



**Pacific Gas and  
Electric Company**

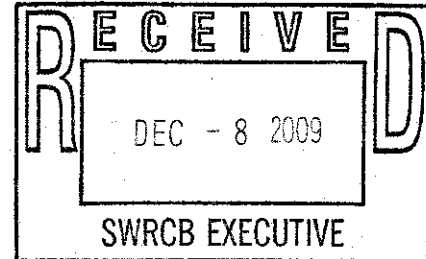
Public Comment  
Once Through Cooling  
Deadline: 12/8/09 by 5:00 p.m.

**Mark Krausse**  
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State Agency Relations

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December 8, 2009

Charles Hoppin, Chair  
State Water Resources Control Board  
1001 I Street  
Sacramento, CA 95814  
[commentletters@waterboards.ca.gov](mailto:commentletters@waterboards.ca.gov)



RE: Comments on the State Water Resources Control Board's Revised OTC Policy

Dear Chairman Hoppin:

On December 1, 2009, the State Water Resources Control Board ("Board") held a workshop to receive comments on a significantly revised version of the "Statewide Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling" ("Revised Policy") released on November 23, 2009. At the workshop, the Board indicated that it would accept written comments on the Revised Policy submitted by December 8, 2009.

As we stated at the workshop, Pacific Gas and Electric Company ("PG&E") believes that the Revised Policy's elimination of the wholly disproportionate cost-benefit demonstration, as well as the newly proposed definition of "not feasible," represents a major step back in the Policy as it removes any standard for the consideration of costs. Additionally, we believe the Board should reconsider the deference provided to the compliance schedule recommendations from the Energy Agencies regarding grid reliability.

PG&E has actively participated in the Policy development process for the last several years and is dedicated to ensuring a reasonable, workable policy that protects California's marine resources, ensures the reliability of the state's electric grid, and facilitates achievement of the state's GHG-emission-reduction-mandates.

Below we outline our concerns in more detail and provide revised language to retain an effective cost-benefit test.

**I. PG&E SUPPORTS IMPLEMENTATION OF A CONSISTENT, STATEWIDE EVALUATION OF COSTS, BENEFITS AND FEASIBILITY OF ALTERNATIVES TO ONCE-THROUGH COOLING FOR THE NUCLEAR FACILITIES**

At the December 1, 2009 workshop, Board Staff circulated its "Summary of Revisions of the Proposed OTC Policy." Staff explained that the wholly disproportionate demonstration section was removed because it would "place a burden on the Regional Water Boards, and State Water Board staff, in determining the guidelines for its implementation." Board members stated that the intent was not to eliminate the wholly disproportionate demonstration altogether, but simply to move its implementation to the "special studies" section for the nuclear facilities. Thus, the Board and its staff said that the substance of the wholly disproportionate demonstration included in Section 4 of the June 30, 2009 version of the Policy will be incorporated into the cost and feasibility analysis added to Section 3(D)(7) of the Revised Policy.

A. Revised Policy Does not Provide any Framework to Evaluate Costs or Benefits

The language of the Revised Policy regarding cost and feasibility in Section 3.D provides only an opportunity to further amend the Policy, but no framework with which to make the decision to amend the policy or any guidance as to what form that amendment would take. Therefore, the substantive standard providing for application of alternative requirements in specific situations has been replaced with an undefined and ambiguous process to amend the Revised Policy. PG&E believes that this is a significant and detrimental change to the proposed policy. The Board clearly has the ability to implement a cost-benefit test, under both Porter-Cologne (see e.g. Water Code Section 13000) and the Supreme Court's *Entergy* decision, *Entergy Corp. v. Riverkeeper, Inc.* 129 S. Ct. 1498 (2009). A clear, concise standard would be far more effective than merely allowing for the potential amendment of the Revised Policy.

B. A Cost-Benefit Approach Does Not Create Significant Administrative Burden

PG&E acknowledges the Board's need to minimize administrative burdens where possible and ensure efficiency and consistency when implementing the Policy. However, we strongly believe the wholly disproportionate demonstration, or a similarly well-defined consideration of costs, must be included in the Policy. Without such an approach, the Policy will treat all electric generation facilities in the same fashion – regardless of their specific attributes. At a minimum, the wholly disproportionate demonstration cannot be eliminated without a detailed discussion of how cost and feasibility will be considered or a justification as to why they will not be considered.

