



June 19, 2007

State Water Resources Control Board
1001 I Street
Sacramento, CA 95814

Sent via electronic mail to gwilson@waterboards.ca.gov

Dear Members of the Board:

Baykeeper, the California Coastkeeper Alliance, and the California Sportfishing Protection Alliance commend the State Board for seeking to identify short term actions to protect fisheries in the San Francisco Bay and Sacramento-San Joaquin Delta (“Bay-Delta”). A variety of factors—including pollution and invasive species—have certainly contributed to the dramatic and alarming decline of delta smelt. Little doubt exists, however, that the State Water Project pumps—which in the 1990s were estimated to kill up to millions of smelt each day— and federal pumps are the most significant causes of falling smelt populations.

While the pumps require immediate attention, the Department of Water Resources has clearly stated its intent to oppose any near-term actions and this issue is currently being litigated. The controversy over the pumps does not mean that the State and Regional Boards should ignore other significant threats. These comments, therefore, do not address the pumps, but recommend that the State and Regional Water Boards take long-overdue actions to protect Bay-Delta fisheries from once-through cooling (“OTC”) at Bay and Delta power plants. Specifically, we ask that the State Board complete development of its section 316(b) policy to assist the Regional Boards in implementing the Clean Water Act’s requirement that “the location, design, construction, and capacity of cooling water intake structures reflect the best technology available for minimizing adverse environmental impacts.” 33 U.S.C. § 1326. We also hope the State Board will encourage the San Francisco Bay and Central Valley Regional Boards to reissue the National Pollutant Discharge Elimination System (“NPDES”) permits for the Pittsburg and Contra Costa Power Plants with provisions requiring immediate action to reduce or eliminate entrainment and impingement at those facilities.

A statewide policy on OTC is overdue. As we and many other groups, stated in a March 16, 2007 letter, the State Board is in a unique position to develop a progressive policy to phase out the use of once-through cooling. We again urge the State Board to work with all agencies regulating power plants in California to develop a strong policy that is consistent with the Second Circuit decision in *Riverkeeper, Inc. v. U.S. Environmental*

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Protection Agency, Case Nos. 04-6692-6699, 2007 WL 184658 (2d Cir. Jan. 25, 2006) and that protects our State's fisheries.

In addition to developing a statewide OTC policy, we ask that the State Board direct the San Francisco and Central Valley Water Boards to take immediate action with respect to the Pittsburg and Contra Costa Power Plants owned by Mirant Delta, LLC ("Mirant"). The Plants are located in an ecologically important area, near the confluence of the Sacramento and San Joaquin Rivers and the Suisun Bay. Collectively they use hundreds of millions of gallons each day of Bay-Delta water for cooling and, in the process, impinge and entrain countless organisms, including delta smelt.

No question exists that the Power Plants have and continue to pose a threat to Bay-Delta fisheries and delta smelt. A 2002 study by EPA concluded that "because of their schooling behavior and preference for the region around Suisun Bay, delta smelt are highly vulnerable to the intakes of the Pittsburg and Contra Costa Power Plants." EPA 821-R-02-2002, Case Study Analysis for the Proposed Section 316(b) Phase II Existing Facilities Rule, Part E: San Francisco Bay/Delta Estuary, pg. E3- 4. (February 28, 2002) ("EPA 316(b) Study"). Based on data collected by the Plants' operators in 1978-1979 and 1989 through 1992, EPA estimates that the Plants annually impinge approximately 145,000 and entrain 46 million age one equivalents of special status species, including delta smelt, Sacramento splittail, longfin smelt and Chinook salmon. EPA 316(b) Study at E3-16. Reducing or eliminating impingement and entrainment at the Plants, therefore, will certainly have a significant beneficial effect on fish populations.

Despite the known and significant impacts of the Plants on aquatic life, our current understanding is that Mirant has taken no steps to measurably reduce impingement or entrainment at the Plants other than employing a Variable Speed Drive Program at Pittsburg Units 1-6 and Contra Costa Units 6 and 7. *Id.* at. E2-3. The program, however, is intended to reduce impacts on striped bass, and not delta smelt or other protected species. *See* EPA 316(b) Study at E2-5.

