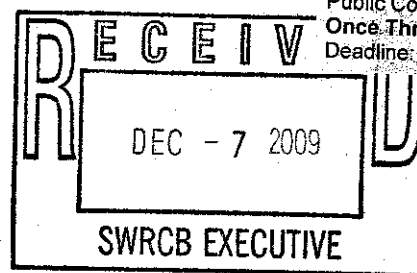


Dec. 7, 2009  
State Water Resources Control Board  
1001 I Street, 24th Floor  
Sacramento, CA 95814



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

We applaud and strongly support the State Water Resources Control Board for removing references to the Wholly Disproportionate Demonstration from the Nov. 23, 2009, Draft of the STATEWIDE WATER QUALITY CONTROL POLICY ON THE USE OF COASTAL AND ESTUARINE WATERS FOR POWER PLANT COOLING. This is a singularly significant improvement in the proposed policy that will directly affect and benefit invaluable marine resources in estuaries, bays and the ocean along the California coast and the economies of many coastal communities.

But this important change still leaves vital revisions that are needed to render the Policy acceptable, effective, in legal compliance and consistent with the statutory goals. It is unfortunate the Policy nowhere cites as its primary goal the protection and preservation of public marine resources through the termination of the primary destructive force to them, power plants using OTC, and the monumental damages those plants cause to marine life. It does refer to "the intent of this Policy is to ensure that the beneficial uses of the State's coastal and estuarine waters are protected," but beneficial uses ignore the inherent value and right to life of species, which are devalued by ignoring the fact that they are protected under the law in their own right, regardless of any value placed on them by humans.

Perhaps the most basic and fundamental--and unexplainable--aspect of the new draft (to be referred to as Policy) is its conceptualization around grid reliability and the resulting inexplicit and uncertain compliance and enforcement requirements that flow from it. This Policy, as written, clearly places top priority on ensuring that existing power plants, many of them operating with ancient technology, are allowed to operate, with no stated acknowledgement of the resulting killing of marine resources. In fact, there is no mention in the entire policy of the destruction of aquatic life, as if it does not exist. By ignoring these real-life impacts, the Policy fails to convey any sense of urgency to stop this killing as a counterpoint to concern over grid reliability.

More importantly, that concern is misplaced and unjustified, if research ordered by the Board and the Ocean Protection Council (Electric Grid Reliability Impacts from Once-Through Cooling in California, April, 2008) can be relied upon. There is a sense of alarm running through your Policy about grid reliability vis a vis terminating OTC and the operational lives of power plants. The question is: how can this alarm be valid and justified when your own study concluded: "...under all but the most extreme scenarios, more than enough power plants are expected to be operating in 2015 to more than compensate for any or all OTC plant retirements, with a projected 28 percent reserve margin of supply over demand in the Western half of North America."?(Page 3)

The study went on to state that its investigation "showed that given sufficient time to react, the electric industry could likely tolerate and compensate for mass OTC plant retirement at relatively modest costs to the ratepayer." (Page 2)

The most "realistic scenario," the study said, "in which some OTC plants would be retired while others repower or convert their cooling systems, showed potential for significant benefits to the environment because the overall power sector would be more efficient and produce fewer emissions, and because marine ecosystem impacts caused by use of OTC technology would be greatly reduced." (Page 6)

Further, "The modeling showed that even if all OTC plants retire in the state, including the nuclear units, the resultant need for new transmission infrastructure to compensate for the lost capacity is relatively modest." (Page 48)

The study also cited significant alternatives to avoid extending the operation of inefficient, excessively polluting and environmentally-destructive plants:

"...the energy industry also has the opportunity now to take actions that would significantly reduce or even eliminate reliance on OTC plant generation to maintain reliability standards, and therefore greatly reduce the potential reliability effects and indirect environmental impacts of the Board's pending decision. These include effective planning and implementation of transmission projects allowing increased imports of power from outside the populated areas of the state, accelerated conservation and efficiency programs, and removal of roadblocks allowing rapid development and implementation of renewable power resources. (Page 63)

