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May 6, 2016

Mr. Samuel Unger
Executive Officer
Regional Water Quality Control Board – Los Angeles Region
320 W. Fourth Street, Suite 200
Los Angeles, California 90013

RE: AES Redondo Beach, LLC, Comments to Draft NPDES Permit NPDES NO. CA0001201

Dear Mr. Unger:

On behalf of AES Redondo Beach, LLC (hereafter "AES Redondo Beach"), we are submitting these comments to the draft permit for renewal of the NPDES permit for the AES Redondo Beach Generating Station. These comments are also being submitted with a separate concurrent request that a time schedule order be adopted with the permit to allow AES Redondo Beach the time to implement any changes necessary for compliance.

Background

AES Redondo Beach discharges once-through cooling, process wastewater and storm water runoff under the requirements of NPDES permit number 00-085, issued by the Regional Water Quality Control Board, Los Angeles Region ("Regional Board") on June 29, 2000.[1] The Regional Board is currently conducting a review supporting a renewal of this permit and is proposing new standards for numerous constituents based on a revised interpretation of where the discharge occurs.[2] Based on the analysis of historic discharge monitoring data, summarized in the proposed order, the future discharges from AES Redondo Beach will be unable to comply with all of the new effluent limits, receiving water limits and water quality objectives within the proposed NPDES renewal permit.

[1] The permit expired in 2005 and, even though AES Redondo Beach submitted a timely request for renewal, the permit has been on administrative extension since that time.
[2] This revised interpretation by Regional Board staff is only now affecting AES Redondo Beach since this is the first NPDES renewal to incorporate this new interpretation. AES Redondo Beach addresses this interpretation below.

Concurrent with this revised interpretation of where the discharge occurs and the newly proposed standards, AES Redondo Beach must comply with the Statewide Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling ("OTC Policy") adopted by the State Water Resources Control Board in 2010. The OTC Policy establishes technology-based standards to implement the federal Clean Water Act section 316(b) and otherwise address cooling water intake structures.

The OTC Policy requires compliance under two scenarios and establishes dates to achieve compliance. AES Redondo Beach informed the SWRCB that it intended to achieve compliance through Track 1 of the OTC Policy, which requires at least a 93% reduction in intake flow rate and a through-screen velocity not to exceed 0.5 foot per second. AES Redondo Beach will achieve compliance by eliminating OTC and permanently retiring the existing generating units. In addition to the elimination of cooling water discharge from the site, the low-volume waste discharges will also be eliminated. Upon compliance with the OTC policy, the only potential discharge resulting from the AES Redondo Beach site will be storm water runoff.

Comments

The NPDES permit renewal process for AES Redondo Beach was suspended as the California State Water Resources Control Board worked to establish technology-based standards to implement the federal Clean Water Act section 316(b) and otherwise address cooling water intake structures. The OTC Policy is now in place and the Regional Board has had its authority to renew the AES Redondo Beach NPDES permit re-established. While there have been changes to the permitting landscape for this facility, in the interim (e.g. adoption of TMDLs, new interpretation of the point of discharge, etc.), compliance with the OTC Policy will ensure compliance with the effluent limits set for the cooling water discharges and AES Redondo Beach requests the Regional Board's cooperation in achieving these significant environmental improvements at the facility.

AES Redondo Beach will achieve compliance with the OTC Policy through the retirement of generating capacity and elimination of once through cooling and is committed to performing the monitoring necessary to demonstrate compliance with the existing NPDES permit. Due to the complexity and multiple state agencies associated with planning and maintaining electrical system reliability, the established schedule for implementation of the OTC Policy allows a reasonable amount of time to achieve compliance. By separate letter, AES Redondo Beach has requested a time schedule order to comply with many of the new or revised effluent limits, receiving water limits or water quality objectives. This time schedule order would extend until the date that AES Redondo Beach is required to comply with the OTC Policy. Utilizing the compliance dates of the OTC Policy for purposes of the time schedule order in the NPDES permit renewal should allow the complete elimination of cooling water and low-volume discharges by December 31, 2020.[3]

[3] This is the Final Compliance Date as identified in the OTC Policy but the OTC Policy does allow for a suspension of that date if deemed necessary by the California Independent System Operators to maintain the reliability of the

With OTC compliance, AES Redondo Beach will eliminate the necessity for an NPDES permit for cooling water discharges and low volume wastes as these permitted discharges will all be eliminated. For these reasons, AES Redondo Beach requests that the Regional Board retain the monitoring and reporting program that exists in NPDES permit number 00-085 and not implement new enhanced monitoring requirements for receiving waters and effluent discharges.