Even more disturbing is the fact that Mirant appears to be "taking" delta smelt without approval from the State Department of Fish and Game ("DFG"). Although Mirant's own monitoring data clearly shows that the Plants' intakes kill delta smelt, Mirant has failed to implement the measures, such as deployment of an aquatic filter barrier and fisheries monitoring, required of it by DFG, the United State Fish and Wildlife Service ("USFWS"), and the California Energy Commission ("CEC"). *See* "Mirant plants attract attention in Delta crisis," *Contra Costa Times* (March 15, 2006). As a result, DFG and USFWS have advised Mirant that the Plants' "take" of delta smelt is illegal. *See* Letter to Susan Moore, Acting Field Supervisor, USFW from Mirant's Counsel Jennifer Hernandez, dated February 22, 2006; letter from Jane M. Hicks, Chief, Regulatory Branch, ACE to Ryan Olah, USFWS, dated February 16, 2006; letter from Wayne S. White, Field Supervisor, USFWS, to Michael Finnan and Jane Hicks, ACE, dated January 31, 2006. To date, the Central Valley and San Francisco Regional Boards, which have permitting jurisdiction over the Contra Costa and Pittsburg Plants respectively, appear to have

shirked their duties under section 316(b) of the Clean Water Act. The San Francisco Regional Board is delaying reissuance of the Pittsburg Permit until at least 2008, when EPA is expected to have a new 316(b) rule, and Mirant itself had to request that the Central Valley Regional Board issue them a schedule for submitting information required by the now-rescinded Phase II rule. These delays are unreasonable considering that the Water Boards are charged with the responsibility of implementing Clean Water Act section 316(b) and have known for decades that the Plants kill hundreds of thousands of fish annually.

We have requested that the Regional Boards reopen the Plants' permits but have received no response and believe that they will act only if directed to by the State Board. Therefore, we ask that the State Board direct the Regional Boards to exercise their section 13267 authority to require Mirant to immediately submit all information regarding the Plants' impacts on aquatic life, any actions Mirant has taken to reduce impingement and entrainment, and an explanation of why the Plants are not covered for the take of listed species. Additionally, the State Board should lead the Regional Boards in consulting with DFG, USFWS, the CEC, and all other interested agencies. After consultation, the permits for both Plants should be reissued with provisions necessary to reduce impingement and entrainment in the short-term and to eliminate OTC at the Plants in the near future.

Thank you for consideration of these comments; we look forward to your response on this very important issue.

Sincerely,



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Linda Sheehan, Executive Director
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Bill Jennings, Executive Director
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ATTACHMENT: Letter to the SWRCB from the California Coastkeeper Alliance re *Riverkeeper II* decision, dated March 16, 2007.

March 16, 2007

Ms. Tam Doduc, Chair and Board Members
State Water Resources Control Board
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Via Email: commentletters@waterboards.ca.gov

Re: Power Plant Once-Through Cooling Systems: Implications of *Riverkeeper, Inc., et al. v. U.S. Environmental Protection Agency*, No. 04-6692-ag(L) (2nd Cir. Jan. 25, 2007)

Dear Chair Doduc and Members:

The undersigned groups greatly appreciate the State Water Resources Control Board (State Board) taking a leadership role in the development of a clear and consistent state policy to protect marine resources from the harmful effects of once-through cooling (OTC). We welcome the opportunity to provide you with the attached review by the Stanford Environmental Law Clinic of the holdings of the recently-issued appellate court decision on U.S. EPA's regulations governing the use of these antiquated systems.

As you are aware, several weeks ago the Second Circuit U.S. Court of Appeals ruled that U.S. EPA violated the Clean Water Act (CWA) when it issued its Section 316(b) Phase II regulations in 2004. This ruling has significant impacts here in California where the State Board is currently drafting a state policy to implement Section 316(b). The court findings affect all of the agencies charged with implementing Section 316(b) and the agencies responsible for regulating once-through cooled power plants, including: the State Water Resources Control Board, the California State Lands Commission, the California Energy Commission, the California Coastal Commission, and the California Public Utilities Commission.

