



P O S E I D O N R E S O U R C E S

September 10, 2007

Mr. John Robertus
San Diego Regional Water Quality Control Board
9174 Sky Park Court, Suite 100
San Diego, CA 92123

McCann

2007 SEP 10 P 3:13

SAN DIEGO REGIONAL
WATER QUALITY
CONTROL BOARD

**RE: Carlsbad Desalination Project Revised Flow, Entrainment and Impingement
Minimization Plan, Order R9-2006-0065, NPDES Permit No. CA0109223.**

Dear Mr. Robertus:

We submit this letter in response to your letter dated September 6, 2007 regarding the NPDES permit issued to Poseidon Resources Corporation (NPDES No. CA 0109223; Order R9-2006-0065) (Order), in which you deferred review and approval of Poseidon Resources Corporation's (Poseidon) revised Flow, Entrainment, and Impingement Minimization Plan (Plan) for the Carlsbad Desalination Project (CDP). The bases provided for this position are: recent discharges from the Encina Power Station (EPS) that would not meet the requirements of the Poseidon plant 99 percent of the time; the recent suspension by the U.S. Environmental Protection Agency (USEPA) of federal regulations implementing Clean Water Act Section 316(b); and the State Water Resources Control Board's (SWRCB) forthcoming policy on Section 316(b).

We urge you to reconsider the September 6 deferral as there is no rational basis for taking such action. The Order was issued in recognition of the fact that future discharges from the EPS may be insufficient to satisfy the demands of the Poseidon plant. On that basis, the Regional Board incorporated into the Order requirements to address such a scenario, including the preparation, review, and approval of the very Plan in question. The State Board's policy on Section 316(b) was under development when the Regional Board issued the Order – a strong indication that Plan development and Regional Board review and approval of it is appropriate while, on a different track, the State Board develops its Section 316(b) policy. In fact, the Regional Board during permit development expressly recognized that Section 316(b) is not relevant to the CDP; and, in its Section 316(b) proceedings, the State Board expressly recognized that Section 316(b) is not relevant to seawater desalination plants like the CDP. Similarly, the suspension by USEPA of the Section 316(b) regulations has no bearing on the Regional Board's review and approval of the Plan. That suspension occurred before the State Board reviewed a Water Code Section 13320 petition on the Order, which tried to overturn the Order on grounds similar to those cited in the September 6 deferral letter. The State Board rejected that petition.

Accordingly, Poseidon respectfully requests that you rescind your letter dated September 6, 2007, and direct staff to resume its review of the Plan. The importance of this request is underscored by recent water supply developments. In the seven months that have passed since the Plan first was submitted, pressures on water supplies have increased substantially, both locally and throughout the west. The CDP would provide a reliable water source that has become even more necessary in light of the likely decreased supplies from other sources.

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POSEIDON

Project Description

The CDP is proposed to be located adjacent to the EPS and, when constructed, will use the EPS's cooling water system as source water for production of 50 million gallons per day (MGD) of fresh drinking water. When both the EPS and the CDP are operating, the EPS would discharge and provide to Poseidon an adequate volume of seawater for the operation of the CDP. Under this mode of operation, the incremental impingement and entrainment effects and discharge impacts of the desalination plant are insignificant. The purpose of the Plan is to identify site-specific activities, procedures, practices, and mitigation measures to minimize impacts to marine organisms when the CDP's intake requirements exceed the volume of water being discharged by the EPS.

The Order Requires Poseidon to Submit the Plan for Regional Board Approval

The Regional Board adopted the Order on August 16, 2006. The Order requires Poseidon to submit, within 180 days of adoption of the Order, the Plan to assess "the feasibility of site-specific plans, procedures, and practices to be implemented and/or mitigation measures to be taken to minimize the impacts to marine organisms when the CDP requirements exceed the volume of water being discharged by the EPS." The Plan is subject to the approval of the Regional Board and must be modified as directed by the Regional Board. The Order thus requires the Regional Board to decide whether to approve the Plan, subject to any modifications.

To fulfill the requirements in the Order, Poseidon developed a draft Plan and submitted it to the Regional Board on February 12, 2007. Subsequently, the Regional Board published the Plan on its website and notified interested parties and the public that the Regional Board would be accepting comments on the Plan for 45 days. In response to comments of the Regional Board and interested parties, Poseidon submitted a revised Plan dated June 29, 2007, for the Regional Board's review and approval. Poseidon met with Regional Board staff on August 14 to discuss the status of the Regional Board's review of the revised Plan.

