

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

**EXECUTIVE OFFICER SUMMARY REPORT  
October 10, 2018**

**ITEM 4**

**SUBJECT**

NPDES Permit Reissuance: Waste Discharge Requirements for the San Diego Gas and Electric Company, Palomar Energy Center Discharge to the Pacific Ocean through the San Elijo Ocean Outfall (Tentative Order No. R9-2018-0062, NPDES No. CA0109215). (*Joann Lim*)

**STAFF RECOMMENDATION**

Adoption of the Revised Tentative Order No. R9-2018-0062 (Tentative Order, **Supporting Document No. 1**) is recommended.

**KEY ISSUE**

The Tentative Order increases the effluent monitoring frequency for several parameters to assess any changes to the effluent quality discharged through the San Elijo Ocean Outfall, to determine compliance with the effluent limitations, and to ensure a sufficient dataset for performing a more statistically-sound reasonable potential analysis (RPA) for the next NPDES reissuance.

**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 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 in keeping with San Diego Water Board Resolution No. R9-2012-0069, *Resolution in Support of a Regional Monitoring Framework*.

**DISCUSSION**

San Diego Gas and Electric Company (Discharger) is the owner and operator of the Palomar Energy Center (Facility), a natural gas-fired combined cycle power plant located at 2300 Harveson Place, Escondido, CA 92029. The Facility discharges cooling tower blowdown to the Pacific Ocean, a water of the United States (U.S.). The location of the Facility is shown in **Supporting Document No. 2**.

Approximately 5.3 million gallons per day (MGD) of recycled water is continuously conveyed to the Facility from the City of Escondido's Hale Avenue Resource Recovery Facility (HARRF). The recycled water is treated by the Facility's water purification system (ultra-filtration (UF), reverse osmosis (RO), electro-deionization (DEI)) and then utilized in the Facility's heat recovery steam generators (HRSG). The recycled water from HARRF is also used in the Facility's cooling tower.

The UF backwash, RO brine backwash, DEI brine backwash, various low flow floor drains, and heat recovery steam generator blowdown (collectively referred to as "low volume waste sources") are pumped into the cooling tower along with recycled water from HARRF and other feed water (including the Facility's fire suppression system water and/or retained storm water). A portion of the cooling tower water is purged as "blowdown" and replaced with "make up" water.

The City of Escondido owns and operates the Industrial Brine Collection System (IBCS) and issued Industrial User Discharge (IUD) Permit No. 11016A for the Facility to discharge cooling tower blowdown to the IBCS. Up to 1.4 MGD of the cooling tower blowdown is discharged to the IBCS, which connects to the Escondido Land Outfall (ELO). The cooling tower blowdown is conveyed through the ELO to the San Elijo Ocean Outfall (SEOO). The SEOO also receives wastewater from four other facilities which are regulated under separate NPDES permits: the City of Escondido's HAARF and Membrane Filtration/Reverse Osmosis (MFRO) Facility, the San Elijo

Joint Powers Authority's San Elijo Water Reclamation Facility, and the Liquid Stone Holdings, LLC's Stone Brewing Co. LLC. The combined flow from of these facilities is discharged through the SEOO to the Pacific Ocean at a point approximately 6,800 feet offshore at a depth of approximately 110 feet.

The Discharger is currently regulated by Order No. R9-2012-0015 (current Order). As required by the current Order, the Discharger submitted an application for permit reissuance on April 25, 2017. The current Order, which has an expiration date of October 31, 2017, was administratively extended pursuant to California Code of Regulations (CCR), title 23, section 2235.4, which provides that the terms and conditions of an expired permit are automatically continued pending reissuance of the permit if the Discharger complies with all federal NPDES requirements for continuation of expired permits (see Code of Federal Regulations, title 40, section 122.6). The Tentative Order will, if adopted, supersede the current Order. The Tentative Order was developed based on information in the Discharger's permit reissuance application, self-monitoring reports, and other available sources (e.g. facility inspection reports).

The Tentative Order was noticed and released for public review and comment for a 30-day period on August 10, 2018. The public comment period closed on September 10, 2018. On August 30, 2018, the San Diego Water Board received one comment email from the Discharger (**Supporting Document No. 3**). The Discharger requested a change to the due date for the January through June semiannual monitoring reports from August 1<sup>st</sup> to September 1<sup>st</sup>. The change has been made in the Revised Tentative Order (**Supporting Document No. 1**, Attachment E, section VIII.B., Table E-4, page E-15). The San Diego Water Board did not receive any other comments.

### **SIGNIFICANT CHANGES**

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

1. The Tentative Order requires the Discharger to evaluate the chronic toxicity in the discharge using USEPA's 2010 Test of Significant Toxicity (TST) hypothesis testing approach at the discharge "in-stream" waste concentration (IWC), as described in the Tentative Order, Attachment E, section III.C, pages E-7 through E-12.
2. The Tentative Order increases monitoring for temperature from semiannually to monthly to determine compliance with the receiving water limitation from the *Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California* (see Tentative Order, section V.A.6).
3. The Tentative Order increases monitoring for total dissolved solids from semiannually to monthly to evaluate whether the dilution credit established in 2005 is still applicable and appropriate and to re-assess the dilution credit if the brine discharges from the Facility changes the effluent quality discharged at Discharge Point No. 001.
4. The Tentative Order increases the monitoring for pH from semiannually to monthly to demonstrate if effluent limitations have been met.
5. The Tentative Order increases monitoring for the Ocean Plan Table 1 parameters from annually to semiannually to ensure a sufficient dataset for performing a more statistically-sound RPA for the next NPDES reissuance.

### **COMPLIANCE RECORD**

Between November 2012 and July 2018, the Discharger reported one effluent violation for pH (June 2013), one effluent violation for oil and grease (February 2015), one late monitoring report violation (May 2015), and one deficient monitoring violation in the annual report for 2015. These violations

are summarized in the Tentative Order, Attachment F, section II.D, pages F-10 through F-11 (**Supporting Document No. 1**). The San Diego Water Board issued four staff enforcement letters to the Discharger in response to these violations. The Discharger has taken corrective actions in response to these violations.

#### **PUBLIC NOTICE**

The Tentative Order was noticed and released for public review and comment on August 10, 2018, with comments due September 10, 2018. A public notice was published in the San Diego Union Tribune on August 10, 2018, which announced the October 10, 2018 public hearing and availability of the Tentative Order, and provided instructions on submittal of comments on the Tentative Order. Notice of the October public hearing on the Tentative Order was also provided in the Meeting Notice and Agenda for the October 10, 2018 San Diego Water Board meeting, which was posted on the San Diego Water Board website. Notice of the availability of the Tentative Order for public review and comment was sent to all known interested parties by email on August 10, 2018 and posted on the San Diego Water Board website. A copy of the public notice is provided in **Supporting Document No. 4**.

#### **SUPPORTING DOCUMENTS**

1. Tentative Order
2. Location Map
3. Comment email from the Discharger, dated August 30, 2018
4. Notice of Public Hearing