

State of California
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

TIME SCHEDULE ORDER R4-2021-XXXX
REQUIRING AES REDONDO BEACH, LLC
(REDONDO BEACH GENERATING STATION)
TO COMPLY WITH REQUIREMENTS PRESCRIBED IN
ORDER R4-2016-0222 AND ITS SUBSEQUENT AMENDMENT
(NPDES PERMIT NO. CA0001201, CI NO. 0536)

The California Regional Water Quality Control Board, Los Angeles Region (hereinafter Los Angeles Water Board), finds:

1. AES Redondo Beach, LLC (hereinafter, Discharger or Permittee) is the owner and operator of the Redondo Beach Generating Station (hereinafter Facility), a steam electric generating facility, located at 1100 Harbor Drive, Redondo Beach, California.
2. There are three active, steam-powered electric generating units on site (Units 5, 6 and 8). Units 1, 2, 3, 4 and 7 are no longer in service. The generating units operate using once-through cooling (OTC) water drawn from two submerged intakes in King Harbor and one submerged intake just outside the King Harbor breakwater using circulation pumps. The Facility discharges OTC water, low-volume in-plant wastewater and groundwater seepage to the Pacific Ocean through Discharge Point 001, located off the northwest corner of the King Harbor breakwater. The Facility also discharges OTC water and stormwater to King Harbor through Discharge Point 002, located in the southeast corner of the harbor. OTC water accounts for greater than 99 percent of the total discharge from the Facility. Low-volume in-plant wastewater, groundwater seepage and stormwater are combined with OTC water prior to discharge.
3. On May 4, 2010, the California State Water Resources Control Board (hereinafter State Water Board) adopted a Statewide Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling (OTC Policy). The OTC Policy was approved by the Office of Administrative Law (OAL) on September 27, 2010. The OTC Policy was amended on June 18, 2013; the 2013 amendments became effective on February 27, 2014. The OTC Policy established technology-based standards to implement federal Clean Water Act (CWA) section 316(b) and reduce the harmful effects associated with cooling water intake structures on marine and estuarine life. All owners or operators of existing power plants were required to submit an implementation plan identifying the selected OTC compliance alternative, either Track 1 or Track 2, as defined therein, by April 1, 2011. The Discharger submitted an implementation plan on April 1, 2011. A revised implementation plan

was submitted on June 17, 2011. Additional implementation information was submitted on March 31, 2013, November 8, 2013, and February 12, 2016. Per the submitted information, the Discharger has indicated that the mechanism to achieve OTC Policy compliance at the Facility will be via Track 1, which requires a reduction in the intake flow rate and velocity at each unit to a level commensurate with that which can be attained by either a closed-cycle wet cooling system or closed-cycle dry cooling system. The Track 1 compliance at the Facility will include the permanent shut down of all generating units. The discharge of OTC water will cease when the Facility is permanently retired. The OTC Policy initially included a final compliance date of December 31, 2020 for the Facility.

4. The joint-agency Statewide Advisory Committee on Cooling Water Intake Structures (SACCWIS) was created to advise the State Water Board on the implementation of the OTC Policy, ensuring the compliance schedule takes into account the reliability of California's electricity supply. Several compounding events resulted in emerging concern about system-wide grid reliability during the summer of 2021. On January 23, 2020, SACCWIS approved the compliance date extensions report and voted in favor of a recommendation to the State Water Board that included an extension of the compliance date for Redondo Beach Generating Station for one year until December 31, 2021. The SACCWIS recommendation was based on the megawatt need identified in California Public Utilities Commission (CPUC) Decision (D.)19-11-016. On September 1, 2020, the State Water Board considered the SACCWIS recommendation and adopted an amendment to the OTC Policy that revised the final compliance date for the Discharger by one year to December 31, 2021. The OTC Policy amendment was approved by OAL on November 30, 2020.
5. Swaths of the western United States encountered a prolonged and extreme heat wave in August 2020 that ultimately required rotating outages to prevent wide-spread service interruptions. As a result of the heat wave and a subsequent directive from Governor Gavin Newsom to carry out a root cause analysis, the CPUC initiated Rulemaking (R.)20-11-003 to consider actions within its authority to address potential grid reliability issues starting in summer 2021. The CPUC then adopted D.21-02-028 on February 11, 2021, and subsequently adopted D.21-03-056 on March 25, 2021, to address projected shortfalls in summers 2022 and 2023. In response to the CPUC decisions, on March 26, 2021, the SACCWIS adopted the Final 2021 Report of the SACCWIS, recommending the State Water Board extend the final OTC compliance date of Redondo Beach Units 5, 6, and 8 for an additional two years through December 31, 2023. The SACCWIS recommendation was based on projected system-wide shortfalls identified in D.21-02-028 and D.21-03-056. On October 19, 2021, the State Water Board considered the SACCWIS recommendation and adopted an amendment to the OTC Policy that revised the final compliance date for the Discharger by two years to December 31, 2023. This is a new regulatory requirement with which the Discharger must comply.
6. On June 9, 2016, the Los Angeles Water Board adopted Order R4-2016-0222, which renewed the waste discharge requirements for the Redondo Beach Generating Station. Order R4-2016-0222 became effective on October 1, 2016. On December

