AEC DISTRIBUTION FOR PART 50 DOCKET MATERIAL
(TEMPORARY FORM)

CONTROL NO: 711
FILE: ENVIRO

FROM:	DATE OF DOC	DATE REC'D	LTR	TWX	RPT	OTHER
State of Ca WRCB Sacramento, Ca 95814 W R Artwater	12-30-74	1-24-75	XXXX			

TO:	ORIG	CC	OTHER	SENT AEC PDR	SENT LOCAL PDR
Pacific Gas & Electric	none signed			XX	XX

CLASS	UNCLASS	PROP INFO	INPUT	NO CYS REC'D	DOCKET NO:
	XXXXXX			1	50-275 (323)

DESCRIPTION:

Ltr trans the following:

ACKNOWLEDGED

DO NOT REMOVE

PLANT NAME: Diablo Canyon 1 & 2

ENCLOSURES:

Certificate of Conformance with Water Quality standards.....

(1 cy encl rec'd, 30 reproduced)

FOR ACTION/INFORMATION 1-27-75 ehf

BUTLER (L) W/ Copies	SCHWENCER (L) W/ Copies	ZIEMANN (L) W/ Copies	REGAN (E) W/ Copies
CLARK (L) W/ Copies	STOLZ (L) W/ Copies	DICKER (E) W/ Copies	LEAR (L) W/ Copies
PARR (L) W/ Copies	VASSALLO (L) W/ Copies	KNIGHTON (E) W/ Copies	SPELS W/ Copies
KNIEL (L) W/ Copies	PURPLE (L) W/ Copies	YOUNGBLOOD (E) W/ Copies	W/ Copies

INTERNAL DISTRIBUTION

REG FILE	TECH REVIEW	DENTON	LIC ASST	A/T IND
AEC PDR	SCHROEDER	GRIMES	R. DIGGS (L)	BRAITMAN
OGC, ROOM P-506A	MACCARY	GAMMILL	H. GEARIN (L)	SALTZMAN
MUNTZING/STAFF	KNIGHT	KASTNER	E. GOULBOURNE (L)	ABEL
CASE	PAWLICKI	BALLARD	P. KREUTZER (E) (3)	
GIAMBUSSO	SHAO	SPANGLER	J. LEE (L)	PLANS
BOYD	STELLO		M. MAIGRET (L)	MCDONALD
MOORE (L)	HOUSTON	ENVIRO	S. REED (E)	CHAPMAN
DEYOUNG (L)	NOVAK	MULLER	M. SERVICE (L)	DUBE (Ltr)
SKOVHOLT (L)	ROSS	DICKER	S. SHEPPARD (L)	E. COUPE
GOLLER (L) (Ltr)	IPPOLITO	KNIGHTON	M. SLATER (E)	PETERSON
P. COLLINS	TEDESCO	YOUNGBLOOD	H. SMITH (L)	D. THOMPSON (2)
DENISE	LONG	REGAN	S. TEETS (L)	KLECKER
REG OPR	LAINAS	PROJECT LDR	G. WILLIAMS (E)	EISENHUT
FILE & REGION (2)	BENAROYA	W. Ross	V. WILSON (L)	WIGGINTON
MORRIS	VOLLMER	HARLESS		
STEELE				

EXTERNAL DISTRIBUTION

Enviro file

1 – LOCAL PDR San Luis Obispo, Ca
1 – TIC (ABERNATHY) (1)(2)(10) – NATIONAL LABS
1 – NSIC (BUCHANAN)
1 – W. PENNINGTON, Rm E-201 GT
1 – ASLB
1 – CONSULTANTS
1 -- Newton Anderson
NEWMARK/BLUME/AGBABIAN
1 – ACRS HOLDING/SENT
2 – PDR-SAN/LA/
1 – BROOKHAVEN NAT LAB
1 – G. ULRIKSON, ORNL
1 – AGMED (RUTH GUSSMAN)
Rm B-127 GT
1 – R. D. MUELLER, Rm E-201 GT

STATE OF CALIFORNIA—THE RESOURCES AGENCY

RONALD REAGAN, Governor

STATE WATER RESOURCES CONTROL BOARD

ROOM 1015, RESOURCES BUILDING
1416 NINTH STREET • SACRAMENTO 95814

DEC 30 1974

Pacific Gas and Electric Company
77 Beale Street
San Francisco, CA 94105

50 - 275/323

Gentlemen:

The Certificate of Conformance with water quality standards which you requested October 26, 1973 is enclosed. This certificate is to accompany your request for a permit from the Atomic Energy Commission to operate the Diablo Canyon Nuclear Power Plant.

Sincerely,

W. R. Attwater
Chief, Legal Division

Enclosure

cc: Mr. Paul De Falco, Jr.
Regional Administrator
Environmental Protection Agency
Region IX

Atomic Energy Commission
Washington, D.C.

CRWQCB, Central Coast Region

711

STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD

CERTIFICATE NO. 74-33
(Section 401, Federal Water Pollution Control Act, as Amended)

APPLICANT: Pacific Gas and Electric Company

ADDRESS: 77 Beale Street
San Francisco, California

ACTIVITY: Operate the Diablo Canyon Nuclear Power Plant

FEDERAL AGENCY REQUIRING CERTIFICATION: Atomic Energy Commission

1. The activity is subject to waste discharge requirements prescribed by the California Regional Water Quality Control Board, Central Coast Region, in Order No. 74-41, a copy of which is attached.

2. Notice of the request for certification and of the waste discharge requirements was published in the San Luis Obispo County Telegram-Tribune on July 20, 1974 and was mailed on July 16, 1974 to the California Department of Health, the Environmental Protection Agency, the National Oceanic and Atmospheric Administration, the Bureau of Sport Fisheries and Wildlife, the California Department of Fish and Game, the Department of Water Resources and the Department of Parks and Recreation. The notice gave interested persons an opportunity to comment on the waste discharge requirements and on the water quality aspects of the activity.

3. Copies of all comments received are attached.

4. The application has been examined. This certificate is based upon an evaluation of the information contained in such application which is relevant to water quality considerations and information in the files of the State Water Resources Control Board and Regional Water Quality Control Board, including the aforesaid waste discharge requirements and on the comments received.

5. Included in this certification are any appropriate requirements pursuant to state law.

12/27/74
(Date)

W. R. Attwater
for
Bill B. Dendy
Executive Officer

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION

ORDER NO. 74-41
NPDES NO. CA0003751

WASTE DISCHARGE REQUIREMENTS FOR PACIFIC GAS & ELECTRIC COMPANY DIABLO CANYON NUCLEAR POWER PLANT SAN LUIS OBISPO COUNTY

The California Regional Water Quality Control Board, Central Coast Region, (hereafter Board), finds that:

1. The Pacific Gas & Electric Company (hereafter discharger) by application No. 075-0YQ-2-000169, dated August 30, 1973, has applied for waste discharge requirements and a permit to discharge wastes under the National Pollutant Discharge Elimination System.