In addition, "As shown in the CEC Staff's Scenarios study, the effects on system reliability of OTC plant retirements would be significantly reduced if the state's utilities are able to significantly accelerate enactment of effective conservation, efficiency and load-management programs, which collectively are referred to as 'demand- side management' or DSM. These programs have proven repeatedly that effective DSM can permanently reduce on-peak energy demand in every area of the state, and continuing and accelerating such programs is a mainstay of energy policy at every level. Similarly, the CEC's Scenarios study also shows that accelerated development of renewable generating resources, and the transmission infrastructure needed to bring renewable generation to load centers, would have a significant beneficial effect on the need to replace retired or derated OTC plant capacity in coming years." (Page 63)

It should be incumbent on the Board to require the CEC, CPUC and CAISO to address these points raised in the study to ensure that necessary steps will be taken in this regard to minimize the postulated need for energy from existing power plants, in view of the fact that these points have been ignored in publicly-available reports to the Board on the Policy's development.

As a result of this misplaced emphasis on allowing coastal power plants to operate beyond their need, the Policy allows OTC to extend 10 to 14 years in the future with no justification, based on your own study. As a consequence, there is no assurance in the policy that OTC will be ended or restricted appropriately at all, given the inexplicit wording of compliance requirements and the lack of definition of many enforcement measures, allowing power plant owners to exploit opportunities for delays potentially indefinitely.

Further, in the most blatant and unexplained contradictions in the Policy, as we emphasized in previous comments, the policy Implementation Schedule calls for the Morro Bay Power Plant to achieve compliance by meeting requirements for termination or sharp restriction of OTC by 2015. Yet the Schedule states that the "plant is not needed" after 2011 to help meet grid reliability requirements. There is no explanation as to why compliance should be delayed four

years after the plant's use is no longer needed. Therefore, we implore the board to require that the plant be required to be in compliance no later than 2012, especially in view of the fact that the plant owner's outfall lease for discharge of used water drawn from the Morro Bay National Estuary is scheduled to expire in 2011.

We challenge the Board or staff to reconcile this obvious contradiction.

Detailed comments:

D. Currently, there are no applicable nationwide standards implementing Section 316(b) for *existing power plants*\*1. Consequently, the Water Boards must implement Section 316(b) on a case-by-case basis, using best professional judgment.

Comment: This wording implies that the Water Boards will implement Section 316(b) indefinitely as *supra* powers, which is misleading and inaccurate. The U.S. Environmental Protection Agency is in the process of developing new regulations to comply with the *Riverkeeper* // decision (January, 2007) by the United States Court of Appeals for the Second Circuit, which stated that best professional judgment could be used by administrative agencies pending revised U.S Environmental Protection Agency regulations. But it also indicated that best professional judgment should be based on the decision's rulings. Yet, reference to that decision is completely absent from the Policy. The EPA's role in adopting regulations that must be taken into account in regulating power plant OTC must be stated to provide a fair and accurate description of how nationwide 316(b) standards will be applied in California.

F. This Policy establishes uniform requirements governing the exercise by the Water Boards of for the implementation of §316(b), using best professional judgment in the implementation of §316(b) determining BTA for cooling water intake structures at existing coastal and estuarine power plants that must be implemented in NPDES permits.

Comment: This statement requires identification of the authority under which the Board will establish uniform requirements using best professional judgment. Also, best professional judgment needs to be defined. Otherwise, it is too broad and ambiguous, and also leaves too much room for inappropriate political influences and influence by the power industry. Also, best professional judgment, without definition, could serve to extend old technology rather than stimulate use of best technology available. Moss Landing is an example of this; rather than require best technology available, such as dry cooling, the Central Coast RWQCB stayed with the status quo and allowed payment of money for habitat restoration as mitigation.

G. The State Water Board recognizes it is necessary to develop replacement infrastructure to maintain electric reliability in order to implement this Policy.

