

GOLDEN GATE UNIVERSITY

SCHOOL OF LAW

ENVIRONMENTAL LAW AND JUSTICE CLINIC

September 15, 2006

Ms. Tam Doduc Chair
Members of the Board
State Water Resource Control Board
1001 I Street
Sacramento, CA 95814
Via Email: commentletters@waterboards.ca.gov



Re: Proposed Statewide Policy on Clean Water Act Section 316(b) Regulations

Dear Chair Doduc and Members:

The following are comments in regards to the State Water Resource Control Board's Scoping Document addressing the above described policy on behalf of Bayview Hunters Point Community Advocates. First are general comments and then specific comments organized according to their appearance in the proposal. Thank you for taking these concerns on the hazards of once-through cooling systems under consideration.

General Comments

Bayview Advocates frames their understanding of these issues by its experience with the Potrero and Hunters Point Power Plants. These two power plants were once thought to have been needed for electrical reliability and to require once through cooling. Now Hunters Point is shut down and the ISO anticipates the Potrero facility will be unneeded for reliability in a few years.

Hunters Point was shut down because it was determined that upgrades to transmissions lines and infrastructure fixes were sufficient to render this aging facility unneeded. The lesson we pass onto the State Board is to require a broad analysis of alternatives to once through cooling before determining that an alternative is unfeasible.

In its renewal of Potrero's permit, the San Francisco Bay Area Regional Board found that Potrero caused a significant impact to San Francisco Bay. Its own expert found that

Mailing Address:
536 Mission Street
San Francisco, CA
94105-2968

Offices:
62 First Street
Suite 240
San Francisco, CA
tel: (415) 442-6647
fax: (415) 896-2450
www.ggu.edu/law/eljc

that Potrero caused a significant impact to San Francisco Bay. Its own expert found that Potrero's discharge destroys an estimated 390-930 acres of Bay habitat. Bayview Advocates provided evidence during this proceeding that the discharge also causes thermal impacts (affecting estuarine habitat, fish spawning, and commercial fishing uses) and includes PCBs, dioxins, and mercury which may cause or contribute to violations of water quality standards, five toxic pollutants in amounts that rivals that of the largest oil refinery discharging to the Bay. Bayview Advocates also submitted evidence that the discharge exhibits chronic toxicity in bioassay tests. There can be little dispute that similar or larger facilities cause significant damage to aquatic resources.

Potrero will no longer be needed because the City of San Francisco is well underway to having a power plant licensed by the California Energy Commission that will be profitable and avoid once-through cooling and yet serve the reliability needs of the San Francisco peninsula. This again points to the need for the State Board to both look broadly at the issue of alternatives and question self-serving industry statements that the use of alternatives to once through cooling are economically unsound. Indeed, in evaluating a larger power plant at Potrero (the Unit 7 addition to the existing Unit 3) the San Francisco Bay Conservation and Development Commission, US Fish and Wildlife Service, San Francisco Bay Area Regional Water Quality Control Board and the staff at the California Energy Commission all found the alternatives technically feasible and required the use of upland technology instead of once through cooling for this facility.

Bayview Advocates suggest it is appropriate for the State Board, based upon industry practice, to require that power facilities wishing to continue to operate do so with alternatives to once-through cooling. Only if once-through cooling is infeasible and no alternative is available to assure electrical reliability should a discharger be allowed to use once-through cooling, and even then, all technology should be employed to meet the appropriate performance standards.

Finally the policy does not seem to address the problem of interim compliance with 316(b) prior to the CDS study submittal. Phase II regulations allow permits expiring soon after the effective date of these regulations to be renewed at the discretion of staff without these studies. See appeal filed by Bayview Advocates regarding the failure to issue a permit at Potrero.

Nevertheless, the EPA has been clear in the Potrero permitting case that Best Professional Judgment must be applied to assure compliance with 316(b). The Regional Board staff took the position that they were inadequate to the task due to lack of knowledge and resources. The State Board needs to make clear that Best Professional Judgment must be applied, that the EPA has provided many examples of available technology such as variable speed pumps and upland cooling alternatives.

