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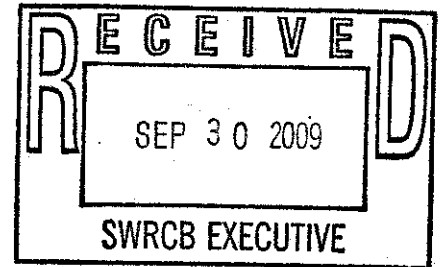
VIA ELECTRONIC MAIL

September 30, 2009



Jeanine Townsend  
Clerk to the Board  
State Water Resources Control Board  
1001 I Street, 24<sup>th</sup> Floor  
Sacramento, CA 95814

Re: Comment Letter – OTC Policy



Dear Ms. Townsend:

Mirant California, LLC indirectly owns three power plants in the San Francisco Bay Area: (1) the Potrero Power Plant in San Francisco (owned by Mirant Potrero, LLC); (2) the Pittsburg Power Plant in Pittsburg (owned by Mirant Delta, LLC); and (3) the Contra Costa Power Plant in Antioch (also owned by Mirant Delta, LLC; Pittsburg and Contra Costa are collectively referred to as the "Delta Plants").<sup>1</sup>

Of the nine operating units at Mirant's three plants, five use once-through cooling (OTC): Potrero Unit 3, Pittsburg Units 5 & 6, and Contra Costa Units 6 & 7. Together, Mirant's OTC units have a generating capacity of 1,509 megawatts.

Mirant recently announced the settlement of a lawsuit with the City and County of San Francisco that will lead to the retirement of Potrero Unit 3, subject to approval by the California Independent System Operator (CAISO), shortly after the on-line date of the Trans-Bay Cable, which is anticipated to occur during the first half of 2010. Mirant also recently announced an agreement with Pacific Gas and Electric Company (PG&E) that will lead to the retirement of Contra Costa Units 6 & 7 by the end of April 2013. Accordingly, after April 2013, Mirant will operate only two units relying on OTC, down from its current total of five. These developments buttress Mirant's conviction that an

<sup>1</sup> Mirant California, LLC, Mirant Potrero, LLC and Mirant Delta, LLC are referred to collectively as "Mirant."

OTC regulation as onerous as that proposed in the draft Substitute Environmental Document (released July 15, 2009; hereinafter referred to as “SED”) and the accompanying Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling (released June 30, 2009; hereinafter referred to as “Draft Policy”) which effectively would mandate the retirement of OTC units is not only unnecessary, but also would impose significant costs on California residents that substantially outweigh any attendant benefits, at a time when the cost to combat climate change will certainly result in increased costs for electricity.

Without the interference of a regulatory mandate, market forces influenced by overarching policy goals are accomplishing in an orderly manner the elimination of OTC units in California. Relying on actual flow figures from 2008, the amount of water used by Mirant based on daily averages will drop 85% by May 2013 as a result of its retirements. These reductions come on top of the previous retirement of nine OTC units at the Pittsburg and Contra Costa Power Plants that occurred between 1995 and 2004.

Given the paucity of any scientifically conclusive evidence that reducing water flow at these OTC plants will benefit marine ecosystems, one must conclude that the real motivation for the draft OTC regulation is to shut down older power plants simply for the sake of shutting them down, perhaps to further climate change goals. However, this policy objective is directly at odds with the AB 32 Scoping Plan, which incorporates a cap-and-trade system to ensure that greenhouse gas reductions occur in the most cost-effective manner possible. Instead of letting the cap-and-trade system identify efficient outcomes, the Draft Policy would effectively seek to mandate the retirement of productive units that typically have low capacity factors. For example, a recent PG&E filing estimated the cost to construct a 560 megawatt facility at approximately \$850 million. Using this figure as a ball park replacement cost for the approximately 630 megawatts of capacity represented by Mirant’s Pittsburg OTC units which only run several weeks per year (about a 4% annual capacity factor), one wonders whether that money could be better spent on developing renewables or building transmission. The cap-and-trade system would give us that answer, but the Draft Policy would prevent us from realizing the intended benefits of the cap-and-trade system.

For the reasons stated, Mirant opposes adoption of the Draft Policy. Nonetheless, if a version of the Draft Policy is to be adopted, there are improvements that the Water Board can make. The remainder of these comments focuses on the following issues:

- 1) Section 2.A. - Improve Track 1 and Track 2 provisions to eliminate potential compliance ambiguity.

