

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

FACT SHEET FOR REGULAR MEETING OF JULY 10, 2003

Prepared on April 29, 2003

ITEM NUMBER:

SUBJECT: Pacific Gas and Electric Company Diablo Canyon Nuclear Power Plant, Renewal of NPDES Permit

KEY INFORMATION

Location: Seven miles West by Northwest of Avila Beach, San Luis Obispo County

Discharge Type: Cooling Water, Industrial Process Wastewater

Flow Limit: 2,760 MGD (maximum for all discharges)

Disposal: Pacific Ocean

Recycling: None

Existing Order: WDR Order No. 90-09 (NPDES Permit No. CA0003751)

SUMMARY

This item proposes to renew PG&E's (hereafter Discharger) NPDES permit for the Diablo Canyon Nuclear Power Plant in San Luis Obispo County. The Power Plant will continue to operate as it has since 1985, without modification.

This fact sheet is only intended to provide a brief overview of the proposed Order. It is important to note that evidence supporting the findings in the proposed Order is presented in testimony by Regional Board staff and in advice to the Board from its legal counsel, submitted to the Board separately. Testimony by other designated parties in this hearing is also submitted separately for Regional Board review.

The proposed Order includes findings regarding thermal effects, impingement, and entrainment issues associated with the once-through cooling water system. There are no "available" alternatives to minimize thermal or entrainment impacts (impingement losses are insignificant). However, the proposed Order includes a negotiated settlement (hereafter Consent Judgment) approved on March 21, 2003. The Consent Judgment will provide

major benefits to the coastal marine environment.

The biological monitoring program for thermal effects is being discontinued, and Discharger will instead contribute funds toward the Regional Board's Central Coast Ambient Monitoring Program pursuant to the Consent Judgement.

The proposed Order includes effluent limitations for physical parameters, metals, and chemical constituents pursuant to the 2001 Ocean Plan and other applicable Plans and regulations. All discharges covered by this proposed Order are to the ocean.

DISCUSSION

The proposed Order includes five main sections: findings, discharge prohibitions, effluent limitations, receiving water limitations, and provisions. A Monitoring and Reporting Program is attached to the proposed Order, as well as figures or maps illustrating the facility, a description of the discharges, entrainment and impingement findings, and the Consent Judgement.

Findings

Findings 1 through 9 include information about the Diablo Canyon Power Plant and its surroundings, including local geology, ground water, and surface waters. Findings 10 through 13, and Attachment 2 of the proposed Order, describe the discharges covered by the proposed Order. Findings 14 and 15 address beneficial uses.

Findings 16 through 23 address applicable laws and regulations. Findings 24 through 38 address thermal effects caused by the discharge. Finding 39 and Attachment 4 of the proposed Order address entrainment and impingement impacts, including Section 316(b) of the Clean Water Act.

The findings also include a summary of the impacts caused by the once-through cooling water system, alternatives to address the impacts, and the requirements of the Consent Judgement. The following is a summary of the major findings in the proposed Order.

The Discharger: Discharger has owned and operated the Diablo Canyon Nuclear Power plant since it began full commercial operation in 1985. The Power Plant is located on the remote coast approximately half way between Montano de Oro State Park and Avila Beach (Attachment 1 of the proposed Order).

The Diablo Canyon Power Plant: The Diablo Canyon Power Plant (DCPP) has two power generation units, capable of generating a total of about 2200 MW. The total flow limit of the once-through cooling water system plus other facility flows is 2.76 billion gallons per day. Once-through cooling makes up the vast majority of the total flow. According to Discharger, the Power Plant is designed to run as a "base load" facility, i.e., to run fairly continuously.

The cooling water intake structure is located at the shoreline in Intake Cove, a cove fragment constructed here for the purpose of protecting the intake from the large seas in the Diablo Canyon area.

Discharge Locations: There are eleven

discharge locations, listed as 001 through 011. Discharge 001, the main cooling water flow, includes several in-plant waste streams (001B through 001Q), as described in Attachment 2 of the proposed Order. The in-plant waste streams constitute a tiny fraction of the cooling water flow, but may contain certain metals or chemical constituents, and are covered by effluent limitations in the proposed Order.

Discharges 002 through 011 are also described in Attachment 2 of the proposed Order. Discharges 002 through 011 are minor discharges that present little or no threat to beneficial uses, however, monitoring of these discharges is included where necessary as described in Monitoring and Reporting Program attached to the proposed Order.