Further, the Regional Board for at least a year took the position that it could delay permitting to obtain the CDS study, even though the permit had expired for six years. The State policy should make clear that permitting needs to be completed within the 5 years contemplated under the federal Clean Water Act. 316(b) is not an exemption to the requirement for five-year periods, and five-year permits do not mean every ten years issue a five-year permit.

Individualizing Rule Application

Scoping Document Language:

“On November 9, 2001, USEPA took final action on a rule governing cooling water intake structures for new power plants (Phase I). On July 23, 2004, the USEPA promulgated intake regulations for existing power plants (Phase II). In the new Phase III rule, signed by the USEPA Administrator on June 1, 2006, USEPA...decided to address cooling water intake structures used by smaller-flow power plants and other industrial facilities *on a case-by-case basis.*” (Emphasis added).

“In the Phase I and II rules, USEPA established national minimum requirements for the design, capacity and construction of cooling water intake structures for existing power plants. The requirements are based on *best technology available to minimize the adverse environmental impacts associated with the use of cooling water intake structures.*” (Emphasis added).

“Under § 510 of the Clean Water Act, states may impose *more stringent requirements* (emphasis added) than those in § 316(b) regulations under state law.” 33 U.S.C. § 1370; 40 C. F. R. § 125.90(d)

Comments:

Bayview Advocates reject any case-by-case exceptions to minimum statewide performance standards. They refer to and incorporate the comments of the letter from statewide environmental groups rejecting any kind of vague feasibility concept that would allow escaping from statewide requirements. While the State Board should set the floor, Regional Boards should be allowed to enact more stringent requirements.

The Thermal Plan

Scoping Document Language:

“To date, the State Water Board has not adopted any policies or plans specifically to implement CWA § 316(b) or the Porter-Cologne policy.” (that each ‘new or expanding

power plant...using seawater for cooling, heating or industrial processing use the best available site, design technology and mitigation measures feasibly...to minimize the intake and mortality of all forms of marine life.' Wat. Code § 13142.5(b)).

“In 1975 the State Water Board adopted a plan for temperature control in the state’s coastal and interstate waters and enclosed bays and estuaries (Thermal Plan) that implements CWA § 316(b)...The Thermal Plan does not address § 316(b) however.”

“In 1975 the State Water Board also adopted a policy on the use and disposal of inland waters for power plant cooling. The 1975 policy favors the use of treated wastewater as cooling water or once through cooling with seawater in order to conserve freshwater. The 1975 policy does not address § 316(b).”

“The Thermal Plan applies to the elevated temperatures waste discharges from all coastal power plants, regardless of their location on the open coast or in enclosed marine estuarine waters”.

Comments:

Make Thermal Plan requirements stricter for enclosed marine/estuary waters than for open coast locations. Water bodies that do not benefit from cyclical forces, such as water and wind currents, and ebb and flow face elevated risks of adverse environmental impact. Raising Thermal Plan requirements for these water bodies would mitigate the increased hazards of temperature waste discharge for enclosed waters.

The Scoping Document suggests placement of CWA § 316(b) in the Thermal Plan in order to recognize and protect against elevated temperature waste discharges. Additionally, the policy should include language that acknowledges and incorporates the ‘cumulative effects’ of temperature waste discharge in CWA § 316(b).

A suggestion would be to require a holding period for the elevated temperature waste discharge. Require facilities to store to warmer water before discharging it into waters of the United States. Delaying the discharge of the heated water (cooling water) for a specific time would allow it to be cooled naturally. Reducing the temperature of the discharged water even a few degrees would alleviate some of the adverse marine affects of elevated temperature wastewater discharges, particularly for enclosed waters.

Continue to allow the Regional Board, based upon specific evidence, to curtail thermal impacts not mitigated by minimum statewide requirements. Allow Regional Boards to enforce other requirements such as San Francisco’s Discharge Prohibition 1 that prevents damage from shallow water discharges in addition to the routine discharges regulated by the Thermal Plan.

Facilitate Collaborative Efforts between Agencies

Scoping Document Language:

“The CEC (California Environmental Commission *added*) has the authority under the Warren –Alquist Act to license thermal power plants with a capacity of 50MW or more.”

“The California Coastal Commission is required, under the California Coastal Act to participate in CEC licensing process with the goal of protecting coastal resources and preventing potential adverse environmental effects on fish and marine life and their habitats.”