2. The discharger proposes to discharge wastes from Diablo Canyon Nuclear Power Plant into the Pacific Ocean, a water of the United States, at a point 12 miles southwest of San Luis Obispo.

3. The waste discharges are described as follows:

   Discharge 001 Cooling water discharge

Design Flow:	2497 million gallons per operating day
Average Temperature:	77°F Summer; 72°F Winter

   Discharge 002 (Intake screen backwash water)

4. The cooling water intake is located at the shoreline in a man-made cove 1000 feet south of the power plant and draws water from the surface to a depth of 31.5 feet. The maximum water velocity at the point of intake is 0.8 fps at LLLW and at the traveling screens is 1.0 fps at LLLW.

5. The discharge is presently governed by Waste Discharge Requirements entitled Waste Discharge Requirements, Pacific Gas & Electric Company, Diablo Canyon Power Plant, adopted October 17, 1969, which allows discharge to the Pacific Ocean.

6. A Water Quality Control Plan Report for the Central Coastal Basin was adopted by the Board on September 13, 1974. The Basin Plan Report contains water quality objectives for the Pacific Ocean in the area of Diablo Canyon.

7. The State Water Resources Control Board adopted the Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California. This plan contains water quality objectives for the Pacific Ocean in the area of Diablo Canyon.

8. The State Water Resources Control Board adopted the Water Quality Control Plan for Ocean Waters of California on July 6, 1972. This plan contains water quality objectives for the Pacific Ocean in the area of Diablo Canyon.

9. Effluent limitations, national standards of performance, toxic and pretreatment effluent standards, and ocean discharge criteria established pursuant to Sections 301, 302, 303(d), 304, 306, 307, 316, and 403 of the Federal Water Pollution Control Act and amendments thereto are applicable to the discharge.

10. The beneficial uses of the Pacific Ocean include industrial water supply, recreation, aesthetic enjoyment, navigation, and the preservation and enhancement of fish, wildlife, and other marine resources and preserves.

11. The Board has notified the discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for the proposed discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.

12. The Board in a public meeting on October 11, 1974, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED, Pacific Gas & Electric Company, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder and the provisions of the Federal Water Pollution Control Act and regulations and guidelines adopted thereunder, shall comply with the following:

A. Discharge Requirements

1. Existing Waste Discharge Requirements adopted October 17, 1969, shall remain in effect.

2. Pursuant to Section 13370 of the Porter Cologne Water Quality Control Act, the discharge shall comply with all applicable effluent limitations, national standards of performance, toxic and pretreatment effluent standards, ocean discharge criteria and all other final regulations established pursuant to Sections 301, 302, 303(d); 304, 306, 307, 316, and 403 of the Federal Water Pollution Control Act and amendments thereto.

3. The discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Board or the State Water Resources Control Board.

B. Provisions

1. In cases of disagreement between this Order and existing waste discharge requirements, adopted October 17, 1969, this Order will apply.

2. The discharger shall initiate actions necessary to assure compliance with all applicable provisions of those laws and regulations referenced in Discharge Requirements A.2. and A.3. which have implementation dates after the expiration date of this Order.

3. The monitoring and reporting programs of waste discharge requirements adopted October 17, 1969 shall remain in effect. The Executive Officer may revise or amend this program for any reason including gathering data on low volume waste sources which are subject to control by applicable regulation.

4. Within twelve (12) months of the date of this Order the discharger shall submit any requests for exceptions as provided for in those laws and regulations described in A.2. and A.3. above. Such requests shall be accompanied by all necessary supporting data and studies as required by the Board or the State Water Resources Control Board or applicable State or Federal regulations. If such requests are required at an earlier date by regulation established pursuant to Sections 304 or 316 of the Federal Water Pollution Control Act, the request shall be made by the prescribed date.

5. Within twelve (12) months of the date of this Order the discharger shall complete all studies necessary to implement the provisions of all regulations established pursuant to Section 316(b) of the Federal Water Pollution Control Act.

6. Discharger does not waive any right it may have to administrative or judicial review of any limitation, standard, criterion, or regulation.

7. The discharger shall comply with all items of the attached "Standard Provisions and Reporting Requirements for Steam Power Plants".

8. This Order expires May 1, 1976. The discharger must file a report of waste discharge in accordance with Title 23, Chapter 3, Subchapter 9 of the California Administrative Code, not later than 180 days in advance of such expiration date as application for issuance of new waste discharge requirements. These requirements will implement all applicable provisions of those laws and regulations referenced in discharge requirements A.2. and A.3.

This Order shall serve as a National Pollutant Discharge Elimination System permit pursuant to Section 402 of the Federal Water Pollution Control Act or amendments thereto, and shall take effect at the end of 10 days from date of adoption provided the Regional Administrator, Environmental Protection Agency, has no objections.

I, KENNETH R. JONES, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Coast Region, on October 11, 1974.

_____

Executive Officer

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

CENTRAL COAST REGION

October 11, 1974
(Date)

STANDARD PROVISIONS FOR AND REPORTING REQUIREMENTS FOR STEAM POWER PLANTS

A. GENERAL PROVISIONS:

1. Neither the treatment nor the discharge of wastes shall create a nuisance or pollution as defined in the California Water Code.

2. The requirements prescribed herein do not authorize the commission of any act causing injury to the property of another, nor protect the discharger from his liabilities under federal, state, or local laws, nor guarantee the discharger a capacity right in the receiving waters.

3. The discharger shall permit the Regional Board:

   (a) Entry upon premises where an effluent source is located or in which any required records are kept;

   (b) Access at reasonable times to copy any records required to be kept under terms and conditions of this Order;

   (c) Inspection at reasonable times of monitoring equipment or records; and

   (d) Sampling at reasonable times of any discharge.

4. All discharges authorized by this Order shall be consistent with the terms and conditions of this Order. The discharge of any pollutant more frequently than or at a level in excess of that identified and authorized by this Order shall constitute a violation of the terms and conditions of this Order.

5. The discharger shall maintain in good working order and operate as efficiently as possible any facility or control system installed by the discharger to achieve compliance with the waste discharge requirements.

6. After notice and opportunity for a hearing, this Order may be modified, suspended, or revoked, in whole or in part, during its term for cause including but not limited to, the following:

(a) Violation of any terms or conditions of this Order;

(b) Obtaining this Order by misrepresentation or failure to disclose fully all relevant facts;

(c) A temporary or permanent reduction or elimination of the authorized discharge; or

(d) A change in character, location or volume of discharge.