- 2) Section 3.A. – Modify the timing of and clarify the intent behind the implementation plan.
- 3) Section 2.C – Clarify that existing mitigation measures satisfy the Draft Policy’s interim requirements.
- 4) Sections 3.B.(2) and 1.1 – Make the role of the Statewide Advisory Committee on Cooling Water Intake Structures (SACCWIS) more concretely responsible as the guarantor of electric reliability in conjunction with OTC retirement plans.
- 5) Section 4 – Open the “Wholly Disproportionate Demonstration” to all operators of OTC units.
- 6) SED – Improve the analysis required to comply with standards for such documents set by the California Environmental Quality Act (CEQA).

### **Improvements to Tracks 1 and 2**

In the Tracks 1 and 2 compliance framework, the Draft Policy omits the 15% threshold exemption that had been included in both the U.S. Environmental Protection Agency’s (EPA’s) Phase II rule implementing Section 316(b) of the Clean Water Act (Phase II Rule) and the Water Board’s 2006 draft policy. The Phase II Rule exempted those facilities with a capacity utilization rate of 15% or less from the requirement to meet the entrainment performance standard. EPA provided a clear justification for the exemption in the preamble to the Phase II Rule, finding that (1) entrainment control technologies were not economically practicable given the already-low operating levels of these facilities; (2) these facilities tended to operate during those peaking periods when the abundance of entrainable life stages of aquatic species was relatively low; and (3) given the proportional relationship between intake flows and entrainment, these facilities had already achieved substantial entrainment reductions from design flows. *See* 69 Fed. Reg. at p. 41600 (July 9, 2004). Consequently, EPA found that “it was neither necessary nor cost-effective for the facilities to reduce entrainment.” *Id.*

The Draft Policy arbitrarily dispenses with the 15% threshold without offering any support or rationale. For facilities like Mirant’s Delta Plants, which consistently operate at capacity utilization rates in the low single digits, it would be both

impracticable and unjustified for them to be required to retrofit to closed-cycle cooling. As EPA noted, given the proportional relationship between intake flow and entrainment, entrainment at Mirant's Delta Plants has already been reduced by over 90% from design flows due to their decreased operations. The Draft Policy would nonetheless force these facilities to retrofit to closed-cycle cooling or shut down, imposing a disproportionate economic burden relative to facilities that operate at much higher capacity utilization rates. Accordingly, the Water Board should revise the Draft Policy to include a compliance exemption for units that operate at less than a 15% capacity utilization rate.

Turning to the specific provisions of Section 2.A., Mirant has two concerns with Track 1 compliance requirements. First, instead of identifying Closed-Cycle Wet Cooling as per se compliance with the Draft Policy, Section 2.A.(1) establishes compliance as "A minimum 93 percent reduction in *intake flow rate*\* for each unit . . . ." Intake flow reductions that may be achieved through cooling tower retrofits are variable due to site-specific conditions, so while some facilities could potentially achieve the 93% reduction target through a conversion to closed-cycle cooling, others might not be able to meet this precise standard. To eliminate this compliance concern, Mirant recommends that the Water Board revise Section 2.A.(1) to make the use of Closed-Cycle Wet Cooling per se compliance and to leave in place a flow reduction standard as an alternative Track 1 compliance method (although the industry knows that the only feasible way to achieve a flow reduction in the 90% range is through the use of closed-cycle cooling). If the Water Board is concerned that this approach will somehow lead to loopholes, it could tighten the definition of "Closed-Cycle Wet Cooling" to track that adopted by the U.S. Environmental Protection Agency in its Phase II Rule.<sup>2</sup> As a less preferred alternative, the Water Board could reduce the 93% standard down to 88%, which should provide some margin of compliance without sacrificing what appears to be the Water Board's ultimate goal: making closed-cycle wet cooling the technology of choice for cooling power plants.

Second, the flow reduction requirements in the Draft Policy apply to all "Existing Power Plants," which are defined to be any power plant that is not a new power plant. Mirant believes the Water Board intended its Draft Policy to impose a closed-cycle cooling system on plants that use OTC, but as currently written, the Draft Policy appears to require any power plant using water to reduce its flow by the enumerated standard. So,

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<sup>2</sup> See 40 C.F.R. § 125.93 ("Closed-cycle recirculating system means a system designed, using minimized make-up and blowdown flows, to withdraw water from a natural or other water source to support contact and/or noncontact cooling uses within a facility. The water is usually sent to a cooling canal or channel, lake, pond, or tower to allow waste heat to be dissipated to the atmosphere and then is returned to the system. (Some facilities divert the waste heat to other process operations.) New source water (make-up water) is added to the system to replenish losses that have occurred due to blowdown, drift, and evaporation.")

