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July 5, 2011



Ms. Jeanine Townsend  
Clerk to the Board  
State Water Resources Control Board  
1001 I Street, 24th Floor  
P.O. Box 100  
Sacramento, CA 95812-0100

RE: *Proposed Amendment to the Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling*

Dear Ms. Townsend:

AES Southland (AES-SL) owns the Redondo Beach, Alamitos and Huntington Beach generating stations, which together have over 4,200 MWs of installed capacity and fourteen (14) generating units that all utilize once through cooling. The facilities are located in the Los Angeles basin Local Capacity Requirement (LCR) area and represent approximately 18% of Southern California Edison's peak demand.

**AES-SL Supports Granting Extensions to Compliance Dates**

AES-SL has reviewed the revised "Proposed Amendment to the Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling (Proposed Amendment) released by staff on May 17, 2011. AES-SL supports extending compliance dates when an entity provides a rational argument that justifies the extension. Based upon our limited review of the information in the Los Angeles Department of Water and Power's (LADWP) April 1, 2011 Implementation Plan, the justifications they provided for not being able to meet their original compliance dates appear valid. However, AES-SL is not in a position to offer an opinion on the reasonableness of the revised compliance dates requested by LADWP and relies upon the combined expertise of the Statewide Advisory Committee on Cooling Water Intake Structures (SACCWIS) to determine if the amount of additional time being requested is appropriate. The State Water Resources Control Board (SWRCB) rightly created the SACCWIS in adopting the Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant

Cooling (Existing Policy) to review the proposed Implementation Plans and support requested changes to the plans when local area and grid reliability requirements warrant them.

The AES-SL plants are located in Southern California Edison's (SCE) territory within the California Independent System Operator control area, which is operated separately from the LADWP system. Although the two systems are separate, the physics of power grid operation and reliability are the same. In addition, the two systems were constructed in a similar fashion with the grid being built out from SCE's coastal power plants. LADWP did an excellent job summarizing in their Implementation Plan the role their transmission and distribution system plays in providing reliable electricity supply, the interdependency of the changing characteristics of their energy sources, and the limitations to making upgrades to the existing transmission system to compensate for any decrease in their coastal generating fleet.

LADWP referenced in their Implementation Plan a study they commissioned with KEMA Consulting that analyzed the reactive power needed at the transmission level to integrate the mandated amount of renewable energy and reliably serve their customers. LADWP indicated that they are working to create a plan based upon the study's conclusions. AES-SL also has commissioned a study with Electric Power Engineers, Inc. (EPE) to analyze the transmission system and reliability needs in SCE's territory. While we have not reviewed LADWP's study conclusions, we believe that the studies will have similar findings. Specifically, we agree with many of the general statements and conclusions in LADWP's Implementation Plan and there are several parallels that can be drawn to the AES-SL fleet and its importance to SCE's service territory. In particular:

- LADWP's electric system was built to rely upon in-basin generation to enable the substantial amounts of power imports into the load centers. SCE's system is similar and utilizes, in rough numbers, the 12,000 MW of in-basin generation to import enough power to reliably serve its 22,000 MW of peak load;
- LADWP's electric system today was designed and built out from the coastal plants just as SCE's has been, which means that maintaining capacity at these critical locations is imperative because options for upgrading the transmission system in these highly urbanized areas are severely limited. The capacity limitations of the local area load centers preclude importing power to meet the reliability requirements and instead must rely on generation in the load areas, namely the coastal generation fleet, to mitigate overloading the transmission system. In SCE's service territory, roughly 10,000 MW of the 12,000 MW of generation in basin must be procured to meet the Los Angeles basin Local Capacity Requirement (LCR);
- The coastal generating units in LADWP and SCE's service territories are located in highly urbanized areas which makes it virtually impossible to build a transmission alternative to replace the important reliability benefit the in-basin generating units provide;
- Given the urban location of the coastal generating units in LADWP and SCE's service territory, the amount of available land is extremely limited and requires a complicated new construction sequence in order to maintain sufficient capacity in the local areas and keep the lights on during the transition to new technology.

AES-SL believes that it is imperative to the future configuration of the grid and success of California's laudable energy and environmental policies that we collectively get the answers correct. Further, getting the answers correct will ensure the state's vital electrical infrastructure is redeveloped in the most effective manner to support California's needs for many years to come. Granting extensions to the compliance dates will allow LADWP the time needed to transform their power grid in the most efficient and cost effective way.

**AES-SL does not support the additional language amended in Section C(4)**

While AES-SL supports the concept of compliance date extensions, we are opposed to the additional language that is being proposed for Section C(4). The Existing Policy evolved over many years and intense stakeholder involvement with SWRCB staff into a policy that sets out clear language and a two tiered compliance path that will result in a significant **reduction** in the impacts that once through cooling systems have on coastal and estuarine waters. Neither the Track 1 nor Track 2 compliance options in the Existing Policy require the complete elimination of ocean water for cooling. Instead, the Existing Policy requires a significant reduction in intake flow rate or a significant reduction in impingement mortality and entrainment comparable to a level that would be achieved through a compliant reduction in intake flow rate. The proposed language in Section C(4) in the Proposed Amendment undercuts the Existing Policy and severely impacts owners who have submitted their Implementation Plans but have not yet received a determination from the SACCWIS or SWRCB Board.

In the process that led up to the adoption of the Existing Policy, stakeholders were assured that the compliance dates in the proposed policy were subject to change after evaluation by the SACCWIS. An owner could submit a revised schedule in its Implementation Plan with the appropriate justifications and the SACCWIS would review the proposed schedules in parallel with its own studies and the other Implementation Plans. AES-SL submitted a thorough Implementation Plan on April 1, 2011, that requested a compliance path utilizing Track 1 whereby some units would continue to operate beyond 2020. Unlike LADWP's request of compliance dates through 2035, AES-SL is only requesting schedule extensions to 2022 and 2024 to allow for the sequential project replacement of its fourteen generating units. AES-SL has not made a determination about the turbine or cooling technology at this point and needs the flexibility in the Existing Policy to utilize the reductions in water use as allowed but not necessarily the complete elimination on the use of ocean water for cooling. Further, requiring the additional burdens of complex studies and capital additions on generators that will be in compliance within two to four years of their original compliance dates does not make sense. AES-SL respectfully requests either of the following actions from the SWRCB Board:

1. Narrow the language in Section C(4) so that it only applies to LADWP; **or**
2. Eliminate the proposed Section C(4) language in its entirety

Adopting language that would impact ALL generator owners while their Implementation Plans have been submitted but are still under review is premature, unfair, and is unnecessary to achieving the goals of the Existing Policy.

The implementation of 316(b) of the Clean Water Act has been many decades in the making. Now that we are all moving towards the same goal of reducing the impacts of once through cooling, taking the time to properly analyze and insure that the technology choices we make today are the best choices to help California meet its goals is of paramount importance. AES-SL stands with the SWRCB, the power plant owners and all of the members of SACCWIS in its commitment to transforming the power grid into the future. AES-SL believes that granting selected extensions to compliance dates is an important first step and that similar amendments should be expected in October 2011 following the review of the remainder of the Implementation Plans that have been submitted to the SWRCB.

AES-SL appreciates the opportunity to provide these comments and suggestions. Please do not hesitate to contact me at (562) 493-7855 or Julie Gill at (916) 509-0598 with any questions.

Kindest regards,

A handwritten signature in blue ink, appearing to read "Eric Pendergraft". The signature is fluid and cursive, with a large initial "E" and a stylized "P".

Eric Pendergraft  
President  
AES Southland