

## DOCKETED

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<b>Document Title:</b>	Los Angeles Regional Water Quality Control Board Comments on the PSA for the Proposed Puente Power Project
<b>Description:</b>	NRG Oxnard Energy Center California South LP Mandalay Generating Station NPDES No. CA0001180, Ci-2093
<b>Filer:</b>	Raquel Rodriguez
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## Los Angeles Regional Water Quality Control Board

August 15, 2016

Mr. Chris Davis  
Manager, Siting Office  
California Energy Commission  
Dockets Unit, MS-4  
1516 Ninth Street  
Sacramento, CA 95814-5512

Dear Mr. Davis:

**COMMENTS ON THE PRELIMINARY STAFF ASSESSMENT FOR THE PROPOSED PUENTE POWER PROJECT (15-AFC-01), FOR NRG OXNARD ENERGY CENTER (NRG CALIFORNIA SOUTH LP) MANDALAY GENERATING STATION (NPDES No. CA0001180, Ci-2093)**

The Los Angeles Regional Water Quality Control Board (Regional Water Board) staff appreciates the opportunity to review the Preliminary Staff Assessment (PSA) for the Proposed Puente Power Project (P3). The PSA is a publication by California Energy Commission (Energy Commission) for the P3. The NRG Oxnard Energy Center, an affiliate of NRG California South LP submitted an Application for Certification to the Energy Commission to develop and operate a 262-megawatt (MW) electric power project on a 3-acre portion of the 36-acre Mandalay Generating Station (MGS) located at 393 North Harbor Boulevard, Oxnard, California. NRG California South LP is the owner and operator of MGS, a steam-electric generating facility.

The MGS consists of three fossil-fueled electric generating units with a total combined generating capacity of approximately 560 megawatts (MW). Units 1 and 2 are steam-electric generating units which use once-through cooling water and each have a rated power generation capacity of 215 MW. Unit 3 is a 130 MW simple-cycle combustion turbine unit which does not utilize once-through cooling water. The cooling water for the MGS is withdrawn from the ocean via the Edison Canal. The Edison Canal is a man-made channel which extends approximately 2.5 miles from the Facility to Channel Islands Harbor and the Pacific Ocean. The MGS's intake structure includes the entirety of the canal terminating at the West Channel Islands Boulevard overpass at the entrance to Channel Islands Harbor. In addition to the canal, the intake structure is composed of two angled intake bays, traveling screens, and circulating water pumps. The screens function to prevent organisms and debris from entering the system. Downstream of each screened intake bay are two circulating water pumps.

**Clean Water Act Section 316(b) – Impingement and Entrainment.**

CWA section 316(b) requires that the location, design, construction, and capacity of cooling water intake structures reflect the Best Technology Available for minimizing adverse environmental impacts related to entrainment (drawing organisms into the cooling water system) and impingement (trapping organisms against the intake screens).

On May 4, 2010, the State Water Board adopted the *Statewide Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling* (OTC Policy) which was amended on July 19, 2011, and June 18, 2013. The OTC 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 on marine and estuarine life. It applies to existing power plants that currently have the ability to withdraw water from the State's coastal and estuarine waters using a single-pass system, also known as once-through cooling.

The OTC Policy requires the owner or operator of an existing power plant comply with the OTC Policy by either reducing the intake flow rate at each unit to a level commensurate with that which can be attained by a closed-cycle wet cooling system (Track 1) or by reducing the impingement mortality and entrainment of marine life for the facility, on a unit-by-unit basis, to a comparable level to that which would be achieved under Track 1 (Track 2). The MGS has elected to retire Units 1 and 2 and replace them with the Puente Power Project (P3) by December 31, 2020. This change (see below) complies with the requirements of Track 1 and the final compliance date, December 31, 2020, is in compliance with the implementation schedule included in the OTC Policy.

### **Proposed Puente Power Project (P3):**

The P3 is a 262-megawatt (MW, nominal net) electric generating facility operating in simple-cycle mode. The proposed P3 electric power project is a dry-cooled facility which uses dry low-NOx burner. The electric power project is located on a 3-acre portion of the 36-acre MGS property, at the northwest corner which borders the McGrath Lake State Park and Beach. The P3 comprises of one gas-fired combustion turbine generator (CTG), a 188-foot tall exhaust stack, and miscellaneous improvements necessary to either extend or reuse existing facility structures and utilities. The combustion-gas turbine would connect to an electric generator, which would interconnect to the existing Southern California Edison (SCE) switchyard adjacent to the MGS site.