Comment: This statement implies that it is the Board's responsibility to ensure that replacement energy generation is developed. This should be removed or clarified to make clear that it is the Board's statutory obligation to protect water resources first and foremost.

H. The energy agencies have stated that the dates specified in their report may require periodic updates.

Comment: Periodic updates on the state of marine resources affected by power plants and results of independent studies by qualified experts in that regard should also be required.

I. The State Water Board recognizes the compliance dates in this Policy may require amendment based on, among other factors, the need to maintain reliability of the electric system as determined by the energy agencies included in the SACCWIS, acting according to their individual or shared responsibilities.

Comment: This statement must identify "other factors" for clarity and completeness. The statement also indicates that only the energy agencies among the SACCWIS will determine if grid reliability is being met by the compliance dates, indicating that other members of the SACCWIS, i.e., the CCC and SLC will not be consulted, excluding the agencies primarily responsible for environmental protection. Clarification is required.

#### I. Statewide Advisory Committee on Cooling Water Intake Structures (SACCWIS)

Comment: The Ocean Protection Council, which has played a prominent role in efforts to eliminate the destructive force of coastal power plants, deserves to be among the SACCWIS membership and must be added.

J. The CPUC has authority to order the investor-owned utilities (IOUs) to procure new or repowered fossil-fueled generation for system and/or local reliability in the Long-Term Procurement Plan (LTPP) proceeding.

Comment: In this day and age with AB 32 in effect and guiding the state's mission to reduce emissions that contribute to global warming, this statement focusing on seeking fossil-fueled generation to procure new or repowered energy generation in order meet grid reliability with no mention of renewable energy sources, especially photovoltaic, now recognized as a feasible and desirable alternative to gas-fired power plants, is anachronistic and should be removed, unless reviewed by the California Air Resources Board, which is supervising implementation of AB 32.

K. In order to assure that repowering or new power plant development in the Los Angeles basin addresses unique permitting challenges, the SACCWIS will assist the State Water Board in evaluating compliance for power plants not under the jurisdiction of the CPUC or operating within the CAISO Balancing Authority Area.

Comment: The Los Angeles Department of Water and Power, which has an expansive program of photovoltaic development under way, should be involved in this process of developing new generation sources.

2. A. (1) A minimum 93 percent reduction in *intake flow rate\** for each unit is required for Track 1 compliance, compared to the facility's unit's design *intake flow rate\**. The through-screen intake velocity must not exceed 0.5 foot per second.

Comment: References to evidence of the scientific validity and feasibility of 0.5 foot per second is needed, as well as explanations on how flow rates are to be monitored and by whom and whether this intake velocity limit would be measured per hour, per day, per year or by some other average.

(2) For the purposes of this policy, a "comparable level" is a level that achieves at least 90 percent of the reduction in impingement mortality and entrainment achievable required under Track 1.

Comment: Does this calculate to 83.7? If so, it should be so stated to avoid confusion or misinterpretation.

(2) Track 2. If an owner or operator of an *existing power plant\** demonstrates to the Regional Water Boards' satisfaction that compliance with Track 1 is *not feasible\**, the owner or operator must reduce impingement mortality and entrainment of ~~all life stages~~ of marine life for the facility, as a whole, to a comparable level to that which would be achieved under Track 1, using operational or structural controls, or both.

Comment: The criteria for determining whether an owner or operator can demonstrate infeasibility should be required here. To be clear, the relevant section of 316 (b) cited by the asterisk should be quoted in a footnote. All life stages should remain in the Policy because if all life stages are not considered in determining reduction in entrainment and impingement, then only a partial analysis of the impacts of OTC and the standard for compliance with Track 1 is required.

(2) (a) Compliance for impingement mortality shall be determined either (1) by monthly verification of through-screen intake velocity not to exceed 0.5 foot per second, or (2) by monitoring required in Section 4.A, below.

