



316(b)
Once Through Cooling
Deadline: 8/15/06 5pm

Surfrider Foundation
Huntington Beach/Seal Beach Chapter



To: Santa Ana Regional Water Quality Control Board
3737 Main St. Suite 500
Riverside, CA 92501

August 4, 2006

Attn: Jun Martinez, Chief of Permitting

Re: Tentative Order No. R8-2006-0011, NPDES No. CA0001163. AES LLC Huntington Beach Power Generating Station.
Tentative Order No. R8-2006-0034, NPDES No. CA8000403. Poseidon Resources Seawater Desalination Facility.

Dear Mr. Martinez;

Thanks for the invitation and opportunity to attend the RWQCB workshop meeting on July, 14 regarding the above referenced AES Power Generating Station and Poseidon Resources Seawater Desalination Facility Tentative Order and NPDES Discharge Permits. The presentation by staff member Joanne Schneider to the Board members summarizing the complex legal and technical permit issues was clear and articulate, as well as being both informative and educational to all those in attendance at this workshop.

As members of the environmental stakeholder community, our Huntington Beach/Seal Beach chapter of Surfrider Foundation has always held a deep and abiding concern with projects that will have an impact upon our local beaches and surf zone. Clearly, the decisions made by the Board regarding these permits will have a significant and long-term impact on the environmental quality of our beaches and near shore surf zone for many years to come.

The following comments to the language and content of these tentative orders are therefore, offered both for the record, and for your review and consideration;

Re: AES LLC Huntington Beach Power Generating Station NPDES Permit No.CA0001163;

1) Thermal Plan Discharge Temperature Limit.

AES is applying for a Power Generating Station Discharge permit, and is therefore subject to the requirements and conditions as stated in;

“WATER QUALITY CONTROL PLAN FOR CONTROL OF TEMPERATURE IN THE COASTAL AND INTERSTATE WATERS AND ENCLOSED BAYS AND ESTUARIES OF CALIFORNIA.” New discharges.

(See Water Quality Control Plan, pg. 5).

The State Water Resources Control Board (SWRCB) Proposed Statewide 316(b) Policy dated June 16, 2006 states;

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."

The AES Power Generating Station underwent major construction upgrades and improvements to operating units 3 and 4 in 2003. Further construction upgrades and improvements may be necessary in order to insure that the plant is fully capable of complying with their NPDES permitted discharge and also the requirements of CWA 316(b).

The SWRCB Thermal Water Quality Control Plan for new discharges states;
"The maximum temperature of thermal waste discharges shall not exceed the natural temperature of receiving waters by more than 20 deg. F"

The Effluent Limitations and Discharge Specifications, Thermal Plan and Temperature Limitations permit section therefore, should reflect the 20 deg. F. maximum as indicated above, instead of the 30 deg. F. as stated in the current NPDES permit.

2) 316(b) Impingement and Entrainment Numerical Limits.

The State Water Resources Control Board (SWRCB) Proposed Statewide 316(b) Policy dated June 16, 2006 also states;

(1) Impingement mortality performance standards... you must reduce impingement mortality for all life stages of fish and shellfish by 80 to 95 percent from the calculation baseline, and

(2) Entrainment performance standards... you must also reduce entrainment of all life stages of fish and shellfish by 60 to 90 percent from the calculation baseline..." (40 C.F.R. §125.94(b)).

The permit language as stated above implies that should the discharger be successful in reducing impingement mortality by more than 80 to 95% by modifications in the intake system, and entrainment by more than 60 to 90% in the cooling system, then that discharger would not be in compliance with this CWA 316(b) permit requirement and SWRCB Proposed Statewide Policy. This could potentially exclude alternate once-through technologies such as the use of beach wells for seawater intake, or the use of re-circulated water or air cooling systems.

It is suggested that the term "as a minimum" be inserted in the language of the above referenced documents in order to clarify the intent of these permit requirements.

3) Sect C; Special Provisions 7.Compliance Schedules. (Page 27) states;

7. Compliance Schedules

- a. In accordance with the CWA 316(b) Phase II regulations, as expeditiously as practicable but no later than January 7, 2008, the Discharger shall establish the best technology available for minimizing adverse environmental impact at the Facility site. This shall be accomplished by implementing any one or a combination of the following actions:
 - 2) Demonstrate that the existing design and construction technologies, operational measures, and/or restoration measures meet the performance standards and/or restoration requirements; or
 - 3) That the facility's existing design and construction technologies, operational measures, and/or restoration measures meet the performance standards and/or restoration requirements. A demonstration that selected new design and construction technologies, operational measures, and/or restoration measures, in combination with any existing technologies, operational measures, and/or restoration measures will meet the performance standards and/or restoration requirements; or
 - 4) A demonstration that the facility meets a pre-approved design and construction technology.

