

Draft Final Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling

**May 4, 2010
Sacramento, CA**



California Environmental Protection Agency

STATE WATER RESOURCES CONTROL BOARD

Our Goal

To develop a statewide policy to protect marine life from the adverse impacts of once-through cooling water intake structures, in compliance with CWA Section 316(b), while ensuring continuity of the State's electrical grid.



Substantial Impacts to Marine Life

- Impingement mortality (**fish only**) is over **2.6 million** annually, based on 2000-2005 data.
- Entrainment mortality is over **19 billion fish larvae** annually, based on 2000-2005 data. Many more benthic invertebrate larvae are entrained but not enumerated.
- Delta plants, estimated to annually entrain about **62,000 Delta Smelt**.
- Marine wildlife affected – about **57** annually entrapped (seals, sea lions, sea turtles).

The Law

- **Clean Water Act Section 316(b):**

requires “that the location, design, construction, and capacity of cooling water intake structures reflect the Best Technology Available for minimizing adverse environmental impact.”

- **California Water Code Section 13142.5(b):**

requires new or expanded coastal power plants to use “the best available site, design, technology, and mitigation measures feasible . . . to minimize the intake and mortality of all forms of marine life.”

Public Process

- Two Public Workshops (2005)
- Two Scoping Phases (2006 and 2008)
- Expert Review Panel Findings (2008)
- A **Draft Policy** was released on **June 30, 2009**.
- The supporting **Substitute Environmental Document (SED)** was released on **July 15, 2009**, initiating the public comment period.

Public Process

- A **Public Hearing** was held on **September 16, 2009**.
- The deadline for submitting comments was **September 30, 2009**.
- A **Public Workshop** was held on **December 1, 2009** to present staff-proposed **clarifying changes to the Draft Policy**.
- The deadline for submitting comments on the clarifying changes was **December 8, 2009**.

Public Process

- Final Draft Policy and SED released on March 22, 2010; the Policy included certain changes from the previous version.
- The deadline for submitting comments on the recent minor changes was April 13, 2010.
- 8991 comment letters received (66 were unique).
- Draft Response to Comments (Appendix G of SED) released April 27, 2010.

Proposed Policy Revisions since December 1, 2009

- ▶ Clarified and Added Findings.
- ▶ Track 1 – dry cooling meets intent.
- ▶ Track 2 – removed feasibility test
 - Impingement reductions met by reductions in velocity, or other control technology that is comparable
 - Entrainment – 93% reduction in flow, measured monthly, or other control technology that is comparable.
- ▶ Track 2 Combined Cycle: Reduction of entrainment based on reduction in intake flows for the entire plant, or for each combined cycle unit by reductions in intake velocity and meeting interim measures.

Proposed Policy Revisions since December 1, 2009

- ▶ Provisions for temporary suspension of the final compliance dates for grid reliability purposes.
- ▶ Immediate and Interim Measures:
 - State Water Board* approves matters concerning interim measures instead of Regional Boards
 - Allow compliance through funding the Coastal Conservancy/OPC, preference for funding toward Marine Protected Areas
 - Operator-funded mitigation project must be overseen by an expert panel

Proposed Policy Revisions since December 1, 2009

- ▶ Clarifying edits to SACCWIS procedures
 - Procedures concerning LA DWP
 - Annual grid reliability study.
- ▶ Allowance for suspension of compliance dates due to permitting delays.
- ▶ Clarification that Regional Board NPDES Permits shall include appropriate provisions to implement suspensions in final compliance dates, without re-opening permits.
- ▶ Nuclear Special Studies:
 - Provide factors to be considered (costs of compliance; engineering, space, permitting and safety constraints; potential environmental impacts)
 - Cost/Cost consideration.
- ▶ If alternate requirements are established by the Board for nuclear plants, then difference to be fully mitigated by funding MPAs.

Proposed Policy Revisions since December 1, 2009

- ▶ Changes to Compliance Schedule:
 - More frequent reporting to the Board by SACCWIS
 - Harbor, Scattergood and Haynes dates changed
 - Diablo Canyon compliance date extended two years to 2024.

- ▶ Monitoring
 - Prior entrainment studies using only 333 micron screen may be allowed for baseline, if adequate.
 - If new baseline entrainment studies are required, sampling shall be for 333 micron and 200 micron fractions; sampling must be conducted during different seasons and periods of peak use.
 - Post Track 2 implementation, new studies sampling shall be for 333 micron and 200 micron fractions.

- ▶ Minor additions and changes to definitions.