Comment: This compliance mandate should state the grounds for using one or the other determination.

(d) Reductions in impingement mortality and entrainment resulting from the replacement of steam turbine power-generating units with *combined-cycle power-generating units\**, installed prior to [the effective date of the Policy], may also be counted towards meeting Track 2 requirements.

Comment: No previous data should be allowed because there is no assurance that old data are relevant to contemporary operations and impacts on marine life. The Water Board and other state agencies do not follow the practice of considering past historical damage caused by OTC to determine the effectiveness of contemporary measures to reduce or eliminate that damage; therefore, past measures to reduce or eliminate damage under the Policy have no place in requiring compliance with Track 2 requirements. Only those efforts following adoption of the Policy should be considered. How the reductions are to be determined for compliance must also be stated.

B. (1) *Existing power plants\** shall comply with Section 2.A, above, as soon as possible, but no later than, the dates shown in Table 1, contained in Section 3.E, below.

Comment: The vagary of "as soon as possible" fails to provide an effective means of enforcement and invites undocumented and unsubstantiated excuses for continuing to use OTC. Plant owners or operators should be required to justify why OTC operations cannot be ended as soon as the Policy is enacted.

2 C (3) The owner or operator of an *existing power plant\** must implement measures to mitigate the interim impingement and entrainment impacts resulting from the cooling water intake structure(s), commencing [five years after the effective date of this Policy] and continuing up to and until the owner or operator achieves final compliance. The owner or operator must include in the implementation plan, described in Section 3.A below, the specific measures that will be

undertaken to comply with this requirement.

Comment: This authorization of mitigation as stated is deficient and highly objectionable, as was explained in CAPE's Sept. 29, 2009, comments:

The Second Circuit court stated in its *Riverkeeper II* decision, "As we noted in *Riverkeeper I*, restoration measures substitute after-the-fact compensation for adverse environmental impacts that have already occurred for the minimization of those impacts in the first instance....Restoration measures are not part of the location, design, construction, or capacity of cooling water intake structures, *Riverkeeper I*, 358 F.3d at 189..." Therefore, mitigation required under the board policy may not under the decision be used for "restoration measures." This should be made clear in the policy and to regional water boards that will administer the policy. In our comments on the board's previous draft OTC policy, we expressed strong reservations about use of mitigation because of concern that mitigation funds paid to the water board or regional boards could become habit-forming and might influence the agencies to not pursue aggressively the goal of ending OTC. However, if mitigation, under circumstances that may be permissible under the *Riverkeeper* decisions, is incorporated into the policy, we strongly believe that it should be used, not to compensate for and potentially prolong OTC, but to assist in development of new alternative energy sources, particularly urban photovoltaic, that would directly serve to replace coastal power plants, especially the oldest and least needed plants, and thereby contribute to earlier attainment of the state's global warming goals.

(3)(a) Demonstrating to the Regional 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 [the effective date of this Policy];

Comment: It should be made clear whether existing mitigation efforts can be used to compensate for OTC impacts, if those same efforts are under challenge in the courts.

(b) Demonstrating to the Regional Water Board's satisfaction that the interim impacts are compensated for by the owner or operator's participation in funding through a third party of an appropriate mitigation project; or...

Comment: Third party should be explained.

(c) Developing and implementing a mitigation program for the facility, approved by the Regional Water Board, which will compensate for the interim impingement and entrainment impacts.