Comments:

The State Water Board should require greater collaboration, communication, input, transparency, and cooperation with all environmental administrative agencies, specifically the CEC.

The CEC and other agencies have passed resolutions requiring an end to once-through cooling where technically feasible. The State Board should be consistent with these other agencies.

All water related environmental agencies have the same objective: to protect public waters. Participation of the California Coastal Commission and the CEC should be encouraged in Regional Board permitting processes.

Phase II Regulations

Scoping Document Language:

“The Phase II regulations apply to existing electric-generation plants that are designed to withdraw at least 50 MGD and that use at least 25 percent of their withdraw water for cooling purposes.”

“The final regulations establish five compliance alternatives for establishing best technology available for minimizing adverse environmental impact at existing power plants.”

“The regulations also establish national performance standards to reduce impingement and entrainment losses. The performance standard for impingement calls for a

reduction of 80-95 percent from uncontrolled levels...the entrainment standard requires a reduction...of 60-90 percent from uncontrolled levels”.

“The regulations provide large power plants the flexibility to select the most cost-effective technologies or operational measures to achieve the performance standards and to ensure energy reliability.”

Comments:

Concerning the Phase II regulations, the scope of acceptable reduction percentages is too great. Requiring the reduction of 80-95 percent of impingement should be narrowed to 90-95 percent as suggested in the policy. Likewise, the entrainment standard of 60-90 percent should be similarly limited to 90-95 percent. The percentage reduction spectrum is too broad and should be narrowed to guard against the destructive effect of entrainment and impingement activities on marine habitats.

Concerning the flexibility given to the facilities to select the most cost-effective technologies, this deference should not stand. Power plants are business entities, whose primary function is to generate profit. Complying with environmental laws directly cuts into profits because performance standards are expensive to satisfy. Thus, the facilities have a pecuniary interest in NOT meeting performance standards. As a result, the interests of the facilities are in conflict with the objective of compliance requirements and the Clean Water Act at-large.

It is therefore illogical and dangerous to leave this determination to the facilities themselves. The State Water Board should be the body charged with establishing ‘the most cost-effective technologies or operational measures to achieve the performance standards’. As discussed above, alternatives to once-through cooling should be required unless technically infeasible.

Calculation Baseline

Scoping Document Language:

“§ 316(b) requires that Phase II facilities submit a Comprehensive Demonstration Study (CDS). The CDS must to characterize impingement mortality and entrainment, describe

the operation of cooling water intake structures, and confirm that the technologies, operational measures and/or restoration measures that have been selected and installed, or will be installed, meet the applicable requirements...”

Comments:

This is a critical issue because the calculation of the baseline serves as THE measuring stick in determining impingement and entrainment levels. If the baseline is artificially inflated, this distorts impingement and entrainment levels of once through cooling systems by making levels appear lower. In this way, the baseline must be as precise as possible.

To further this goal, the Board's role in the CDS should be increased to reduce the possibility of skewed results. The supervising authority of technical review committees should be expanded to every stage in the CDS. Additionally, the Board can require intermittent progress reports throughout the CDS to ensure integrity and accuracy.

The Board needs to further assure that a proper alternatives analysis is conducted. At Potrero, the Regional Board is currently only requesting that dry cooling be examined, but believes it is not allowed to required a review of that alternative. The policy needs to be clear on this point.

Reference Stations

Scoping Document Language:

“The proposed policy would allow reference stations to be used to identify baseline marine life conditions for the same habitat as the power plant, if determined by the Expert Review Panel.”

“The federal definition for calculation baseline does not specifically address the use of reference stations to identify baseline marine life conditions. However the federal definition does specify that ‘calculation baseline may be estimated using historical impingement mortality and entrainment data *from your facility or from another facility with comparable design, operational, and environmental conditions...* (emphasis added).

Comments:

If reference stations are used for calculation baseline, they MUST be more accurate. Historical data is not specific enough. ‘Actual’ entrainment and impingement rates must be determined, and used as the baseline. If the facility uses reference stations for calculating baseline, the Board must require that more resources be dedicated to update and modernize reference stations technology. These resources should come from the facilities, in order to internalize the burden of relying on reference stations to calculate

baseline. The State Board should charge the Expert Review Panel with the responsibility of ensuring the integrity of all reference station data.

