

In the Proposed Resolution Delegating Authority to the Executive Director to Approve Interim Mitigation Measures Under the Once-Through Cooling Policy, change “WHEREAS” and “THEREFORE BE IT RESOLVED THAT” sections as follows:

**STATE WATER RESOURCES CONTROL BOARD
RESOLUTION NO. 2015-**

DELEGATES AUTHORITY TO THE EXECUTIVE DIRECTOR OF THE
STATE WATER RESOURCES CONTROL BOARD (STATE WATER BOARD) TO
APPROVE MEASURES THAT OWNERS OR OPERATORS OF ONCE-THROUGH COOLING
(OTC) FACILITIES SHALL UNDERTAKE TO COMPLY WITH INTERIM MITIGATION
ON A CASE-BY-CASE BASIS

WHEREAS

1. The 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 thirteen 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. The Policy originally affected nineteen OTC power plants, but six of these plants have ceased all OTC operations since adoption of the Policy.
6. The Policy was amended through [Resolution 2011-0033](#) on July 19, 2011, making changes to existing Policy compliance dates for the Los Angeles Department of Water and Power (LADWP) on a unit by unit basis rather than facility-wide basis.

**08/18/15 BD MEETING – ITEM #4
CHANGE SHEET #1 (CIRCULATED 08/17/15)**

7. The Policy was amended through [Resolution 2013-0018](#) on June 18, 2013, making changes to the existing Policy by authorizing the Regional Water Quality Control Boards (Regional Water Boards) to issue NPDES permits to point source dischargers in California, including power plants subject to the Policy.
8. The Policy was amended on April 7, 2015, providing a compliance deadline extension for Moss Landing Power Plant.
9. Section 2.C(3) of the Policy requires the owner or operator of an existing power plant to implement measures to mitigate the interim impingement and entrainment impacts resulting from their cooling water intake structure(s), commencing October 1, 2015 and continuing up to and until the owner or operator achieves final compliance. An owner or operator may comply with this requirement by:
 - a. Demonstrating to the State Water Board's satisfaction that the owner or operator is compensating for the interim impingement and entrainment impacts through existing mitigation efforts, including any projects that are required by state or federal permits as of October 1, 2010; or
 - b. Demonstrating to the State Water Board's satisfaction that the interim impacts are compensated for by the owner or operator providing funding to the California Coastal Conservancy, which will work with the California Ocean Protection Council, to fund an appropriate mitigation project; or
 - c. Developing and implementing a mitigation project for the facility, approved by the State Water Board, which will compensate for the interim impingement and entrainment impacts. Such a project must be overseen by an advisory panel of experts convened by the State Water Board.
 - d. The habitat production foregone (HPF) method, or a comparable alternate method approved by the State Water Board, shall be used to determine the habitat and area, based on replacement of the annual entrainment, for funding a mitigation project.
 - e. It is the preference of the State Water Board that funding is provided to the California Coastal Conservancy, working with the California Ocean Protection Council, for mitigation projects directed toward increases in marine life associated with the State's Marine Protected Areas in the geographic region of the facility.
10. The State Water Board contracted Moss Landing Marine Laboratory to establish an Expert Review Panel on minimizing and mitigating intake impacts from power plants and desalination facilities (ERP II). ERP II developed a scientifically defensible mitigation fee for power plant interim mitigation that would compensate for continued intake impacts due to impingement and entrainment. During a public meeting on March 1, 2012, the panel presented their recommendations, and the public asked questions and provided comments on the panel's draft report. The panel submitted the final report with their findings and recommendations on March 14, 2012 (Appendix 1).