It is imperative that all agencies involved with regulating once-through cooled power plants work together to create a state policy in accordance with the court ruling. In its 2006 resolution, the OPC resolved to "establish an interagency coordinating committee composed of staffs from the Water Boards, California Energy Commission, the Public Utilities Commission, California Coastal Commission, and others to integrate agency actions and coordinate regulatory authorities."¹ We encourage you to work actively with this interagency coordinating committee to ensure that it fully integrates the conclusions of this recent court decision in their deliberations and actions.

The court ruled on several key issues that affect the draft State Board policy. As the attached comprehensive analysis of the court decision, prepared by the Stanford Environmental Law Clinic, describes in more detail, the court found that permit decisions and regulations must be "based not the average Phase II facility but on the optimally best

¹ Ocean Protection Council Resolution Regarding the Use of Once-Through Cooling Technologies in California, April 20, 2006.

performing Phase II facilities." Riverkeeper II, Slip op. at 23-24 (adding "[i]n setting BAT, EPA uses the pilot plant which acts as a beacon to show what is possible"). Among other things, the Court specifically held that:

- “Cost-benefit” analysis cannot be used in determining Section 316(b) performance standards.
- Percent ranges to meet performance standards cannot be used unless based on Best Technology Available.
- Restoration measures cannot be used as a substitute for technology standards required under Section 316(b).
- EPA’s regulations for existing facilities (“Phase II regulations) fail to require the “best technology available,” which is the standard that must be implemented.

Implications of the court’s ruling include the following:

- Regional Water Boards should follow the court’s guidance in exercising their “best professional judgment” for NPDES permit renewals or new NPDES permits for repowering at California coastal facilities, and the State Water Board should likewise utilize the court’s guidance in adopting new statewide policy.
- Coastal facilities can no longer use site-specific cost-benefit analysis or restoration measures to avoid the technology-forcing requirements of the Clean Water Act.
- “Best technology available” determinations must be based on the best technology that a plant can achieve, bearing in mind the technology-forcing character of the CWA.
- California should not utilize the 15 percent capacity exemption that was included in the now-rejected Phase II rule for its new state policy.
- Restoration measures may not be utilized to offset/mitigate OTC impacts.
- Nuclear facilities can and should be included in any new state policy.

We are already seeing the ramifications of this court decision through NRG Energy's recent steps to convert to an alternative cooling system at the El Segundo Generating Station. The State Board is in a unique position at an important moment to help develop a progressive statewide policy to begin to phase out the use of once-through cooling, in accordance with the court’s decision. We request that you review the court’s decision and attached analysis and ensure that your current efforts to protect marine ecosystems from this harmful technology fully implement the court’s clear direction. Thank you.

Respectfully,

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Attachment: Stanford Environmental Law Clinic, “Analysis of How the *Riverkeeper II* Decision Affects California Coastal Power Plants.”

Attachment A

How the Riverkeeper II Decision Affects California Coastal Power Plants Stanford Environmental Law Clinic

INTRODUCTION

The Second Circuit's recent decision in *Riverkeeper, Inc. v. U.S. Environmental Protection Agency*, Case Nos. 04-6692-6699, 2007 WL 184658 (2d Cir. Jan. 25, 2006) (*Riverkeeper II*) is a major victory in the ongoing effort to protect the nation's aquatic ecosystems from the destructive effects of once-through cooling systems. *Riverkeeper II* reviewed and substantially rejected EPA's "Phase II Rule" for existing facilities under section 316(b) of the Clean Water Act ("CWA"), which requires that the "location, design, construction, and capacity of cooling water intake structures reflect the best technology available for minimizing adverse environmental impact." 33 U.S.C. § 1326(b) (hereinafter "BTA"). The full impact of the *Riverkeeper II* decision on existing power plants along the California coast remains to be determined, but the court's opinion includes three central holdings that are likely to significantly affect future permitting and operation of these facilities.

