

**STATE WATER RESOURCES CONTROL BOARD  
BOARD ADOPTION SESSION – DIVISION OF WATER QUALITY  
DECEMBER 14, 2010**

**ITEM 12**

**SUBJECT**

CONSIDERATION OF A RESOLUTION TO ADOPT A PROPOSED AMENDMENT TO THE WATER QUALITY CONTROL POLICY ON THE USE OF COASTAL AND ESTUARINE WATERS FOR POWER PLANT COOLING

**DISCUSSION**

On May 4, 2010, the State Water Board adopted the statewide “*Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling*” (Policy) under [Resolution No. 2010-0020](#). The Policy was approved by the Office of Administrative Law (OAL) on September 27, 2010, and became fully effective on October 1, 2010.

The Policy establishes uniform, technology-based standards to implement federal Clean Water Act section 316(b), which requires that the location, design, construction, and capacity of cooling water intake structures reflect the best technology available (BTA) for minimizing adverse environmental impact. State Water Board staff applied best professional judgment in determining BTA.

The Policy applies to the 19 existing power plants located along the California coast that withdraw coastal and estuarine waters for cooling purposes, using a single-pass system 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 (impinged) and when smaller life forms, such as larvae and eggs, are killed by being drawn through the cooling system (entrained).

“Track 1” of the Policy requires that intake flow rates at each power-generating unit be reduced to a level commensurate with that which can be attained by a closed-cycle wet cooling system. 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.

However, if the owner or operator of a facility can demonstrate that Track 1 is not feasible, the owner or operator may comply by reducing environmental impacts to marine and estuarine life comparably through other means, using operational or structural controls, or both, as described under the “Track 2” requirements in the Policy. Reductions in impingement and entrainment resulting from prior technology-based improvements or previously-installed combined-cycle units may be counted towards meeting these alternate requirements.

State Water Board staff is proposing an amendment to the Policy (Amendment) that would provide additional flexibility to owners or operators of power plants complying with Track 2 Policy requirements, with special considerations given to facilities with combined-cycle units ([see Appendix A](#)). The Amendment would change Sections 2.A (2)(d), 2.C (3) and 3.A (1) of the Policy.

The proposed changes to Section 2.A (2)(d) of the Policy would provide an additional compliance alternative for facilities with combined-cycle units. The affected facilities and power-generating units are Haynes Generating Station (Units 9 and 10), Harbor Generating Station (Unit 8) and Moss Landing Power Plant (Units 1 and 2). The amendment would remove the Track 2 requirement to show that Track 1 is not feasible, and would, under certain circumstances, allow an owner or operator to continue to use once-through cooling at an existing combined-cycle unit until the unit reaches the end of its useful life. The owner or operator must specify the expected useful life of the combined-cycle unit(s), and this date must be included in the facility's NPDES permit. The owner or operator must commit to eliminating the use of OTC upon re-powering the unit. The owner or operator must conduct pilot-scale feasibility studies of employing fine-mesh screen or equivalent measures at these units to reduce impingement and entrainment, and must implement these measures unless they are shown to be infeasible. If the studies show that it is infeasible to install screens or equivalent measures, the owner or operator must pay mitigation funds annually in the amount of three dollars (\$3.00) per million gallons of water withdrawn for the useful life of the unit. The mitigation funds required under the Amendment would be due immediately.

The proposed changes to Sections 3.A (1) of the Policy would allow the owner or operator of any power plant with a compliance plan that extends beyond December 31, 2020, to continue to use once-through cooling under certain circumstances. The owner or operator would need to commit to eliminating the use of OTC upon repowering each unit and must specify the date of repowering each unit. The owner or operator must conduct feasibility studies of employing fine mesh screens or equivalent controls for these units. For units that continue operating without control measures, the owner or operator must submit mitigation funds in the amount of three dollars (\$3.00) per million gallons of water withdrawn, payable annually and with immediate effect.

The proposed change to Section 2.C(3) clarifies that facilities paying the mitigation funds required under the Amendment would not also be required to pay the interim mitigation funds specified under Section 2.C of the Policy.

## **POLICY ISSUE**

Should the State Water Board:

1. Certify the final Substitute Environmental Document ("Staff Report"), which includes the responses to comments, and direct the Executive Director or designee to transmit the Notice of Decision to the Secretary of Resources?
2. Adopt the attached Amendment to the Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling?
3. Authorize the Executive Director or designee to submit the Amendment to OAL for review and approval?
4. Direct the Executive Director or designee to make minor, non-substantive modifications to the language of the Amendment, if OAL determines during the OAL approval process that such changes are needed for clarity or consistency, and inform the Board of any such changes?

## **FISCAL IMPACT**

If the State Water Board adopts the proposed amendment, there will be costs associated with its administration. However, these costs are incurred with the required administration of the NPDES permits for the affected coastal power plants.

## **REGIONAL WATER BOARD IMPACT**

No. The Policy specifically assigns the responsibility for implementing the Policy, including the issuing of NPDES permits for the affected facilities, to the State Water Board.

## **STAFF RECOMMENDATION**

The State Water Board should:

1. Certify the final Staff Report, which includes the responses to comments, and direct the Executive Director or designee to transmit the Notice of Decision to the Secretary of Resources.
2. Adopt the attached Amendment to the Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling.
3. Authorize the Executive Director or designee to submit the Amendment to OAL for review and approval.
4. Direct the Executive Director or designee to make minor, non-substantive modifications to the language of the Amendment, if OAL determines during their review process that such changes are needed for clarity or consistency, and inform the Board of any such changes.