7. Collected screenings, sludges, and other solids removed from liquid wastes shall be disposed of at a legal point of disposal, and in accordance with the provisions of Division 7.5 of the California Water Code. For the purpose of this requirement, a legal point of disposal is defined as one for which waste discharge requirements have been prescribed by a Regional Water Quality Control Board and which is in full compliance therewith.

8. In the event the discharger does not comply or will be unable to comply with any prohibition, daily maximum effluent limitation, or receiving water limitation of this Order for any reason, the discharger shall notify the Executive Officer by telephone (805) 549-3147, as soon as he or his agents have knowledge of such noncompliance, and shall confirm this notification in writing within two weeks. The written notification shall state the nature, time and cause of noncompliance, and shall describe the measures taken to correct the problem and the dates thereof, and the measures being taken to prevent recurrences.

9. The requirements and provisions of this Order are severable. If any requirements and provisions of this, or the application of any of the requirements or provisions of this permit to any circumstances is held invalid, the application of such requirements and provisions to other circumstances, and the reminder of this permit shall not be affected thereby.

10. In order to maintain compliance with the effluent limitations and prohibitions of this Order, the discharger shall either:

(a) In accordance with the Schedule of Compliance contained in the provisions of this Order, provide an alternative power source sufficient to operate the wastewater control facilities; or

A. General Reporting Requirements:

1. The discharger shall submit to the Board on or before each compliance report date, a report detailing his compliance or noncompliance with the specific schedule date and task.

   If noncompliance is being reported, the reasons for such noncompliance shall be stated, plus an estimate of the date when the discharger will be in compliance. The discharger shall notify the Board by letter when he has returned to compliance with the time schedule.

2. The discharger shall notify the Board not later than 180 days in advance of implementation of any plans to alter production capacity of the product line of the manufacturing, producing or processing facility by more than ten percent. Such notification shall include estimates of proposed production rate, the type of process and projected effects on effluent quality. Notification shall include submittal of a new report of waste discharge and appropriate filing fee.

3. The discharger shall file with the Board a report of waste discharge at least 120 days before making any material change or proposed change in the character, location or volume of the discharge.

B. Reporting Requirements for Monitoring:

1. For every item of monitoring data where the requirements are not met, the discharger shall submit a statement of the actions undertaken or proposed which will bring the discharge into full compliance with requirements at the earliest time, and shall submit a timetable for such corrective actions.

2. By January 30 of each year, the discharger shall submit an annual report to the Board. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous year. In addition, the discharger shall discuss the compliance record and the corrective actions taken or planned which may be needed to bring the discharge into full compliance with the waste discharge requirements.

3. The discharger shall maintain records of all sampling and analytical results, including strip charts; the date, exact place, and time of sampling; the analyst's name; analytical techniques used; and results of all analyses. Such records shall be retained for a minimum of three years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge or when requested by the Board. Monitoring results shall be submitted on forms provided by the Board.

4. The discharger shall file with the Board technical reports on self-monitoring work performed according to the detailed specifications contained in any Monitoring and Reporting Program as directed by the Executive Officer.

5. Monitoring reports shall be signed by:

   a. In the case of corporations, by a principal executive officer at least of the level of vice-president or his duly authorized representative, if such representative is responsible for the overall operation of the facility from which the discharge originates;

   b. In the case of a partnership, by a general partner;

   c. In the case of a sole proprietorship, by the proprietor;

   d. In the case of a municipal, state or other public facility, by either a principal executive officer, ranking elected official, or other duly authorized employee.

6. The results of any analysis of samples taken more frequently at the locations specified in Monitoring and Reporting Program shall be reported to the Board.

7. The discharger shall mail a copy of each monitoring report on the appropriate form to be supplied by the Board to:

   a. California Regional Water Quality Control Board
   Central Coast Region
   1122A Laruel Lane
   San Luis Obispo, California 93401

   b. Regional Administrator, ENCMR
   Environmental Protection Agency
   Region IX
   100 California Street
   San Francisco, CA 94111

(b) if such alternative power source is not in existence, and no date for its implementation appears in the provisions of this Order, halt, reduce, or otherwise control production and/or all discharges upon the reduction, loss or failure of the primary source of power to wastewater control facilities.

11. Any diversion from or bypass of facilities necessary to maintain compliance with the terms and conditions of this Order is prohibited, except (a) where unavoidable to prevent loss of life or severe property damage, or (b) where excessive storm drainage or runoff would damage any facilities necessary for compliance with the effluent limitations and prohibitions of this Order. The discharger shall promptly notify the Board and the Regional Administrator of EPA in writing of each such diversion or bypass.

12. Except for data determined to be confidential under Section 308 of the Federal Water Pollution Control Act, all reports prepared in accordance with terms of this Order shall be available for public inspection at the offices of the Regional Water Quality Control Board, and the Regional Administrator of EPA. As required by the Act, effluent data shall not be considered confidential. Knowingly making any false statements on any such report may result in the imposition of criminal penalties as provided for in Section 309 of the Act.

13. In the event of any change in control or ownership of land or waste discharge facilities presently owned or controlled by the discharger, the discharger shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be forwarded to this Board.

B. PROVISIONS FOR MONITORING

1. All sampling, sample preservation and analyses shall be conducted in accordance with regulations published pursuant to Section 304(g) of the Federal Water Pollution Control Act. However, under certain circumstances, alternate test procedures may be approved by the Regional Administrator (EPA) upon application by the discharger to the Regional Board, Executive Officer.

2. When there is more than one approved method for sample analyses, the method employed by the discharger must be identified in the monitoring report submitted to the Regional Board Executive Officer and the Regional Administrator (EPA).

3. All analyses shall be performed in a laboratory approved to perform such analyses by the California State Department of Health. In the event that an approved laboratory is not available to the discharger the Executive Officer may authorize the submittal of analyses performed by a nonapproved laboratory provided that (a) the laboratory submit an application for approval to the California State Department of Health within six months of the date of this Order and (b) the laboratory receives approval from the Department of Health within two years of the date of this Order.

4. The laboratory which performs the sample analyses must be identified in all monitoring reports submitted to the Regional Board Executive Officer and the Regional Administrator (EPA).

5. Effluent samples shall be taken downstream of the last addition of waste to the treatment or discharge works where a representative sample may be obtained prior to mixing with the receiving waters.

6. All monitoring instruments and devices used by the discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy.

C. DEFINITIONS

1. The "30-day average" concentration, expressed as milligrams per liter (mg/l), other than for fecal or total coliform bacteria, means the arithmatic mean of measurements made during a 30 consecutive calendar-day period. The 30-day average concentration for fecal or total coliform bacteria means the geometric mean of measurements made during a 30 consecutive calendar-day period. The geometric mean is the nth root of the product of n numbers.