The term "restoration measures", as implied in the above Compliance Schedule Special Provisions section of the permit suggests that suitable restoration plans may be offered by the discharger as mitigation for the adverse environmental damage that will result when full compliance to CWA 316(b) is infeasible.

This issue is currently being challenged in Federal court, (Surfrider vs. USEPA) and at least one other court has found that; "Restoration plans are not considered an appropriate or acceptable BTA alternative for any facility, new or existing."

Ref;

2. 6 NYCRR 704.5 Best Technology Available Determination

The intake requirements included in NY SPDES permits are at least as stringent as those required under Clean Water Act §316(b). Additionally, the following requirements are imposed under 6 NYCRR 704.5:

- a. *Restoration.* Restoration plans are not considered an appropriate or acceptable BTA alternative for any facility, new or existing. NY's permitting agency contends "that restoration measures are inconsistent with the text of CWA §316(b) and 6 NYCRR §704.5 because such measures merely attempt to correct for the adverse environmental impacts of impingement and entrainment; they do not minimize those impacts in the first instance." (See also *Riverkeeper, Inc. v. USEPA* (2d Cir. 2004) 358 F.3d 174, 189.)

Re: Poseidon Resources Seawater Desalination Facility NPDES Permit No. CA8000403.

The above referenced permit states;

Antidegradation Policy.

- 6. Antidegradation Policy.** Section 131.12 of 40 CFR requires that State water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution 68-16, which incorporates the requirements of the federal antidegradation policy. Resolution 68-16 requires that existing water quality is maintained unless degradation is justified based on specific findings. The permitted discharge is consistent with the antidegradation provision of 40 CFR §131.12 and State Water Board Resolution 68-16.

The dumping 6.6 MGD of backwash, spent cleaning solutions and stormwater runoff into the near shore surf zone recreational waters, clearly appears to be a violation of State Antidegradation Policy unless it is justified by a stringent Antidegradation economic analysis. The permit language as stated above, makes reference to "specific findings" but does not include the source and/or detailed information regarding these findings.

It is suggested that a reference to the document or report that supports the contention that "the permitted discharge is consistent with the antidegradation provision of 40 CFR 131.12 and State Water Board Resolution 68-16" be included in the permit.

Thanks for your review and consideration of these comments regarding the above referenced tentative order and permits.

Sincerely,

D.P. Schulz,
Exec. Committee Member
Surfrider Foundation,
Huntington Beach/Seal Beach Chapter.

CC:
State Water Resources Control Board
1001 I Street, Sacramento CA 95812-0100
P.O. Box 100
ATTN: Song Her, Clerk to the Board

P.O. Box 3087, Long Beach, CA 90803

State Water Resources Control Board

WATER QUALITY CONTROL PLAN
FOR CONTROL OF
TEMPERATURE IN THE
COASTAL AND INTERSTATE WATERS
AND ENCLOSED BAYS AND ESTUARIES
OF CALIFORNIA¹

3. Coastal Waters

A. Existing discharges

- (1) Elevated temperature wastes shall comply with limitations necessary to assure protection of the beneficial uses and areas of special biological significance.

B. New discharges

- (1) Elevated temperature wastes shall be discharged to the open ocean away from the shoreline to achieve dispersion through the vertical water column.
- (2) Elevated temperature wastes shall be discharged a sufficient distance from areas of special biological significance to assure the maintenance of natural temperature in these areas.
- (3) The maximum temperature of thermal waste discharges shall not exceed the natural temperature of receiving waters by more than 20°F.
- (4) The discharge of elevated temperature wastes shall not result in increases in the natural water temperature exceeding 4°F at (a) the shoreline, (b) the surface of any ocean substrate, or (c) the ocean surface beyond 1,000 feet from the discharge system. The surface temperature limitation shall be maintained at least 50 percent of the duration of any complete tidal cycle.
- (5) Additional limitations shall be imposed when necessary to assure protection of beneficial uses.

4. Enclosed Bays

A. Existing discharges

- (1) Elevated temperature waste discharges shall comply with limitations necessary to assure protection of beneficial uses.