

California Regional Water Quality Control Board Santa Ana Region

December 9, 2011

UPDATE TO THE AGENDA

The following item has an errata sheet:

10. [Renewal of Waste Discharge Requirements and National Pollutant Discharge Elimination System Permit \(NPDES No. CA8000403\) for Poseidon Resources \(Surfside\) L.L.C., Huntington Beach Desalination Facility](#) - Renewal of waste discharge requirements for discharges of concentrated seawater and filter backwash to the Pacific Ocean.
{Gary Stewart 951/782-4379 gstewart@waterboards.ca.gov} Order No. R8-2011-0046

The following item has been postponed:

12. [Cooperative Interagency Agreement between Tustin Unified School District \(TUSD\), the County of Orange and the Regional Board](#) - The Executive Officer is proposing to approve a cooperative agreement between TUSD and the County of Orange. The agreement is a voluntary cooperative interagency agreement for purposes of controlling pollutants in urban runoff from the TUSD facilities into the municipal separate storm sewer systems owned by various municipalities within Orange County (Information Item).
{Michael J. Adackapara 951/782-3238 madackapara@waterboards.ca.gov}

Item No. 10

December 9, 2011

ERRATA SHEET

CHANGES TO TENTATIVE ORDER NO. R8-2011-0046

**WASTE DISCHARGE REQUIREMENTS
FOR
POSEIDON RESOURCES (SURFSIDE) L.L.C.
HUNTINGTON BEACH DESALINATION FACILITY**

(Language deleted is ~~struck through~~)

(Language added is **bold and shaded**)

1. Revise the first full paragraph on page 9 of Finding C, of Order No. R8-2001-0046 as follows:

When operating in a temporary stand-alone mode, the Facility's intake flow will be approximately 126.7 MGD- a volume which is less than HBGS's currently permitted intake flow of 514 MGD. Such operations will lead to reductions in the intake volumes, flow velocities, temperature and impingement and entrainment effects which occur under the HBGS's current operations with significantly higher intake volumes (between 2006 and 2010 the HBGS' annual average intake ranged from 200 MGD to 268 MGD with a maximum daily flow of 507 MGD). In addition, HBGS has provided for marine life mitigation for more than an average annual flow of 126.7 MGD, and is mandated by the State Water Board to provide for such mitigation until it permanently ceases to use the once-through cooling water system or permanently stops generating electricity. As a result, the marine life effects of the Facility's temporary stand-alone operation ~~would~~ **should** not require additional impingement and entrainment mitigation. **To ensure that any entrainment and/or impingement effects have been minimized in accordance with California Water Code Section 13142.5(b), the Facility will cap its temporary, stand-alone flows to a 12-month running average that shall not exceed the available mitigation credits, or the Discharger otherwise shall provide sufficient mitigation, as determined by the Executive Officer.**

2. Revise the last two paragraphs of Finding C, of Order No. R8-2011-0046, pages 9 and 10, as follows:

The Regional Board has found that the 66.8 acre wetlands mitigation program that AES Huntington Beach is currently funding provides sufficient mitigation to address any impacts caused by the intake of an average flow of 126.7 MGD of seawater. If AES were to discontinue support for the marine life mitigation program, continuation of these mitigation efforts by the Discharger may be considered the best mitigation measures to feasibly address any impacts caused by its continued use of the intake structures pursuant to Water Code Section 13142.5(b).

~~If AES Huntington Beach were to discontinue support for the marine life mitigation program, the Discharger would be required to fund AES's existing 66.8-acre tidal wetlands mitigation program, or to incorporate mandated feasible design or technology features capable of reducing or eliminating such entrainment-related effects and thereby reducing or eliminating the requirement to fund the marine life mitigation program.~~

~~The Regional Water Board finds that if the Facility were to operate in long-term stand-alone mode, by continuing the maintenance of AES's existing 66.8-acre tidal wetlands mitigation program, the Facility would be deemed to have utilized the best marine life mitigation measure feasible and would comply with the mitigation requirements under CWC Section 13142.5(b). Details regarding compliance with CWC Section 13142.5(b) are provided in the Fact Sheet, Attachment F to this Order.~~