   If fewer than four measurements are made during a 30 consecutive calendar-day period, then compliance or noncompliance with the 30-day average concentration limitation shall not be determined.

2. The "30-day average" discharge expressed as pounds per day (lb/day), means the total discharge of a constituent by weight during a 30 consecutive calendar-day period, divided by the number of days in the period that the discharge occurred. Where sampling less frequent than daily is required by this Order, the 30-day average discharge shall be determined by the summation of all the measured daily discharges by weight divided by the number of days during the 30 consecutive calendar-day period when the measurements were made.

If fewer than four measurements are made during a 30 consecutive calendar-day period, then compliance or noncompliance with the 30-day average discharge limitation shall not be determined.

3. The "Daily maximum" concentration means the concentration measurement made on any single sample whether discrete or composite.

4. A grab sample is an individual sample collected in fewer than 15 minutes.

5. A composite sample is a combination of no fewer than eight individual samples obtained at equal time intervals over the specified sampling period. The volume of each individual sample is proportional to the discharge flow rate at the time of sampling. The sampling period shall be specified in the monitoring and reporting program ordered by the Executive Officer.

The Resources Agency of California
CENTRAL COASTAL REGIONAL WATER QUALITY CONTROL BOARD
1108 Garden Street
San Luis Obispo, California

ADOPTED OCT. 7 1969

Waste Discharge Requirements
Pacific Gas & Electric Company - Diablo Canyon
Nuclear Power Plant, San Luis Obispo County

A report of the Pacific Gas & Electric Company, Diablo Canyon Nuclear Power Plant, San Luis Obispo County, dated April 25, 1969, of a proposed industrial waste discharge has been considered by the Central Coastal Regional Water Quality Control Board.

Proposal

1. The Diablo Canyon Nuclear Power Plant is located adjacent to the Pacific Ocean and Diablo Canyon Creek about 10 miles south of Morro Bay, San Luis Obispo County, California.

2. Condenser cooling water will be taken from the Pacific Ocean adjacent to the shore and will be discharged near the shore in Diablo Cove. Design volume is 867,000 gallons per minute for each unit.

3. Temperature of cooling water will be raised approximately 18°F during normal, continuous operation. Periodic thermal treatment of the cooling water system is provided to minimize growth of marine organisms in the piping and heat exchangers. The required frequency of this operation varies seasonably but will not normally have a duration of more than a few hours per month. During this operation, the total heat discharged to the ocean will be substantially less than the design full load heat output.

4. Slime and algae control will consist of periodic chlorination of the cooling water so as to maintain a residual chlorine concentration at the condenser outlet of 0.5 mg/l for periods of up to one hour and/or twice a day during periods when control is required.

5. The large volume of condenser cooling water flow will be used as a diluting media for the following small waste streams which will be intermittently discharged into the cooling water outfall at flow rates ranging up to a few hundred gpm:

   a. Concentrated seawater produced through the operation of seawater evaporators used to produce distilled water for plant use.

   b. Miscellaneous chemical wastes characteristic of a pressurized water reactor nuclear power plant consisting of small quantities of demineralizer regenerant chemicals (a neutralized mixture of sulfuric acid and sodium hydroxide); chemical laboratory wastes; equipment cooling water; reactor water containing treatment chemicals including boric acid, lithium hydroxide, and ammonium hydroxide; steam generator water containing treatment chemicals including sodium phosphate, sodium hydroxide, ammonium hydroxide and hydrazine; chemical cleaning and decontamination reagents; and laundry waste waters containing detergents. These discharges will be designed such that, after mixing, there will be no significant change in pH or dissolved oxygen level of the cooling water discharge, and chemical concentrations will be less than 1 ppm.

   c. Sanitary wastes will receive primary treatment in a septic tank prior to discharge. The permanent staff at the plant will be about 70 employees. Provisions for chlorination of this effluent will be included in the design of the plant and will be installed if a need for such treatment is demonstrated.

   d. Drainage from equipment areas susceptible to possible oil spillage will be processed in an air flotation type separator. Effluent from the separator will contain less than 20 ppm oil. After mixing with the cooling water, concentration of oil will be less than 0.01 ppm.

   e. Radioactive liquid wastes from the reactor system will be collected, treated, and monitored in a radioactive liquid waste treatment system. This system includes storage tanks to permit radioactive decay, and evaporators, ion exchangers and filters to remove radioactive matter from the waste streams. High level wastes produced by these processes (evaporator concentrates, ion exchange resins, filter media) will be collected and packaged for ultimate offsite shipment to an approved burial site. After decay and/or treatment, individual batches of low level liquid waste will be sampled and analyzed to determine compliance with discharge limits. The batch will then be discharged into the cooling water discharge.

Beneficial Uses

In March 1967, the Board adopted a Water Quality Control Policy for Coastal Waters, Point Arguello to Point Piedras Blancas. Recognized beneficial uses of the Pacific Ocean waters and adjacent shoreline in the general vicinity of the proposed discharge are as follows:

1. Scenic attraction and aesthetic enjoyment.
2. Marine habitat for sustenance and propogation of fish, aquatic, and wildlife.
3. Fishing.
4. Industrial water supply.
5. Boating, shipping and navigation.
6. Scientific study.
7. Potential water contact sports.

Objective

It shall be the objective of this Board to protect the public health, to protect beneficial uses made of the receiving waters and adjacent shorelines from unreasonable impairment and to prevent nuisance conditions from occurring.

Requirements

1. All radioactive wastes in the liquid waste discharge shall be in solution at the time of discharge or shall be filtered through a filter medium with a maximum nominal 5 micron particle removal capacility.

2. The concentration of radioactive materials of plant origin in the effluent stream at the point of last control shall not exceed either of the following:

   a. 1×10^{-6} microcuries per milliliter (except tritium) or 3×10^{-2} microcuries per milliliter of tritium when averaged over any period of seven consecutive days; for the purpose of this requirement, where tritium and unknown mixed fission and activation products may be present, the limiting weekly average concentration shall be:

$$\frac{\text{tritium, } \mu c/ml}{3 \times 10^{-2} \ \mu c/ml} + \frac{\text{Mixed fission \& activation products, } uc/ml}{1 \times 10^{-6} \ \mu c/ml} \leq 1$$

b. 1×10^{-7} microcuries per milliliter (except tritium) or 3×10^{-3} microcuries per milliliter of tritium when averaged over any calendar year; for the purpose of this requirement, where tritium and unknown mixed fission and activation products may be present, the limiting annual average concentration shall be:

$$\frac{\text{tritium, } \mu c/ml}{3 \times 10^{-3} \ \mu c/ml} + \frac{\text{mixed fission \& activation products, } \mu c/ml}{1 \times 10^{-7} \ \mu c/ml} \leq 1$$

provided that radium-226, radium-228, and iodine-129 are known to be absent in the discharge.

