

Response to Comments

**EI Segundo Power, LLC
EI Segundo Generating Station
Tentative Order No. R4-2015-XXXX
NPDES Permit No. CA0001147, CI No. 4667**

This Table (matrix) summarizes comments received. Each comment presented has a corresponding Regional Water Board staff response and corresponding action taken, if any.
(Additions are underlined, and deletions are lined over.)

Agency/ Letter	#	Comment	Reply	Action Taken
Letter dated January 19, 2015 from EI Segundo Power, LLC (NRG Energy, Inc.)				
Discharger	1	<p>EI Segundo Power, LLC (ESP) requests that the Water Board delay the issuance of Permit No. CA0001147 to incorporate the significant near-term changes to EI Segundo Generating Station (ESGS): the retirement of Unit 4 by December 31, 2015, the elimination of those associated discharges, and further planned changes highlighted in the Petition to Amend (PTA, 2013) before the California Energy Commission (CEC). ESP suggests that the administrative extension of ESP's NPDES Permit continue through December 31, 2015, followed by the subsequent processing of the Tentative Permit resulting in a new effective date of Permit No. CA0001147. It is anticipated that the delay in the issuance of this permit would significantly reduce administrative review and processing and result in a much more focused and effective permitting process.</p>	<p>Regional Water Board Staff is aware of the scheduled upcoming changes to the ESGS by December 31, 2015. The previous delay in the renewal of the current permit (expired on May 10, 2005) was the result of efforts to develop and implement the Statewide Water Quality Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling (OTC Policy). The Policy was adopted on October 1, 2010, and amended on June 18, 2013. The amendment specified that the Regional Water Board would review, update and renew these permits reflecting the current conditions/operations at the facility. Therefore, the renewal of the current permit is required at this time. If significant changes result from the future modifications to the ESGS, Regional Water Board will reopen the permit to incorporate those changes.</p>	None required.
Discharger	2	<p>To clarify information in the Fact Sheet (Attachment F, Section II [Facility Description]), E, there is not a current schedule for the demolition of Units 3 and 4 or the construction of Units 9-12 referenced in the PTA before the CEC. An approved license amendment by the CEC would not "result in the retirement of steam boiler unit 4, demolition of units 3 and 4, and construction of 435 W of new generation;" rather the CEC license amendment is necessary to enable the demolition of Units 3 and 4 and the construction of the proposed new units. Nonetheless, the</p>	<p>Thank you for the clarifications. Regional Water Board staff made the following changes in Section E (Planned Changes) on page F-13 of the Fact Sheet:</p> <p><u>"...Subsequently, the Discharger filed a Petition to Amend (PTA) the California Energy Commission license for ESEC on April 28, 2013 (Docket # 00-AFC-14C) to replace Unit 4 (the remaining operating steam boiler at the Facility). An approved PTA A CEC license amendment is necessary to enable would result in the demolition of Units 3 and 4, and</u></p>	Changes have been made in Fact Sheet.

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		retirement of Unit 4 will occur by December 31, 2015 in compliance with the OTC Policy.	the construction of 435 MW of new generation. The PTA proposes to install another fast-start combined cycle train (Units 9 and 10) which would generate 325 MW, and two 55 MW simple cycle gas turbines (Units 11 and 12). This would result in the elimination of once-through cooling water discharges at the Facility. Demolition of Units 3 and 4 and construction of Units 9 through 12 would begin <u>The discharge of once-through cooling water will be totally eliminated upon the retirement of Unit 4 and it is currently scheduled to occur for completion by December 31, 2015.</u>	
Discharger	3	With respect to Effluent Limitations at Discharge Point 002 (Monitoring Location EFF-002), ESP contends that the metals concentration calculations in Table 4 require modification. It appears that the instantaneous maximum concentrations for metals were calculated with a dilution ratio of 19:1 in comparison with the stated dilution ratio of 18:1 and that the 19:1 dilution rate is for total residual chlorine (TRC) as described on section F-33	Regional Water Board staff disagrees. The calculations were based on a dilution ratio of 18:1 using the following equation: $C_e = C_o + D_m (C_o - C_s)$ Where Dm is the minimum probable initial dilution expressed as parts seawater per part wastewater. The number 18 has been used in the calculations for the instantaneous maximum concentrations for metals in the final effluent. Please refer to the Fact Sheet starting on page F-33 for details.	None required.
Discharger	4	With respect to Sensitive Species Screening, the permit directs ESP to conduct three species chronic tests for the first three months to determine the most sensitive species. The permit language requires conducting three (3) species chronic toxicity tests with topsmelt (fish), the purple sea urchin and sand dollar (invertebrate), and giant kelp (alga). ESP requests that the language be adjusted accordingly in Appendix E-11; 4.(b) to "A static non-renewal toxicity test be conducted with either the purple sea urchin, Strongylocentrotus purpuratus, or the sand dollar, Dendraster excentricus (Fertilization Test Method 1008.0) to clarify that either the purple sea urchin or sand dollar may be used for the invertebrate requirement of the sensitive species screening; or a static non-renewal toxicity test with	Regional Water Board staff disagrees with the Discharger's proposed modifications in Section 4 (Chronic Marine and Estuarine Species and Test Methods) b. of the Monitoring and Reporting Program (MRP) on page E-10; this section describes the applicable test methods and related species. However, the following changes were made in the Species Sensitivity Screening Section of the MRP on page E-11 for clarification. "Species sensitivity rescreening is required every 24 months. The Discharger shall rescreen with the fish, an invertebrate (<u>the purple sea urchin, the sand dollar, or the red abalone</u>), and the alga species previously referenced and continue to monitor with the most sensitive species."	Changes have been made.