3. Modify Attachment F- Fact Sheet, page F-9, item 2, as follows:

2. Spent Filter Backwash Water - The pretreatment filters will be cleaned (backwashed) to remove the intake seawater solids that accumulate in the **media beds filtration units**. The desalination plant will use filtered seawater for backwash. The amount of backwash water used will be between 3 to 6.3 percent (average of 4 percent) of the total intake seawater flow required for desalination. For a 50-MGD facility, operating at 50-percent recovery, the average and maximum amounts of filter backwash water will be 4.0 MGD and 6.3 MGD, respectively. ~~The spent filter backwash water will flow from the filters to the desalination plant effluent outfall to the AES HBGS cooling system discharge pipe.~~ The spent filter backwash water will have the same salinity as the intake ocean water (34,000 mg/L).

The handling of the spent filter backwash will depend upon the choice of the filtration technology to be used by the Facility. Under the media filtration option, ferric chloride or ferric sulfate coagulant will be added to the influent to enhance removal of particulate matter. The coagulant would be removed from the filter during the filter backwash cycle, collected in a sedimentation basin (solids handling facility), removed as sludge, and disposed of at a landfill. The decant from the sedimentation basin will be directed to the Facility inlet or to the HBGS discharge pipeline. The membrane filtration option does not require the use of coagulant. Under this option, the backwash water would be discharged directly to the discharge pipeline. However, the membrane filtration system would require periodic chemical cleaning. The spent cleaning solution would be collected in a separate tank, neutralized and discharged to the sanitary sewer.

4. Modify the last paragraph on page F-30 and the first paragraph on page F-31 of Attachment F- Fact Sheet, as follows:

When operating in temporary stand-alone mode, the Facility's intake flow will be approximately 126.7 MGD – a volume which is less than HBGS's currently permitted intake flow of 514 MGD. The Facility's reduced intake flow rate will reduce the existing permitted intake volume, velocity, temperature and number of organisms impinged and entrained from the ocean waters. HBGS has provided for marine life mitigation for more than a 12-M average flow of 126.7 MGD, and it will continue to provide for such mitigation until it permanently ceases to use the once-through cooling water system or permanently stops generating electricity. As a result, the marine life effects of the Facility's temporary stand-alone operation ~~would~~ **should** not require additional marine life mitigation. **To ensure that any entrainment and/or impingement effects have been minimized in accordance with California Water Code Section 13142.5(b), the Facility will cap its temporary, stand-alone flows to a 12-month running average that shall not exceed the available mitigation credits, or the Discharger otherwise shall provide sufficient mitigation, as determined by the Executive Officer.**

The Regional Water Board finds that when the Facility is operating in a temporary stand-alone mode **as described herein**, all marine life related effects are mitigated. The Regional Water Board further finds that, while operating in temporary standalone mode, the Facility is in compliance with California Water Code Section 13142.5(b) and meets the requirements of best available mitigation to minimize the intake and mortality of marine life.