3. The discharge shall be controlled to the degree necessary to prevent any noticeable change in the receiving waters. This shall include change in natural appearance resulting from discoloration, floating or suspended solids, grease, oil, oil slicks and foam.

4. There shall be no visible solids or oil resulting from the discharge deposited along the shore.

5. The discharge shall be controlled to the extent that floating, suspended and settleable solids and toxic substances will not interfere with marine life, including fish, plant and bird life and the organisms upon which they depend.

6. The discharge shall not cause the pH, dissolved oxygen, or temperature of the receiving waters to exceed the following limits:

a.	pH	- within range 7.0 - 8.5
b.	Dissolved Oxygen:	- not less than 5.0 mg/l
c.	Temperature	- change shall not cause undesirable ecological change or deleterious effect upon aquatic plant and animal life.

7. Near shore waters in the vicinity of the discharge shall not have a coliform most probable number (MPN) greater than 1000 per 100 ml. provided that not more than 20 percent of the samples at any sampling station, in any 30 consecutive samples, exceed 1000 per 100 ml. (compliance with this requirement in the total plant discharge itself will be equivalent to meeting the bacterial standard for near shore receiving waters).

Reports

1. The discharger shall furnish technical reports as provided in Section 13055, California Water Code, on operation, discharge characteristics, and receiving water quality. Such reports shall be submitted in accordance with specifications attached to these requirements, which specifications the staff of this Board is authorized to revise whenever necessary and such revision being subject to review at the request of the discharger.

2. Chemical and physical analyses of samples and bioassay techniques shall be in accordance with the latest edition of Standard Methods, published by the American Public Health Association.

3. Analytical methods and equipment related to measurement of radiation shall be approved by the Bureau of Radiological Health of the State Department of Public Health.

Review of Requirements

1. These requirements shall apply only to the discharge of waste waters at the location described. Any modification of operations which will change the point of discharge must be reported to the Board.

2. Material change in beneficial water uses or conditions in the area will be considered as sufficient reason for the Board to review these requirements.

3. These requirements apply to Units No. 1 and No. 2 of the Diablo Canyon nuclear power plant. Any expansion of the discharge facilities will require submission of a new report on waste discharge by the company and a review of requirements by the Regional Board.

Undesirable Ecological Change

The California Department of Fish & Game has defined "undesirable ecological change or deleterious effect upon aquatic plant and animal life" as follows:

1. For any point in the receiving water, including the area within Diablo Cove, there shall be no acute toxicity to the marine biota due to the waste discharge.

2. For the ocean waters beyond Diablo Cove, this discharge should not either directly or indirectly cause the following undesirable ecological changes or deleterious effects upon the marine environment:

a. A reduction in abundance or distribution of:

Bull Kelp (Nereocystis leukana)
Pea Kelp (Macrocystis angustifolia)
Abalones (Haliotis sp.)
Bony fishes

b. A reduction in abundance, distribution or variety of attached indigenous animal and plant life on rocky substrates.

c. An increase in the distribution or abundance of:

Round Stingrays (Urolophus halleri)
Bat Rays (Mylobatus, californicus)
Sunray Starfish (Pyncnopodia, helianthoides)
Rock Crabs (Cancer sp.)
Sea Urchins (Strongylocentrus sp.)

d. An introduction of undesirable species such as the Moray Eel (Gymnothorox mordax).

e. Any unforeseen change that adversely alters the ecological balance or productivity of the marine environment.

Monitoring Program and Schedule of Technical Reports to be Submitted to Regional Board by Pacific Gas & Electric Company - Diablo Canyon Nuclear Power Plant, San Luis Obispo County

I. Records to be maintained concerning plant discharge:

A. Average daily volume of waste discharge.

B. Oil content of discharge from oil removal facilities - intermittent discharge to be sampled quarterly.

C. pH of discharge -- daily when chemical cleaning of equipment is in progress.

D. Temperature of cooling water intake and discharge -- daily.

E. Bioassay (96 hour Tlm, using species indigenous to receiving water area) of discharge during pre-startup cleaning of equipment and piping. Bioassay of discharge once quarterly during first two years of plant operation.

F. Bacteriological samples shall be collected from the plant effluent at the point of final discharge to determine the most probable number (MPN) coliform organisms -- monthly.

G. Concentration of radioactivity in the discharge, including the total quantity -- daily.

II. Records to be maintained concerning receiving waters:

A. Complete radiological waste monitoring program as deemed adequate by the State Department of Public Health and relevant to the receiving waters, environment and discharge.

B. Ecological studies as specified by the Department of Fish and Game shall be continued in order to evaluate changes of the marine plant and animal distribution and abundance within Diablo Cove.

C. Ecological studies as specified by the Department of Fish and Game shall be conducted in the marine environment outside of Diablo Cove in order to evaluate the ecological conditions.

D. Aerial photographs of the existing kelp beds from Pecho Rock to Point Buchon shall be taken three times per year, during February, June and October, for a period of at least two years.

E. Surface water temperatures shall be determined at two-month intervals beginning in February from Point Buchon to Pecho Rock for at least two years following the beginning of discharge. Isotherms shall be determined in 2°F. intervals. Individual surveys shall be conducted consistently during the late morning hours at the same time each day.

F. Water temperatures shall be measured at one meter intervals from the surface to the bottom at seven stations prescribed by the Department of Fish and Game inside and adjacent to Diablo Cove. Measurements shall be taken in February, June, and October. Precision of measurements shall be within ± 0.2° F.

G. Five 1/2 square meter quadrats in the rocky intertidal zone at locations formerly documented by the Department of Fish and Game shall be photographed three times per year for at least two years following discharge. A 2-1/4" color transparency shall be used for this purpose. Photographic scheule will conform to recommendations of the Department of Fish and Game.

H. pH and dissolved oxygen content of the receiving waters in February, June, and October.

III. Collection of samples:

A. Temperature, oil, dissolved oxygen, coliform and pH samples shall be grab samples.

B. Sampling for radioactivity monitoring shall be approved by the State Department of Public Health Bureau of Radiological Health.

C. All other samples shall be collected in accordance with accepted procedures having approval of the Department of Fish and Game or the staff of this Regional Board.

IV. Reports to the Board:

A. A report shall be made to the Board quarterly on that portion of the State Department of Public Health's approved environmental monitoring program relating to the marine environment and the discharge, including daily radiological concentration and total quantity in the discharge.

