

EXECUTIVE OFFICER SUMMARY REPORT
March 10, 2010

ITEM: 9

SUBJECT: Dynegy South Bay LLC, South Bay Power Plant Discharge to San Diego Bay, Order No. R9-2004-00154, NPDES No. CA0001368. (*Kristin Schwall, Chad Loflen, and Robert Pierce*)

PURPOSE: For the San Diego Water Board to receive testimony, technical evidence, and supporting documentation relevant to determining:

a) Whether South Bay Power Plant (Supporting Document 1) intake and discharge operations endanger human health or the environment and can only be regulated to acceptable levels by NPDES permit modification or termination [see 40 Code of Federal Regulations, section 122.64(a)(3)]; and

b) Whether any effects identified in Item a) above provide a sufficient basis for the San Diego Water Board to require that South Bay Power Plant discharges be terminated earlier than December 31, 2010 and prior to California Independent System Operators (CAISOs) release of Units 1 and 2 from "Reliability Must Run" (RMR) status.

No tentative order has been prepared and the San Diego Water Board will not take any action at the hearing.

PUBLIC NOTICE: A Notice of Public Hearing (Supporting Document 2) was published in the San Diego Union Tribune on February 4, 2010. A copy of the Notice of Public Hearing was sent by e-mail to all designated parties and a preliminary list of interested persons on January 22, 2010. The Notice of Public Hearing was also posted on the San Diego Water Board's web site on January 25, 2010. This item was listed on the March 10, 2010, Board Meeting agenda notice that was mailed to the San Diego Water Board's agenda mail list of interested persons.

In addition, a Notification of Additional Designated Parties was sent by e-mail to all designated parties and interested parties on February 9, 2010 and was posted on the San Diego Water Board's web site on February 10, 2010.

DISCUSSION:

The South Bay Power Plant is a gas and oil fueled electrical power generating plant, operated by Dynegy South Bay, LLC (Dynegy) and located on the southeastern shore of San Diego Bay in the city of Chula Vista, approximately 16 km (10 miles) north of the U.S.-Mexican border. The plant has four major steam cycle units with a net generating capacity of 723 megawatts electric (MWe). Each unit can generate independently or in conjunction with any other unit. Generation typically cycles on a daily basis in response to demand for electricity.

The South Bay Power Plant uses the waters of San Diego Bay for once-through cooling of its four electric generating units. Each unit is supplied by two circulating water pumps (CWP). The quantity of circulating water circulated through the plant is dependent upon the number of pumps in operation. When all pumps are in operation, the circulating water flow through the plant is 601 million gallons per day (mgd). The South Bay Power Plant circulates water it withdraws from San Diego Bay once through the power plant's cooling system to condense freshwater steam used in power production. After passing through the plant, the circulating water is discharged through a channel that continually mixes with San Diego Bay water.

The South Bay Power Plant discharge is regulated under National Pollutant Discharge Elimination System (NPDES) Order No. R9-2004-0154 (NPDES Order), adopted by the San Diego Water Board in November 2004. The NPDES Order contains an expiration date of November 10, 2009. Dynegy, has satisfied the legal requirements for an administrative extension of its current expired NPDES Order by submitting a timely and complete application on April 10, 2009 for the reissuance of the current NPDES Order.

Dynegy updated the NPDES Permit application by letters dated October 16, 2009 and October 19, 2009 regarding the schedule for anticipated shutdown and closure of the South Bay Power Plant. Dynegy requested to continue operation of electrical generating Units 1 and 2 under the current NPDES Order at a reduced maximum flow-rate of 225 mgd until December 31, 2010 based on the following

considerations:

- The California Independent System Operator (CAISO) has terminated the “Reliability-Must-Run” (RMR) contract for South Bay Power Plant electrical generating Units 3 and 4 such that operation of these units, and use of the associated discharge outfalls, will not be required after December 31, 2009; and
- CAISO extended the RMR contract for Units 1 and 2 for the 2010 contract year until December 31, 2010. The conditions that would allow for termination of RMR service for Units 1 and 2, including the addition of new generation and reactive power in the San Diego area, are expected to be achieved in 2010. Consequently, operation of these units, and the use of the associated discharge outfalls, at this time are not expected to be required after December 31, 2010.

Based on Dynegy’s supplemental information, the NPDES Order was modified on November 9, 2009 to incorporate the schedule for flow reduction to 225 mgd by December 31, 2009 and the termination of all discharges with the anticipated shutdown of Units 1 and 2 by December 31, 2010 or on the date CAISO determines that RMR services from Units 1 and 2 are no longer needed, whichever occurs first. A copy of Order No. R9-2004-0154 (including Monitoring and Reporting Program and Fact Sheet) as amended on November 9, 2009 is included as Supporting Document 3.

The South Bay Power Plant is one of 19 power plants in California that are currently permitted to withdraw water from the ocean, bays, or estuaries for electrical energy production using a single-pass system, also known as once-through cooling (OTC). By letter dated June 1, 2007 (Supporting Document 4) the San Diego Water Board Executive Officer suspended Section E.1 of Order No. R9-2004-0154, Special Supplemental Studies and Compliance Workplans. Section E.1. contains requirements for the Discharger to investigate impingement and entrainment impacts from OTC and develop a plan to implement federal Clean Water Act (CWA) Section 316 (b) requirements for technology-based measures to minimize adverse environmental impacts from cooling water intake structures. The suspension of Section E.1. of the NPDES Order was based on the Second Circuit Court decision, known as the Riverkeeper II decision, which

remanded several significant provisions of USEPA's proposed Phase II regulations establishing uniform performance standards for large existing power plants. This suspension remains in effect until such time that further direction is provided by either USEPA or the State Water Resources Control Board.