for example, it would appear that adoption of the Draft Policy in its current form would require Mirant's Pittsburg Unit 7, which already employs a closed-cycle wet cooling system, but is also by definition arguably an Existing Power Plant, to reduce its water flow by 93 percent. It does not appear to be the Water Board's objective to impose flow reduction on units that do not rely on OTC. To correct this presumably unintended consequence, Mirant recommends modifying the definition of "Existing Power Plant" as follows: "Refers to any power plant using once-through cooling that is not a *new power plant*.\*"

There is an additional ambiguity with respect to the language in Track 2. Track 2 provides a compliance alternative if Track 1 is "not feasible", but the Draft Policy fails to define "feasible". This is a critical omission that will create uncertainty in the regulated community and will inevitably lead to inconsistent application by the various Regional Boards. A defensible and readily available definition is found in the CEQA statute at Section 21061.1: "'Feasible' means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social and technological factor." This definition has been consistently applied throughout California for over 30 years and provides a sensible definition for a critical term in the Draft Policy that will otherwise be subject to inconsistent and competing interpretations.

### **Implementation Plan**

Section 3.A would require operators to file an implementation plan for complying with the Draft Policy within six months of its effective date. The six-month timeframe is absolutely unworkable. In Mirant's case, to try to predict in the first half of 2010 what route it will take to bring its Pittsburg Power Plant into compliance with a 2017 deadline would be nothing more than a guess. There are a number of factors that will impact a range of possibilities. Those factors, for instance the result of a utility procurement cycle that likely won't conclude until sometime in 2012, will not be certain for a period of several years. Accordingly, to the extent an implementation plan is required, the deadline for submitting such plan should occur at most three years prior to the implementation deadline.

The primary concern surrounding a premature implementation plan filing is the possibility that representations made in such a plan might be seized upon by a regional water board and incorporated into a permit. The Draft Policy nowhere establishes what the legal significance of the implementation plan will be. If the Draft Policy were updated to make it absolutely clear that the implementation plan will not have a binding consequence on the future compliance track an operator may choose to undertake, then there would be less concern about submitting a plan that amounts to little more than a

guess. Accordingly, the Water Board should revise Section 3.A. to include a statement that the details of an implementation plan shall not be binding upon an operator and in no event should an implementation plan's representations be incorporated into a future permit.

### **Interim Requirements**

Section 2.C.(3) requires operators to implement mitigation measures prior to the compliance deadlines set for Tracks 1 and 2. Mirant has already undertaken mitigation measures at its OTC units, including the use of variable speed drives and the payment of compensation to the Department of Fish & Game. In its final decision, the Water Board should confirm that Section 2.C.(3) does not necessarily impose new requirements on operators if existing mitigations satisfy the standards set forth in that subsection.

### **Statewide Advisory Committee on Cooling Water Intake Structures**

From the perspective of grid reliability, the concept of creating the SACCWIS and allowing for the possibility of modifying compliance deadlines makes sense. Mirant recommends two improvements to the proposal. First, as the Draft Regulation states, the purpose of the SACCWIS is "to ensure that the implementation schedule takes into account local area and grid reliability." See Section 3.B. Given this mandate, the appropriate agencies to sit on the SACCWIS are those with grid expertise, namely the CAISO, the California Energy Commission, and the California Public Utilities Commission. Accordingly, other agencies without grid expertise which are tentatively identified for inclusion on the SACCWIS need not be included, and Section 1.I should be updated consistent with this principle.

Second, the Draft Policy contemplates the SACCWIS will operate on a two-year schedule. However, two years is a virtual eternity when measured against changes in circumstances impacting the grid. For example, the possibility that development in Southern California would grind to a halt due to a lack of emission credits was likely unknown two years ago. Therefore, the Water Board should make it clear that the two year reporting process is a minimum standard, and that the SACCWIS may report more frequently as it deems appropriate. The following revisions to Section 3.B.(2) would accomplish this outcome:

The SACCWIS will report to the State Water Board with recommendations on modifications to the implementation schedule at least every two years and more frequently if necessary starting in 2013.

### **Application of Wholly Disproportionate Demonstration**

The SED supporting the Draft Policy does not provide a cost-benefit analysis in connection with the Draft Policy's determination to eliminate OTC in California. Without even detailed analysis, it is clear that eliminating OTC will cost California billions of dollars for replacement capacity and/or transmission upgrades to account for the loss of these units. Principled rulemaking would dictate that a more detailed analysis of the actual cost of eliminating OTC should be a component of the policy determination.