The Plan Was Required Precisely Because the Regional Board Anticipated Reduced Future Flows from the EPS

Your letter states that the Regional Board will delay action on the Plan in part because the most recent operating information for the EPS indicates that the CDP's proposed intake requirements of 304 MGD will likely exceed the volume of water being discharged by the EPS significantly more than the 1 percent operational time estimated in the Report of Waste Discharge (ROWD).¹ When adopting the Order, the Regional Board was aware that the EPS's discharge rate would fluctuate. While the estimates presented in the ROWD were based on past EPS operational history, supplemental written and verbal information presented to the Regional Board noted that future EPS operating flows may differ from the historical record, and specifically, that future the EPS discharge flows may be less than 304 mgd significantly more than 1 percent of the

¹ The letter states that the average monthly combined discharge from the EPS was approximately 120 MGD. According to EPS records, the average monthly combined discharge from the EPS through August was over 200 MGD.

Mr. John Robertus
R9-2006-0065
September 10, 2007

operational time. The potential for reduced EPS discharge flows was documented in the Fact Sheet to the Order, in requirements established within the Order, and was specifically addressed in the Regional Board members' discussion and deliberation of the issues prior to adoption of the Order.

The Order states: "The Regional Board recognizes that future EPS flows may not follow historical trends." Order at F-48 (emphasis added). In anticipation that the EPS might not always satisfy the CDP's source water demands, the Regional Board required Poseidon to submit the Plan within 180 days of the adoption of the Permit:

For this reason, it is warranted to require the Discharger prepare a Flow, Entrainment, and Impingement Minimization Plan. The Flow, Entrainment, and Impingement Minimization Plan shall be submitted within 180 days of adoption of the Order.

Id. (emphasis added).

The Regional Board's recognition that EPS flows may fluctuate is also discussed with respect to a requirement in the Order that Poseidon submit a salinity and acute toxicity special study. The Order states: "Recognizing that the future EPS flows may be decreased, an additional goal [of the salinity and acute toxicity study] is to identify the minimum seawater intake flows required to allow the CDP discharge to comply with salinity and acute toxicity requirements." Id. at F-47 (emphasis added).

The Regional Board anticipated the evolving operating regime at the EPS, which is why it required Poseidon to provide the information necessary to ensure that the CDP would remain in compliance with applicable intake and discharge regulations. The Plan is the mechanism for making that information available to the RWQCB. Accordingly, that EPS recent discharges are less than 304 MGD does not provide a basis for the Regional Board to delay action on the Plan. To the contrary, that EPS discharges may be less than CDP demands is precisely why the Regional Board required the Plan in the first place.

A petition challenging the Regional Board's action in issuing the Order was recently considered – and dismissed – by the State Board. The petitioners alleged that the Order "fails to adequately consider or address the impacts of the operations of the ... CDP when the EPS is not operational, or in the event the EPS is shut down and demolished." In response, Poseidon provided an explanation similar to that above: that the Plan will address and minimize any impacts of the CDP when the EPS reduces its discharge. After review of the petition, and the responses to it (including ours and one furnished by the Regional Board), the State Board dismissed the petition in June 2007 because it "fail[ed] to raise substantial issues that are appropriate for review" by the State Board. It can be inferred that the Order's scheme to address stand-alone CDP operations through the Plan is acceptable to the State Board, as it was to the Regional Board when it issued the Order in the first place. Staff should proceed to implement this scheme by acting to review the Plan at this time.

Neither Section 316(b) Nor the State Board's Forthcoming Guidance on Section 316(b) Apply to Desalination Plants Such as the CDP

Your letter states that the Regional Board will defer action on the Plan because a court remanded multiple provisions of regulations implementing Section 316(b), including provisions defining "best technology available" (BTA). USEPA later suspended these regulations. In addition, you state that the Regional Board should wait to act on the Plan until issuance of the State Board's guidance on compliance with Section 316(b). These developments by other agencies do not provide a basis to defer action on the Plan, however, because, as indicated in Section 316(b) and its implementing regulations, as well as in the State Board's recent scoping document regarding the State's Section 316(b) Policy, Section 316(b) does not apply to seawater desalination plants such as the CDP.

Section 316(b) of the Clean Water Act regulates cooling water intake structures, stating:

Any standard ... applicable to a point source shall require 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) (emphasis added). As defined in the remanded and suspended regulations, a "cooling water intake structure" is "the total physical structure and any associated constructed waterways used to withdraw cooling water from waters of the U.S.," including intake pumps. 40 § C.F.R. 125.93. "Cooling water" is "water used for contact or non-contact cooling, including water used for equipment cooling, evaporative cooling tower makeup, and dilution of effluent heat content," intended "to absorb waste heat rejected from the process or processes used, or from auxiliary operations on the facility's premises."). Id.

The regulations implementing Section 316(b) apply only to "the location, design, construction, and capacity of cooling water intake structures." Id. § 125.90(a). These regulations apply only if the facility: (1) is a point source that uses or proposes to use a cooling water intake structure with a design intake flow of 50 MGD or more; (2) uses at least 25 percent of the water it withdraws for cooling purposes; and (3) as its primary activity, either generates and transmits electric power or generates electric power and sells it to another entity for transmission. See id. § 125.91.