AES Redondo Beach and its predecessors have been producing energy at this site since 1948; however, the addition of Units 7 and 8, including the development of Discharge Point 002 occurred in the 1960s. Since the late 1960s, the infrastructure necessary to operate the facility, primarily the cooling water intakes and discharge locations, has remained unchanged. The change in discharge and receiving water standards proposed for AES Redondo Beach in the renewal NPDES permit results not from a change in the regulatory standards applicable to the facility nor from a change in the point of discharge of the cooling water, but from a revised interpretation of the applicable standard at the point of discharge. The Regional Board has designated King Harbor an "enclosed bay," which makes the discharge to King Harbor no longer an ocean discharge. AES Redondo Beach believes the Regional Board has incorrectly applied the designation of "enclosed bay" to King Harbor when it is nothing more than an artificially created breakwater designed to protect a marina. The artificial wall still allows overtopping during large wave events and is constructed of rock that allows water to flow through the wall. Furthermore, the artificial wall that created the harbor was built around the existing intake pipe when it was completed in 1966, almost twenty years after AES Redondo Beach began producing power.

The effect of this change in interpretation does not change the operations that have been occurring over the past 50 years, nor does it change the fact that the cooling water source water, the discharged effluent and the receiving water are ocean water, and any concern with an effluent limitation, other than temperature, is due to the source water. However, this new interpretation initially resulted in an interpretation that this designation of enclosed bay may not allow for intake credits to Discharge 001. However, Regional Board staff now believes this designation should not prevent the utilization of intake credits for Discharge 001 because both the intake water and receiving water are the same source of water, being ocean water and meets the criteria outlined in the SIP. This recognition would eliminate much of the concern for new effluent limits since AES Redondo Beach would not be held accountable for those constituents already in the intake source.

The draft NPDES Permit renewal contains a significant increase in monitoring and reporting requirements compared to the prior permit. These monitoring and reporting requirements are more suited to address long-term trending and potential changes to future discharge limits. The justification for additional surface water monitoring seems to be lacking given the fact that this discharge will be eliminated in less than five years. Because AES Redondo Beach intends to eliminate these discharges altogether, which would also eliminate the need for a future permit reissuance, AES Redondo Beach

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electric system. See OTC Policy section 2.B(2). AES Redondo Beach seeks compliance dates consistent with this provision.

supports the retention of the existing monitoring and reporting program[4] as opposed to the enhanced program proposed in the draft Order, or alternatively, a reduction in the proposed monitoring consistent with that recently adopted for AES Alamitos.

The draft Order includes effluent limits and reporting requirements for bacteria. However, AES Redondo Beach requests the removal of monitoring for bacteria within the draft permit. The reason for eliminating the bacteria monitoring is that AES Redondo Beach is not a source for bacteria, and the only possible source for bacteria is the cooling water intake, a source over which AES Redondo Beach has no control and the discharge is not into a waterbody impaired for bacteria.

AES Redondo Beach pumps groundwater for dewatering purposes beneath its facility. The draft order has monitoring and reporting provisions specific to this source even though there is no contribution from AES Redondo Beach. While AES Redondo Beach will monitor this water as part of its total discharge, it should not be separately monitored since it poses no threat to water quality. During a recent meeting between Regional Board staff and AES Redondo Beach, Regional Board staff appeared receptive to the notion of reducing or eliminating the monitoring for this groundwater since there is no representative location to monitor.

AES Redondo Beach is committed to maintaining a strong record of environmental compliance and to demonstrating this as it progresses toward elimination of all discharges with the exception of storm water. However, AES Redondo Beach does not believe that implementing new monitoring, standards, or conducting special studies should be pursued as this information will be rendered irrelevant due to the retirement of generating capacity and elimination of once through cooling by December 31, 2020. By the time the information is collected, reviewed, and fully assessed, AES will have eliminated all industrial discharges.

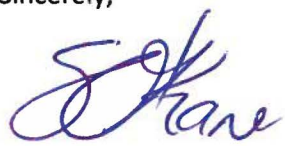
AES Redondo Beach has completed a review of the draft permit and the information compiled in Attachment A provides examples of concerns should the proposed Order be adopted. AES Redondo Beach has intended this list to be comprehensive, but because of the number of comments and the significant effects from the change in interpretation, these comments may only be exemplary of the range of concerns should the new limits become effective and additional comments may be necessary. AES Redondo Beach appreciates the opportunity to review and comment on the proposed order and hopes that the Regional Board will consider our proposed solutions.

Finally, AES Redondo Beach has already eliminated the metal cleaning waste discharge that is currently referenced by this proposed NPDES permit renewal and this regulated discharge can be removed from the proposed permit. Chemical metal cleaning waste from the boilers, if generated, will be contained and transported off site to an appropriate waste facility, eliminating the need for its inclusion in the permit renewal.

[4] This includes items such as the existing dilution ratio that would prevent the need for a costly new study or having to complete redundant studies.

We appreciate the efforts of your staff in processing this permit renewal and look forward to working with them to achieve this goal.

Sincerely,



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cc: Weikko Wirta; AES Southland, LLC
Jose Perez, AES Redondo Beach, LLC
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David Heger; AES US Services, LLC
Sam Unger; Los Angeles RWQCB
Cassandra Owens; Los Angeles RWQCB
Christopher Sanders; Ellison, Schneider & Harris, LLP

APPENDIX A

These comments have been provided in the following format: A) location within the proposed permit; B) a brief description of the general issue/concern; and C) proposed solution, if applicable.

