BY THE BOARD:

The Central Coast Regional Water Quality Control Board (Regional Board) issued waste discharge requirements to Duke Energy North America (Duke) for the operation of the Moss Landing Power Plant, Units 1, 2, 6, and 7 in Monterey County. The requirements were adopted by the Regional Board on October 27, 2000.

Timely petitions were received from a group called Voices of the Wetlands, another group called Monterey Parkway, and an individual named Carolyn Nielson.

I. BACKGROUND

The Moss Landing Power Plant has been in operation since 1950. Duke purchased the plant from Pacific Gas and Electric Company (PG&E) in July 1998. At that time the plant was regulated by the Regional Board pursuant to an order issued in 1995. The plant had seven generating units but only two were in operation at the time the last permit was issued.

Duke proposes to modernize the plant by replacing the five retired steam-turbine generators with
two new natural gas-fired combined-cycle generators. The two existing generators will remain in use.

The Regional Board has coordinated its review of the waste discharge requirements with the permit approval process of the California Energy Commission (CEC). Together the Regional Board and the CEC established a Technical Working Group consisting of staff members from the CEC, the Regional Board, the Coastal Commission, and the Department of Fish and Game as well as Duke Energy consultants, along with three independent scientists. The Group met on a regular basis and reviewed the technical aspects of the proposed waste discharge requirements and the CEC permit. The CEC acted as lead agency for purposes of compliance with the California Environmental Quality Act (CEQA).

The Regional Board held two lengthy public hearings to consider issuance of the waste discharge requirements. The first hearing took place on September 15, 2000. The Regional Board then continued the hearing to October 27 so that the Regional Board could obtain additional information concerning two issues: the offshore intake station and the Environmental Enhancement Program. Thereafter, the Regional Board adopted the waste discharge requirements.

II. CONTENTIONS AND FINDINGS

The three petitions raise a number of issues. However, with one exception, those issues are non-substantial and will not be discussed in this order. Most of the issues raised by the three petitions concern either the CEC process or CEQA compliance. As was noted above,

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the CEC was the lead agency for purposes of CEQA compliance. Other contentions are mere assertions that are not supported by evidence or argument.2

Contention: The waste discharge requirements contain no enforceable conditions that will assure compliance with the Thermal Plan requirements.

Finding: The Regional Board determined that the modifications to the facility require that the plant be treated as a “new discharge” for purposes of compliance with the State Water Resources Control Board’s Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California (Thermal Plan).3

In Finding No. 34 of the waste discharge requirements, the Regional Board accurately sets forth what the Thermal Plan requires for new elevated temperature discharges.

FINDING 34. The upgraded facility is a “new discharge” pursuant to the Thermal Plan. The Thermal Plan requires the following for new elevated temperature discharges:

a. Elevated temperature wastes shall be discharged to the open ocean away from the shoreline to achieve dispersion through the vertical column.

b. 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.

c. The maximum temperature of the thermal waste discharge shall not exceed the natural temperature of the receiving water by more than 20°F.

d. The discharge of elevated temperature wastes shall not result in increases in the natural water temperature exceeding 4°F at 1) the shoreline, 2) the surface of any ocean substrate, 3) the ocean surface beyond 1,000 feet from the discharging system. The surface temperature limitation shall be maintained at least 50% of the duration of any complete tidal cycle.

2 Substantial new evidence was submitted to the State Board during its review of this matter. None of it was offered in compliance with our regulations. Cal. Code of Regs, title 23, section 2066. Therefore, no additional evidence will be included in our record. Cal. Code of Regs., title 23, section 2064.

3 The discharge will be classified as “new” only when effluent is being discharged from the two new generators. Otherwise, the discharge from the facility is subject to less stringent thermal discharge limitations.
e. Additional limitations shall be imposed when necessary to assure protection of beneficial uses.

The waste discharge requirements must be drafted to assure compliance with the Thermal Plan. But, as is explained below, the waste discharge requirements do not include provisions necessary to ensure compliance with all the conditions listed in Finding 34. The monitoring plan required in the Monitoring and Reporting Program should be modified to assure compliance with these changes.

The provision of the Thermal Plan requiring that the maximum temperature of the thermal waste be no more than 20° F above the natural temperature of the receiving water (provision c in Finding 34) is not considered in this order. It was the subject of a March 7, 2001 resolution (No. 2001-034) issued by this Board granting a limited exception to the Thermal Plan.

The Thermal Plan requirements set forth in Finding 34.a are adequately addressed by the waste discharge requirements. Discharges will be to the open ocean, and the Regional Board has determined, based on the administrative record, that the discharge will achieve dispersion through the vertical column.

The Thermal Plan requires the elevated temperature wastes to be discharged a sufficient distance from areas of special biological significance to assure the maintenance of natural temperature in these areas. (Finding 34.b) While there are no areas of special biological significance presently located within 15 miles of the thermal discharge, it is possible that one could be designated in the area at some future date. There should be a provision in the waste discharge requirements ensuring compliance with that provision of the Thermal Plan.

The Thermal Plan requirement that temperature increases not be greater than 4° F at various places in the receiving water (Finding 34.d) is addressed in modeling studies cited in
the findings. Because there is a possibility that the actual plant operations may vary from the model, this requirement should be placed directly in the order as well as in the findings.

III. CONCLUSION

The waste discharge requirements issued by the Regional Board fail to assure compliance with some requirements of the Thermal Plan. Additional language must be inserted in the order to assure such compliance.4

IV. ORDER

IT IS HEREBY ORDERED THAT the permit be amended to add the following language:

C. RECEIVING WATER LIMITATIONS

19. i. 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.

ii. The discharge of elevated temperature wastes shall not result in increases in the natural water temperature exceeding 4° F at 1) the shoreline, 2) the surface of any ocean substrate, 3) the ocean surface beyond 1,000 feet from the discharging system. The surface temperature limitation shall be maintained at least 50% of the duration of any complete tidal cycle.

D. PROVISIONS

11. Discharger shall submit to the Executive Officer, at appropriate times, monitoring data or other information demonstrating that:

i. Elevated temperature wastes will be discharged a sufficient distance from areas of special biological significance to assure the maintenance of natural temperature in these areas.

ii. The discharge of elevated temperature wastes will not result in increases in the natural water temperature exceeding 4° F at 1) the shoreline, 2) the surface of any ocean substrate, 3) the ocean surface beyond 1,000 feet from the discharging system. The surface temperature limitation shall be maintained at least 50% of the duration of any complete tidal cycle.

4 The State Board regards these modifications to the permit as minor in nature. 40 Code of Federal Regulations 122.63.
surface beyond 1,000 feet from the discharging system. The surface temperature limitation shall be maintained at least 50% of the duration of any complete tidal cycle.

If the monitoring data or other information submitted to the Executive Officer indicate that non-compliance with any of these requirements will result from the discharge, the Executive Officer, after consultation with the Department of Fish and Game and other appropriate agencies, shall propose additional limitations to the Board that will assure protection of beneficial uses.

CERTIFICATION

The undersigned, Clerk to the Board, does hereby certify that the foregoing is a full, true, and correct copy of an order duly and regularly adopted at a meeting of the State Water Resources Control Board held on June 21, 2001.

AYE: Arthur G. Baggett, Jr.
     Peter S. Silva
     Richard Katz

NO: None

ABSENT: None

ABSTAIN: None

Maureen Marché
Clerk to the Board