The CDP, and its operation in conjunction with or independent of the EPS clearly does not meet the applicability requirements of the regulations implementing Section 316(b). While the EPS intake will be the source of the water to Poseidon, none of the water would be used by the CDP for "contact or non-contact cooling." Instead, Poseidon would use the water only for desalination purposes. Accordingly, the CDP does not have a cooling water intake structure. In addition, electric power would not be generated at or transmitted from the CDP. Because the CDP would not generate or transmit electric power, would not have a cooling water intake structure, and would not use the EPS's cooling water effluent for cooling purposes, Section 316(b) is not applicable to Poseidon.

Mr. John Robertus
R9-2006-0065
September 10, 2007

The State Board's recent Section 316(b) scoping document states that desalination plants are "outside the scope of the Clean Water Act [Section] 316(b)" and "would be more appropriately addressed through the other water quality control plans." State Board, Scoping Document: Proposed Statewide Policy on Clean Water Act Section 316(b) Regulations, at 28 (June 13, 2006).

Because the CDP does not have a cooling water intake structure and will not use the EPS's cooling water effluent for its cooling purposes, Section 316(b) is not applicable to desalination plants such as the CDP. Not only is this generally recognized in the State Board's Section 316(b) scoping document, but also the Regional Board clearly acknowledges in the Order that "the [Section] 316(b) regulations are not applicable to CDP." Order at F-49. Because the regulations are inapplicable, "no special conditions related to the 316(b) implementing regulations are included in this Order." Id.

In the petition recently dismissed by the State Board, the petitioners alleged that the Order should have contained a reopener requiring the Regional Board to reopen the permit when the State Board's Section 316(b) policy is finalized. Poseidon's response to the petition explained that neither the Section 316(b) regulations nor the State Board's policy were applicable to the CDP, for the reasons discussed above, and a reopener related to Section 316(b) thus was not necessary. The State Board considered the petition after the suspension by the USEPA of the federal regulation implementing Clean Water Act Section 316(b), found that the petition did not raise a substantial issue, and dismissed the petition. The State Board has, therefore, decided that the Regional Board's actions with respect to Section 316(b) were not appropriate for review. There is no reason for the Regional Board to now change its approach.

Poseidon Will Resubmit Salinity and Acute Toxicity Information Under Separate Cover

The letter requests the separate submittal of salinity and acute toxicity information currently included in the revised Plan. Poseidon will resubmit the information as requested. Additionally, you note that any proposed changes to the existing salinity effluent limitations in the Order will require that Poseidon file an amended ROWD. We wish to clarify that Poseidon is not proposing any changes to the salinity effluent limitations set forth in the Order.

Regional Board Action on the Plan Would Facilitate Timely Construction and Operation of the CDP, a Reliable Source of Water During a Severe Water Supply Shortage

The San Diego County Water Authority (CWA) and its member agencies have acknowledged that the CDP is critically needed to help alleviate rapidly deteriorating water supply conditions in the region. As the Regional Board is no doubt aware, the San Diego Region is currently experiencing a severe water supply shortage due to overtaxed imported water supplies and ongoing drought conditions throughout the west. The most recent example of the significant problems facing imported water supply was the recent Federal Court order calling for the idling of the State Water Project pumps from December to June to protect the endangered delta smelt. The shutdown of the pumps is the latest development in an escalating crisis over the delta, a long-troubled ecosystem that is the major water crossroads for 41 percent of San Diego County's water supply. The Court order is expected to reduce deliveries to the region from the State

Mr. John Robertus
R9-2006-0065
September 10, 2007

Water Project by up to 30% for at least the next several years. The pumping problems are occurring as the southern California is experiencing its driest year on record, another major source of water for the region, the Colorado River, remains in a long-term drought, and the Sierra Nevada received less than 38 percent of normal snowfall.

As a result of these conditions, the Metropolitan Water District of Southern California (MWD) has notified water users in the San Diego Region to anticipate water use restrictions beginning January 1, 2008. Agricultural deliveries will be cut by 30%. The magnitude of the urban water restrictions is still under discussion. MWD and the CWA and its member agencies are aggressively pursuing the development of additional local supplies to alleviate the shortage. One such supply that has been under development for seven years and is a cornerstone of the CWA's Water Resources Plan is the CDP. The immediate and pressing state, regional, and local water needs instill a sense of urgency in finalizing review and approval of the Plan.

Requested Action

In light of the foregoing, Poseidon respectfully requests that the Regional Board rescind its letter dated September 6, 2007, deferring a determination on the Plan and continue the review and approval of the Plan, as the Regional Board is required to do by the Order.

Thank you for your consideration of this request.

Sincerely,



Peter MacLaggan
Senior Vice President

cc. Mr. John Odermatt
Mr. Michael McCann
Mr. Eric Becker