PRINCIPAL HOLDINGS

I. Use of "Cost-Benefit Analysis" Not Permitted

First, the court held as a matter of statutory construction that EPA may use only cost-effectiveness analysis – and *not* cost-benefit analysis – in determining section 316(b) performance standards. The immediate effect of this holding is a court-ordered remand of the Phase II Rule to EPA for clarification of what role cost considerations played in development of the performance standards for "existing facilities." On remand, EPA may revise performance standards in light of the court's holding, or it may attempt to retain the same performance standards by demonstrating that it did not improperly rely on cost-benefit analysis in developing them.

For purposes of immediate future permitting at individual power plants, the most significant effect of this ruling is that facilities will not be able to use cost-benefit analysis to obtain site-specific variances or exemptions from what would otherwise be BTA. Because the site-specific, cost-benefit exemption that was built into the Phase II Rule was one that virtually every California coastal plant was expected to invoke during future NPDES permit renewals or repowering approvals, the Second Circuit decision is likely to substantially alter the course of upcoming permit decisions.

Building on its earlier decision in *Riverkeeper, Inc. v. U.S. EPA*, 358 F.3d 174 (2d Cir. 2004) (hereinafter *Riverkeeper I*) (invalidating the restoration measures provision of the Phase I Rule for "new facilities"), the Second Circuit in *Riverkeeper II* held that EPA cannot employ

cost-benefit analysis in establishing BTA. The court read section 316(b), like other “technology-forcing” sections of the CWA, as embodying congressional intent to move away from an earlier reliance on cost-benefit analysis, in favor of a regulatory regime where “cost is a lesser, more ancillary consideration in determining what technology the EPA should require for compliance under those sections.” *Riverkeeper II*, Slip op. at 21. The court termed the latter approach “cost-effectiveness” analysis, rather than “cost-benefit” analysis, explaining that: “Cost-benefit analysis . . . compares the costs and benefits of various ends, and chooses the end with the best net benefits. By contrast, cost effectiveness considerations . . . determine which means will be used to reach a specified level of benefit that has already been established.” *Id.*

Under section 316(b), the court held, “Congress has already specified the relationship between costs and benefits in requiring that the technology designated by the EPA be the best available.” *Riverkeeper II*, Slip op. at 25. Given this fact, EPA may permissibly consider costs in only two ways – (1) “to determine what technology can be ‘reasonably borne’ by the industry” and (2) “to engage in cost-effectiveness analysis.” Thus, when setting national BTA performance standards, “EPA must first determine the most effective technology that may reasonably be borne by the industry” and, only once this “benchmark for performance” has been determined, EPA “may then consider other factors, including cost-effectiveness, to choose a less expensive technology that achieves *essentially the same results* as the benchmark.” Slip op. at 23-24 (emphasis added).² EPA cannot, however, decide “that an economically feasible level of reduction of impingement mortality and entrainment is not desirable in light of its cost.” Slip op. at 25.

Because it was unclear from the record before the court whether EPA had engaged in improper cost-benefit analysis in establishing national BTA performance standards, the Second Circuit remanded the Phase II Rule performance standards “for clarification of the basis of the Agency’s action and possibly for a new determination of BTA.” *Riverkeeper II*, Slip op. at 33. In doing so, the court provided some guidance that will be useful in individual permit decisions before new Phase II regulations are promulgated (see “Implications” section below).

II. Use of Percent Ranges to Meet Performance Standards Disapproved

Second, in remanding the Phase II Rule, the Second Circuit expressed serious skepticism about EPA’s use of broad performance ranges (80-95 percent reduction in impingement, 60-90 percent reduction in entrainment) to achieve compliance with BTA. The court noted that while EPA is permitted, for reasons of uncertainty, to set performance standards as ranges, it must nevertheless require that each facility minimize environmental impacts “to the best degree it can.” *Riverkeeper II*, Slip op. at 34. The problem with the Phase II Rule, the court explained, was that it does not require each facility “to choose

² The Second Circuit made it clear that “EPA is by no means *required* to engage in cost-effectiveness analysis.” Slip. Op. at 24, fn.12 (emphasis added).