10, 2020 the Los Angeles Water Board adopted Order R4-2016-0222-A01, which modified Order R4-2016-0222 to reflect the new OTC Policy compliance date of December 31, 2021. Order R4-2016-0222 and its subsequent amendment serves as a permit under the National Pollutant Discharge Elimination System (NPDES No. CA0001201) Program and regulates the discharge of the pollutants at the Facility. The permit authorizes the discharge of up to 215 million gallons per day (MGD) of combined wastewater consisting of OTC water, low-volume in-plant wastewater and groundwater seepage into the Pacific Ocean, a water of the United States, through Discharge Point 001. The permit also authorizes the discharge of up to 674 MGD of combined wastewater consisting of OTC water and stormwater to King Harbor through Discharge Point 002. The modifications to Order R4-2016-0222 contained in Order R4-2016-0222-A01 became effective on the date of adoption (December 10, 2020). Order No. 2016-0222 expired on September 30, 2021; however, approximately 180 days prior to the expiration date, on April 1, 2021, the Discharger submitted a Report of Waste Discharge (ROWD) to renew its waste discharge requirements pursuant to California Water Code section 13260. On April 29, 2021, the Los Angeles Water Board issued a letter in which it determined that the ROWD was complete. As such, the terms and conditions of Order R4-2016-0222-A01, including the accompanying Monitoring and Reporting Program are administratively extended pursuant to 40 CFR section 122.6 and 23 California Code of Regulations section 2235.4.

7. The Facility's prior permit (Order 00-085) considered the receiving waters for Discharge Point 002 (King Harbor) as ocean waters and therefore established permit limitations and conditions to protect the beneficial uses and comply with water quality objectives (WQOs) for ocean waters as described by the California Ocean Plan (1997). The Water Quality Control Plan for the Coastal Watersheds of Los Angeles and Ventura Counties (Basin Plan), however, classifies King Harbor as an enclosed bay. The State Water Board, in a memo dated July 18, 2001, identified the receiving waters for the Redondo Beach Generating Station Discharge Point 002 as subject to requirements of the State Implementation Policy (SIP), which is applicable only to inland surface waters, enclosed bays, and estuaries of the state. In a letter dated January 21, 2003, the Los Angeles Water Board notified the Discharger of the reclassification of the outfall from an ocean discharge to an enclosed bay discharge. Order R4-2016-0222 and its subsequent amendment reflects the reclassification of the discharges from Discharge Point 002 and therefore implements the SIP for discharges from that outfall.
8. Prior to the adoption of Order R4-2016-0222, on January 20, 2016, the Discharger submitted a written request to the Los Angeles Water Board for additional time to achieve compliance with certain new effluent limitations contained in Order R4-2016-0222. On May 6, 2016, the Discharger submitted a revised written request to the Los Angeles Water Board for additional time to achieve compliance with certain other new effluent limitations contained in Order R4-2016-0222. Based on monitoring data, the Los Angeles Water Board found that interim effluent limitations were appropriate for temperature, pH, copper and nickel. On June 9, 2016, the Los Angeles Water Board adopted Time Schedule Order (TSO) R4-2016-0223 concurrently with the

adoption of Order R4-2016-0222. TSO R4-2016-0223 included interim effluent limitations for temperature, pH, copper and nickel at Discharge Point 002; and for pH at Internal Monitoring Location INT-001A.