1. **Order Location:** General Comment
   General Issue: The new Order is intended to be implemented 1 August 2016. August is mid-quarter, mid-summer, and late in the calendar year, all of which are monitoring periods specified in the new Order. This could lead to confusion over the initial implementation.
   Solution: AES recommends that the new Order specify that all 1/quarter monitoring elements be implemented beginning 1 October 2016 and that all annual and semiannual monitoring will commence 1 January 2017.

2. **Order Location:** Pages 4 and 7, Section IV.A.1 - Tables 4 and 7, Effluent Limitations for 001 and 002
   General Issue: Footnote 4 and 6, respectively indicates the mass limitation should be calculated using the permitted discharge flow of 224 MGD for Discharge Point 001. This is inconsistent with the permitted discharge flow reported on page 3 (i.e. 215 MGD), which is the correct flow rate.
   Solution: Ensure there is consistency of permitted discharge flow throughout the permit. The correct flow for Discharge Point 001 is 215 MGD.

3. **Order Location:** Pages 4 and 7, Section IV.A.1- Tables 4 and 7. PCB Discharge Prohibition
   General Issue: The Tentative Order proposes a strict discharge prohibition on PCBs in discharges from AES. This prohibition is inconsistent with the waste load allocations developed for Santa Monica Bay TMDL for DDTs and PCBs. While the Tentative Order Fact Sheet explains that the more stringent technology based effluent limit established by USEPA has been applied as a discharge prohibitions in the Tentative Order, the RWQCB does not appear to account for the background concentrations of PCBs in Santa Monica Bay described in section 6.2 of the Santa Monica Bay TMDL for DDTs and PCBs. AES is unique in that the primary discharge covered under the Order is intake water generated from Santa Monica Bay water used for once through cooling (OTC) water. Because background PCB concentrations have been documented in the TMDL and AES NPDES Permit discharges are directly affected by the quality of Bay water, background concentrations must be accounted for in any effluent limits prescribed for AES. As the RWQCB notes in the Tentative Order Fact Sheet, intake water from Santa Monica Bay represents more than 99% of the permitted discharge flows from the AES site. This process to account for background intake water quality would be similar to the process described in the 2010 USEPA Permit Writers Manual.
   Solution: To account for the potential that background concentrations of PCBs in Santa Monica Bay used for once through cooling water could cause a detection of PCBs in effluent discharge samples, the RWQCB should allow for consideration of background concentrations if there is detection of PCBs from one of the AES effluent discharge locations.

4. **Order Location:** Page 6, Section IV.A.1 - Table 5, pH Limitation for Low Volume Wastes
   General Issue: The new Order prescribes a new instantaneous minimum and maximum effluent limitation for pH of 6.0 and 9.0, respectively for low volume wastes. The existing Order does not have pH limits for low volume wastes. The new Order is intended to be implemented in August 2016 and the new pH limitation requires a costly investment to implement engineering controls in order to manage the retention basin pH levels between 6 and 9. Historical data shows that our pH is always near or slightly above the upper threshold of this limit. As the below data shows, during the last three years there were 16 instances where the pH was above 9, the upper threshold of the new

limitation. AES currently cannot comply with the new pH limitation requirement and engineering controls cannot be designed, installed, and put into place by 1 August 2016.

Date	Min	Max		Date	Min	Max
Aug-14	8.83	9.3		Mar-16	8.34	8.35
Jul-14	8.46	9.02		Feb-16	8.18	8.5
Jun-14	8.03	8.73		Jan-16	7.64	8.93
May-14	8.56	9.36		Dec-15	8.81	8.83
Apr-14	8.63	8.64		Nov-15	8.5	8.48
Mar-14	7.98	9.09		Oct-15	8.92	8.96
Feb-14	7.74	8.56		Sep-15	8.95	9.56
Jan-14	8.61	8.79		Aug-15	9.1	9.11
Dec-13	8.14	8.93		Jul-15	8.88	8.89
Nov-13	8.08	8.43		Jun-15	9.11	9.12
Oct-13	8.14	8.62		May-15	8.98	8.99
Sep-13	8.56	9.2		Apr-15	8.87	8.88
Aug-13	8.38	9.15		Mar-15	8.02	8.1
Jul-13	8.59	8.62		Feb-15	8.89	8.9
Jun-13	7.97	8.66		Jan-15	8.34	8.41
May-13	8.65	8.85		Dec-14	7.6	7.83
Apr-13	8.45	9.62		Nov-14	8.08	8.43
Mar-13	8.24	9.03		Oct-14	8.94	9.17
Feb-13	8.68	8.94		Sep-14	8.58	9.11
Jan-13	7.92	9.29				

Solution: AES recommends the new Order provide a pH range of 6-10 for low volume waste, or in the alternative, add to the TSO that the pH limitation will have an effective date of 1 July 2017. This recommended compliance schedule will provide AES the time to evaluate potential options, design and construct potential engineering controls.