Baseline Flow

Scoping Document Language:

“The proposed policy would require that baseline flow rates be *actual flow rates* calculated as a mean of the flow rates provided to the Regional Water Quality Control Board in monitoring reports over *the last NPDES permit cycle* with *credit given for flow reduction* measures already implemented to reduce impingement or entrainment”.
(Emphasis added).

Terms

Comments:

There is a problem with the terms ‘actual flow rates’, ‘the last NPDES permit cycle’, and ‘credit given for flow reduction’. The definitions provided are either too broad, or are not stringent enough.

The term ‘actual flow rate’ needs to be narrowed. First, if this rate is being determined based on information given to the Board, there should be some supervision by the Expert Review Panel, or a set of rules developed that strictly guides the facility on how to determine the mean flow rates, and how to report them. This also needs to be supervised by the Board, or a subsidiary thereof.

Second, it might be more appropriate/accurate to calculate ‘actual flow rates’ with varying methods, according to the characteristics of the specific facility. For example, one facility might lend itself to a mean calculation, while a median calculation might be more precise for another. A technical committee should be assigned to make this determination as well. The goal should be to determine that ‘actual generation flow’ (the flow required to generate electricity) is the most accurate measure to establish ‘actual flow rate’.

The term ‘the last NPDES permit cycle’ must also be specified. There are too many unanswered questions. For example, if the facility does not have a valid permit anymore (ie. Potrero Power Plant), at which point does the cycle begin and end? What if the facility has increased ‘actual flow rates’ since then? Do we use the last valid NPDES permit cycle? How would this disparity be accounted for? This phrase must be strictly defined, including possible exceptions, alternative definitions, and pre-determine factors on which this is based.

The Scoping Document also assigns ‘credit given for flow reduction’. This credit must be limited as much as possible. For example, the proposal refers to reduction measures ‘already implemented to reduce impingement/entrainment’. Limit this in time to when the reduction measures were implemented; or limit credits to reductions as a result of ‘best technology available’ and place the burden on the facility to establish the reduction measures and the ‘best technology available’ used to achieve the reduction.

Additionally, use ‘de-credits’ units assigned from non-compliance with other CWA § 316(b) requirements to nullify reduction measure credits. If credits are given to reward complying facilities, then de-credits should be used in the same fashion to punish non-compliance. The Expert Review Panel should issue a list of non-compliance activities for which de-credits can be assigned. Further, if a facility accumulates too many de-credits, severe consequences like plant closure or heavy fines could be applied.

Use of Maximum Flow to Calculate Baseline

Scoping Document Language:

“ In order o accurately determine the calculation baseline, the appropriate baseline flow must be used. One option for the baseline flow would be the facility’s NPDES permitted maximum flow.”

Comments:

Remove the calculation option of using ‘maximum flow conditions’. This is not accurate because most facilities do not operate at maximum capacity all the time. This would give undue credit to facilities NOT operating at maximum credit for measures that didn’t reduce impingement/entrainment ratios. San Francisco facilities rarely operated at full capacity.

Performance Standards for Reductions in Impingement and Entrainment at Phase II Facilities

Scoping Document Language:

“Power plants that choose alternative compliance strategies must meet the following federal performance standards;

1. Impingement mortality performance standards...you must reduce...by 80-95 percent from the calculation baseline, and
2. Entrainment performance standards...you must also reduce...by 60-90 percent from the calculation baseline.

“If the owner or operator can demonstrate that achieving a 90 percent reduction in entrainment is infeasible, then the owner or operator can use restoration measures...”

Comments:

If a power plant elects to use alternative compliance measures, tighten the requirements for impingement and entrainment reduction. For example, federal regulations demand the reduction of impingement and entrainment mortality by 90-95 percent. California should go further here, and mandate a 95+ percent reduction.

Concerning restoration alternatives, California’s position should be to prohibit restoration as a substitute for compliance to environmental laws. This would be harmonious with the Second Circuit opinion on restoration measures, that they are “plainly inconsistent with the statute's text and Congress's intent in passing the 1972 amendments” of the Clean Water Act. Riverkeeper, Inc. v. United States EPA, 358 F.3d 174, 189 (2d Cir. 2004). This court ultimately stated: “...we find that the EPA exceeded its authority by allowing compliance with section 316(b) through restoration methods, and we remand that aspect of the Rule.” Riverkeeper, Inc. v. United States EPA, 358 F.3d 174, 191 (2d Cir. 2004).