9. On August 24, 2017, the Discharger submitted a written request for additional time to achieve compliance with the new effluent limitations for DDT contained in Order R4-2016-0222. Based on monitoring data, the Los Angeles Water Board found that interim effluent limitations were appropriate for DDT at Discharge Points 001 and 002. On November 30, 2017, the Executive Officer issued TSO R4-2016-0223-A01 that amended TSO R4-2016-0223 to include interim limitations for DDT at Discharge Points 001 and 002.
10. On October 11, 2018, the Discharger submitted a request to the Los Angeles Water Board to modify the compliance deadlines in TSO R4-2016-0223-A01. The request discussed grid reliability issues involving the California Independent System Operator (CAISO), Southern California Edison (SCE), and the CPUC. The Los Angeles Water Board evaluated the request for modification of the compliance schedule and determined that the modification was appropriate. On December 21, 2018, the Executive Officer issued TSO R4-2016-0223-A02 that amended TSO R4-2016-0223-A01 to include the revised compliance schedule. TSO R4-2016-0223-A02 included the interim limitations described above and had an expiration date of December 31, 2020.
11. On January 22, 2020, the Discharger submitted a written request for additional time, up to December 31, 2021, to achieve compliance with the effluent limitations established in Order R4-2016-0222 for DDT at Discharge Point 001; for temperature, pH, copper, nickel and DDT at Discharge Point 002; and for pH at Monitoring Location INT-001A. The written request referenced the grid reliability issues addressed by SACCWIS in Finding 4 above. The request indicated that Unit 7 was permanently retired on September 30, 2019. The September 1, 2020 amendment to the OTC Policy required continued operation of Units 5, 6 and 8 for an additional year until December 31, 2021.
12. The Los Angeles Water Board evaluated the January 22, 2020 request and found a TSO to be appropriate given the grid reliability issues that required continued operation of the Facility for an additional year until December 31, 2021. On December 10, 2020, the Los Angeles Water Board adopted TSO R4-2020-0139, which revised the final compliance date for the Discharger by one year to December 31, 2021.
13. On September 17, 2021, the Discharger submitted a written request for additional time, up to December 31, 2023, to achieve compliance with the effluent limitations established in Order R4-2016-0222 for DDT at Discharge Point 001; for temperature, pH, copper, nickel and DDT at Discharge Point 002; and for pH at Monitoring Location INT-001A. The written request referenced the grid reliability issues addressed by SACCWIS in Finding 5 above. The amendment to the OTC Policy, adopted by the State Water Board on October 19, 2021, allows continued operation of Units 5, 6 and 8 for two additional years until December 31, 2023.

14. In accordance with Water Code section 13385, subdivision (j)(3)(C)(ii), the Los Angeles Water Board finds that the Discharger is making diligent progress toward bringing the waste discharge into compliance with the effluent limitations. Specifically, the Discharger has made diligent progress towards compliance with the temperature, pH, copper, nickel and DDT effluent limitations because it has been steadily implementing actions associated with Track 1 compliance with the OTC Policy, as described above in Finding 3, including by permanently shutting down Unit 7 on September 30, 2019, as described above in Finding 10. Additionally, the Los Angeles Water Board finds that the Discharger has demonstrated that additional time is necessary to comply with the effluent limitations due to system-wide grid-reliability issues that require continued operation of Units 5, 6, and 8, as set forth in the amendment to the OTC Policy that was adopted on October 19, 2021, which extended the final compliance date for the Discharger by two years to December 31, 2023.

Under these conditions, the Los Angeles Water Board, following a public hearing and notice and comment period, may extend the TSO for an additional period for these effluent limitations in accordance with the limits set forth in Water Code section 13385, subdivision (j)(3)(C)(ii)(II). Therefore, the compliance requirements contained in TSO R4-2020-0139 for DDT at Discharge Point 001; for temperature, pH, copper, nickel and DDT at Discharge Point 002; and for pH at Monitoring Location INT-001A may be extended for another two years under this new TSO.

15. Water Code section 13300 states:

“Whenever a regional board finds that a discharge of waste is taking place or threatening to take place that violates or will violate requirements prescribed by the regional board, or the state board, or that the waste collection, treatment, or disposal facilities of a discharger are approaching capacity, the board may require the discharger to submit for approval of the board, with such modifications as it may deem necessary, a detailed time schedule of specific actions the discharger shall take in order to correct or prevent a violation of requirements.”