technologies that produce the greatest reduction possible.” Slip op. at 35. Rather, it “permits even those facilities that could achieve the upper end of a range to be deemed in compliance if they reach only the lower end,” a result that is inconsistent with section 316(b), “particularly when the EPA has acknowledged that many facilities ‘can and have’ achieved reductions at the high end of the range.” Slip op. at 37. As the court explained: “Congress’ use of the superlative ‘best’ in the statute cannot be read to mean that a facility that achieves the lower end of the ranges, but could do better, has complied with the law. The statutory directive requiring facilities to adopt the *best* technology cannot be construed to permit a facility to take measures that produce second-best results.” Slip op. at 37-38 (emphasis in original).

Although the court did not specify what ranges would be acceptable, it did provide guidance that should inform individual permit decisions in the interim before new rules are promulgated. The court noted that if EPA elects to retain ranges in the revised Phase II Rule, the “upper end” of the range “should not be set at a level that many facilities ‘have achieved’ with installation of one or more technologies determined to be BTA but . . . at the best possible level of impingement and entrainment reduction the EPA determines these technologies can achieve.” *Riverkeeper II*, Slip op. at 38, fn.21. It went on to conclude that:

If, at a particular Phase II facility, the adoption of BTA technologies can achieve a 95% reduction in entrainment and impingement, it is unclear why, under our jurisprudence and the clear dictates of the CWA, the EPA should establish a performance standard that has placed the ceiling at the 90% threshold which “many” Phase II facilities “can and have” achieved with the same technology. . . . This would not require every Phase II facility to meet the upper end of the ranges, but only that each Phase II facility achieves the highest reduction it can with the installation of technologies determined by the EPA to be BTA.

Id. This strong language clearly supports the argument that, where a technology is feasible for a particular facility, the reductions achieved by that technology are BTA. In other words, if a technology (*e.g.* closed wet recirculation) is feasible, and that technology results in a 96 percent reduction in impacts, the facility cannot argue that it only needs to achieve 60 percent or 75 percent reductions.

III. Use of Restoration Measures Not Permitted

Third, the court held, again as a matter of statutory interpretation, that restoration measures may not be used as a substitute for technology standards under section 316(b). It based its analysis on its prior holding in *Riverkeeper I* that the restoration provision in the Phase I Rule “contradicts Congress’s clearly expressed intent” because it “was not based on a permissible construction of the statute.” *Riverkeeper II*, Slip op. at 39. The Second Circuit reiterated its prior holding that “however beneficial to the environment, [restoration measures] have nothing to do with the location, design, the construction, or the capacity of cooling water intake structures, because they are unrelated to the structures themselves. Restoration measures *correct* for the adverse environmental impacts of impingement and entrainment . .

but they do not *minimize* those impacts in the first place.” Slip op. at 39-40 (emphasis in original).

The immediate effect of this holding is that coastal power plants will not be able to employ restoration measures to offset the continued use of once-through cooling systems. That is, the question of whether a once-through cooling system constitutes BTA for a particular plant cannot be tied to any agreement by the plant to provide non-technology mitigation. Again, this ruling is likely to change the course of future coastal plant permitting. Based on the “habitat equivalency method” first employed at the Moss Landing plant and subsequently refined at Morro Bay and elsewhere, it seemed that California’s Regional Water Boards had been poised to allow, if not encourage, the use of restoration offsets as a way to meet section 316(b) BTA requirements. *Riverkeeper II* now prevents them from doing so.

