



Linda S. Adams  
Secretary for  
Environmental Protection

# State Water Resources Control Board

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## Executive Office

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Arnold Schwarzenegger  
Governor

## NOTICE OF PUBLIC HEARING

### PROPOSED WATER QUALITY CONTROL POLICY ON THE USE OF COASTAL AND ESTUARINE WATERS FOR POWER PLANT COOLING

**NOTICE IS HEREBY GIVEN THAT** the State Water Resources Control Board (State Water Board) will hold a public hearing to receive comments on a proposed statewide policy on the use of coastal and estuarine waters for power plant cooling (Policy). A quorum of the State Water Board may be present; however, no Board action will be taken. The location and time of the hearing are provided below.

**Wednesday, September 16, 2009 – 9:00 a.m.**  
**Cal/EPA Headquarters Building**  
**Coastal Hearing Room**  
**1001 I Street, 2<sup>nd</sup> Floor**  
**Sacramento, CA 95814**

### BACKGROUND

The proposed Policy establishes technology-based standards to implement federal Clean Water Act section 316(b) and reduce the harmful effects on marine and estuarine life associated with cooling water intake structures. The proposed Policy would apply to the 19 existing power plants (including two nuclear plants) that currently have the ability to withdraw over 15 billion gallons per day from the State's coastal and estuarine waters using a single-pass system, also known as once-through cooling.

Cooling water withdrawals cause adverse impacts when larger aquatic organisms, such as fish and mammals, are trapped against a facility's intake screens (impingement) and when smaller organisms, such as larvae and eggs, are drawn through the cooling system (entrainment) and killed. In California, millions of fish are impinged and billions of larvae and eggs are entrained annually.

Section 316(b) is implemented through National Pollutant Discharge Elimination System (NPDES) permits, issued by the Regional Water Quality Control Boards (Regional Water Boards). Because there currently are no federal or state standards for implementing section 316(b) for existing power plants, permit writers must use their best professional judgment when re-issuing NPDES permits. Due to the resources required to evaluate the complex technical and biological issues related to intake structures, this approach puts a significant permitting burden on the Regional Water Boards and provides the potential for inconsistency in regulation of power plants that contribute to

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the statewide power grid. The proposed Policy would provide clear standards and consistency in implementation of section 316(b) in the State's NPDES permit program, and ultimately make better use of both stakeholder and Water Board resources.

The intent of the proposed Policy is to protect marine and estuarine life from the impacts of once-through cooling without disrupting the critical needs of the State's electrical generation and transmission system. In developing this proposed Policy, State Water Board staff has met regularly with representatives from the California Energy Commission (CEC), the California Public Utilities Commission (CPUC), the California Coastal Commission (CCC), the California State Lands Commission, the California Air Resources Board, and the California Independent System Operator (CAISO) to develop realistic implementation plans and schedules that will ensure electric grid reliability. The proposed Policy applies an adaptive management approach that requires that the implementation schedule is reviewed periodically by an advisory committee and reports are submitted to the State Water Board for consideration of any needed action.

The proposed Policy requires an owner/operator of an existing power plant to reduce intake flow rate at each power-generating unit, at a minimum, to a level commensurate with what can be attained by a closed-cycle wet cooling system. Closed-cycle wet cooling uses much less water than once-through cooling because the water is re-circulated. Rather than discharging waste heat from the power plant back to the ocean or estuary, waste heat is transferred from the water to the atmosphere via evaporation in cooling towers. Some intake water is still required to make up for that lost to evaporation. A minimum 93 percent reduction in intake flow rate for each unit is required for compliance, compared to the facility's design intake flow rate. In addition, the through-screen intake velocity must not exceed 0.5 feet per second. Intake velocity influences whether fish are able to detect and escape the physical pull of the intake pumps.

If the owner/operator can demonstrate that it is not feasible to reduce flow rates and velocity to the required levels, the owner/operator must reduce impingement mortality and entrainment impacts for the facility, as a whole, to a comparable level, using operational or structural controls, or both. An ongoing verification monitoring plan must also be implemented.