Assuming that a detailed review of the cost of the Draft Policy will not be undertaken as part of the Water Board's rulemaking process, the next best step would be to allow consideration of specific circumstances to determine whether the benefits of applying a deadline are justified by its costs. The Draft Policy recognizes this principle in Section 4, but limits its applicability to the two nuclear power plants and those few thermal plants that were recently constructed but elected to employ OTC as their cooling technology. As a matter of fairness to California's ratepayers, the Wholly Disproportionate Demonstration should be a route open to all OTC facilities in California. By doing this, the Water Board would permit a determination of whether it really makes sense, for example, to shutter a unit that runs less than 5% of the time on a yearly basis, but would cost a billion dollars or more to replace through new generation and transmission upgrades. The Water Board may ultimately conclude that this is an expense worth incurring, but at least some analysis will have gone into the conclusion. For these reasons, the Water Board should revise Section 4 to make it applicable to all operators of OTC units.

### **Improvements to Substitute Environmental Document**

The SED is unfortunately misleading and flawed due to the fact that its analysis of the Draft Policy relies on the operations of the affected facilities from 2000-2005. This period includes the 2001 California energy crisis and is accordingly wholly unrepresentative of current operating conditions. Operational data from the more recent and more representative five-year period of 2004 through 2008 are readily available and provide a much more accurate baseline against which to analyze the effects of the proposed Policy. These operations also constitute the environmental setting for the purposes of the SED.

For example, regarding Mirant's Delta Plants, Table 11 of the SED identifies CCPP Units 6-7 as having a capacity utilization rate of 28% for the period of 2000-2005 and PPP Units 5-6 has having a capacity utilization rate of 29% for the same period.

Table 11 notes further that, based on the capacity utilization rates, neither facility would be below the 15% capacity utilization threshold entrainment exemption provided in the Phase II Rule. Similarly, Table 13 documents average cooling water flows, identifying CCPP Units 6-7 as having an average flow of 257 million gallons per day (mgd) and PPP units 5-6 as having an average flow of 274 mgd. While these data are historically accurate, they are irrelevant in that they do not accurately represent current and likely future operating conditions. The capacity utilization rate for the PPP for the more recent five-year period of 2004-2008 is 8.8%, and the corresponding rate for the CCPP is 5.2%. Based on these data, the Delta Plants clearly would be far below the 15% threshold in the Phase II Rule. Annual average cooling water flows for the same period were 75 MGD at the CCPP and 87 MGD at the PPP, or roughly just a third of the level of flows assumed in the SED. Thus, the operations of the Delta Plants are dramatically different than as documented in the SED, rendering the SED's baseline and environmental setting inaccurate and misleading. The SED should be revised to incorporate the readily available, more recent and representative operational data, and its analysis should reflect this more accurate baseline and environmental setting.

Furthermore, the environmental impact analysis in the SED is insufficient and fails to meet the requirements of the State Board's CEQA regulations (California Code of Regulations, Title 23, §§ 3720 et seq.) as it includes no discussion of at least one potentially significant impact category. The most prominent impact category that the environmental analysis excludes is Land Use and Planning. The CEQA Environmental Checklist attached to the SED as Appendix B includes the following question: "Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?" See SED at p. B-8. Staff simply indicates in the SED that there will be "no impact" in response to this question and concludes in Section 4.2 of the SED that "no impacts were identified" in relation to Land Use Planning. SED at p. 92.

However, conflicts with local land use plans are a likely and predictable consequence of siting cooling towers, especially given that a retrofit project that did not include an increase in generation capacity, for example, would be subject to the approval of the local site jurisdiction, not the California Energy Commission. In many locations of existing facilities affected by the proposed Policy, cooling towers could likely conflict with local zoning ordinances (e.g., related to height limits) or other land use plans, but there is no discussion of any potential conflicts with such plans in the SED. Given the limited number of existing facilities, a review of applicable local land use plans, policies and regulations would clearly be practicable and would enable the Board to determine whether the proposed Policy could result in potentially significant impacts associated

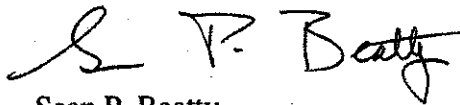


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with conflicts with such plans, policies and regulations. There is no basis for the determination in the SED that the proposed Policy would have "no impacts" related to Land Use Planning.

Mirant appreciates the opportunity to provide these comments. Should you have any questions about them, please contact me at 925.427.3483.

Very truly yours,

A handwritten signature in black ink that reads "S. P. Beatty". The signature is written in a cursive style with a large initial "S" and a stylized "P".

Sean P. Beatty  
Sr. Manager, External & Regulatory Affairs  
Mirant California, LLC