6.4.2, pp. 6-9);

D. During the life of the self-generation project and subject to condition C, Chevron U.S.A. shall not sell more than five (5) megawatts (or 44 GWh) of surplus electrical power per year to PGandE, unless Chevron U.S.A. and PGandE agree in writing to modify the amount of annual surplus power sales and such agreement is approved by the Commission; and

E. During the life of the self-generation project, Chevron U.S.A. shall not sell more than one (1) megawatt of surplus electrical power to PGandE at any given moment during the two thousand (2,000) hours of PGandE's lowest load demand in each year (as provided in the stipulation of the parties, dated Sept. 28, 1987), unless Chevron U.S.A. and PGandE agree in writing to modify the amount of surplus power sales during PGandE's lowest load demand time period and such agreement is approved by the Commission.

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EXHIBIT A

**ENERGY COMMISSION STAFF ASSESSMENT OF CHEVRON U.S.A.'S
PETITION TO AMEND THE ENERGY COMMISSIONS SPPE DECISION
MATTHEW LAYTON, SENIOR MECHANICAL ENGINEER**

I have talked to Paul Millner at Chevron (see attached) and believe that Chevron is not adding any combustion equipment or emission sources. I spoke to Barry Young at the BAAQMD (415-749-4721) and confirmed that Chevron has not asked for a change to their air permit.

Chevron added an extraction steam turbine generator (STG), a mechanical device, about a year ago. The new STG allows energy to be extracted from the high pressure/high quality steam as it is reduced in pressure and quality to about 150 psi for use in various refinery processes. If they did not have the STG, they would use existing expansion valves to reduce steam pressures and qualities to match process needs.

Steam demand at the refinery is the critical element in matching refinery operation and cogeneration operation. The electricity is a useful by-product, but is not the controlling element in cogeneration unit operations. If the cogen units were offline or curtailed for any reason, the refinery would use existing boilers (circa 1937) to supply steam to the processes. Interruptions in steam supply could cascade to a refinery outage, which can take weeks to recover from and restore production - a very expensive event.

The new STG and the existing gas turbines can produce more electricity than in the past without additional fuel firing or a higher capacity factor. However, the current energy production limit in conditions "D" and "E" of the exemption decision can force Chevron to curtail cogen and new STG operation to avoid exceeding the limits in the conditions. Any cogen curtailment makes less cogen steam available for the refinery, forcing Chevron to rely on the existing permitted boilers to supply steam. Again, the increased output makes it more likely that Chevron will bump up against and exceed the energy sales limit.

In discussing this with the air district, the current refinery boilers and cogeneration units (including the new STG) are fully permitted. They could continue to operate under the energy sales limit without violating any air permits. However, the air district does not see any air or air permit issues associated with removing the energy sales cap. The units are monitored with fuel meters and emission monitors, so they cannot fire more fuel or emit more air pollutants than allowed under their permit. And the cogen unit is more efficient and has lower emissions in raising an equivalent amount of steam from the existing refinery boilers, and has a useful by product - electricity.

EXHIBIT B

**ENERGY COMMISSION STAFF ASSESSMENT OF CHEVRON U.S.A.'S
PETITION TO AMEND THE ENERGY COMMISSIONS SPPE DEICSION
DAVID VIDAVER, ELECTRIC GENERATION SYSTEMS SPECIALIST**

There is no reasonable objection to Chevron's request to lift the Excess Sales Limit imposed upon the facility as a condition of its 1987 SPPE if air emission impacts are unchanged.

The facility was deemed in 1987 to have passed the demand conformance test set forth in the Energy Commission's 1986 Electricity Report (ER6). This was based upon the Excess Sales Limit having resulted in a *de minimis* impact on core resources. As the petitioner points out, demand conformance is no longer required to be determined in a siting case. The concept of administrative determination of demand conformance for a merchant generator is neither consistent nor compatible with the operation of a hybrid electricity market. While the California Public Utilities Commission may rightfully determine whether a contract entered into by a utility under its jurisdiction results in the utility procuring more energy than may be needed by bundled customers and thus puts ratepayers at risk for higher costs, the merchant generator, not the ratepayer, bears the risk of non-conformance in the absence of such a contract. If the additional capacity and energy is surplus to need, the generator, not ratepayers, bears the financial cost.

The petitioner is also correct in contending that providing additional capacity is unambiguously to the benefit of ratepayers. It contributes to system, zonal and local (Greater Bay Area) reliability, reducing the probability of involuntary load shedding during high load hours and other adverse conditions. It also provides capacity that can replace that obtained from aging power plants, whose retirement is in the public interest per the Integrated Energy Policy Report.

EXHIBIT C