However, if the Board insists on providing the option of restoration activities, it should only be allowed upon a showing that upland cooling alternatives are technically infeasible.

Restoration Measures

Scoping Document Language:

“The proposed policy would allow the use of restoration measures to achieve the performance standard for entrainment, but under limited circumstances. Restoration measures could be used only if the owner or operator demonstrated that no combination of technological or operational controls could feasibly achieve a 90 percent reduction in entrainment. The plant would have to achieve at least a 60 percent reduction in entrainment using technological or operational controls, or both. Restoration measures could then be used to make up the difference, up to 90 percent. This approach is consistent with §316(b) because it emphasizes minimizing the adverse impacts of intake structures in the first instance, through implementation of feasible technological or operational controls, or both, before allowing restoration measures, which can only address the structures’ adverse impacts after they have occurred.”

Comments:

The proposal to use restoration as an option conflicts with the requirements of Clean Water Act (CWA) Section 316(b). This section emphasizes the minimization of adverse environmental impacts of the location, design, construction, and capacity of intake structures through the best technology available. Minimization of adverse impacts ought to be read as *avoidance of*, not the *correction of* those impacts. To restore does not mean minimize nor to mitigate. Most dictionaries give a definition of restore as something similar to “to *bring back* to a former, original, or normal condition.” (Dictionary.com) (Emphasis added).

On the other hand, to mitigate means to lessen or minimize. *Id.* The language of section 316(b) deals with the mitigation – prevention – of impacts not the restoration of the adverse effects of those impacts. As the Federal Court of Appeals when reviewing 316(b)’s application to Phase I facilities stated, restoration measures are inconsistent with the text of the CWA for they “merely attempt to correct for the adverse environmental impacts of impingement and entrainment; they do not minimize those impacts in the first instance.” Riverkeeper, Inc. v USEPA, 358 F.3d 174, 189 (2d Cir. 2004).

CWA § 510 allows states to enact stricter measures than required by federal law and regulations. (33 U.S.C. §1370; 40 C.F.R. §125.90(d)). State policies and regulations support taking a more stringent approach.

The following state laws and policies support the State Board being more stringent and requiring an end to once through cooling:

SAN FRANCISCO REGIONAL WATER QUALITY CONTROL BOARD BASIN PLAN

The San Francisco Basin Plan (Basin Plan) includes a prohibition on shallow water discharges. The Basin Plan, under Table 4-1 entitled discharge prohibitions, Section One prohibits the discharge of “[a]ny wastewater which has particular characteristics of concern to beneficial uses at any point at which the wastewater does not receive a minimum dilution of at least 10:1, or into any nontidal water, dead-end slough, similar confined waters, or any immediate tributaries thereof.” The Potrero power plant currently discharges into shallow water. The application of this provision is discussed in Bayview Advocates appeal of the Potrero permit dated June 8, 2006.

THERMAL PLAN

The State Board’s Thermal plan enforces more stringent state requirements than federal law as well. First, Specific Water Quality Objective 4A on page 4 requires that for enclosed bays, existing elevated temperature waste discharges “shall comply w/

limitations necessary to assure *protection of beneficial uses.*” (Emphasis added). The emphasis here is on protection of beneficial uses, not restoration of beneficial uses.

Second, the State should enforce General Water Quality Provision 1 on page 6 of the Thermal Plan, which states, “additional limitations shall be imposed in individual cases if necessary for the protection of specific beneficial uses.” Additional limitations are needed in the San Francisco Bay to prevent destruction of the beneficial uses. This provision is also more specifically discussed as it applies to Potrero in Bayview Advocates’ appeal to the State Board dated June 8, 2006.

CALIFORNIA WATER CODE

California Water Code Section 13050(l) defines “pollution” as an alteration of the quality of the waters of the state by waste to a degree which unreasonably affects either of the following: (A) the water for beneficial uses; or (B) facilities which serve these beneficial uses. “Pollution” may include “contamination.” The CWA considers the thermal component of a discharge as a pollutant. Section 316(a). The destruction of habitat from a heated and polluted discharge is the kind of harm Section 13304(a) intends to avoid.

