

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

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

ITEM 5

SUBJECT

NPDES Permit Amendment: An Order Amending Order No. R9-2019-0003, NPDES No. CA0109223, Waste Discharge Requirements for the Poseidon Resources (Channelside) LP Claude "Bud" Lewis Carlsbad Desalination Plant Discharge to the Pacific Ocean (Tentative Order No. R9-2020-0004) (*Ben Neill*).

STAFF RECOMMENDATION

Adoption of the Tentative Order No. R9-2020-0004 (Tentative Order) is recommended (**Supporting Document No. 1**).

KEY ISSUES

1. The Encina Power Station (EPS) permanently ceased power operations on December 11, 2018. The transition to stand-alone operation of the Poseidon Resources (Channelside) LP (Poseidon), Claude "Bud" Lewis Carlsbad Desalination Plant (CDP), requires continued use of the EPS seawater intake pumps and screens until new intake pumps and screens are installed and operational at the CDP. The pumps are used to supply source seawater to the CDP from Agua Hedionda Lagoon for both potable water production and brine dilution.
2. The Tentative Order proposes minor modifications of Order No. R9-2019-0003 to transfer National Pollutant Discharge Elimination System (NPFDES) permit coverage, responsibility and liability (collectively referred to as regulatory coverage) to Poseidon for miscellaneous low-volume wastewater flows associated with the interim operation of the existing EPS seawater intake pumps and screens. The Tentative Order also proposes to revise CDP effluent limitations for tetra chlorinated dibenzodioxins (TCDD) equivalents, and minor clarifications and corrections to the monitoring and reporting program.

PRACTICAL VISION

Consistent with the mission of the *Strategy for Healthy Waters* chapter of the Practical Vision,¹ the Tentative Order modifies an existing permit, Order No. R9-2019-0003, to transfer regulatory coverage and allow the CDP to discharge existing low-volume wastewater flows associated with the EPS seawater intake structure. The requirements in the Tentative Order will ensure the new discharge, which will be regulated under Order No. R9-2019-0003 as amended, is subject to applicable technology-based requirements, water quality-based effluent limitations, and receiving water quality standards for optimal protection of water quality and beneficial uses in the Pacific Ocean.

DISCUSSION

Poseidon is the subsidiary owner and operator of the CDP. The CDP is a reverse osmosis seawater desalination plant producing up to 60 million gallons per day (MGD) of drinking

¹ The San Diego Water Board's Practical Vision is available at this website:
https://www.waterboards.ca.gov/sandiego/water_issues/Practical_Vision/index.shtml

water to augment local public water supplies. The CDP discharges up to 67 MGD of reverse osmosis concentrate and filter backwash, diluted with additional seawater, to the Pacific Ocean under the terms and conditions of an NPDES permit, Order No. R9-2019-0003. The CDP is located on the shore of Agua Hedionda Lagoon in the City of Carlsbad, California, between Interstate 5 and the Pacific Ocean as shown in **Supporting Document No. 2**.

The Tentative Order will amend Order No. R9-2019-0003 to transfer regulatory coverage for miscellaneous low-volume wastewater flows associated with the interim operation of the existing seawater intake pumps and screens to Poseidon's CDP. The low-volume wastewater flows include cooling water pump lubrication and seal water pretreatment backwash, traveling screen backwash water, tunnel and forebay cleaning, and hypochlorinator direct current rectifier cooling water. The EPS was retired at the end of 2018 and ceased using the existing intake system. Poseidon's CDP continues to utilize the existing intake pumps and screens to withdraw up to 330 MGD of seawater from Agua Hedionda Lagoon, which is used to produce drinking water and dilute the brine discharge.

The CDP NPDES permit includes a California Water Code section 13142.5(b) determination (Determination) to use the best available site, design, technology, and mitigation measures feasible to minimize the intake and mortality of all forms of marine life. As a condition of the Determination, new intake pumps are planned to start operation at the CDP no later than June 30, 2020. With the installation of new pumps and later new screens, the CDP is on schedule to comply with the provisions of the Determination. Additionally, the new intake pumps will not require the discharge of hypochlorinator direct current rectifier cooling water, cooling water pump lubrication, and seal water pretreatment backwash, therefore these discharges will be terminated.

The Tentative Order also amends Order No. R9-2019-0003 to remove effluent limitations for TCDD equivalents. The effluent limitations for TCDD equivalents were based on a reasonable potential analysis that relied on previous monitoring reports that contained calculation errors. After correcting the calculation errors and updating the reasonable potential analysis, the San Diego Water Board determined the CDP does not have reasonable potential to exceed the water quality standards for TCDD equivalents and thus the effluent limitations are unnecessary.

Lastly, the Tentative Order amends Order No. R9-2019-0003 to provide minor clarifications on monitoring requirements and correct minor reporting due date inconsistencies.

LEGAL CONCERNS

None.

PUBLIC NOTICE

The Tentative Order was released for public review and comment for a thirty-day comment period on December 13, 2019. The San Diego Water Board received two comment letters in support of the Tentative Order from Poseidon and the San Diego County Water Authority on January 13, 2020, (**Supporting Document Nos. 3 and 4**).

The Notice of Public Hearing and Comment Period was posted on the San Diego Water Board website for the duration of the comment period and sent to all known interested

persons by email on December 13, 2019. A copy of the Notice is included as **Supporting Document No. 5**. Notice of the public hearing on the Tentative Order was also provided 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. R9-2020-0004
2. Location Map
3. Letter in support from Poseidon Resources (Channelside) LP
4. Letter in support from San Diego County Water Authority
5. Notice of Public Hearing and Comment Period