16. Water Code section 13385, subdivisions (h) and (i), require the Los Angeles Water Board to impose mandatory minimum penalties upon dischargers that violate certain effluent limitations. Section 13385(j)(3) exempts violations of an effluent limitation from mandatory minimum penalties "where the waste discharge is in compliance with either a cease and desist order issued pursuant to Section 13301 or a time schedule order issued pursuant to Section 13300, *if all of the [specified] requirements are met.*" (emphasis added).
17. In order to comply with the effluent limitations for DDT for the discharge to the Pacific Ocean at Discharge Point 001; for temperature, pH, copper, nickel and DDT for the discharge to King Harbor at Discharge Point 002; and for pH at Internal Monitoring Location INT-001A; the Discharger will cease the discharge of OTC water and low-volume wastewater. The cessation of discharge will be accomplished through compliance via Track 1 with the OTC Policy. The Los Angeles Water Board issues this TSO because the Discharger needs time to implement appropriate control measures associated with the complete cessation of discharge and implementation

of Track 1 compliance pursuant to the OTC Policy. Through this TSO, the Discharger will be required to comply with the final effluent limitations for DDT for the discharge to the Pacific Ocean at Discharge Point 001; for temperature, pH, copper, nickel and DDT for the discharge to King Harbor at Discharge Point 002; and for pH at Internal Monitoring Location INT-001A no later than December 31, 2023.

18. A TSO is appropriate in these circumstances to allow time for the Permittee to implement necessary control measures that will bring the Facility into compliance with the final effluent limitations for DDT at Discharge Point 001; for temperature, pH, copper, nickel and DDT at Discharge Point 002; and for pH at Monitoring Location INT-001A.
19. Therefore, this TSO retains the interim effluent limitations contained in TSO R4-2020-0139 for DDT for the discharge to the Pacific Ocean at Discharge Point 001; for temperature, pH, copper, nickel and DDT for the discharge to King Harbor at Discharge Point 002; and for pH at Internal Monitoring Location INT-001A.
20. The exceedances of effluent limitations allowed by this TSO are in the public interest given the facility is a generating station utilized to supply power to the power grid, this TSO is for a limited period of time, and the discharge will continue to be in compliance with the applicable mass limitations in Order R4-2016-0222.
21. Pursuant to Water Code section 13385, subdivision (j)(3), full compliance with the requirements of this TSO exempts the Permittee from mandatory minimum penalties only for violations of the final effluent limitations for DDT for the discharge to the Pacific Ocean at Discharge Point 001; for temperature, pH, copper, nickel and DDT for the discharge to King Harbor at Discharge Point 002; and for pH at Internal Monitoring Location INT-001A contained in Order R4-2016-0222 and its subsequent amendment that occur after the effective date of this TSO.
22. This TSO concerns an existing facility that is a utility used to provide electric power and involves no expansion of its existing or former use. Therefore, issuance of this TSO is exempt from the provisions of the California Environmental Quality Act (Public Resources Code, Section 21100, et seq.) in accordance with California Code of Regulations, title 14, sections 15301 and 15321, subdivision (a)(2).
23. The Los Angeles Water Board has notified the Permittee and interested agencies and persons of its intent to issue this TSO concerning compliance with waste discharge requirements and has provided them with an opportunity to submit written comments.
24. Any person aggrieved by this action of the Los Angeles Water Board may petition the State Water Board to review the action in accordance with Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Board must receive the petition by 5:00 p.m., 30 days after the Los Angeles Water Board action, except that if the thirtieth day following the action falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the Internet at:

http://www.waterboards.ca.gov/public_notices/petitions/water_quality

or will be provided upon request.