5. Modify the second paragraph on page F-32 of Attachment F- Fact Sheet, as follows:

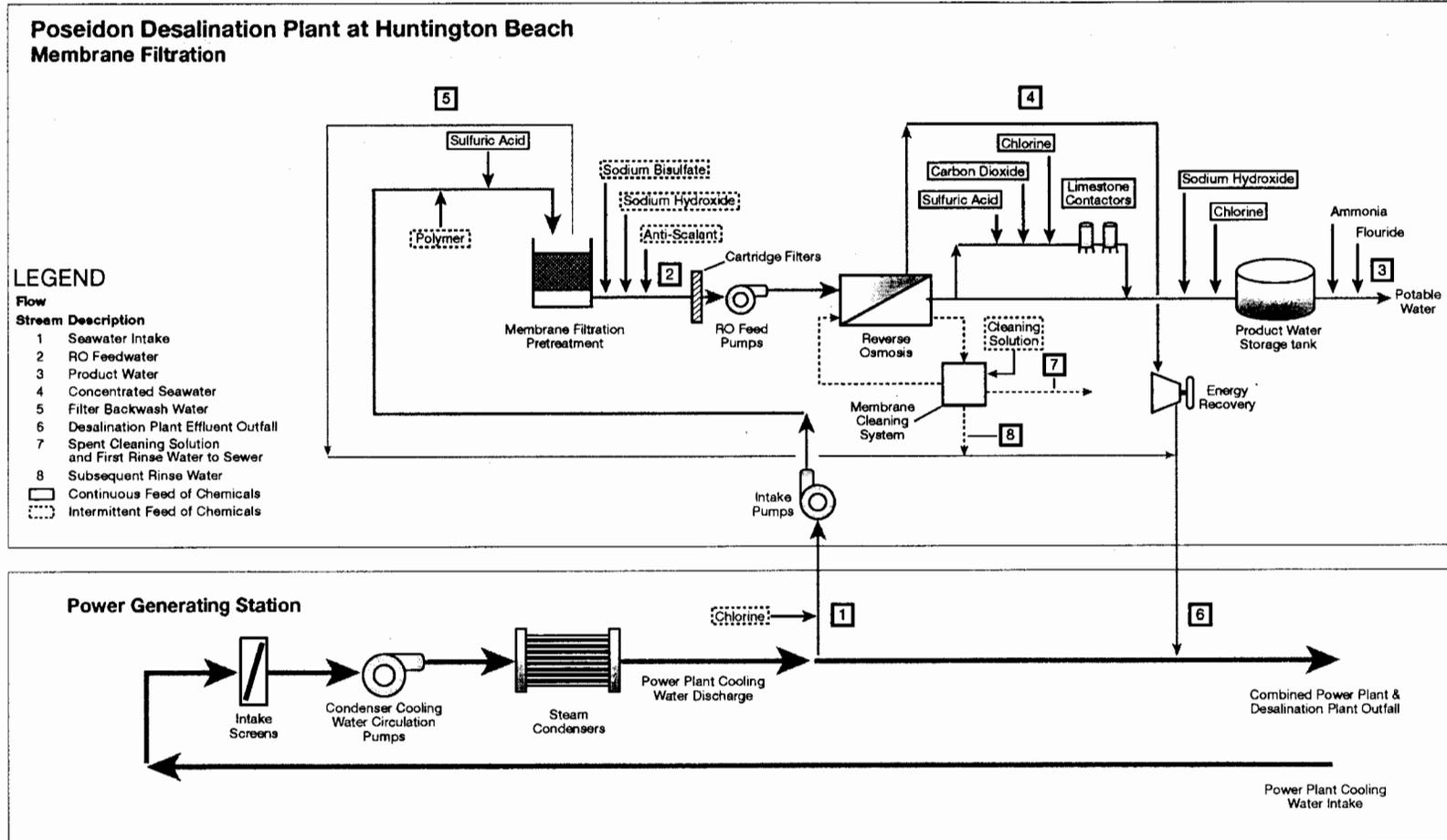
If the Discharger submits a Report of Waste Discharge for approval of its long-term, stand-alone operations, the Regional Board will consider whether, by continuing the maintenance of AES's existing 66.8-acre tidal wetlands mitigation program, ~~The Regional Water Board finds that the Facility's long-term stand-alone operational scenario is in compliance with the mitigation requirements of Section 13142.5(b).~~

6. Modify the first paragraph on page F-34 of Attachment F- Fact Sheet, as follows:

In summary, the Regional Water Board finds that the Facility's temporary standalone operational scenario is in compliance with California Water Code Section 13142.5(b) as it employs the best site, design, technology and mitigation feasible to minimize the intake and mortality of marine life (see table F-7). ~~In addition, the Regional Water Board finds that the Facility's long-term stand-alone operational scenario is in compliance with Section 13142.5(b) with regard to mitigation.~~

7. Add the parameter "Iron" to Attachment E – Monitoring and Reporting Program, page E-6, Table E-3 (Influent Monitoring) with a minimum sampling frequency of "Semiannual" and page E-7, Table E-4 (Effluent Monitoring), with a minimum sampling frequency of "Quarterly".
8. Replace Attachment C1, with Attachment C1A and Attachment C1B, as shown on the following two pages.

ATTACHMENT C1A – FLOW SCHEMATIC



ATTACHMENT C1B – FLOW SCHEMATIC