PG&E further notes that if effectively defined within the Policy, the administrative burden of implementing the wholly disproportionate demonstration should not be significant. The wholly disproportionate demonstration has been used over more than 25 years to implement Section 316(b) in California and nationwide. Additionally, cost-benefit analysis is used routinely by U.S. EPA and other federal and state agencies to evaluate and implement environmental regulations (e.g. natural resource damage assessments). U.S. EPA has published guidelines on how to perform such analyses. U.S. EPA, *Guidelines for Preparing Economic Analysis* (2000). Thus, there are a variety of resources available to define and streamline decision-making for staff. Finally, this well-established and court-sanctioned method of considering costs is the best approach the Board can employ to minimize the chances of a successful legal challenge to improperly considering the costs of compliance.

C. Consideration Must be Given to Nuclear Plants' Provision of GHG-free Baseload Power

The implementation of a cost-benefit test allows the Board to fully consider and evaluate the fact that the state's two nuclear plants provide roughly 4600 MW of GHG-free baseload power. These plants have significant useful lives remaining and can play a key role in ensuring that the state meets the GHG-emission-reduction-mandates of AB 32, the Global Warming Solutions Act of 2006. The adverse environmental impacts of replacing nuclear power with additional baseload fossil generation must be adequately evaluated. And without the on-going reliance on the nuclear plants, meeting the state's GHG reduction goals will be virtually impossible. As Porter-Cologne requires, these impacts, as well as the basic costs and benefits, must be balanced before making a 316(b) compliance decision.

Accordingly, PG&E proposes the attached revisions to Section 3(D) of the Revised Policy to expressly describe how the Board will substantively consider cost, benefits and feasibility in the

special studies for the nuclear facilities and the basis on which alternative compliance requirements will be established.

**II. PG&E SUPPORTS THE REVISED POLICY'S PHASED IMPLEMENTATION SCHEDULE AND URGES THE ENERGY AGENCIES' GRID RELIABILITY CONCERNS BE GIVEN GREAT WEIGHT**

PG&E supports the Revised Policy's recognition that the compliance schedule set forth in the policy "may require amendment based on . . . the need to maintain the reliability of the electric system as determined by the energy agencies . . ." Revised Policy at Section 1(I). Under the Revised Policy, the Board "shall consider the SACCWIS' recommendations and direct staff to make modifications, if appropriate, for the State Water Board's consideration." Section 3(B)(4).

PG&E respects the Board's general recognition of the individual and shared responsibilities of the energy agencies (CEC, CPUC, and CAISO) to maintain the reliability of the electrical system. PG&E supports a robust process for those agencies to recommend compliance-schedule adjustments to the Board.

PG&E believes that the Policy should recognize the energy agencies' jurisdiction and expertise in determining whether the final compliance schedule must be amended to preserve electrical system reliability. Accordingly, we propose the following change to Section 2(B)(2) of the Revised Policy:

*Based on the need for continued operation of an existing power plant to maintain the reliability of the electric system as annually determined by the CAISO, CEC or CPUC acting according to their individual or shared responsibilities, and communicated to the State Water Board as a formal action of the CAISO or state agency, the State Water Board shall hold a hearing to consider suspension of a compliance date applicable to an existing power plant pending full evaluation of amendments to final compliance dates contained in the policy. The State Water Board shall give great weight to a recommendation of the CAISO, CEC or CPUC to suspend a compliance date if premised on concerns for grid reliability.*

**III. CONCLUSION**

PG&E is committed to working with the State Board and its staff to ensure development of a once-through cooling policy that protects California's marine resources, ensures the state's ability to meet its GHG-emission reduction goals, and maintains the integrity and stability of the state's electric grid. Please contact me if you would like to discuss our proposals further.

Very truly yours,

  
Mark Krausse

SWRCB OTC Policy  
Comments of Pacific Gas and Electric Company  
December 8, 2009  
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cc: Frances Spivy-Weber, Vice Chair, SWRCB  
Arthur Baggett, Jr., Member, SWRCB  
Tam Doduc, Member, SWRCB  
Wait Pettit, Member, SWRCB  
Dorothy Rice, Executive Director, SWRCB  
Jonathan Bishop, Chief Deputy Director, SWRCB  
Michael Lauffer, Chief Counsel, SWRCB  
Susan Kennedy, Chief of Staff, Office of the Governor  
Dan Pellissier, Deputy Cabinet Secretary, Office of the Governor  
Linda Adams, Secretary for CalEPA  
Cindy Tuck, Undersecretary for CalEPA  
Mike Chrisman, Secretary, Natural Resources Agency  
Karen Douglas, Chair of Energy Resources, Conservation & Development Commission  
Jim Boyd, Vice Chair of Energy Resources, Conservation & Development Commission  
Jeff Byron, Commissioner, Energy Resources, Conservation & Development  
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Michael Jaske, Energy Resources, Conservation & Development  
Yakout Mansour, CEO, California ISO  
Dennis Peters, External Affairs Manager, California ISO  
Michael Peevey, President, Public Utilities Commission  
Robert Strauss, Public Utilities Commission  
Jeanine Townsend, Clerk of the Board, SWRCB

Attachment 1

Proposed Revisions to Section 3.D - Implementation

The following summarizes the proposed revisions to Section 3.D. Additions to the Revised Policy are shown in *italics* and deletions in ~~strikeout~~.