State Water Board action on this item will assist the Water Boards in reaching Goal 6 of the Strategic Plan Update: 2008-2012 to enhance consistency. In particular, approval of this item will assist in fulfilling Objective 6.1 to target consistency improvements in process and policy for Water Board enforcement activities to promote compliance.

# DRAFT

## STATE WATER RESOURCES CONTROL BOARD RESOLUTION NO. 2010-

### ADOPTION OF AN AMENDMENT TO THE WATER QUALITY CONTROL POLICY ON THE USE OF COASTAL AND ESTUARINE WATERS FOR POWER PLANT COOLING

#### WHEREAS:

1. The State Water Resources Control Board (State Water Board) is designated as the state water pollution control agency for all purposes stated in the Clean Water Act, including water quality control planning and waste discharge regulation.
2. The State Water Board is responsible for adopting state policy for water quality control, which may consist of water quality principles, guidelines, and objectives deemed essential for water quality control.
3. On May 4, 2010, the State Water Board adopted the statewide “*Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling*” (Policy) under [Resolution No. 2010-0020](#). The Policy was approved by the Office of Administrative Law on September 27, 2010 and became fully effective on October 1, 2010.
4. The Policy establishes uniform, technology-based standards to implement federal Clean Water Act section 316(b), which requires that the location, design, construction, and capacity of cooling water intake structures reflect the best technology available for minimizing adverse environmental impact.
5. The Policy applies to 19 existing power plants located along the California coast, and is implemented through National Pollutant Discharge Elimination System (NPDES) permits, issued pursuant to Clean Water Act Section 402, which authorize the point source discharge of pollutants to navigable waters.
6. The State Water Board and Regional Water Quality Control Boards are authorized to issue NPDES permits to point source dischargers in California, including power plants subject to the Policy.
7. As it is the intent of the State Water Board, this Amendment to the Policy ([Appendix A](#)) provides additional flexibility to owners or operators of power plants complying with Track 2 Policy requirements, with special considerations given to facilities with existing combined-cycle units.
8. It is the intent of the State Water Board to ensure that this Amendment protects the beneficial uses of the State’s coastal and estuarine waters while also ensuring that the electrical power needs essential for the welfare of the citizens of the State are met.
9. The State Water Board circulated the draft Amendment and the supporting draft Substitute Environmental Document (“[Staff Report](#)”) for public comment on October 1, 2010. Public comments were due at 12:00 noon on November 19, 2010.

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10. State Water Board staff has responded to oral and written comments received from the public and made revisions to the proposed Amendment and Staff Report as appropriate.
11. The Resources Agency has approved the State Water Board's water quality control planning process as a "certified regulatory program" that adequately satisfies the CEQA requirements for preparing environmental documents. State Water Board staff has prepared a Staff Report for this project that contains the required environmental documentation under the State Water Board's CEQA regulations. (California Code of Regulations, title 23, section 3777.)
12. In preparing the Staff Report, the State Water Board has considered the requirements of Public Resources Code section 21159 and California Code of Regulations, title 14, section 15187, and intends these documents to serve as a Tier 1 environmental review. The State Water Board has considered the reasonably foreseeable consequences of adoption of the Amendment; however, potential site-specific project impacts may need to be considered in any subsequent environmental analysis performed by lead agencies, pursuant to Public Resources Code section 21159.1.
13. Consistent with CEQA, the Staff Report does not engage in speculation or conjecture but, rather, analyzes the reasonably foreseeable environmental impacts related to methods of compliance with the proposed Amendment, reasonably foreseeable mitigation measures to reduce those impacts, and reasonably feasible alternative means of compliance that would avoid or reduce the identified impacts.
14. The Policy incorporates mitigation that reduces to a level that is insignificant any adverse effects on the environment. From a program-level perspective, incorporation of the mitigation measures described in the Staff Report will foreseeably reduce impacts to less than significant levels.

The amendment does not become effective until adopted by the State Water Board, until the regulatory provisions are approved by the Office of Administrative Law (OAL), and until the Notice of Decision has been filed with the Secretary of Resources.

THEREFORE BE IT RESOLVED THAT:

The State Water Board:

1. Certifies that the final Staff Report, which includes the responses to comments, was prepared in accordance with the requirements of the State Water Board's certified regulatory CEQA process (as set forth in California Code of Regulations, title 23, section 3775, et seq.), Public Resources Code section 21159, and California Code of Regulations, title 14, section 15187, and directs the Executive Director or designee to transmit the Notice of Decision to the Secretary of Resources.
2. Adopts the proposed Amendment to the Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling after considering the entire record, including oral testimony at the public hearing.
3. Authorizes the Executive Director or designee to submit the adopted Amendment to OAL for review and approval.

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4. Directs the Executive Director or designee to make minor, non-substantive modifications to the language of the Amendment, if OAL determines during their review process that such changes are needed for clarity or consistency, and inform the Board of any such changes.

## **CERTIFICATION**

The undersigned Clerk to the Board does hereby certify that the foregoing is a full, true, and correct copy of a resolution duly and regularly adopted at a meeting of the State Water Resources Control Board held on December 14, 2010.

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Jeanine Townsend  
Clerk to the Board