B. Reports shall be made to the Board annually, not later than March 1st of each year and shall include the following:

1. Results of daily volume measurements.

2. Results of daily cooling water intake and discharge temperature measurements.

3. Results of oil content analyses of discharge from removal facilities.

4. Results of all bacteriological analyses of effluent.

5. Results of all bio-assay (96 hour TLm) tests performed.

6. Results of ecological studies as specified in Paragraph II. B., C., E., F., and H., above.

7. Copies of photographs as specified in Paragraph II. G., above.

8. The occurrence of any incident causing the level of radioactivity to exceed permissible levels or causing the release of other toxic materials in concentrations detrimental to human, plant, bird or fish life shall be reported within 12 hours after its occurrence, and its cause, effect, and corrective action shall be described in detail in the next regular report submitted to the Regional Board.

V. Review and Evaluation of Monitoring Program, etc.:

Upon receipt of the Company's report at the end of the second year of plant operation, this Monitoring Program and Schedule of Technical Reports shall be re-evaluated in consultation with representatives of the Company, State Departments of Fish and Game and Public Health, and will be revised as deemed necessary to assure continued compliance with the Waste Discharge Requirements.

Suite A

November 13, 1974

Mr. John T. Wells
Pacific Gas & Electric Co.
3400 Crow Canyon Road
San Ramone, Ca. 94583

Dear Sir:

On October 11, 1974 the Board adopted Order No. 74-41 and NPDES permit No. CA0003751 Waste Discharge Requirements for PG&E Diablo Canyon Nuclear Power Plant in San Luis Obispo County. This was an interim permit which expires May 1, 1976 and allows PG&E time to complete all studies necessary to implement the provisions of all regulations established pursuant to Section 316(b) of the Federal Water Pollution Control Act.

In Order No. 74-41 it was stated that the monitoring and reporting programs adopted October 17, 1969 shall remain in effect, but that the Executive Officer may revise or amend the program for any reason including gathering data on low volume waste sources.

Due to the problems encountered in Diablo Cove from startup and testing procedures we have revised the monitoring program to provide information which will be used to solve these problems.

Enclosed is a copy of the revised monitoring program for your review. We would appreciate any comments you have in writing by December 9, 1974. If no response is received by that date we will assume that you concur with the program and request that you initiate it by January 6, 1975.

Very truly yours,

KENNETH R. JONES
Executive Officer

KRJ:JH/kj
Encl.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION

Monitoring Program and Schedule of Technical Reports
to be Submitted to Regional Board by
Pacific Gas & Electric Company - Diablo Canyon
Nuclear Power Plant, San Luis Obispo County

I. Records to be maintained concerning plant discharge:

A. Average daily volume of waste discharge. Total daily flow during pre-operational testing.

B. Oil content of discharge from oil removal facilities - intermittent discharge to be sampled quarterly.

C. pH of discharge -- daily when chemical cleaning of equipment is in progress. Also pH of intake when back washing.

D. Temperature of cooling water intake and discharge — daily.

E. Static Bioassay (96 hr TLm, using species indigenous to receiving water area) of discharge during pre-startup cleaning of equipment and piping, prior to discharge of materials to Diablo Cove. Bioassays are to be conducted prior to any materials discharged to the receiving water. Accumulation of heavy metals in tissue shall be conducted on all bioassay tested animals. This is to be done until it is determined the toxic effects of all materials discharged. Bioassay on the screen backflush water for the worst possible cases shall also be conducted.

F. Concentration of radioactivity in the discharge, including the total quantity — daily.

G. Concentration of heavy metals in the discharge, including total daily mass emission rates. Water samples are to be taken during pre-startup, pump testing, start up after maintenance operations and at other times as specified by the staff of the Regional Board. Water samples are to be taken at initial discharge and at 2 minute intervals not to exceed 45 minutes. Precision of measurement for heavy metal analyses must be $\pm$ 1 ppb. This testing shall continue until the decay rate of corrosion in the system has been determined.

II. Records to be maintained concerning receiving waters:

A. Complete radiological waste monitoring program as deemed adequate by the State Department of Public Health and relevant to the receiving waters, environment and discharge.

B. Ecological studies as specified by the Department of Fish and Game shall be continued in order to evaluate changes of the marine plant and animal distribution and abundance within Diablo Cove.

C. Ecological studies as specified by the Department of Fish and Game shall be conducted in the marine environment outside of Diablo Cove in order to evaluate the ecological conditions.

D. Aerial photographs of the existing kelp beds from Pecho Rock to Point Buchon shall be taken three times per year, during February, June and October, for a period of at least two years after initiation of operation.

E. Surface water temperatures shall be determined at two-month intervals from Point Buchon to Pecho Rock for at least two years following the beginning of discharge. Isotherms shall be determined in 2°F intervals. Individual surveys shall be conducted consistently during the late morning hours at the same time each day.

F. Water temperatures shall be measured at one meter intervals from the surface to the bottom at seven stations prescribed by the Department of Fish and Game inside and adjacent to Diablo Cove. Measurements shall be taken in February, June, and October. Precision of measurements shall be within $\pm$ 0.2°F.

G. Five 1/2 square meter quadrats in the rocky intertidal zone at locations formerly documented by the Department of Fish and Game shall be photographed three times per year for at least two years following discharge. A 2-1/4" color transparency shall be used for this purpose. Photographic schedule will conform to recommendations of the Department of Fish and Game.

H. pH and dissolved oxygen content of the receiving waters in February, June, and October.

I. Incident light measurements shall be taken at three meter intervals from the surface to the bottom at 9 stations prescribed by the Department of Fish and Game. Measurements shall be taken on a monthly basis during times of discharge. Measurement shall be with a photometer cell.

III. Collection of samples:

A. Temperature, oil, dissolved oxygen, and pH samples shall be grab samples.

B. Sampling for radioactivity monitoring shall be approved by the State Department of Public Health Bureau of Radiological Health.

C. All other samples shall be collected in accordance with accepted procedures having approval of the Department of Fish and Game or the staff of this Regional Board.

IV. Reports to the Board:

A. A report shall be made to the Board quarterly on that portion of the State Department of Public Health's approved environmental monitoring

program relating to the marine environment and the discharge, including daily radiological concentration and total quantity in the discharge.

B. Reports shall be made to the Board monthly not later than the 15th day of the following month and shall include:

1. Results of daily volume measurements.

2. Results of daily cooling water intake and discharge temperature measurements.

3. Results of oil content analyses of discharge from removal facilities.

4. Results of all bio-assay (96 hour TLm) tests performed.

5. Results of ecological studies as specified in Paragraph II. B., C., E., F., and H., above.

6. Copies of photographs as specified in Paragraph II. G., above.

7. The occurrence of any incident causing the level of radioactivity to exceed permissible levels or causing the release of other toxic materials in concentrations detrimental to human, plant, bird or fish life shall be reported within 12 hours after its occurrence, and its cause, effect, and corrective action shall be described in detail in the next regular report submitted to the Regional Board.