5. **Order Location:** Page 7, Section IV.A.1 - Table 7, pH Limitation for 002
General Issue: The new Order prescribes a new instantaneous minimum and maximum effluent limitation for pH of 6.5 and 8.5, respectively, for Discharge Point 002. The existing Order has pH limits of 6.0 and 9.0 which are allowed under the Ocean Plan. Based on historical monitoring data, AES cannot achieve the pH limits being proposed in the new Order. Data shows, AES has exceeded the proposed upper limit five times in 2015 (samples collected in February, March, May and June). Given that these samples were collected early in the year before the long summer run, AES believes that these elevated pH readings were the result of the intake water rather than AES contributions. Please note, that the retention basin is directed to Outfall 001 and not to this discharge point. The effluent monitoring results showing the five results and several others close to the limit are shown in the table below:

002	Compound	pH
Outfall	Proposed Limits	6.5-8.5
Date	Instantaneous Min	Instantaneous Max
6/16/2015	8.41	8.52
6/11/2015	8.55	8.57
5/27/2015	8.06	8.25
5/12/2015	8.58	8.59
4/23/2015	8.04	8.06
3/22/2015	8.58	8.61
3/16/2015	8.43	8.49
3/9/2015	8.41	8.47
3/5/2015	8.18	8.28
2/24/2015	8.42	8.53

Solution: AES recommends the new Order maintain the existing permit effluent limitation for pH of 6.0 to 9.0 or, in the alternative, that the pH limits for the Discharge Point 002 be included in the TSO, allowing AES Redondo Beach until December 31, 2020 to comply with the limits.

6. **Order Location:** Page 7, Section IV.A.1 - Table 7, Effluent Limitations for 002
General Issue: From 2012 to present, 8 monitoring events have taken place at Discharge 002. For each event, AES has collected intake and effluent samples to evaluate whether the receiving water may be the source of high metals levels. AES has prepared a summary table showing the analytical results from the intake and effluent 002 for Copper, Mercury, Nickel, and Zinc. This table, presented below, shows detections that are above a proposed limit. As seen in the table, the majority of times that effluent water has exceeded limits are tied to either detection limits higher than a proposed new limit (Mercury) or detections in the intake water exceeding detections at the outfall (Copper, Nickel, Zinc). AES does not control the quality of the water being drawn in from the Harbor and, based upon the data shown, we believe all of the detections in this table at the Outfall above proposed permit limits may actually be a result of levels occurring in the intake water, even if not instantaneously captured at the time of sampling.

002	Analyte	Copper	Mercury	Nickel	Zinc
Units		ug/L	ug/L	ug/L	ug/L
Proposed Monthly Avg		2.1	0.051	5.6	30

Proposed Daily Max		5.8		0.1		15		92	
Date	Sample Point	Intake	002	Intake	002	Intake	002	Intake	002
11/2/2015		3.86	3.185	ND (<0.2)	ND (<0.2)	2.9	0.637 J	ND (<5)	ND(<5)
5/12/2015		2.28	9.75	ND (<0.2)	ND (<0.2)	1.16	8.86	49	4.66 J
11/5/2014		0.378 J	2.475	ND (<0.2)	ND (<0.2)	0.343 J	2.69	ND (<5)	18.4
5/2/2014		7.13	4.225	ND (<0.2)	ND (<0.2)	6.98	26.5	ND (<5)	15.15
11/11/2013		0.575 J	1.38	ND (<0.2)	ND (<0.2)	0.901 J	3.975	9.1	7.62
5/3/2013		7.69	5.08	ND (<0.2)	ND (<0.2)	1.96	26.9	ND (<5)	7.99
11/2/2012		6.51	3.42	0.176 J	0.0591 J	0.257 J	1.69	9.47	7.96
5/2/2012		0.637 J	0.686 J	ND (<0.2)	ND (<0.2)	ND (<1)	0.340 J	ND (<5)	ND(<5)

The TSO provides some relief for copper, nickel, and temperature for discharge 002, but historic data as shown above still presents some copper exposure. The historic levels as shown in Table F-2 are higher than the TSO allowances. Additionally, the silver effluent limits in Tables 7 and F-18 for 002 are higher than the historic measurements listed in Table F-2. All of these parameters of concern could be subject to adjustment via intake credits under the SIP (pg. 19) or variances under 40CFR131.10(g). In accordance with the intake credit criteria outlined in the SIP, Discharge Point 002 meets this criterion.

Solution: Given the variances in background detections in metals highlighted in the table above, AES requests that intake credits be granted. Further, AES requests that a statistical evaluation be conducted on the intake and discharge concentrations for these detected metals in the dataset provided to evaluate whether there is a significant difference between intake water and outfall concentrations. AES believes that detections of Copper and Zinc above the proposed limits are the direct result of concentrations in the intake water itself and not a contribution from AES systems.