The simple-cycle P3 unit is expected to operate less than 30 percent of the time, during peak power demand periods. Therefore, total estimated annual water use at P3 is expected to be approximately 16 acre-feet per year (AFY - 5.214 million gallons per year). P3 will use potable water for process water. Currently, the city of Oxnard supplies potable water to MGS. The water for P3 will be stored in the existing MGS service water storage tank. The stormwater from P3 may be reclaimed and will be stored in the existing service water tank, thereby reducing the amount of potable water usage.

Process wastewater generated from P3 consist of softener-regeneration waste, reverse osmosis concentrate, clear oil-water separator effluent, evaporative cooler blowdown, and drains from the intercoolers. The wastewater would be stored in one of the MGS existing basins, and ultimately discharged to the ocean via an existing outfall. Storm water runoff from the project site would be directed through new storm water conveyance lines to either the service water tank for reuse (to offset potable water use), or to the existing North and South retention basins north of MGS Units 1 and 2 that discharge through the existing outfall to the Pacific Ocean.

Construction of P3 is expected to occur over a 21-month period, from October 2018 through June 2020. Operation of P3 is expected to occur by June 2020, with an assumed operating life of 30 years. The existing MGS Units 1 and 2 would be decommissioned, and the power blocks and exhaust structure would be demolished and removed. Decommissioning of MGS Units 1 and 2 is anticipated to begin by December 2020, and take approximately 6 months. Demolition of MGS Units 1 and 2 and other related structures would commence by late 2021 and take approximately 15 months.

As stated in the PSA the project owner would fulfill the requirements contained in the State Water Resources Control Board's *National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2009-0009- DWQ, NPDES No. CAS000002)* and all subsequent revisions and amendments. The project owner would also fulfill the requirements contained in the following NPDES permits adopted by the Regional Water Board, and all subsequent revisions and amendments, which specifically regulate discharges of hydrostatic test waters and construction dewatering, as applicable: NPDES Permit No. CAG674001: *Discharges of Low Threat Hydrostatic Test Water to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties* and NPDES Permit No. CAG994004: *Discharges of Groundwater from Construction and Project Dewatering to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties*.

The PSA indicated that the P3 would comply with applicable laws, ordinances, regulations, and standards related to the air quality/greenhouse gases, biological resources, cultural resources, hazardous materials, land use, noise and vibration, public health, socioeconomics, soil and water resources, traffic & transportation, transmission line safety/nuisance, visual resources, waste management, worker safety and fire protection, facility design, geology & paleontology, power plant efficiency, power plant reliability, transmission system engineering.

**Comments on the PSA for P3 relative to the Waste Discharge Requirements (WDRs) / NPDES permitting requirements:**

**Soil & Water Resources:**

1. With regard to the process wastewater generated from P3 as well as the storm water runoff that would be discharged to the existing outfall, Section VI.A.2.k of Order No. R4-2015-0201 requires that the applicant must file a report of waste discharge (ROWD) 120 days before making any material change or proposed change in the character, location or volume of the discharge.
2. An updated WDR application must be submitted to ensure proper regulation of wastewater generated that will be discharged to the onsite septic system.
3. The volume and quality of process wastewater and storm water from P3, if implemented were not discussed in the PSA. Will the implementation of P3 result in a change in the volume and quality of the discharge from MGS?
4. Will there be changes in the beach access, or the water quality at the beach as a result of the discharges from P3?
5. Please correct your records, Mr. Samuel Unger, P.E. is the Executive Officer of the Los Angeles Regional Water Quality Control Board.

If you have questions, please contact Cassandra D. Owens at [Cassandra.Owens@waterboards.ca.gov](mailto:Cassandra.Owens@waterboards.ca.gov) or at (213) 576-6750 or Rosario Aston at [Rosario.Aston@waterboards.ca.gov](mailto:Rosario.Aston@waterboards.ca.gov) or at (213) 576-6653.

Sincerely,

  
Samuel Unger, P.E.  
Executive Officer

cc: See Mailing List

**Mailing List (VIA Email Only)**

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Mr. Bryant Chesney, NOAA, National Marine Fisheries Service  
Mr. Renan Jauregui, State Water Resources Control Board, Division of Water Quality  
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Mr. Mati Waiya, Ventura CoastKeeper  
Mr. Jason Weiner, Wishtoyo Foundation and its Ventura Coastkeeper Program  
Mr. Al Wagner, California Coastal Commission, South Coast Region  
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Mr. Paul Jenkin, Surfrider Foundation, Ventura County Chapter  
Ms. Jessica Altstatt, Santa Barbara Channel Keeper  
Ms. Betsy Weber, Environmental Defense Center  
Mr. Chris Williamson, City of Oxnard  
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