V. Review and Evaluation of Monitoring Program, etc.:

Upon receipt of the Company's report at the end of the second year of plant operation, this Monitoring Program and Schedule of Technical Reports shall be re-evaluated in consultation with representatives of the Company, State Departments of Fish and Game and Public Health, and will be revised as deemed necessary to assure continued compliance with the Waste Discharge Requirements.

State of California — The Resources Agency

Memorandum

To : California Regional Water Quality Control Board
Central Coast Region
2238 Broad Street
San Luis Obispo, California 93401

Date: 20 August 1974

Attention: Mr. Kenneth R. Jones
Executive Officer

From : Department of Fish and Game — MRR – Long Beach

Subject: State Certification of Compliance with Applicable Water Quality Standards, Pacific Gas and Electric Diablo Canyon Nuclear Power Plant, San Luis Obispo County

We have reviewed the proposed documents requesting State certification of compliance with applicable water quality standards for Pacific Gas and Electric Company's (PG&E) Diablo Canyon Nuclear Power Plant, San Luis Obispo County, with regard to adopted waste discharge requirements.

We believe that the following data should be considered relative to the proposed certification of water quality standards at the Diablo facility.

On 21 July 1974 abalone mortality was reported in Diablo Cove in the vicinity of the PG&E outfall. On 22-24 July 1974 Department of Fish and Game (DF&G) biologists made diving survey observations relative to the observed abalone mortalities. In the preliminary survey of a 70 square meter area within Diablo Cove, 56 live abalone and 151 abalone shells, either empty or with dead tissue, were found, indicating a possible 72.9% mortality. No evidence of predator inflicted mortality was noted. A control station, one mile north of Diablo Cove (Control Station #1 -- DF&G Technical Report #19, 1973) revealed no mortalities in a 38.75 square meter area where 541 live abalone were counted. The preliminary investigation made no correlation nor reached any conclusion in regard to plant operations, however, the report suggested bioassay, water quality, and tissue composition analyses be conducted.

On 29 July 1974, DF&G, in conjunction with PG&E staff, conducted bioassay testing at the subject facility. Standard bioassay test procedures, as well as in situ live car bioassays, were utilized.

Three water sampling stations were monitored: Plant influent (control), mid-plant water, and plant effluent. PG&E supervisory personnel indicated that prior to that testing program the plant pumps had been in operation on four separate occasions.

On 2 August 1974 the bioassay tests were terminated. The DF&G Water Pollution Control Laboratory, Rancho Cordova, conducted the water and animal tissue analyses according to Standard Methods. It is our conclusion from the results of the combined evidence of the unexpectedly high abalone die-off and the abnormally high copper concentrations in gill and liver tissue of moribund animals or animals from within the immediate influence of the discharge, that copper residues from the condenser system are responsible for the acute toxicity following the discharge.

From 29 July - 2 August 1974, visual observations of the discharge were made during the toxicity testing period. In addition, photographs were taken of the outfall during its operation to record conditions of foaming. A thick white to brownish-white foam covered a significant area of the south end of Diablo Cove (approximately 10 acres) during the operation of the pumping system. A sample of the foam was collected and analyzed for hydrocarbons and MBAS (detergents). The results were negative for both tests.

We believe the evidence conclusively demonstrates that subject discharge was not in compliance with applicable water quality standards for the Central Coast Region.

Subject discharge is also in violation of specific adopted Waste Discharge Requirements, dated October 17, 1969, as follows:

1) Requirement Number 3. "The Discharge shall be controlled to the degree necessary to prevent any noticeable change in the receiving water. This shall include change in natural appearance resulting from discoloration, floating or suspended solids, grease, oil, oil slicks and foam."

2) Requirement Number 5. "The discharge shall be controlled to the extent that floating, suspended and settleable solids and toxic substances will not interfere with marine life, including fish, plant and bird life and the organisms upon which they depend."

The above requirements were violated during the pump testing operations during the week of 21 July 1974 as well as on 31 July 1974. Furthermore, the section of the Waste Discharge Requirements titled "Undesirable Ecological Change" was also substantially violated by the discharge of acutely toxic materials in concentrations that were deleterious to marine biota.

Based on our review and interpretation of the Water Quality Control Plan (Interim) - Central Coastal Basin, the results of toxicity testing and observed abalone mortalities we believe the following Water Quality Objectives and Prohibitions of Discharge were violated by subject discharge:

Water Quality Objectives

1) "Floatables, oil and grease: Waters shall be maintained free from floating solids, liquids, or foams of waste origin at all times."

2) "Toxicity: There shall be no organic or inorganic substances in concentrations which are toxic to human, animal, plant, or aquatic life or which create undesirable tastes or odors in the waters or in fish, wildlife or agricultural stock."

Prohibitions of Discharge

1) "Waste discharges shall contain essentially none of the following: Toxic substances . . . .

2) "Waste discharges shall not contain materials in concentrations which are hazardous to human life or harmful to aquatic life."

In conclusion, we recommend denial of State Certification of compliance with applicable water quality standards for Pacific Gas and Electric Company -- Diablo Canyon Nuclear Power Plant until such time as the identified water quality problems are resolved. In addition, we suggest any appropriate interim action be taken by the Board Staff to assure that operation of the facility does not continue to violate Waste Discharge Requirements or the Water Quality Control Plan.

We also wish to inform the Board Staff that the Department of Fish and Game is continuing its investigation of the Diablo Canyon facility in regard to our responsibilities under the Fish and Game Code. We would be most willing to formally present our evidence of the waste discharge problems encountered during the pump testing operations at Diablo Canyon, should you so desire.

Robert G. Kaneen

Robert G. Kaneen
Regional Manager
Marine Resources Region

P G & E Diablo Canyon file

UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
BUREAU OF SPORT FISHERIES AND WILDLIFE

Division of River Basin Studies
2855 E. Coast Highway, Room 232
Corona del Mar, California 92625

August 5, 1974

California Regional Water Quality Control Board
Central Coast Region
2238 Broad Street
San Luis Obispo, Ca. 93401

Gentlemen:

This letter is in response to your Public Notice of Request for State Certification of Diablo Canyon Nuclear Power Plant by your letter of July 16, 1974.

It is our understanding that Pacific Gas and Electric Company has asked the Regional Board to use the 1969 adopted discharge requirements ONLY for the purpose to gain state certification of compliance so that they may obtain their AEC permit for fueling the Unit One Reactor.

If we can be assured that there will be no actual discharge of any power plant or related effluents under these referenced criteria, we have no objection to the use of the 1969 discharge requirements for clearance for certification.