7. **Order Location:** Page 8, Section IV.A.1 - Table 8, Monitoring Location INT-002A
General Issue: It is not clear which in-plant waste stream is considered as monitoring location INT-002A and how the permitted discharge flow was derived. Because it is unclear where this monitoring location is, it is unknown if the flow and mass limitations are accurate.
Solution: AES recommends removal of monitoring location INT-002A because there are no known waste streams directed to Discharge Point 002 that aren't already being characterized during sampling at this point of compliance. This includes removal of this monitoring location from Table E-1 as well.

8. **Order Location:** Page 11, Section V.B.2, Surface Water Limitation for 002
General Issue: The surface water limitations indicates the discharge from AES shall not cause "the surface water temperature to rise greater than 4°F above the natural temperature of the receiving waters at any time or place. Elevated temperature waste discharges either individually or combined with other discharges shall not create a zone, defined by water temperature of more than 1°F above natural receiving water temperature, which exceeds 25 percent of the cross-sectional area of a main river channel at any point." AES cannot comply with the proposed receiving water limitations. AES has included receiving water temperature data measured at RW1, as well as the average of all stations from 1991-2015 (as shown in attachment B).
Solution: The surface water limitation should be omitted or added to the TSO.

9. **Order Location:** Page 11, Section V.B.3, Bacterial Objectives
General Issue: The bacterial objectives are inconsistent with the sampling objectives discussed on Page 9 and defined in Attachment E. Nonetheless, since AES is not a contributor of bacteria, and there have been no identified bacteria impairments for Santa Monica Bay or King Harbor, bacteria monitoring requirements should be removed from this Tentative Order.
Solution: The bacterial objectives should be removed from the New Order since AES is not a contributing source of bacteria and the receiving water has not been identified as being impaired, providing no basis for bacteria monitoring requirements.

10. **Order Location:** Page 16, Section VI.C.2.b, Mixing Zone and Dilution Credit Study
General Issue: The new Order requires AES to complete a mixing zone study and dilution credit study workplan. It indicates "The study shall identify the boundary of zone of initial dilution (ZID) based on modeling results, and include monitoring upstream of the discharge point, directly above the discharge location, at the boundary of the ZID, and outside the ZID for the list of constituents included in Table 1 of the Ocean Plan, to confirm the assumptions made by the model." Most, if not all, of the Table 1 pollutants are not added to the effluent by the plant. Therefore, the system is taking in water with the same pollutant concentrations (+/-) as the receiving waters so no dilution is possible. The whole premise of the monitoring listed is invalidated as no dilution will occur when the concentrations in source and receiving waters are the same with no input from the plant.

    Furthermore, in the fact sheet (page F-25) it indicates that the dilution ratio has been retained from the previous Order which is inconsistent with the requirements discussed above. If this statement in the fact sheet is inaccurate and a study is required, it not only is an added cost of approximately $100,000+, (includes workplan development to be submitted to board, field testing, modeling and report compilation) it is redundant work since the study was completed by SCE. The results would be similar since operations and discharge volume have not changed at the plant. Lastly, as noted above, AES Redondo Beach plans to comply with the State's OTC policy by ceasing use of once-through-cooling by 31 December 2020 so if this study is to provide credits for future permit, it is not necessary.
    Solution: The dilution ratio used in the existing Order should be maintained as stated in the fact sheet. Alternatively, if the study is required, it is recommended the Table 1 pollutant monitoring provision be removed.

11. **Order Location:** Page 18, Section VI.C.6.a, General Permit Coverage
General Issue: AES has obtained coverage under General Permit No. CAS000001 (IGP) for the area associated with discharge point D1, as previously agreed with the RWQCB. IGP coverage is based on the potential to discharge storm water associated with industrial activities performed at a site.

Areas of the AES site where power generating activities take place and there is potential for exposure of those activities to storm water are covered under an Individual NPDES Permit. The tributary area for discharge point D1 consists of two inactive basins (all storm water contained within basins) and a paved access road. D1 also receives limited contribution from an area under the control and management of Southern California Edison (SCE).
Solution: AES plans to terminate coverage under the IGP for this small non-industrial area of the site, but will continue to implement appropriate BMPs for the area and maintain a storm water pollution prevention plan for the entire site. AES will also continue to coordinate with SCE to confirm that appropriate BMPs are implemented for the SCE owned and operated property that contributes the majority of storm water flow to D1. There will be no need to maintain coverage under the IGP as long as industrial activities are not occurring within the tributary area. AES requests that the requirement to maintain coverage under the IGP be removed from the Order and AES will submit a Notice of Termination for the IGP to the SWRCB and RWQCB. Additionally, the requirement to submit the SWPPP should also be removed, as it's currently publicly available through SMARTs and the practices have already been implemented.

12. **Order Location:** Attachment A, Page A-4, Satellite Collection System
General Issue: The definition for satellite collection system exists in this New Order and likely was incorporated because of cross-over from the AES Alamitos permit. This can cause confusion amongst permit readers and give a false impression that there is a sanitary sewer system onsite.
Solution: Remove the definition for satellite collection system.