IMPLICATIONS FOR UPCOMING PERMIT RENEWALS

Because it is possible that new regulations will not be finalized for years, Regional Water Boards should follow the court’s guidance in exercising their “best professional judgment”³ for NPDES permit renewals or new NPDES permits for repowering at California coastal facilities⁴ and the State Water Board should likewise utilize the court’s guidance in adopting new statewide policy. The following points, drawn from the holding in *Riverkeeper II*, may be relevant to various upcoming permit decisions:

- **Site-Specific Cost-Benefit Analysis Is Not Permitted Under Any Circumstances.** Many coastal facilities in California have argued that alternative cooling systems are not feasible or reasonable based on cost-benefit analysis. In particular, they contend that the environmental benefits of retrofitting existing facilities or installing alternative systems for repowered facilities are insignificantly small compared to the costs of

³ In the absence of valid EPA implementing regulations as a result of the remand, permit-writers must fall back on their “best professional judgment” in issuing NPDES permits that comply with section 316(b). Even if non-challenged portions of the rule remain in place, the performance standards have now been invalidated by the court, and Regional Water Boards will have to exercise best professional judgment in determining BTA for upcoming individual permits. The exercise of that judgment must be based on the plain language of section 316(b), as informed by the Second Circuit’s interpretation of that language in *Riverkeeper I* and *Riverkeeper II*.

⁴ Last time the section 316(b) implementing regulations were struck down for procedural defects and remanded in 1977, it took EPA nearly three decades (and the prompting of another lawsuit) to reissue them. Based on past history, therefore, state permitting agencies may be continuing to apply the best professional judgment standard for some time to come. That will almost certainly be true for the next round of NPDES permitting for several of California’s coastal plants over the next one to two years.

construction/operation and, therefore, are not justified. *Riverkeeper I* and *Riverkeeper II* now make it unmistakably clear that this type of analysis is not permitted, and that Regional Water Boards can no longer engage in the type of “reasonableness” calculations underlying permit decisions at facilities like Moss Landing.⁵

- **Permits Should Move Forward Based on Statute and Riverkeeper II Direction, Rather Than Wait For Current Comprehensive Demonstration Studies To Be Completed.**

Most, if not all, new and draft permits for California coastal facilities anticipated conducting cost-benefit analyses following completion of comprehensive demonstration studies, as set out in the now largely-invalidated Phase II Rule. A primary purpose of these comprehensive demonstration studies (CDS) was to defer immediate compliance with BTA in order to conduct a cost evaluation study, a benefits valuation study, and a site-specific technology plan that would enable individual facilities to satisfy the now-impermissible cost-benefit exemption. Regional Water Boards generally have been allowing facilities a phase-in period (until January 2008) to complete these studies and, for this reason, are not requiring immediate compliance with BTA standards in the permits presently pending before them. With cost-benefit analysis now deemed impermissible and the associated benefit valuation studies in the CDS’s now largely moot, there appears to be no reason for Regional Water Boards to defer analysis of BTA and compliance with section 316(b) pending completion of such studies.

- **Restoration Measures May Not Be Utilized To Offset/Mitigate OTC Impacts.**

Another unequivocal holding of *Riverkeeper I* and *Riverkeeper II* is that Regional Water Boards may not employ restoration measures to offset the impacts of once-through cooling in lieu of requiring an alternative cooling technology that is BTA. For example, over the last several years, the Regional Water Boards have developed and refined an approach to restoration known as the “habitat equivalency method.” Under this approach, the Board calculates the loss of biomass due to once-through cooling, multiplies that loss by the size of the area (*e.g.*, estuary) affected, and thereby derives the theoretical number of acres that need to be restored to in order to offset the impacts of the cooling system. It then assigns a dollars-per-acre cost for restoration and multiplies that value by the number of lost acres to arrive at a total monetary contribution that the facility must make to mitigate biological impacts. Such a methodology appears to be entirely inconsistent with, and prohibited under, the *Riverkeeper* decisions.

- **BTA Determinations Must Be Based On The Best Technology That An Individual Plant Can Achieve.** As the Second Circuit noted, EPA itself has

⁵ In a challenge to that very issue, the Monterey County Superior Court wrongly affirmed the Regional Water Board’s use of a cost-benefit approach at Moss Landing. That case is presently pending on appeal before the state appellate court in San Jose.

