STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION

STAFF'S REBUTTAL TESTIMONY FOR REGULAR MEETING OF JULY 10, 2003
PACIFIC GAS AND ELECTRIC COMPANY'S (PG&E'S)
DIABLO CANYON POWER PLANT
RENEWAL OF NPDES PERMIT

Prepared on June 20, 2003

ITEM NUMBER: 4

This is Regional Board staff's rebuttal to testimony and comments submitted to the Regional Board regarding renewal of PG&E's NPDES permit for the Diablo Canyon Power Plant.

Rebuttal to Testimony from PG&E

PG&E: PG&E maintains that larval losses for nearshore fishes do not constitute an "adverse environmental impact" within the legal meaning of the term because there are no demonstrated population level effects on any of the entrained species.

Staff Response: Staff does not believe that an adverse environmental effect is defined by "demonstrated population level effects." It is extremely difficult to demonstrate cause and effect with respect to population level changes. Staff maintains that relatively large proportional larval losses are themselves an adverse impact, regardless of demonstrated population level impacts.

PG&E: PG&E presents evidence (Burns 2003; Nextent, 2003) that staff's cost and feasibility evaluation (based on Tetra Tech 2002) does not account for several costs and issues regarding implementation of fine mesh screens and salt water cooling towers at DCPP.

Staff Response: Staff acknowledges that Tetra Tech's evaluation does not address all issues and potential costs. Staff considers Tetra Tech's cost estimates to be minimum values. We acknowledge that there are many obstacles and issues related to implementing these technologies at DCPP, as discussed in our testimony.

Rebuttal to Testimony from San Luis Obispo Mothers for Peace, California Earth Corps, and the Environmental Center of San Luis Obispo (hereafter MFP, et al)

MFP, et al: MFP states that the environmental "findings" in this case have been well documented, that degradation is greater than predicted, and therefore PG&E is in violation of its permit.

Staff Response: Regional Board staff alleged certain violations of PG&E's NPDES permit in March 2000. The Regional Board did <u>not</u> adopt finding regarding the degree of degradation or whether there were violations of the NPDES permit.

MFP, et al: MFP presents several objections to the terms of the Consent Judgment.

Staff Response: The Consent Judgment was adopted by the Regional Board in March 2003, following a public comment period and consideration of all comments. Since the Consent Judgment has been adopted by the Regional Board, the terms of the Consent Judgment are not being considered at this hearing.

MFP, et al: MFP states that the U.S. EPA is currently appraising plankton exclusion screens which could become best available technology, and that the Regional Board should not take action now (adoption of an NPDES permit with the Consent Judgment) to prevent future enforcement of the Clean Water Act.

Staff Response: The NPDES permit and the Consent Judgment do not prevent future enforcement of the Clean Water Act. In fact, the Consent Judgment states that if future regulations require modification of the cooling water system, the Consent Judgment may be rescinded.

MFP, et al: MFP states that given the ongoing history of violations at (DCPP), monitoring should be maintained or increased.

Staff Response: As noted above, the Regional Board has not determined any permit violations at DCPP. Nevertheless, the proposed NPDES permit requires increased effluent monitoring to comply with the current Ocean Plan, and several discharges have been removed from the permit because they will be covered under the more strict General Stormwater permit. Biological receiving water monitoring will decrease because the biological impacts identified are resolved via the Consent Judgment. The Consent Judgment also requires PG&E to participate in ambient monitoring.

MFP, et al: MFP questions the methodology used by Regional Board staff to determine that the costs of alternatives are wholly disproportionate to the benefit to be gained because staff acknowledges uncertainty in the various cost estimates.

Staff Response: There are uncertainties in the cost estimates for alternatives and cost estimates for the value of entrainment losses as stated in staff's testimony. Such uncertainties are always the case on complex projects like DCPP. Nevertheless, the range of values for the entrainment losses are wholly disproportionate to the range of costs for alternatives. By comparing ranges, the uncertainties are taken into account. Further, the ecological benefit should be considered. Staff cannot identify an ecological benefit that would justify costs in the billion-dollar range. The feasibility of implementing alternatives must also be considered. In this case, the feasibility, or availability, of cooling alternatives are highly speculative.

MFP, et al: MFP states that during the March 2000 evidentiary hearing, Regional Board staff accused PG&E of withholding various information from the Regional Board, including infrared images, photo documentation, and temperature data. MFP states that there should be a settlement regarding the withholding of this information.

Staff Response: Regional Board staff did allege that certain information was not submitted by PG&E during the March 2000 evidentiary hearing. However, PG&E responded with evidence to refute staff's allegations during the March 2000 evidentiary hearing. The Regional Board did not determine that any violations had occurred. Moreover, the Regional Board adopted the Consent Judgment in March 2003, which resolves all allegations made by staff during the March 2000 evidentiary hearing.

MFP, et al: MFP requests that the total costs of production, storage, contamination, and disposal of radioactive waste be added to the wholly disproportionate cost test for DCPP, and that all costs be compared to the benefit of the electricity produced. MFP states that if a single agency were to consider the bigger picture, the agency would determine that DCPP is too costly to continue operation.

Staff Response: The "bigger picture" type of evaluation requested is beyond the authority of the Regional Board and the laws and regulations implemented by the Regional Board. Also, there is no evidence that "contamination" exists at DCPP. Annual radiological monitoring reports, required by

the Nuclear Regulatory Commission, are submitted to the Regional Board for reference. These monitoring reports do not indicate any radiological contamination.