13. **Order Location:** Attachment C, Pages C-1 through C-3, Flow Schematic
General Issue: The flow schematic has been updated to show modifications to original operations. The corrections made will impact estimates for internal flow and therefore mass-limitations will need to be revised accordingly.
Solution: Include the revised flow schematic (included in Attachment C) and ensure consistency throughout the new Order.

14. **Order Location:** Attachment D, Pages D-7, 8, and 10; Sections V.E. 1, V.H, and VII.B, Standard Provisions
General Issue: Sections V.E.1 and V.H about twenty-four hour reporting and reporting instances of noncompliance include reporting requirements for combined sewer overflows and sanitary sewer overflows. Section VII.B. is geared specifically toward Publically-Owned Treatment Works (POTWs). Similar to above, this can cause confusion amongst permit readers and give a false impression that there is a sanitary sewer system onsite.
Solution: Remove any reference to sanitary sewer systems or treatment works treating domestic sewage.

15. **Order Location:** Attachment E, Section II - Table E-1, Monitoring Locations
General Issue: The description for monitoring location 001A does not specify that this is the retention basin. Stating that the sample should be collected *at a location from the retention basin where a representative sample of all low flow volume can be obtained* would remove ambiguity over whether or not this refers to the retention basin or some other internal waste stream. Additionally, the table includes monitoring location INT-002A; however, it is unclear where this location is onsite. There is no discussion elsewhere in the permit referencing location of this discharge point. The low volume wastes are being captured at INT-001A and is the only retention basin in service.
Solution: Revise the description for discharge point 001A and remove monitoring location INT-002A.

16. **Order Location:** Attachment E, Section IV - Tables E-3, E-4, and E-5, Monitoring Requirements
General Issue: The RWQCB has significantly increased the minimum sampling frequency for a number of parameters associated with effluent monitoring locations EFF-001, EFF-002, and for the in-plant waste stream monitoring location. The most significant increase is associated with the sampling frequency for metals prescribed for EFF-001, INT-001A, and EFF-002. The existing Order requires a minimum sampling frequency of one time per reporting year, while the Tentative Order proposes to increase the sampling frequency to one time per month without providing an appropriate basis. The proposed increase in monitoring frequency is also inconsistent with the semi-annual monitoring frequency prescribed in Appendix III of the Ocean Plan. To the extent that additional data is necessary to confirm there is no Reasonable Potential for many of the metals to exceed established water quality objectives, Ocean Plan, Appendix III clearly specifies semi-annual monitoring for sites with permitted discharges of 10 MGD or greater.

The RWQCB's proposed changes to the monitoring program represent more than 300 additional sample/ parameter combinations, and more than $50,000 annually in laboratory fees alone, not to mention the significant resources needed to collect samples and manage the additional data and reporting obligations. There is not an appropriate basis for the significant increase in sampling frequency, which has a direct and significant impact on AES resources.

The increase in minimum sampling frequency for the in-plant waste streams also lacks basis, considering that the waste streams commingle with discharges that are already monitored in the designated effluent monitoring locations. Within the fact sheet, it indicates that low flow volume waste streams are required to have technology based effluent limits, including limits for pH, O&G, and TSS. The sampling of additional parameters is arduous and not required for low volume wastes.
Solution: The minimum monitoring frequency prescribed in the existing Order should be maintained or increased to a semi-annual frequency, if required based on the Ocean Plan.

17. **Order Location:** Attachment E, Section IV.A.1-Table E-3, Groundwater Dewatering Location (INT-001B)
General Issue: The RWQCB has identified new monitoring requirements for groundwater extracted by the well point system. The Tentative Order incorrectly states that the Existing Order did not address this groundwater discharge. To the extent that the groundwater discharge is primarily associated with seawater intrusion barrier injection managed by the LA County Flood Control District (LACFCD), and generates a relatively consistent discharge stream, the groundwater is characterized when discharge samples are collected at EFF-001, which is the point of compliance for the NPDES Permit. Monitoring at EFF-001 provides the RWQCB information to assess the potential impacts to beneficial uses of the receiving water. Furthermore, the source and volume of the groundwater is not generated by or under the control of AES and there is no sample location that would provide results representative of this groundwater.
Solution: Due to the infeasibility to sample the groundwater, AES recommends removing the monitoring requirements for groundwater discharges (INT-001B)..

18. **Order Location:** Attachment E, Section IV.A.1-Table E-3, Flow Monitoring Requirements
General Issue: The new order requires flow to be monitored for the low volume wastes at location INT-001A at a minimum frequency of 1/month.
Solution: The frequency should be revised to continuous.

19. **Order Location:** Attachment E, Section IV - Tables E-3, E-5 and E-11, Bacteria Objectives
General Issue: The RWQCB has incorporated new requirements to collect samples and measure for bacteria (total coliform, fecal coliform, and enterococcus) for EFF-001 and EFF-002. The existing Order does not require bacteria monitoring, and based on a comprehensive review of industrial activities performed at the site and waste streams generated, AES does not perform activities that are expected to generate bacteria. The Tentative Order indicates bacteria monitoring was added to confirm that the discharge is not contributing to an impairment of the receiving water, but Santa Monica Bay (EFF-001) and Kings Harbor (EFF-002) are not listed as impaired for bacteria[5].
Solution: With **no** bacteria sources associated with operation of the power generating plant and **no** identified bacteria impairments for Santa Monica Bay (EFF-001) or King Harbor (EFF-002), bacteria monitoring requirements should be removed from the Tentative Order.