In limited circumstances, a facility may request alternative requirements if it demonstrates that the costs of compliance would be wholly disproportionate to the benefits to be gained. The proposed Policy contains special provisions for nuclear facilities, and requires them to fund independent, third-party studies to analyze in detail the compliance options available to them, including costs. An oversight committee will review the studies and report to the State Water Board at which time the State Water Board will address the need, if any, to modify the proposed Policy.

## DOCUMENT AVAILABILITY

The proposed Policy and supporting documents\* are available on the State Water Board's Web site at:

[http://www.waterboards.ca.gov/water\\_issues/programs/npdes/cwa316.shtml](http://www.waterboards.ca.gov/water_issues/programs/npdes/cwa316.shtml).

Alternatively, you may receive a paper copy in the mail by contacting Joanna Jensen at (916) 341-5582. To subscribe to an email list for future notifications about the proposed Policy, go to the State Water Board's Web site at:

[http://www.waterboards.ca.gov/resources/email\\_subscriptions/swrcb\\_subscribe.shtml](http://www.waterboards.ca.gov/resources/email_subscriptions/swrcb_subscribe.shtml), and choose "Ocean Issues – Once-Through Cooling".

## SUBMISSION OF WRITTEN COMMENTS

The State Water Board welcomes both written and oral comments on the proposed Policy and the content of the supporting documents. Written comments must be received by **12:00 noon on September 30, 2009** and addressed to:

Jeanine Townsend, Clerk to the Board  
State Water Resources Control Board  
1001 I Street, 24th Floor  
Sacramento, CA 95814

Comment letters may be submitted to the Clerk to the Board via email at [commentletters@waterboards.ca.gov](mailto:commentletters@waterboards.ca.gov) (if less than 15 megabytes in total size) or by fax at (916) 341-5620. Please indicate in the subject line: "**Comment Letter – OTC Policy**".

Couriers delivering comment letters must check in with lobby security personnel, who can contact Jeanine Townsend at (916) 341-5602.

## PROCEDURAL MATTERS

The hearing will be informal. There will be no sworn testimony or cross-examination of participants, but the State Water Board and its staff may ask clarifying questions. Participants are encouraged to submit written comments prior to the hearing. At the hearing, participants will be given an opportunity to summarize and supplement their written materials with oral presentations. To ensure a productive and efficient process in which all participants have an opportunity to participate, oral presentations may be time-limited. For other presentation recommendations, go to:

[http://www.waterboards.ca.gov/board\\_info/meetings/board\\_presentations.shtml](http://www.waterboards.ca.gov/board_info/meetings/board_presentations.shtml) at the State Water Board's Web site. Questions concerning the hearing may also be directed to Joanna Jensen, Division of Water Quality, at (916) 341-5582.

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\* The Substitute Environmental Document that supports the policy is projected to be available by July 15, 2009.

## **PARKING AND ACCESSIBILITY**

For directions to the Joe Serna, Jr. (Cal/EPA) Building and public parking information, please refer to the map on the Cal/EPA's Web site at <http://www.calepa.ca.gov/EPAbldg/location.htm>.


The Cal/EPA Building is accessible to persons with disabilities. Individuals requiring special accommodations are requested to contact Joanna Jensen at (916) 341-5582 at least 5 working days prior to the meeting. TDD users may contact the California Relay Service at 1-800-735-2929 or voice line at 1-800-735-2922. A broadcast of the meeting will be available via the internet and can be accessed at: <http://www.calepa.ca.gov/broadcast/>.

All visitors to the Cal/EPA Building are required to sign in and obtain a badge at the Visitor Services Center located just inside the main entrance. Valid picture identification may be required. Please allow up to 15 minutes for receiving security clearance.

## **ADDITIONAL INFORMATION**

Please direct questions about this notice to Joanna Jensen at (916) 341-5582 ([jjensen@waterboards.ca.gov](mailto:jjensen@waterboards.ca.gov)) or Dominic Gregorio at (916) 341-5488 ([dgregorio@waterboards.ca.gov](mailto:dgregorio@waterboards.ca.gov)).

July 9, 2009  
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Date

  
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Jeanine Townsend  
Clerk to the Board