**08/18/15 BD MEETING – ITEM #4
CHANGE SHEET #1 (CIRCULATED 08/17/15)**

- a. The mitigation fee calculation developed in ERP II comprises an entrainment fee, an impingement fee, and a management fee for implementation and monitoring of the mitigation project. The entrainment fee calculation utilizes empirical transport models coupled with the HPF method, as required by the Policy, and is based on the cost of creating or restoring habitat that replaces the production of marine organisms killed by entrainment.
 - i. The process for determining HPF-based cost estimates for entrainment for each facility could be complex and expensive, especially if suitable entrainment studies are not currently available for facilities. Additionally, when the cost of creating habitat equivalent to HPF was determined using existing examples of mitigation for power plant entrainment, the range of mitigation fees was relatively small. Therefore, ERP II concluded that using an average cost estimate for entrainment (cost per million gallons), based on the costs of mitigation already calculated using HPF for some power plants, and applying this average to all intakes is the simplest approach for entrainment mitigation. **Based on input values considered to be reasonable under the OTC Policy's requirements for interim mitigation, the average cost estimate for entrainment is \$4.60 per million gallons. The default method of calculating a power plant's annual entrainment fee would be to utilize this average value and the facility's specific intake volume (million gallons).** Owners or operators would need to measure their intake volumes for each year of interim mitigation so that these values are available for use in their annual entrainment fee calculations. The average cost estimate for entrainment would need to be updated annually to account for inflation.
 - 1. **There may be cases where some power plants have suitable entrainment data available that may be representative of their current operations and could be used to calculate HPF. A 95 percent confidence level will apply in these HPF calculations for individual power plants. In these cases, it may be determined to be more appropriate for the owners or operators of these power plants to pay interim mitigation fees based on costing of the HPF values for their specific power plants, as opposed to paying fees that utilize the average cost of entrainment.**
 - ii. Since impingement varies widely among power plants, ERP II determined that it would be inappropriate to apply a fixed impingement fee to all intakes. Instead, the panel advised determining the impingement fee on a case-by-case basis, using each plant's annual estimate of fish impingement together with the value for fishes estimated from catch totals and the average indirect economic value of the fisheries as determined in the ERP II final report.
 - iii. ERP II recommended management and monitoring costs on the typical range of 10-25% of the project's costs.

- b. Determining the mitigation fee for each facility requires calculating the entrainment fee, impingement fee, and management and monitoring fee. The sum of these three fees constitutes the interim mitigation fee in units of cost per million gallons. Since the calculations for the fees require input values from each OTC facility, the interim mitigation fee will vary by facility.
 - c. State Water Board staff is working with the California Coastal Conservancy and the Ocean Protection Council to determine how the OTC mitigation fees will be received and how they will be applied toward increases in marine life associated with the State's Marine Protected Areas in the geographic regions of the facilities.
11. For owners or operators who have selected to comply through existing mitigation efforts or by developing and implementing mitigation projects, mitigation efforts would need to be approved on an individual basis as they would vary by facility.

THEREFORE BE IT RESOLVED THAT:

1. The State Water Board hereby authorizes the Executive Director of the State Water Board to approve, on a case-by-case basis, mitigation measures that owners or operators of OTC facilities shall undertake to comply with requirements for interim mitigation.
 2. **When site-specific entrainment data is available for a power plant, the Executive Director shall determine whether this data is suitable for calculating a specific HPF for that plant. In these HPF calculations for individual power plants, a 95 percent confidence level will apply. If no site-specific entrainment data is available for a power plant or if the Executive Director determines that the available entrainment data is not suitable for calculating a specific HPF for that plant, the default method of calculating a power plant's annual entrainment fee will apply, which is to utilize the average cost estimate for entrainment of \$4.60 per million gallons and the plant's annual intake volume (million gallons).**
 3. **In circumstances where the entrainment fee is calculated to be greater than \$6.50 per million gallons, the Executive Director shall bring these cases before the State Water Board for approval.**
 4. **Draft determinations pursuant to this delegated authority shall be posted for public comment for a period of twenty days and circulated to persons who have requested public notice on matters related to the OTC Policy.**
52. This authorization shall not be construed to eliminate the necessity of required approval or concurrence of any other state agency.

63. This authorization shall remain in full force and effect until modified or revoked by the SWRCB.

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 August 18, 2015.

Jeanine Townsend
Clerk to the Board