20. **Order Location:** Attachment E, Section IV - Tables E-3 and E-5, Monitoring Requirements
General Issue: Footnote 14 (Table 3) and Footnote 12 (Table E-5) state "When unit startup occurs during the month sampling of low volume wastes shall be performed immediately after unit startup." This request is infeasible for our plant, and also not reflective of how low volume wastes are generated. There is a misunderstanding that low volume wastes are only generated when the units are online. In fact, whether generating electricity or not, various cooling and air systems continue to generate low volume waste. Furthermore, unit startup is not at our discretion and often times we obtain less than 24 hour advance notice. The basin levels continuously fluctuate so sampling at any time during the month provides a representative sample of the low volume wastes.
Solution: Remove this footnote.

21. **Order Location:** Attachment E, Section V.B – Page E-12, Chronic Toxicity
General Issue: Per the Fact Sheet, insufficient data was available to determine the appropriate IWC for Discharge 002 under the enclosed bay discharge classification. Therefore, no dilution credit was granted. This raised the IWC from nominally 9% calculated from Order 00-085 to 100%.
Solution: Prior testing has determined effluent from Discharge 002 does not represent a toxic risk, evidenced by consistently passing toxicity testing. For that reason, there is limited reasoning for increasing the IWC 91%. AES requests the existing IWC of 9% be retained.

22. **Order Location:** Attachment E, Section V.D,1. - Page E-12, Chronic Toxicity
General Issue: This section addresses the testing requirements for chronic toxicity and one of the requirements indicates a static renewal toxicity test needs to be completed with topsmelt. This requirement is infeasible for AES Redondo Beach due to the unpredictability of and infrequent run times. Coordination of the testing is infeasible if the units are not online and circulators therefore are not running. As written in our OTC implementation plan, circulators are not permitted to be turned on solely for sampling purposes.
Solution: Provide caveat to static renewal toxicity test for topsmelt if it is infeasible to collect samples.

23. **Order Location:** Attachment E, Section V.D, and V.F.4 - Pages E-12 and E-13, Chronic Toxicity
General Issue: Text indicates the sample's salinity should be artificially altered by the addition of artificial sea salts or brine controls.
Solution: Only seawater collected at site should be used with a minimum salinity in accordance with the test method. If ambient salinity is less than the test acceptability threshold, a new sample

[5] 2012 303(d) List of Impaired Water Bodies - http://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2012.shtml

should be collected when the freshwater source affecting the sample salinity has dried up. The sentence stating "*artificial sea salts shall be used to increase sample salinity*" should be removed. Additionally, the text stating "*Dilution water and control water, including brine controls*" should be revised accordingly. Any other reference to use of artificial sea salts/brine controls should also be removed.

24. **Order Location:** Attachment E, Section V.E - Page E-12, Chronic Toxicity
General Issue: The new Order indicates that chronic toxicity is required once per quarter; but prior to implementing the quarterly sampling, a species sensitivity screening shall be conducted monthly for a period of three months.
Solution: Due to multiple non-forecasted expenses resulting from the adoption of this Order, it is recommended the species sensitivity screening shall begin at the beginning of 2017. AES will resume testing for the remainder of 2016 using the most sensitive specifies identified during the previous screening (to be completed in May 2016).

25. **Order Location:** Attachment E, Section V.H- Page E-114, Chronic Toxicity
General Issue: The new Order requires that accelerated sampling begin immediately for any summary result of "Fail" for the chronic toxicity testing. The accelerated sampling requires AES to implement a monitoring schedule consisting of four, five consecutive toxicity tests, conducted at approximately two week intervals. As mentioned previously, as a result of the unpredictability of our unit run time, this frequency of testing could be infeasible.
Solution: A caveat shall be in place to allow more time to complete accelerated sampling if the units are not running or less samples shall be accepted if five consecutive tests are infeasible.

26. **Order Location:** Attachment E, Section VIII.A.1. - Table E-6, Receiving Water Monitoring
General Issue: Salinity units are commonly ppt (parts per thousand) or psu (practical salinity units) rather than ppm (parts per million). Reporting in ppm will result in large numbers not easily comparable to measurements from other programs.
Solution: Require units in ppt or psu rather than ppm.