recognized that impact reductions on the order of 95 percent (as compared to once-through cooling systems) can be and have been achieved at many facilities, suggesting (without actually deciding) that such reduction levels may well constitute BTA. Elsewhere in its decision, the court explained that, in determining what technology costs can be “reasonably borne” by industry, the “benchmark for performance” is “not the average plant, but the optimally operating plant, the pilot plant which acts as a beacon to show what is possible . . . bearing in mind the aspirational and technology-forcing character of the CWA.” *Riverkeeper II*, Slip op. at 23-24. These statements, and the court’s repeated admonition that Congress intended each facility to achieve the “best” impact reduction possible, make it clear that California coastal plants generally should be held to a very high performance standard. Absence some exceptional showing by these plants that they physically cannot achieve the same 90-95 percent entrainment reductions achieved elsewhere, there is no legal justification under the Second Circuit’s statutory interpretations for Regional Water Boards to set a lower standard of compliance in determining BTA.

- **While A Site-Specific “Cost-Cost” Analysis May Be Permissible, An Alternative To BTA Can Only Be Allowed Upon A Demonstration That The Facility’s Costs Are Truly Extraordinary.** The court read section 316(b) to disallow cost-benefit analyses; individual plants arguably may still be allowed under *Riverkeeper II* to utilize some form of “cost-cost” analysis (*i.e.*, comparing the costs for a specific facility to the costs developed by EPA in the determination of BTA) to take an action other than what is otherwise considered BTA.⁶ Once a BTA determination is made for a facility based on the strict limits articulated by the court (*e.g.*, can the facility physically accommodate technology that requires 90-95% reductions?), there appear to be two questions that the Regional Water Boards would have to have answered in any cost-cost analysis. First, the applicant would have to provide cost and revenue data that would support its request for an exemption. This sounds obvious, but in fact the Regional Boards have not requested such information, and the plant owners have routinely claimed that such information is confidential and not a legitimate part of the permitting process. Especially given the remand of EPA’s cost estimates based on a lack of opportunity for public comment, Regional Water Boards should only consider cost-effectiveness analysis requests if the applicant provides the relevant financial data for the facility and makes that data available for public review.

The second issue is what standard the Regional Water Boards should apply in evaluating the plant’s costs as different and unique. The Phase II Rule allowed an

⁶ The Second Circuit did not seem to have a conceptual problem with this so-called “cost-cost” analysis, but remanded the cost estimates for several hundred facilities on the grounds that EPA had not provided adequate public notice and opportunity for comment, and because of the remand on the BTA determination. Slip op. at 48. Thus, it appears that while use of a cost-cost analysis by permitting agencies may be permissible, the permit writers arguably could not rely on EPA’s cost estimates for a particular plant.

exemption from BTA where the permitting agency determines that the costs of compliance “are significantly greater than the costs considered by” EPA in establishing performance standards. Because the court remanded the rule for clarification of the economic analysis used by EPA, it did not reach the legality of this site-specific variance provision. However, it did express its “discomfort” and “substantial concerns” with the “significantly greater than” standard. *Riverkeeper II*, Slip op. at 48, fn.25. Because the “significantly greater than” standard seems unlikely to pass muster with the court in the long run, and because it is so subjective as to be meaningless, the Regional Water Boards should not utilize or rely on it future permit decisions. Rather, the overwhelming thrust of the court’s analysis suggests that cost considerations may come into play in a site-specific context, if at all, only when the facility can show it faces truly unique or extraordinary economic circumstances as compared to other facilities.⁷

ADDITIONAL IMPLICATIONS FOR THE STATE WATER BOARD POLICY DEVELOPMENT PROCESS

In considering a new statewide policy on coastal power plant cooling systems, the State Water Board should consider not only the foregoing implications of the *Riverkeeper* decisions, but also the following additional issues that follow from the Second Circuit’s logic:

- **California Should Not Utilize The 15 Percent Capacity Exemption That Was Included In The Now-Rejected Phase II Rule.** Although *Riverkeeper II* did not address the issue of the 15 percent capacity exemption contained in the Phase II Rule, the decision arguably has implications for that provision. In particular, EPA exempted from the entrainment performance standards any facility with a “capacity utilization” rate of less than 15 percent, on the grounds that the impacts are insignificant and that the costs of compliance are not “economically practicable.” Given the Second Circuit’s decision that EPA may not use economic practicability in setting BTA, EPA’s justification for this exemption is now highly suspect. Some of the older, inefficient California coastal facilities are serving as “peaker” plants and may well attempt to qualify for the 15 percent capacity utilization variance (*e.g.*, Morro Bay). Without the “economic practicability” argument to rely upon, California should not be authorizing such blanket exemptions.⁸

