commentletters - Comment Letter - OTC Policy

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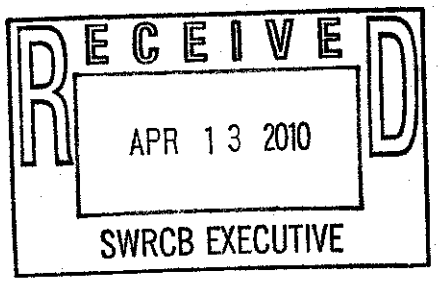
Date: Tuesday, April 13, 2010 10:25 AM
Subject: Comment Letter - OTC Policy



PLEASE ACKNOWLEDGE RECEIPT AT jack.mcc@att.net. Thank you.

April 13, 2010
State Water Resources Control Board
1001 I Street, 24th Floor
Sacramento, CA 95814

Members of the Board,

The draft once-through cooling policy scheduled for your consideration on May 4 is grossly inadequate--much more so than the previous version of the policy that was released to the public late last year--and should be rejected for these reasons:

1. It fails by any reasonable interpretation to implement Section 316 (b) of the U.S. Clean Water Act by requiring best available technology for cooling water intake structures at existing coastal and estuarine power plants, as your draft policy establishes as a goal.

2. It fails to state that the goal of the policy is to minimize adverse environmental impacts, while acknowledging that is the goal of the Clean Water Act.

3. It states the intent of the policy is to ensure that the beneficial uses of the state's coastal and estuarine waters are protected but fails to meet that intent through its requirements.

3. The primary reason for many failures of the policy is that it is structurally flawed due to incomplete, unclear and confusing language and requirements, defects which would render the policy inoperable and unenforceable.

5. The policy is contradictory. For example, it lists 2015 as the year for required compliance with the policy by the owner of the Morro Bay Power Plant while listing 2011 as the year after which the plant is not required for operation to ensure grid reliability. There is no explanation and no justification resulting from our exposure of this contradiction in comments on the previous version of the proposed policy.

6. The policy allows some existing plants to continue to operate for 10 to 14 years from now without justification. The rationale for this inordinate and unreasonable amount of time for continued operation of the plants is to protect grid reliability, based on undocumented contentions of three state agencies, in the face of an analysis by your own expert consultant (which is independent and has no vested political interest in meeting the wishes of power plant owners to allow continued operation) that ALL plants using once-through cooling could be retired by 2015 without jeopardizing grid reliability.

7. The policy contains dates by which various plants are expected to achieve compliance, but many caveats would allow plant owners to avoid having to comply, which render those dates nothing more than meaningless tokens.

8. The fundamental assumption of the policy, as informed by the three state agencies as advisors to the board, is that existing coastal power plants should be relied upon in the near future--and possibly virtually indefinitely, given the caveats in compliance requirements--to meet grid reliability needs, whereas renewable energy is increasing rapidly in availability and is primary in state energy priorities and state funding support to meet state energy needs in the immediate future; and yet, the policy fails to integrate these alternative sources of energy into its assessment of the need for power plants to continue operations.

8. The policy allows coastal power plants to continue to operate despite (a) no such allowance has ever been permitted in the Clean Water Act and (b) the clear mandate in the Riverkeeper II decision (January, 2007) by the United States Court of Appeals for the Second Circuit that best available technology must be used to provide power plant cooling, which is now settled law. This draft policy, as written, obviously is inconsistent with both state and federal law.

DETAILED COMMENTS

--Flaws

1--G. The intent of this Policy is to ensure that the beneficial uses of the State's coastal and estuarine waters are protected while also ensuring that the electrical power needs essential for the welfare of the citizens of the State are met. The State Water Board recognizes it is necessary to develop replacement infrastructure to maintain electric reliability in order to implement this Policy and in developing this policy considered costs, including costs of compliance, consistent with state and federal law.

Comment: The power needs referred to in section G are almost certainly overstated because documentation in the policy supplement frequently refers to design generation capacity, even though a number of the units on which that capacity was calculated are no longer operable, as in the case of the Morro Bay Power Plant.

2-- N. Nothing in this Policy precludes the authority of Regional Water Boards to regulate discharges from existing power plants* through NPDES permits, consistent with water quality standards.

Comments: The criteria and parameters for exercising the authority by the Regional Water Boards are not stated, and "water quality standards" are not defined.

3-- A (1) Track 1. An owner or operator of an existing power plant* must reduce intake flow rate* at each unit, at a minimum, 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 Track 1 compliance, compared to the unit's design intake flow rate*.

Comment: The stated requirement in 2. A (1) is that the intake flow rate must be reduced to the level cited "at each unit." This term fails to make clear whether it means each operating unit or each existing unit on the power plant site. This is extremely important because some existing operational plants have non-operating as well as operating units. Further, there is no stated scientific or regulatory citation to support a minimum 93 percent reduction, which renders it arbitrary.

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

Comment: No scientific evidence or regulatory standard is cited to justify reliance on the 0.5 intake flow rate as a benchmark for determining whether a reasonable and effective reduction in OTC impacts would be accomplished. Therefore, it is arbitrary.

(2) Track 2. The owner or operator of an existing power plant* must reduce impingement mortality and entrainment 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: Since "comparable level" is not defined, presumably this means a 93% reduction as previously referenced as 93% in 2. A (1). But presumption is not an acceptable regulatory standard.

(2) (a) Compliance for impingement mortality shall be determined either:

(i) For plants relying solely on reductions in velocity, by monthly verification of through-screen intake velocity not to exceed 0.5 foot per second, or

(ii) By monitoring required in Section 4.A, below. For measured reductions determined by monitoring, the owner or operator must reduce impingement mortality to a comparable level to that which would be achieved under Track 1. A "comparable level" is a level that achieves at least 90 percent of the reduction in impingement mortality required under Track 1.

Comment: The text does not specify how and by whom "either" of the two standards will be selected under the policy for determination of compliance for any particular power plant. No regulatory or scientific grounds are cited to justify specifying 90% of the reduction in impingement mortality that is required under Track 1 or whether 90% is meant to apply to the aforementioned 93% or 90% of the design intake flow rate.

4--B. Entrainment Impacts: The following entrainment studies are required to comply with Section 2(2.A).(2)(b)(ii):
(1) A baseline entrainment study shall be performed, unless the discharger demonstrates, to the Regional Water Board's satisfaction, that prior studies accurately reflect current impacts.

Comment: This provision allowing prior studies to be used ignores whether (a) those studies were deemed adequate by regulators and under what conditions or required supplementation, (b) whether they remain relevant under environmental conditions today and (c) whether their age may have rendered them outmoded, as in the case of Morro Bay where marine biology studies on estuarine impacts were conducted 10 years ago, during which lapsed time the Morro Bay National Estuary and its marine life may have changed significantly.

COMMENTS SUBMITTED LAST DECEMBER THAT HAVE NOT BEEN RESPONDED TO:

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 II 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 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 must be stated, 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 on some other basis. It is vital--and the language of the policy clearly must so state--that this 0.5 foot per second rate shall be applied to individual intake units and the actual flow rates of each, and that any averages--whether they are the average rates of all intake units combined at a power plant or the average rate of individual intake units over time--shall not be allowed.

(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'sSept. 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 defined.

(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). 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.