27. **Order Location:** Attachment E, Section VIII.A.1. - Table E-6, Receiving Water Monitoring
General Issue: What is the rationale for collecting water samples for chronic toxicity testing at Station RSW-004? As noted, AES Redondo Beach plans to comply with the State's OTC policy by ceasing use of once-through-cooling by 31 December 2020, or seven months prior to this permit's expiration. If this addition is to provide data for a future RPA, it is not necessary, as the next NPDES permit, if needed, will govern an entirely different effluent, once cooling water is removed. Furthermore, Station RSW-004 is located at the mouth of King Harbor, well away from Discharge 002. Toxicity in waters from this station arguably cannot be traced to Discharge 002, especially if waters are collected on a flooding tide. Any TST fails at this location cannot be ascribed to Redondo Beach Generating Station.
Solution: If this sampling effort is an effort to inform the RPA to refine the IWC, it should be noted as such and the permit clearly state that Redondo Beach Generating Station is not liable for TST fails at this station. Otherwise, AES requests the removal of the chronic toxicity testing requirement at monitoring location RSW-4 from the Receiving Water Monitoring program.

28. **Order Location:** Attachment E, Section VIII.C - Page E-19, Bioaccumulation Monitoring
General Issue: Native California mussels (Mytilus Californianus) are not frequently available in the area. Available sources of native California mussels are not reliably available either. Transplating

native California mussels harvested out of the area may be unproductive if the transplant shocks the mussels due to changes in water quality conditions, especially temperature. This shock could result in mortality.
Solution: Naturally occurring mussels (Mytilus spp.) found in the area should be listed rather than California mussels. This will represent those organisms common to the area that have demonstrated survival in the ambient conditions.

29. **Order Location:** Attachment E, Section IX.A.2 - Page E-21, Visual Monitoring Requirements
General Issue: Item k is infeasible for routine visual monitoring of the receiving water sampling point and would only apply to those points near an outfall or intake. Observations such as k require divers, while the receiving water monitoring is completed from the surface using instrumentation deployed through the water column.
Solution: Remove item k from the visual observation requirements, or in the alternative, adjust Item K to indicate that this information will be reported if maintenance on the intake tunnel is competed. For example, "If maintenance is done on the intake, a visual report of calcareous material and removal will be included with the quarterly report."

30. **Order Location:** Attachment F, Section I - Table F-1, Facility Information
General Issue: The facility contact and authorized person to sign and submit reports should be revised.
Solution: Revise contact to Jose Perez, Site Leader, (310)-318-7575

31. **Order Location:** Attachment F, Section II. A.2.a - Page F-5, Internal Process Wastewater
General Issue: The low volume wastes as mentioned, includes waste from boiler blowdown, boiler condensate overboard, reverse osmosis reject water and in-plant drains. These waste streams have variable flows and enter into the South Retention Basin in order to be held and treated until discharged. The flow from the retention basin is at a constant rate of 600 gpm and the maximum possible flow is 864,000 gpd. The flow rates and volumes of the internal waste streams are inconsequential since the waste streams commingle in the retention basin and the discharge rate is managed through the basin. This maximum possible flow should be used for mass calculations.
Solution: Remove ambiguous flow volumes (e.g. the definition of in-plant floor drains indicates approximately 500 gpd of equipment wash water, residual oil, and detergent in total for the Facility) and use the total maximum potential flow for the retention basin. AES Redondo Beach will continue to work with the permitting staff to reconcile the flow concerns.

32. **Order Location:** Attachment F, Section II. A.2.b - Page F-6 & F-7, Stormwater Runoff
General Issue: The description of stormwater flow is inaccurate. The stormwater collection for Units 7 and 8 and D1 are reversed.
Solution: D1 collects stormwater from the northern portion of the plant and Units 7 and 8 collects from the southern portion.

33. **Order Location:** Attachment F, Section VII.B.1.d and VII.B.2.d - Analytical Methods for PCBs
General Issue: For the purpose of assessing compliance with the discharge prohibition for PCBs in the Tentative Order, the RWQCB requires the use of USEPA approved Test Method 608. The RWQCB is also requiring supplemental analysis of PCBs using an analytical method that is not a USEPA approved method in accordance with 40 CFR 136. While the RWQCB explains that the additional testing using proposed method 1668c is to gather data to verify assumptions in the TMDL,

this request is not appropriate as a condition of AES's NPDES Permit. The testing is expensive, does not provide relevant NPDES Permit compliance information, and has not been approved by USEPA.
Solution: AES recommends eliminating the requirement to conduct supplemental analysis PCBs using proposed method 1668c from the Tentative Order. The request to gather additional information using method 1668c is more appropriate for a RWQCB sponsored study or regional/ watershed monitoring program, where the data can be gathered in uniform manner for use in confirming the assumptions in the TMDL.

34. **Order Location:** Attachment F, Section IV.B.2- Table F-6 Waste Streams Subject to ELGs
General Issue: Table F-6 includes several discrepancies. The Unit 7/8 Boiler Drains and Polisher Regeneration go to the Retention Basin and not Discharge Point 002. The condensate is a low volume waste that should not require monitoring; the condensate is pure steam distilled water at the beginning of the steam cycle. Lastly, as previously explained, the low volume waste streams all commingle into the retention basin and are managed by one compliance point. The individual waste streams and flow volumes are inconsequential.
Solution: Revise the table accordingly.