⁷ Such an approach is entirely consistent with the general policy notion that all similarly-situated facilities should compete on a level playing field. The fact that coastal power plants historically have been allowed to utilize public resources (*e.g.*, cold Pacific Ocean water) free of charge while externalizing the true costs of this activity (*e.g.*, destruction of coastal ecosystems) should not lock California into that same economically distorting policy going forward.

⁸ Of course, there is substantial evidence that the blanket assumption of insignificant impact by these low-capacity plants is also erroneous. For example, several of the coastal power plants that would be exempt from the state policy based on a 15% capacity factor are

- **California Should Reject Industry’s Arguments That Once-Through Cooling Does Not Significantly Affect Aquatic Ecosystems Or That A Significant Number of Organisms Survive The Process.** During State Water Board workshops in 2005 and 2006, the power industry repeatedly argued that coastal plants are not having a substantial impact on marine ecosystems and that the state should not assume that all biomass entrained in such facilities is destroyed. The industry made similar arguments in *Riverkeeper II* that were ultimately rejected by the court. Given the court’s affirmation of EPA’s assumptions and judgment with respect to biological impacts, there is no reason for the State Water Board to reassess the same industry arguments in developing state policy.

For instance, industry argued that EPA’s Phase II Rule arbitrarily focused on the number of aquatic organisms entrained rather than on population-level impacts (*e.g.*, arguing that millions of larvae are produced and very few survive to adulthood, and that fishing has a bigger impact). *Riverkeeper II* reiterated the court’s earlier ruling in *Riverkeeper I* that EPA’s judgment on this issue was “eminently reasonable” and the court would not “second-guess” it. *Riverkeeper II*, Slip op. at 68-69. Similarly, the Second Circuit rejected industry’s contention that EPA improperly presumed that all entrained organisms are killed. The court found that “[i]t is thus clear that the EPA acted well within its discretion in presuming zero entrainment survival after the Agency had reviewed a substantial body of complex scientific data, and acknowledging that the evidence is inconclusive, it adopted a conservative approach. *Riverkeeper II*, Slip op. at 72.

- **Nuclear Facilities Can Be Included In Any New State Policy.** Although the *Riverkeeper II* decision discusses nuclear facilities only briefly, it nevertheless confirms that such facilities can be covered by any forthcoming state policy. The industry in *Riverkeeper II* argued that EPA had not properly accounted for alleged disproportionate impacts of the Phase II Rule on nuclear plants. The court rejected this challenge, concluding that the rule had adequately provided for a site-specific compliance alternative for nuclear facilities. That provision requires a demonstration by the facility, based on consultation with the Nuclear Regulatory Commission, that compliance would result in a conflict with a safety requirement. Upon such a

located in southern California. However, in southern California, peak larval abundance coincides directly with peak energy needs in the state – during the summer. The relative abundance of fish larvae and eggs is so great during the summer in southern California that even if plant operations were restricted to the summer months, they would still account for the majority of year-long entrainment impacts. (MBC Applied Environmental and Tena Environmental, *AES Huntington Beach L.L.C. Generating Station Entrainment and Impingement Study Final Report* (April 2005), Section 4.4.3, “Entrainment Results; Ichthyoplankton and Station Data for California Cooperative Oceanic Fisheries Investigations Survey Cruises,” see data at <http://swfsc.nmfs.noaa.gov/FRD/CalCOFI/On-LineDataSystem/documentation.htm#data>.)

demonstration, the permitting agency would then make a site-specific BTA determination that avoids the conflict. The *Riverkeeper II* decision certainly allows California to incorporate the same kind of provision into any statewide policy. Arguably, the state can also include additional safeguards designed to ensure protection of the marine ecosystem in the event that a site-specific alternative is necessary.