IT IS HEREBY ORDERED that, pursuant to Water Code section 13300, AES Redondo Beach, LLC, as owner and operator of the Redondo Beach Generating Station, shall comply with the requirements listed below to ensure its discharges comply with the final effluent limitations for DDT for the discharge to the Pacific Ocean at Discharge Point 001; for temperature, pH, copper, nickel and DDT for the discharge to King Harbor at Discharge Point 002; and for pH at Internal Monitoring Location INT-001A contained in Order R4-2016-0222 as amended by Order R4-2016-0222-A01:

1. Comply immediately with the following interim effluent limitation at Discharge Point 001, which shall be deemed effective from January 1, 2022 to December 31, 2023:

Parameter	Units	30-day Average
DDT ¹	µg/L	2.5
¹ DDT shall mean the sum of: 4,4'-DDT, 2,4'-DDT, 4,4'-DDE, 2,4'-DDE, 4,4'-DDD and 2,4'-DDD.		

2. Comply immediately with the following interim effluent limitations at Discharge Point 002, which shall be deemed effective from January 1, 2022 to December 31, 2023:

Parameter	Units	AMEL	MDEL	Instantaneous Maximum
Temperature	°F	---	---	106 ¹
pH	s.u.	---	---	6.0 – 9.0
Copper	µg/L	10	34	---
Nickel	µg/L	27	27	---
DDT ²	µg/L	2.5	3.1	---
¹ The temperature of wastes discharged shall not exceed 106°F during normal operation of the facility. During heat treatment, the temperature of wastes discharged shall not exceed 125°F except during adjustment of the recirculation gate at which time the temperature of wastes discharged shall not exceed: 135°F. Temperature fluctuations during gate adjustment above 125°F shall not last for more than thirty (30) minutes.				
² DDT shall mean the sum of: 4,4'-DDT, 2,4'-DDT, 4,4'-DDE, 2,4'-DDE, 4,4'-DDD and 2,4'-DDD.				

3. Comply immediately with the following interim effluent limitation at Monitoring Location INT-001A, which shall be deemed effective from January 1, 2022 to December 31, 2023:

Parameter	Units	AMEL	MDEL	Instantaneous Maximum
pH	s.u.	---	---	6.0 – 9.6

4. Achieve full compliance with the final effluent limitations for DDT for the discharge to the Pacific Ocean at Discharge Point 001; for temperature, pH, copper, nickel and DDT for the discharge to King Harbor at Discharge Point 002; and for pH at Internal Monitoring Location INT-001A contained in Order R4-2016-0222 as amended by Order R4-2016-0222-A01 as soon as possible, but no later than December 31, 2023.

5. Comply with the schedule as stipulated below:

No.	Task	Deadline
1.	Eliminate the discharge of OTC water and low volume wastes through Discharge Point 001 by permanently shutting down Units 5 and 6.	December 31, 2023
2.	Eliminate the discharge of OTC water through Discharge Point 002 by permanently shutting down Unit 8.	December 31, 2023

6. Submit semiannual progress reports of actions taken to achieve compliance with the final effluent limitations. The reports shall summarize the progress to date, activities conducted during the reporting period and the activities planned for the upcoming period. Each report shall be submitted to this Los Angeles Water Board by August 15th and February 15th for the reporting period of January 1st through June 30th and July 1st through December 31st, respectively, and include milestones completed and any new pertinent updates. The first semiannual progress report is due on August 15, 2022 for the January 1, 2022 through June 30, 2022, reporting period.
7. Any person signing a document submitted under this TSO shall make the following certification:
- “I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”
8. If the Permittee fails to comply with any provision of this TSO, the Los Angeles Water Board may take any further action authorized by law. The Executive Officer, or the appointed delegee thereof, is authorized to take appropriate enforcement action pursuant, but not limited to, CWC sections 13350 and 13385. The Los Angeles Water Board may also refer any violations to the Attorney General for judicial enforcement, including injunction and civil monetary remedies.
9. All other provisions of Order R4-2016-0222 as amended by Order R4-2016-0222-A01 not in conflict with this TSO remain in effect.
10. The Los Angeles Water Board may reopen this TSO at its discretion or at the request of the Permittee, if warranted. Lack of progress towards compliance with this TSO may be cause for the Los Angeles Water Board to modify the conditions of this TSO.
11. This TSO becomes effective on January 1, 2022 and it expires on December 31, 2023.

AES Redondo Beach, LLC
Redondo Beach Generating Station

Time Schedule Order R4-2021-XXXX
NPDES NO. CA0001201

I, Renee Purdy, Executive Officer, do hereby certify that the foregoing is a full, true and correct copy of the order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on December 9, 2021.

Renee Purdy, Executive Officer