- Adds a finding outlining the role of the nuclear plants in meeting California's electric supply needs and achieving its GHG-emission-reduction-mandates.
- Ensures the independent third party selected by the Executive Director has nuclear power plant engineering and operations expertise.
- Specifies that representatives from CAISO, CPUC, CEC, rather than SACCWIS, will serve on the Nuclear Review Committee.
- Requires that the Review Committee report on the degree to which existing, completed studies can be relied upon, prior to requesting any further studies
- Clarifies that costs, benefits and feasibility of alternatives shall be included in the Review Committee's final report.
- Requires the SWRCB to establish alternative requirements for a nuclear plant if the costs are wholly disproportionate to the benefits, as determined in the final report of the Review Committee. Defines wholly disproportionate as a cost to benefit ratio of 5 to 1 or greater.
- Requires any impacts not addressed through alternative requirements to be fully mitigated

D. *[Note: This paragraph could be placed here, or in Section 1 where similar findings explaining the basis for the policy are located] California's two nuclear plants provide approximately 4600 MW of baseload electricity. These GHG-free resources are crucial to meeting the state's resource adequacy and grid reliability requirements, and greenhouse-gas-reduction mandates of the Global Warming Solutions Act of 2006. These facilities began operation in the mid-1980s and are entering into license renewal proceedings that may extend their operating lives to approximately 2045. Unlike older era fossil-fueled plants, nuclear plants are not able to retrofit to dry cooling or closed-cycle wet cooling in the course of repowering to new technology to achieve emission reductions and improve fuel efficiency. For California's two nuclear plants, cooling system retrofit will result in 14,000 tons of new particulate-matter emissions and reduced generation that must be made up by GHG-emitting, baseload fossil generation. In addition, GHG emissions from replacement power during retrofit will amount to at least 14 million metric tonnes for the two plants*

D- (1) No later than [three months of the effective date of this Policy] the Executive Director of the State Water Board, using the authority under section 13267(f) of the Water Code, shall request that Southern California Edison (SCE) and Pacific Gas & Electric Company (PG&E) conduct special studies for submission to the State Water Board.

(4) (a) The special studies shall investigate alternatives for the nuclear-fueled power plants to meet the requirements of this Policy, including the costs for these alternatives.

- (2) (b) The special studies shall be conducted by an independent third party, *with extensive nuclear power plant engineering and operations expertise*, selected by the Executive Director of the State Water Board.
- (3) (c) The special studies shall be overseen by a Review Committee, established by the Executive Director of the State Water Board no later than [three months of the effective date of the Policy], which shall include, at a minimum, representatives of SCE, PG&E, SACCWIS, CAISO, CPUC, CEC, the environmental community, and staffs of the State Water Board, Central Coast Regional Water Board, and the San Diego Regional Water Board.
- (4) (d) ~~No later than [one year after the effective date of this Policy]~~ *Prior to requesting special studies to be conducted pursuant to this section*, the Review Committee, described above, shall provide a report for public comment detailing the scope of the special studies, including the degree to which existing, completed studies can be relied upon.
- (5) (e) No later than [three years after the effective date of this Policy] the Review Committee shall provide a *final* report for public comment detailing the results of the special studies, *including costs, benefits, and feasibility of alternatives* and shall present the report to the State Water Board.
- (6) (f) Meetings of the Review Committee shall be open to the public and shall be noticed at least 10 days in advance of the meeting. All products of the Review Committee shall be made available to the public.
- (7) ~~The State Water Board shall consider the results of the special studies, including costs and feasibility, in evaluating the need to modify this Policy with respect to the nuclear-fueled power plants\*.~~
- (2) *The State Water Board shall establish alternative, less stringent requirements than those specified in Track 1 or Track 2 for nuclear-fueled facilities where the costs of compliance, as determined in the Review Committee's final report, are wholly disproportionate to the benefits achieved. Costs will be found wholly disproportionate to benefits if the ratio of costs to benefits exceeds a level of 5 to 1. If the Board establishes alternative requirements pursuant to this section, it shall require of the plant owner or operator a payment sufficient to fully compensate for the impingement and entrainment impacts that have not already been mitigated.*