Rebuttal to Testimony from the Santa Lucia Chapter Sierra Club (hereafter SC)

SC: SC states that PG&E is in violation of its existing NPDES permit.

Staff Response: This is incorrect. The Regional Board never determined that any violations occurred. The Regional Board adopted the Consent Judgment in March 2003, which resolves all allegations by made by Regional Board staff during the March 2000 evidentiary hearing process.

SC: SC states that the settlement agreement (Consent Judgment) should be evaluated for equability based on dollars.

Staff Response: There is no legal requirement for a settlement in this case, and therefore no legal requirement for equability of dollar values between the impact and the terms of the settlement. However, staff estimated the dollar value of the Consent Judgment as between $16 and $26 million based on actual property acquisitions during the year 2000. Property values have increased significantly in the past few years, which would likely increase this range.

SC: SC questions several other aspects of the Consent Judgment.

Staff Response: The Consent Judgment was adopted by the Regional Board in March 2003 after considering comments from all interested parties.

SC: SC states that biological receiving water monitoring (thermal effects monitoring) should continue at Diablo Canyon.

Staff Response: Staff disagrees. According to the Regional Board's independent scientists, the biological monitoring program at DCPP has been one of the most comprehensive point source programs in the world. This degree of monitoring is not required at any other discharge. Further, the monitoring program answered the questions it was intended to answer. The degree of biological impact is known (predicted versus actual), and the type of changes that will continue to occur are known. It does not make sense to continue spending millions of dollars over the life of the Power Plant to verify what is known.

SC: SC states that the north control monitoring station could provide valuable data for determining the effects of marine reserves.

Staff Response: Staff agrees. The Consent Judgment allows access to the north control station for this purpose. Staff hopes that this station will be added to the University of California's Partnership for Interdisciplinary Studies of Coastal Oceans (PISCO).

SC: SC states that it does not accept the basis for Regional Board staff's conclusion regarding the costs of dry cooling at DCPP, and suggests the costs of dry cooling at DCPP may be around $200 million based on doubling the cost estimates for dry cooling at the proposed Morro Bay Power Plant.

Staff Response: Regional Board staff's cost estimate for dry cooling is based on an independent analysis by a consulting firm, Tetra Tech, that is currently working with the U.S. EPA to determine such costs on a national level. SC states that a reasonable estimate for the cost of dry cooling can be obtained by doubling the estimated cost of dry cooling for the proposed Moro Bay Power Plant (from $100 million to $200 million). First, we note that SC does not accept Tetra Tech's cost estimate for dry cooling at DCPP, but apparently does accept Tetra Tech's estimate for dry cooling for the

proposed Morro Bay Power Plant. Second, the Presiding Members of the Energy Commission recently determined that dry cooling is not feasible at the proposed Morro Bay Power Plant. Third, SC's $200 million dollar "estimate" does not take into account the fact that implementing dry cooling at DCPP would require retrofitting an existing nuclear facility, which includes construction of dry cooling units that would be five times larger than those needed at Morro Bay (five times as much cooling capacity is required). The project would also require relocation of existing facilities, which would itself be a massive undertaking (the U.S. EPA, and Tetra Tech, acknowledge that retrofitting costs are substantially higher than building new facilities). SC does not take into account the fact that DCPP would be shut down at least six months for the construction project; the shut down alone would cost more than SC's $200 million estimate. Finally, SC does not acknowledge Tetra Tech's conclusion that dry cooling is not feasible at DCPP. Dry cooling is not feasible because the dry cooling units could not be placed close enough to the Power Plant (this is a physical and design limitation, as described in staff's testimony and the proposed Order.).

SC: SC states that nothing in the agreement (Consent Judgment) should relieve the Regional Board from its duty to continue the five-year NPDES permit cycle renewal.

Staff Response: Staff agrees, and this is the case. The NPDES permit must be renewed every five years, and the Regional Board can add requirements to future permits as necessary. Nothing in the Consent Judgment prevents permit renewal or the addition of requirements.

Response to Comments from Coastal Commission Staff (hereafter CCS):

CCS: CCS staff states that the Consent Judgment should only address historical impacts, not future impacts, and is concerned that the settlement funds may be spent outside San Luis Obispo County.

Staff Response: As noted above, there is no legal requirement for any settlement. The Thermal Plan and Section 316b of the Clean Water Act do not require mitigation or compensation for biological impacts. Regional Board staff disagrees that the settlement funds should be spent in San Luis Obispo County. As described in staff's testimony and the proposed Order, entrained taxa have source water bodies that can be hundreds of kilometers in length (well outside of San Luis Obispo County). Larvae entrained by the Power Plant may have traveled hundred of kilometers (from outside the County).

CCS: CCS staff object to the "re-opener" clause in the Consent Judgment.

Staff Response: The Regional Board adopted the Consent Judgment in March 2003, after hearing all comments from interested parties. The re-opener clause allows the Consent Judgment to be rescinded if the Regional Board requires modifications to the cooling water system in the future. This is a reasonable agreement because the Regional Board controls the conditions under which the clause could be activated. Further, if the Regional Board were to require modification of the cooling water system, the modification would be to minimize or eliminate impacts, making the Consent Judgment unnecessary.