State law also provides broad authority for the State Water Board to protect sensitive waters, including Ocean areas, from the impacts of once through cooling. California Water Code Section 13142.5(a) states that it is the policy of the state that:

Wastewater discharges shall be treated to protect present and future beneficial uses, and, where feasible, to restore past beneficial uses of the receiving waters. Highest priority shall be given to *improving or eliminating* discharges that adversely affect any of the following:

- (1) Wetlands, estuaries, and other biologically sensitive sites.
 - (2) Areas important for water contact sports.
 - (3) Areas that produce shellfish for human consumption.
 - (4) Ocean areas subject to massive waste discharge.
- (Emphasis added).

Restoration measures do not improve discharges nor do they eliminate them. Section 13142.5(a) centers on preventing harmful discharges, not correcting the problem after it occurs. (CA Water Code).

California Water Code Section 13412.5(b) also states:

[E]ach new or expanded coastal power plant or other industrial installation using seawater for cooling, heating, or industrial processing, the best available site, design, technology, and mitigation measures feasible shall be used to minimize the intake and mortality of all forms of marine life.

These sections provide an independent basis for the State Board, under the term “feasible”, to do its own cost-effectiveness analysis and not depend upon EPA’s initial analysis under 316(b), so long as the state’s analysis results in protections equal to or more protective than the federal requirements. They command that the State Board act upon the information now available about the impacts of once through cooling to eliminate where possible, and until then, mitigate it to the extent feasible. It is Advocates position that numerous facilities in California have demonstrated it is feasible to operate power plants without once-through cooling, and again, the shut down of the Hunters Point Plant the City of San Francisco’s new project demonstrate that San Francisco’s reliability needs will be satisfied without once-through cooling.

CALIFORNIA PUBLIC RESOURCES CODE

The pertinent sections of the California Public Resources Code read very similarly to the New York water code (referenced in the State Board proposal and below in this comment). Marine resources shall be maintained, enhanced, and where feasible, restored. Pub. Res. Code Section 30230. California should use restoration as a last resort. Section 30231 reads very similarly to the CWA and identifies a policy of minimizing the adverse effects of entrainment. Conservation achieves minimization more efficiently than restoration.

Not only does state law encourage conservation, but also other federal statutes aside from the CWA do too.

MAGNUSON-STEVENSON FISHERY MANAGEMENT ACT

The Magnuson-Stevens Fishery Management Act focuses on conservation of marine habitats, not after the fact restoration measures. Congress passed this to take immediate action to *conserve* and manage the fisheries resources found off the coast of the United States. Section 395 (b)(4)(A) of the act specifies that if NMFS determines that any action undertaken by any state or federal agency would affect any essential fish habitat, it recommend measures that can be taken by such agency to conserve such habitat. Once-through cooling systems in marine and estuarine waters affect Essential Fish Habitat. Congress defined Essential Fish Habitat as "those waters and substrates necessary to fish for spawning, breeding, feeding, or growth to maturity." 16 U.S.C. 1802(10). On this basis, the US Fish and Wildlife Service questioned whether Potrero’s

proposal to use deepwater diffusers with once-through cooling would comply.

Further, the Board has continually been concerned with working with other state agencies to protect the environment. (Scoping Document: Proposed Statewide 316(b) Policy, 8). With its stated commitment to collaborate with state agencies, the State Water Board should give some deference to judgments made by those agencies.

The California State Lands Commission adopted a resolution against renewing leases for power plants that use OTC. *Id.* They also will not approve new leases for power plant that propose to use OTC. Also, the California Ocean Protection Council has mandated a 6-month study of technical feasibility – not economic – of conversion to alternatives to OTC.

California should concur with the New York Cooling Water Intake Policy permitting agency and consider OTC an inappropriate and unacceptable BTA alternative for any facility, new or existing.

Habitat Production Foregone (HPF)

Scoping Document Language:

“The proposed policy would require use of the habitat production foregone methodology.