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		the red abalone, aliotis rufescens (Larval Shell Development Test Method)” may be used.		
Discharger	5	<p>With respect to the Low Volume Wastewater stream, effluent limitations have been developed for the retention basin discharge that comingles with the once-through cooling discharge at Outfall 002. ESP monitoring of this wastewater discharge stream in the current permit was limited to total suspended solids and oil & grease. The following constituents listed in Table 5 were not required to be monitored in the current permit, nor were they characterized in the Report of Waste Discharge (RWD) submitted in 2014: pH, cadmium, chromium (total or VI), mercury, selenium and silver. ESP requests a stay of these respective effluent limits to allow an evaluation of the retention basin discharge. ESP recommends a 6-month monitoring program be developed to collect data for these respective constituents; this 6-month period is anticipated to cover variable operation scenarios and variation in weather during which the plant may operate to characterize the associated low volume wastewater discharge stream. From the analysis, a draft compliance schedule (interim to final) with the proposed discharge limits may be amended to the Tentative Permit and considered for future Board approval. If the Tentative Permit is delayed per comment #1, the results of the study would be considered in the issuance of the new permit.</p>	<p>Regional Water Board staff disagrees. The reasonable potential analyses (RPAs) were based on the monitoring data in the final effluent instead of monitoring results in the low volume waste streams (retention basin discharge). Therefore, the Discharger’s proposed additional monitoring in the low volume waste stream is not necessary to determine reasonable potential.</p> <p>Section III.C.8.d of the Ocean Plan describes the method used for compliance determination for Table 1 pollutants for dischargers that use a large volume of ocean water for once-through cooling and states:</p> <p><i>“Effluent concentration values (C_e) shall be determined through the use of equation 1 considering the minimum probable initial dilution of the combined effluent (in-plant waste streams plus cooling water flow). These concentration values shall then be converted to mass emission limitations as indicated in equation 3. The mass emission limits will then serve as requirements applied to all in-plant waste streams taken together which discharge into the cooling water flow, except that limits for total chlorine residual, acute [if applicable per Section 3 (c)] and chronic toxicity, and instantaneous maximum concentrations in Table 1 shall apply to, and be measured in, the combined final effluent, as adjusted for dilution with ocean water.”</i></p> <p>For cadmium, chromium (total or VI), mercury, selenium and silver, RPA yielded Endpoint 3 (inconclusive) based on the Ocean Plan RPA analysis. Endpoint 3 also indicates that the previous limitations may be carried over to the new permit and monitoring is required. Since the current permit includes effluent limitations for cadmium, chromium (total or VI), mercury, selenium and silver for Discharge Point 002, pursuant to the above provision, the</p>	None required.

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			<p>mass limitations in terms of the 6-month median, average monthly and maximum daily are established in the tentative permit for these parameters in the retention basin discharge.</p> <p>With respect to the pH limitations for the low volume waste, they are established on the basis of effluent limitations, guidelines and standards (ELGs) at 40 C.F.R. section 423 which are applicable to the discharge from the facility.</p>	
Discharger	6	<p>With respect to facility stormwater discharges, drainage in the southern portion of the site is covered by the State Water Board Water Quality Order No. 97-03-DWQ, NPDES General Permit No. CAS000001 (IGP). ESP recommends that the Water Board remove reference to stormwater from Figure 3, or indicate it is covered by the IGP. In addition, ESP requests that the Water Board remove the majority of the text in the permit addressing the southwest corner discharge to avoid potential confusion, because this discharge is not covered by Permit No. CA0001147.</p>	<p>The Fact Sheet on page F-7 already clearly indicates that the discharge of storm water from the southern drainage area will be covered under the State Water Board Water Quality Order No. 97-03-DWQ, NPDES General Permit No. CAS000001 (General Permit), WDR for Discharge of Storm Water Associated with Industrial Activities Excluding Construction Activities. This portion of storm water is not included as a part of the Waste Stream Information in Table F-2 on page F-8. It is not a part of the discharges from the facility in the tentative permit. Therefore, Regional Water Board staff believes that the general description about the storm water discharge within the facility will not cause any confusion.</p> <p>For further clarification, Regional Water Board staff included "Covered by the General Permit" under the storm water discharge from the southern drainage area in Attachment C (Flow Schematic) as requested.</p>	Figure in Attachment C has been updated as requested.