Storm water discharges and other non-stormwater discharges via yard drains and other stormwater collection systems from the facility will be regulated under NPDES General Permit No. CAS000001, Water Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities, Excluding Construction Activities, issued by the State Water Resources Control Board (General Industrial Storm Water Permit) and any renewed General Storm Water Permits issued by the State Water Resources Control Board. Discharger will apply for coverage under the General Permit by filing a Notice of Intent with the State Water Resources Control Board and will comply with the requirements of the General Permit.

Effluent limitations in the proposed Order are based on the Ocean Plan, Thermal Plan, Basin Plan, 40CFR 423.12 (applies to in-plant waste streams), and Standard Provisions & Reporting Requirements.

Beneficial Uses of Surface Waters: DCPP discharges to the Pacific Ocean. The proposed Order lists all beneficial uses contained in the Ocean Plan and the Basin Plan for the Pacific Ocean.

Anti-Backsliding: Anti-backsliding regulations do not apply to this permit because there is no backsliding. The effluent limitations in the proposed Order are no less stringent than the

previous order (No. 90-09).

Anti-Degradation: The discharge authorized by the proposed Order adds no additional volume or concentration of waste and therefore will not cause degradation within the meaning of State Water Resource Control Board Resolution No. 68-16.

Applicable Laws and Regulations

The laws and regulations discussed in the proposed Order include the Regional Board Basin Plan, California Ocean Plan (Ocean Plan), Clean Water Act, the Clean Water Enforcement and Pollution Prevention Act of 1999, the Thermal Plan, and the California Environmental Quality Act.

Basin Plan: The Water Quality Control Plan, Central Coastal Basin (Basin Plan) was adopted by the Regional Board on November 19, 1989 and approved by the State Board on August 16, 1990. The Regional Board has adopted several amendments to the Basin Plan since then. The Basin Plan incorporates statewide plans and policies by reference and contains a strategy for protecting beneficial uses of State waters. It designates beneficial uses of water bodies in the Central Coast Region and specifies numeric and narrative water quality objectives to protect designated and existing beneficial uses.

Ocean Plan: The Ocean Plan (2001) contains objectives and requirements governing discharges to the Pacific Ocean. The appropriate and relevant objectives and requirements have been incorporated into the proposed Order

Thermal Plan: The State Board adopted the "Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California" (Thermal Plan) on September 18, 1975. The Thermal Plan provides specific numeric and narrative water quality objectives for "existing" discharges of heat. DCPD is specifically listed as an existing discharge in the Thermal Plan. Discharges defined as "existing" are subject only to a general narrative water quality objective: Existing

discharges of heat to the Pacific Ocean must "comply with limitations necessary to assure protection of beneficial uses and areas of special biological significance." The Regional Board determines what constitutes reasonable protection of beneficial uses.

A detailed analysis of the thermal effects and potential alternatives for addressing the effects are included in staff's testimony to the Regional Board and are summarized in the proposed Order.

Clean Water Act Section 316(b): The power plant's cooling water intake system must comply with Clean Water Act section 316(b) (33 U.S.C. § 1326), which provides:

"Any standard established pursuant to section 1311 [CWA §301] ... or section 1316 [CWA §306] ... and applicable to a point source shall require that the location, design, construction, and capacity of cooling water intake structures reflect the best technology available for minimizing adverse environmental impact." A detailed analysis of the impingement and entrainment impacts, and the alternatives analysis required by Section 316(b) of the Clean Water Act, are included in staff's testimony to the Regional Board.

Analyses of the thermal effects, impingement, entrainment, and alternatives to address the impacts, are presented in detail in staff's testimony to the Regional Board, and are summarized in the proposed Order.

Pollution Control and Prevention Act of 1999: The Clean Water Enforcement and Pollution Prevention Act of 1999 (amendments to Water Code section 13385) became effective January 1, 2000. The Act requires the Regional Board to impose mandatory penalties for certain violations. Failure to comply with NPDES Permit effluent limitations and certain other requirements and conditions may result in significant enforcement action by the Regional Board.

California Environmental Quality Act: Waste discharge requirements for this discharge are exempt from the provisions of the California

Environmental Quality Act (Public Resources Code, Section 21100, et seq.) in accordance with section 13389 of the California Water Code.

Staff recommends adoption of proposed Order No. RB3-2003-009.

Hearing Notice

The procedures for this hearing are described in the Public Notice, included here as Attachment A

ATTACHMENTS:

- A. Hearing Notice
- B. Proposed Order No. RB3-2003-009, with Monitoring and Reporting Program RB3-2003-009

RECOMMENDATION

S:\WB\Coastal Watershed\Staff\Michael Thomas\PG&E\New Permit\7-10-03 Board meeting\Final Board meeting documents\7-10-03 DCPD Fact Sheet Final.doc