

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN DIEGO REGION**

**EXECUTIVE OFFICER SUMMARY REPORT  
FEBRUARY 12, 2020**

**ITEM 4**

**SUBJECT**

NPDES Permit Reissuance: Waste Discharge Requirements for Cabrillo Power I LLC, Encina Power Station, San Diego County, Discharge to the Pacific Ocean (Tentative Order No. R9-2020-0005, NPDES No. CA0001350) (*Ben Neill*).

**STAFF RECOMMENDATION**

Adoption of the Tentative Order No. R9-2020-0005 (Tentative Order) is recommended (**Supporting Document No. 1**).

**KEY ISSUES**

Cabrillo Power I LLC (Discharger) permanently ceased power operations at Encina Power Station (EPS) on December 11, 2018, to comply with the requirements of the State Water Resources Control Board (State Water Board) statewide *Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling* (Once-Through Cooling Policy). The Once-Through Cooling Policy establishes technology-based standards to implement federal Clean Water Act section 316(b) and reduce the harmful effects associated with cooling water intake structures for power generating facilities on marine and estuarine life.

**PRACTICAL VISION**

Consistent with the mission of the *Strategy for Healthy Waters* chapter of the Practical Vision, the Tentative Order integrates all applicable technology-based requirements, water quality-based effluent limitations, and receiving water quality standards in order to optimize protection of water quality and beneficial uses in the Pacific Ocean. Additionally, the Tentative Order has provisions allowing for participation in regional monitoring and assessment programs to meet individual monitoring requirements in keeping with San Diego Water Board Resolution No. R9-2012-0069, *Resolution in Support of a Regional Monitoring Framework*.

**DISCUSSION**

The EPS is located immediately adjacent to Agua Hedionda Lagoon in the City of Carlsbad across Carlsbad Boulevard from the Pacific Ocean (**Supporting Document No. 2**). The EPS is principally owned and solely operated by the Discharger.

Under the terms of the Tentative Order, the permitted discharge flow rate from the EPS is reduced from 863.5 million gallons per day (MGD) to 2.2 MGD which is the minimum flow rate necessary to decommission the EPS. The Tentative Order also includes minor revisions to clarify the monitoring location and correct typographical errors in red-underline for added text and red-strikeout for deleted text. The Discharger supports the Tentative Order with these revisions.

Prior to permanently ceasing power generation in 2018, the EPS was a natural gas-fueled steam electric power generating station comprised of five steam turbine generators and one gas turbine generator. The electrical generating capacity of the EPS is now replaced

by the neighboring Carlsbad Energy Center Project (CECP). As a result of the shut-down, the EPS has eliminated the intake of seawater for cooling purposes and ceased discharging most of the waste streams associated with an operational power plant that were regulated under the current NPDES permit, Order R9-2006-0043 (Current Order).

The EPS has ceased power generating activities, thereby complying with Track 1 of the Once-Through Cooling Policy which included permanent retirement of all power generating units and replacement of electrical power generation with the Carlsbad Energy Center Project. Track 1 of the Once-Through Cooling Policy requires the owner or operator of an existing power plant to attain a minimum 93 percent reduction of the intake flow rate and a through-screen intake velocity that does not exceed 0.5 foot per second. Since power generating activities have ceased, the EPS no longer requires the intake of seawater for cooling water and has complied with the Once-Through Cooling Policy.

The Carlsbad Desalination Plant utilizes EPS's existing intake system and screens to pump seawater needed to produce drinking water. Item 5 on the agenda of the February 12, 2020, San Diego Water Board meeting is a proposed amendment to the NPDES permit for the Carlsbad Desalination Plant. That amendment transfers regulation of miscellaneous low-volume wastewater streams associated with the operation of the existing intake pumps and screens from the NPDES permit for EPS to the NPDES permit for the Carlsbad Desalination Plant. The Carlsbad Desalination Plant and the EPS continue to share the same riprap lined discharge channel to the Pacific Ocean.

The Tentative Order will, if adopted, supersede the Current Order for the EPS. The Tentative Order was developed based on information in the Discharger's reissuance application, self-monitoring reports, and other available sources.

### **SIGNIFICANT CHANGES**

The following are the significant differences between the Tentative Order (Supporting Document No. 1) and the Current Order:

1. Elimination of seawater intake for cooling purposes and subsequent flowrate discharge reduction from 863.5 MGD to 2.2 MGD.
2. Elimination of several low-volume waste streams including evaporator blowdown, demineralizer regenerants, softeners, condenser cleaning, sand filter backwash, reverse osmosis membrane cleaning, and saltwater heat exchanger drains.
3. Elimination of effluent limitations for temperature and total chlorine residual.
4. Reduction of monitoring requirements, as appropriate, due to the elimination of waste streams.

### **COMPLIANCE RECORD**

During the term of the Current Order there were 3 chronic toxicity violations and 3 deficient monitoring or reporting violations (See the Compliance Summary in **Supporting Document No. 1**, Attachment F, Page F-10). The Discharger reported chronic toxicity in the intake seawater was elevated at the time of the chronic toxicity violations. Staff enforcement letters were issued to the Discharger and requested steps be taken to eliminate and prevent the reoccurrence of all six of the violations. The EPS has not been cited with any violations since 2016.

**PUBLIC NOTICE**

The Tentative Order was noticed and released for public review and sent to all known interested persons by email on December 13, 2019, with comments due on January 13, 2020. The Notice of Public Hearing and Comment Period (**Supporting Document No. 3**) was posted on the San Diego Water Board website for the duration of the comment period. The public hearing for the Tentative Order was noticed in the Meeting Notice and Agenda for the February 12, 2020, Board meeting, which was posted on the San Diego Water Board website.

**SUPPORTING DOCUMENTS**

1. Tentative Order No. R9-2020-0005
2. Location Map
3. Notice of Public Hearing and Comment Period