We request the opportunity in accordance with our authority as defined in the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.) to review and comment on the NPDES permit and the new proposed discharge requirements when they are prepared. We will be considering the discharge under the new guidelines that will be issued in late August, 1974.

We appreciate the opportunity to comment on this Public Notice.

Sincerely yours,

Merrill L. Zschomler

Merrill S. Zschomler
Field Supervisor

JEC:gr

cc: RBS, Portland, Or.

Ken Jones
Central Coast Region

Mel Holland
Robert H. Lewis

September 24, 1974

F.1.c

PG&E Diablo Canyon
Nuclear Power Plant
Certification

L. R. DUNHAM

On September 6, 1974, I attended a meeting with Department of Fish and Game representatives and Mr. Kenneth Jones, Executive Officer, California Regional Water Quality Control Board, Central Coast Region, to discuss the request by the department that the Regional Board not approve certification of subject power plant. The Department of Fish and Game staff prepared the attached meeting agenda which includes a copy of their letter of August 20, 1974, to Mr. Jones on this subject (Agenda page 44). The meeting was primarily concerned with review of questions which the department had submitted to PG&E Co. and the responses from the Company which are shown on page 10 of the attached agenda. It was decided that department representatives would prepare a request to the Company for further information relating to certain of the responses to questions where the information appears to be inadequate. It was also decided that the department would prepare a memorandum to Mr. Jones requesting that the Regional Board require the PG&E Co. to undertake studies to determine the nature of the toxicity problem at the power plant and establish whether it was a chronic or a one-time event during testing of the pumps.

On September 16, 1974, I attended a meeting with Don Lollock, Michael Martin, and Rolf Mall of the Department of Fish and Game to review drafts of their proposed letter to PG&E Co. and to Mr. Jones. I invited Mr. Larry Klapow and Mr. Stan Phillippe from the Legal Division since they would be called upon to review the recommendation from the Regional Board for certification. The department did not have a draft of their proposed letter to Mr. Jones. At the conclusion of the meeting it was our understanding that the department would prepare a letter to Mr. Jones requesting that certification be approved upon receipt by Regional Board of a proposal from PG&E Co. to resolve the problem of acute toxicity during temporary operation of the pumps. They would also

request that certification be conditioned upon approval of a work plan from the Company outlining studies which would be undertaken to determine if a chronic problem would exist and control measures required.

Attachment

cc: Mr. Kenneth Jones, Executive Officer
California Regional Water Quality Control
Board, Central Coast Region
1122-A Laurel Lane
San Luis Obispo, CA 93401

Mr. Harry Schueller
Legal Division

State of California

The Resources Agency

Memorandum

To : California Regional Water Quality Control Board
Central Coast Region
1122 Laurel Lane, Suite A
San Luis Obispo, California 93401

Date: 1 October 1974

ATTENTION: Mr. Kenneth R. Jones
Executive Officer

From : Department of Fish and Game - MRR-LB

Subject: State Certification of Compliance with Applicable Water Quality Standards, Pacific Gas and Electric Diablo Canyon Nuclear Power Plant

In our memorandum of 20 August 1974, we indicated non-compliance of present waste discharge requirements by the Diablo Canyon Nuclear Power Plant, and we recommended denial of certification until certain identified water quality problems were adequately resolved. We wish to suggest a procedure by which the Department of Fish and Game would not object to conditional approval for compliance with applicable water quality standards for the Diablo Canyon Nuclear Power Plant.

We believe it is appropriate to require Pacific Gas and Electric (P.G.&E.) to demonstrate that the power plant can be tested and operated in the absence of short-term acute and chronic toxicity or accumulative damage to the marine environment prior to our acceptance of conditional water quality certification. Revised waste discharge requirements and a monitoring program should reflect the new evidence of water quality impairment, especially heavy metal accumulation and foaming problems observed during pre-start up operations.

It is apparent, at present, that insufficient information exists to indicate the presence and/or the control method for toxic substances and the foaming phenomena recently experienced in Diablo Cove. We are extremely concerned with reported information that would indicate the discharge of 1000 pounds per year, or more, of copper and the interference of light penetration resulting from the surface foaming. We suggest that P.G.&E. formulate a suitable study plan in response to these concerns which will lead to remedial changes in operation or design of the plant if necessary. Should a satisfactory work plan, an adequate mechanism for our review participation, and satisfactory assurance and legal commitment to effect a solution by P.G.&E. be adopted, we would no longer object to granting of water quality certification.

Questions which the P.G.&E. work plan and program of remedial action should include follow:

1. Is there a chronic problem (in the sense of problems that should be regulated by a NPDES or AEC permit) related to design, materials, and/or operation of the plant?

2. Is there any change in possible toxic constituents between the intake and outfall; in marine organisms between area influenced by discharge versus control area; and in sediments of the area influenced by discharge versus control area?

3. If there are changes, what are the constituents, ranges, form, frequency, and reasons for the changes?

4. Will there be any changes associated with the discharge of heated effluent?

5. If there is a change in water quality, marine organism composition or abundance, and/or sediment distributions, what is its significance to marine life?

6. Is the recent abalone mortality reported by Fish and Game a singular event? Chronic with each start-up and shut down?

7. Is the problem associated with both normal and start-up-shut-down operations?

8. Is the monitoring program adequately responsive to potential harmful effects or evidence of irreversible damage?

As we have indicated in past communication concerning certification for the Diablo Canyon plant, the Department of Fish and Game is conducting a pre-operational survey to determine impact of the plant operation upon marine resources, and believes that, if demonstrated and necessary, modification of the plant operations must be sought to assure protection of the marine environment.

We look forward to review and comment upon any study proposals submitted by P.G.&E. Should you have any additional questions, please let us know.

Robert G. Kaneen
Regional Manager

cc: ESB
MRR-Monterey
MRR-LB

In conclusion, we recommend denial of State Certification of compliance with applicable water quality standards for Pacific Gas and Electric Company — Diablo Canyon Nuclear Power Plant until such time as the identified water quality problems are resolved. In addition, we suggest any appropriate interim action be taken by the Board Staff to assure that operation of the facility does not continue to violate Waste Discharge Requirements or the Water Quality Control Plan.

We also wish to inform the Board Staff that the Department of Fish and Game is continuing its investigation of the Diablo Canyon facility in regard to our responsibilities under the Fish and Game Code. We would be most willing to formally present our evidence of the waste discharge problems encountered during the pump testing operations at Diablo Canyon, should you so desire.

Robert G. Kaneen
Regional Manager
Marine Resources Region

MM/lr

bcc: CO
ESB
R. Hall - Long Beach
M. Martin - Monterey
P. Young - Long Beach
R. Goodrich - Long Beach