Habitat production foregone is one of the most promising methodologies for use in assessing entrainment losses and then applying that information to a restoration project. This methodology estimates the amount of habitat (production foregone) it would take to produce the organisms lost to entrainment. Estimates of lost production can be for affected individuals only, or the affected individuals plus the production of progeny that were not produced. This method can address all losses across all habitat types.”

Comments:

Habitat production foregone does not account for the biological and cumulative effects of OTC, and therefore is only a minimal evaluation of the total amount of restoration needed. The Scoping Document talks about entrainment impacting the whole aquatic habitat rather than just larvae. (Scoping Document: Proposed Statewide 316(b) Policy, 21). Yet, HPF does not include this analysis. HPF accounts only for larvae killed in OTC intakes.

However, the biological and cumulative impacts of OTC are not adequately known, and “[s]eawater . . . is not just cool water but a highly productive and diverse aquatic habitat” *Id.* So, “[a]ny assessment of environmental impacts from entrainment and

impingement *must* consider the ecological impacts to *all* species, not just commercially or recreationally important species.” (Scoping Document: Proposed Statewide 316(b) Policy, Appendix 1, p. 6 (Emphasis added)).

“There has been an historical emphasis on commercially or recreationally important species, primarily fish. However, the reality is that a power plant cooling system does not discriminate and instead causes mortality to the all members of the water column community. Protection of the *entire* community is essential for promoting a healthy ecosystem.”

Id., at 21 (Emphasis added).

Even if restoration measures adequately compensated lost habitat, HPF does not require a detailed study of the entire water column community affected by entrainment; hence, it cannot fully predict proper restoration measures.

New and Existing Power Plants

Scoping Document Language:

The proposed policy’s definitions for a new power plant differs from the definition for a new facility in the Phase I §316(b) regulations. The proposed policy’s definition is broader in that it would treat some modifications of an existing power plant as a new power plant in circumstances where the modifications would not rise to the level of a new facility under the Phase I regulations. The proposed Policy defines a new power plant as follows:

New Power Plant – a) Any power plant that is issued an NPDES permit and which commenced construction after January 17, 2002, or b) any power plant that was in operation prior to January 17, 2002 but, as of the effective date of this Policy, has undergone or will undergo a major modification, such that its electrical production capacity will increase and its intake flow rate will increase.”

This definition would capture as a new power plant modifications to the plant that fall short of construction of a greenfield or stand-alone facility as long as the modifications increase both the plant’s electrical production capacity and the design capacity of the existing intake structure.

Comments:

We support the Board's attempt to capture more modifications to an existing facility under the category of a new facility, however the Board does not go far enough. The Scoping Document, in pertinent part, defines a "new facility" as one that "has undergone or will undergo a major modification, such that electrical production capacity will increase and its intake flow rate will increase. The document should read . . . *electrical production capacity will increase OR its intake flow rate will increase.* Under the proposed rule, a plant could almost completely remodel yet still be held to the less strict Phase II standards. For example, an existing power plant could be almost entirely torn down (say 90%) and a more modern plant would be built using the remaining 10% of the old plant. Electrical production would increase, but intake flow would most likely decrease. So, the plant would not be considered a new facility and would not be held to the more stringent Phase I regulations.

Expanding the definition of a "New Facility" has substantial benefits for the environment. It will assure better protection. Further it requires more stringent cooling at a point that the facility is already making significant modifications.

Federal environmental statutes are considered precautionary – or "look before you leap" – statutes. A few changes to the Scoping Document will ensure that California takes the necessary precautions concerning OTC. Prevention/protection from environmental harm – not the restoration of prior damage furthers the goals of the CWA. The limitation involved with a HPF analysis demands a more complete approach if the intent of the CWA is to be upheld. Also, the Board should include retooled or re-powered plants in their definition of new facility. These adjustments assure a preventative rather than a reactive approach to environmental protection.

California has also been more progressive and protective of the environment than the federal government (and most other states). This proposal as it stands does not adequately protect the environment from the known harms or unknown dangers of OTC.

PICs, CDS and Monitoring

Scoping Document Language:

"The Phase II rule requires that existing facilities complete a Comprehensive Demonstration Study (CDS) to characterize impingement mortality and entrainment, to describe the operation of their cooling water intake structures and to confirm that the technologies or measures selected will meet one of the five compliance alternatives for establishing BTA for minimizing adverse environmental impacts."