Comment: Scientific evidence that mitigation effectively compensates for entrainment losses should be required as a basis for authorizing such a program. CEC staff in the Morro Bay siting case argued "that a critical nexus both can and should be measured. This nexus should be increases in larval production of those species impacted by the CWIS. If the Energy Commission approves the HEP (habitat enhancement program) as mitigation, it should require that the Applicant actually measure and monitor the fish and invertebrate larvae that will be increased as a direct result of its actions, as well as, how much this increase in productivity offsets the losses caused by the CWIS." (Page 9, **SUPPLEMENT TO THE FINAL STAFF ASSESSMENT – PART 3 MORRO BAY POWER PLANT (00-AFC-12)**, September 20, 2002 at [http://www.energy.ca.gov/sitingcases/morrobay/documents/2002-09-20\\_AQUATIC\\_BIOLOGIC.PDF](http://www.energy.ca.gov/sitingcases/morrobay/documents/2002-09-20_AQUATIC_BIOLOGIC.PDF)). The staff report also stated, "Without adequate baseline

monitoring and on-going project-specific monitoring it would be impossible to determine whether the projects attain predetermined performance standards and result in successful mitigation." (Page 9, op.cit.) Staff concluded, "In staff's opinion, avoidance of the impacts of the proposed MBPP by eliminating or avoiding once-through cooling is the only certain way to mitigate the significant adverse impacts of once-through cooling." (Page 27 op.cit.) Based on this siting experience dating back at least seven years, the Board is obligated to establish standards governing any mitigation program to assure effectiveness and protection of invaluable resources.

(d) *The habitat production foregone\** method, or a comparable alternate method approved by the Regional Water Board, shall be used to determine the habitat and area for a mitigation project.

Comment: The board cannot justify authorizing habitat production foregone or any alternative method for mitigating the killing of marine life by power plants without citing (a) scientific evidence that this method or any alternative is effective in mitigation using a nexus and (b) a record of performance in California. These requirements must be established by the board as guidance for regional boards so that they meet reasonable standards of performance and there is consistency among regional boards in supervising this program.

3. A. ...no later than [six months after the effective date of this Policy], the owner or operator of an *existing power plant\** shall submit an implementation plan to the State and Regional Water Boards.

Comment: "Shall submit an implementation plan" is not clear and its ambiguity risks disputes and avoidance of compliance. This requirement should specify that the implementation plan is for compliance with board policy and milestones and due dates in the Implementation Schedule in order to make clear that the obligations of owners or operators are under the policy. Otherwise, the focus of the policy is on the "compliance alternative" as described in (1), which would be a misrepresentation of the stated goals of the policy.

B. (1) Meetings shall be open to the public and shall be noticed at least 10 days in advance of the meeting.

Comment: The notice should be amended to state 10 working days out of respect to the public.

(2) The SACCWIS shall review the owner or operator's proposed implementation schedule and report to the State Water Board with recommendations within no later than one year after the effective date of this policy.

Comment: The review should be in nine months--six months after the SACCWIS is impaneled--in order to rightfully convey recognition of the ongoing death of marine life with every day that passes and the urgency to stop this slaughter as soon as possible.

(3) The SACCWIS will report to the State Water Board with recommendations on modifications to the implementation schedule at least every two years starting in 2013. If members of SACCWIS do not believe the full committee recommendations reflect their concerns they may issue minority recommendations that the State Water Board shall consider as part of the SACCWIS recommendations.

Comment: Does this mean that all members of the SACCWIS have equal votes? If so, it should

be made clear for members of the SACCWIS and the public.

C. (1) If the State Water Board determines that a longer compliance schedule is necessary to maintain reliability of the electric system per SACCWIS recommendations while other OTC power plants are retrofitted, repowered, or retired or transmission upgrades take place, this delay shall be incorporated into the compliance schedule and stated in the permit findings.

Comments: This section only takes into account the needs and convenience of grid reliability with no concern expressed for the victims of OTC: aquatic life and coastal communities whose economies are interconnected with coastal resources. A provision is needed to authorize the board to accelerate the compliance schedule if conditions of marine life go into accelerated downfall such as could happen, for example, with the Morro Bay National Estuary, which, the CEC staff has found, "is already impaired and in ecological decline..." This is why stringent monitoring by power plant owners or operators is essential if OTC--and risks to aquatic life--are to continue for any time.

Sincerely,

Jack McCurdy and David Nelson

Co-Presidents

Coastal Alliance on Plant Expansion (CAPE)

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