By letter dated January 11, 2010, Dynegy reported that Units 3 and 4 were permanently shut down as of December 31, 2009, resulting in the reduction of maximum flow rate from 601 mgd to 225 mgd (63 percent reduction). Unit 3 last operated on December 10, 2009 and Unit 4 last operated on November 3, 2009 (Supporting Document 5).

In the NPDES Order the San Diego Water Board identifies impacts to benthic invertebrates and eel grass due to elevated temperature, flow volume, and flow velocity. The NPDES Order also identifies entrainment and impingement impacts. These impacts are discussed in Findings 14 and 15 on page 4 and Findings 19 and 20 on page 5 and 6 of the NPDES Order and Section E. on page 17 and Section F.2 on page 21 of the Fact Sheet.

The San Diego Water Board's Public Hearing Notice established the procedures for conducting the hearing including identifying Dynegy and No More South Bay Power Plant Coalition as designated parties and documenting the procedure for requesting status as a designated party. The San Diego Water Board received requests for designated party status from City of Chula Vista (Supporting Document 6) and the California Independent System Operator Corporation (Supporting Document 7). By Notice dated February 9, 2010 (Supporting Document 8) the San Diego Water Board granted both requests.

The San Diego Water Board has received submittals from designated parties including Dynegy (Supporting Document 9), the No More South Bay Power Plant Coalition (Supporting Document 10), the California Independent System Operator Corporation (Supporting Document 11), and the City of Chula Vista (Supporting Document 12). The San Diego Water Board has also received submittals from interested persons including, the City of Coronado (Supporting Document 13), and the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (Supporting Document 14).

As a separate matter Dynegey is evaluating the potential environmental impacts associated with the shutdown, demolition and remediation of the South Bay Power Plant with the Unified Port of San Diego (Port), which is the lead agency for purposes of compliance with the California Environmental Quality Act (CEQA). Other responsible agencies that may be commenting during this CEQA process include California Department of Fish and Game, National Marine Fisheries Service, the Army Corps of Engineers, U.S. Fish and Wildlife Service and the San Diego Water Board. The CEQA process will be initiated with submittal of the Tenant Project Application and Environmental Document by Dynegey.

The Port's review process of Dynegey's environmental document submittals could be up to 90 days, which is followed by the Port Board of Commissioner approval hearing to be held at a public board meeting. At that time, the Port will hire a 3rd Party consultant to work with Dynegey and the Port on the Environmental Impact Report (EIR) for CEQA. This process is projected to take up to eighteen months and is expected to include performing several studies and surveys defining impacts from the shutdown and demolition of South Bay Power Plant. It is anticipated that a draft Environmental Impact Report will be prepared for the Project for review by the Port and all responsible commenting agencies. The San Diego Water Board will continue to participate in this on-going CEQA process.

The San Diego Water Board's jurisdiction and potential involvement in other aspects of the shutdown, demolition and remediation of the South Bay Power Plant, including mitigation for alleged impacts to San Diego Bay by the power plant discharge is under evaluation. San Diego Water Board staff will make recommendations on addressing other ancillary environmental issues associated with the power plant shutdown and mitigation for alleged impacts to San Diego Bay by the power plant discharge of the South Bay Power Plant discharge at a future Board meeting and as the CEQA process evolves. The San Diego Water Board's action at today's meeting is limited to considering testimony, technical evidence, and supporting documentation relevant to the issues listed in the Notice of Public Hearing for this item.

LEGAL CONCERNS: San Diego Water Board Counsel will advise the Board on legal concerns.

SUPPORTING DOCS:

1. Location Map
2. Notice of Public Hearing dated January 22, 2010
3. NPDES Order No. R9-2004-00154, including Monitoring and Reporting Program and Fact Sheet, as amended on November 9, 2009
4. San Diego Water Board Letter dated June 1, 2007 suspending Section E.1 of Order No. R9-2004-00154.
5. Dynegy South Bay, LLC Letter dated January 11, 2010 – NPDES Order Compliance Status Update.
6. Request for Designated Status by the City of Chula Vista.
7. Request for Designated Status by the California Independent System Operator Corporation.
8. San Diego Water Board Notice of Additional Designated Parties
9. Dynegy South Bay, LLC submittal dated February 22, 2010 including Attachments 1-37.
10. No More South Bay Power Plant Coalition submittal dated February 22, 2010 including a thumb drive with Attachments.
11. California Independent System Operator Corporation submittal dated February 22, 2010.
12. City of Chula Vista submittal dated February 22, 2010.
13. City of Coronado Resolution dated January 19, 2010.
14. National Oceanic and Atmospheric Administration, National Marine Fisheries Service submittal dated February 18, 2010.

RECOMMENDATION: No tentative order has been prepared and the San Diego Water Board will not take any action at the hearing.