"A Proposal for Information Collection (PIC) is also required prior to the start of information collection activities. The PIC must include a detailed description of the technologies or measures to be evaluated

during the CDS, a description of historical entrainment and impingement studies, a summary of past or ongoing consultations with wildlife agencies, and a detailed sampling plan for any new studies proposed.”

Comments:

First, the CDS should include a review of a full range of upland alternatives such as dry cooling, wet cooling or cooling towers. Second, the ‘summary of past or ongoing consultations’ should be expanded beyond only wildlife agencies. The PIC and CDS should also consult all other environmental agencies that could potentially have relevant information to share. In this regard, an inter-agency database could be established to facilitate information sharing, thus providing the PIC and CDS with greater resources in which to make more accurate and complete conclusions.

Additionally, the State Board should have greater monitoring capacities over the CDS, specifically for all entrainment studies. Impingement sampling methods are more straightforward than entrainment counterparts. Thus, all entrainment CDS should be supervised by the State Board to ensure accuracy and integrity. And finally, the State Board should require all PIC to justify all methods and technologies used. The PIC should include a section that explains why the equipment used is the most effective and appropriate to obtain information. The Expert Review Panel should corroborate this. If more accurate methods of information collection exist, the PIC should also explain why these methods are not being employed.

Expert Review Panel

Scoping Document Language:

“Thermal, impingement and especially entrainment impact from OTC are often difficult to accurately define...The State Water Board is considering establishing a 316(b) Expert Review Panel, by early Fall 2006. The group is proposed to be facilitated by State Water Board, Division of Water Quality staff and would include membership from academic (3) and consulting (1) scientists, technical experts representing industry (2) and environmentalists (2). The panel may be funded through NPDES permit fees or other appropriate mechanisms.”

Comments:

Primarily, the State Water Board must establish an Expert Review Panel. There is no incentive for the facilities to conduct accurate, unbiased studies when the results of those studies will directly affect the plant’s compliance activities, future operations and profit margins. A supervising technical body is indispensable to ensure that all baseline calculations are conducted properly, and compliance measures are in the form of best

technology available.

Further, this Panel should be independent, with as little association with the facilities as possible. The more removed the Panel is from industry, the more immune the Panel's activities would be from undue industry influence. This is especially true for scientists and technical experts who would be monitoring each facility's data collection proposals, impact reduction analyses, calculation baseline methods and best technology available implementation.

The Scoping Document suggests that the scientists and technical experts Panel members would 'represent industry'. This needs to be defined more precisely. Would these Panel members be responsible for protecting industry interests? Would industry be nominating these members? Would there be some form of confirmation process of these members? The facility's capacity to select the scientists and technical experts must be strictly defined and limited as much as possible.

If the State Board is unwilling to exclude non-partisan Panel members, then the Expert Review Panel should be broadened to dilute the influence of the members who 'represent industry'. In addition to academia, consulting, scientist and technical experts, and environmentalists, the Panel should also consist of specialists on cooling procedures, environmental lawyers, and marine life experts.

The actual tasks of the Expert Review Panel must be clarified as well. Our position is to increase the role of the Panel, having it play a more active role in plant operations. For example, assign one member from the group to 2-3 facilities after all studies are completed. The expert would float between these facilities throughout the permit period, to oversee proposals and execution of compliance measures.

Another possibility would be to hold periodic review meetings attended by the entire Panel to discuss each power plant's efforts to conform to operational obligations. Here, additional suggestions can be brainstormed on how to elevate compliance initiatives for each plant.

Thank you for considering our comments. Please contact us if you have any questions.

Sincerely,

Environmental Law and Justice Clinic

Golden Gate School of Law

By /S/_____
Benny Martin
Student Clinician*

By /S/_____
Damian Sinnott
Student Clinician*

Representing Bayview/Hunters Point Community Advocates

* Benny Martin and Damian Sinnott are students certified under the State Bar Rules governing the Practical Training of Law Students, working under the supervision of Professor Alan Ramo, Attorney at Law.

Cc: Dominic Gregorio, Division of Water Quality,
State Water Resource Control Board
Angela Haren, California Coastkeeper Alliance, Programs Manager