AES Alamitos, L.L.C.

November 2, 2004

California Regional Water Quality Control Board, Los Angeles Region
Mr. David Hung, Chief
Industrial Permitting Unit
320 W. 4th Street, Suite 200
Los Angeles, CA 90013

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CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD LOS ANGELES REGION

RE: Request for Schedule to Submit Information to Comply with the Phase II 316(b) Rule (40 CFR Part 125 Subpart J)

Dear Mr. Hung,

By this letter AES Alamitos LLC (AES) requests a schedule for submitting the information required by EPA's new Phase II 316(b) Rule for cooling water intake structures located at the AES Alamitos Generating Station (ALGS). AES requests your approval to allow the information required by 40 CFR 125.95 to be submitted to you no later than January 7, 2008.

ALGS is a "Phase II existing facility" within the meaning of 40 CFR 125.91. As such, it is required to comply with the Phase II rule, and in particular to submit the studies and information required by 40 CFR 125.95.

Section 125.95 of the new rule requires detailed studies and other information to establish what intake structure technology or other measures will be used to comply with the rule. Ordinarily this material is to be submitted with the facility's next application for renewal of its NPDES permit. See 40 CFR 125.95, 122.21(r)(1)(ii), 122.21(d)(2). For permits that expire less than four years after the rule was published on July 9, 2004 (that is, before July 9, 2008), the facility may have up to three and half years to submit the information, so long as it is submitted "as expeditiously as practicable." See 40 CFR 125.95(a)(2)(ii). The facility may have even longer, until the end of the permit term, under 40 CFR 122.21(d)(2)(i), if the permitting agency agrees.

The current NPDES permit for ALGS expires on May 10, 2005, well before July 9, 2008. Therefore, AES hereby requests that you authorize the information called for by 125.95 to be submitted as expeditiously as practicable, which, as explained below, will require until January 7, 2008.

In order to satisfy the "expeditiously as practicable" requirement, it should be noted that AES began the process of collecting the necessary information even before the final rule was published. AES actually began as early as last year to begin collecting information and conducting evaluations on how the, at that time draft, requirements could be complied with at ALGS. Such information collection included preliminary technology assessments and research into existing data and information by EPRI Solutions. Despite these efforts, we will still need until at least January 7, 2008, to complete the studies and collect the information required by 40 CFR 125.95. Our detailed explanation is presented below by first summarizing the significant

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number of informational requirements that must be submitted and then concludes by presenting the schedule by which the information would be submitted.

Cooling Water System Data

All facilities covered by the Phase II Rule must submit "cooling water system data" as required by 40 CFR 122.21(r)(5). This includes a narrative description of the operation of the cooling water system, its relationship to cooling water intake structures, the proportion of the design intake flow that is used in the system, the number of days of the year the cooling water system is in operation, and the seasonal changes in the operation of the system, if applicable. It also includes design and engineering calculations prepared by a qualified professional and supporting data to support the description of the operation of the cooling water system. See 40 CFR 122.21(R)(5)(i) and (ii). This information must be submitted at the same time as the Comprehensive Demonstration Study as discussed below. See 40 CFR 125.95(a)(2).

Proposal for Information Collection

Under 40 CFR 125.95(a)(1), AES must also submit a Proposal for Information Collection (PIC). Preparing the PIC is a large undertaking. The PIC must contain the items listed in 40 CFR 125.95(b)(1), including a description of proposed and/or implemented technologies, operational measures, and/or restoration measures to be evaluated, a list and description of historical studies characterizing impingement mortality and entrainment and/or the physical and biological conditions in the vicinity of the cooling water intake structures and their relevance to the proposed study. For existing data, it must demonstrate the extent to which the data are representative of current conditions and that the data were collected using appropriate quality assurance/quality control procedures. The PIC must also include a summary of past or ongoing consultations with federal, state and tribal fish and wildlife agencies and a copy of their written comments, as well as a sampling plan for any new field studies describing all methods and quality assurance/quality control procedures for sampling and data analysis.

Because of the magnitude and specialized nature of the information to be submitted in the PIC, AES will have to contract with outside consulting firms to obtain qualified personnel to perform the work and to handle the increased workload. AES's contractor procurement process has precise steps that must be undertaken to conform to internal policies and procedures and applicable law. Including the time it takes to contract with a qualified consulting firm and to develop the PIC, AES believes a comprehensive PIC could not be submitted for the Board's review and approval any earlier than September 30, 2005. AES asks that the Board either approve it or advise us of any needed changes within 60 days as described in See 40 CFR 125.95(a)(1), 125.95(b)(1).

Comprehensive Demonstration Study

The Comprehensive Demonstration Study (CDS), as described in 40 CFR 125.95(b), includes many mandatory sections that require substantial effort and time to develop and submit. Many sections of the CDS require that the information collection process described in the PIC be

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completed prior to being able to initiate those sections of the CDS. Because the PIC data collection will not be completed until early 2007, as described below in the Impingement Mortality and/or Entrainment Characterization Study section, much of the CDS will have to be completed during calendar year 2007.

Source Water Flow Information

Because ALGS operates on the Pacific Ocean, no specific source waterbody flow information is required to be submitted. See 40 CFR 125.95(b)(2).

Impingement Mortality and/or Entrainment Characterization Study

AES must provide, pursuant to 40 CFR 125.95(b)(3), an Impingement Mortality and/or Entrainment Characterization Study. This study must include (i) taxonomic identifications of all life stages of fish, shellfish, and any species protected under federal, state, or tribal law that are in the vicinity of the cooling water intake structures and are susceptible to impingement and entrainment; (ii) a characterization of all life stages of fish, shellfish, and any protected species, including a description of the abundance and temporal and spatial characteristics in the vicinity of the cooling water intake structures, based on sufficient data to characterize annual, seasonal, and diel variations in impingement mortality and entrainment (e.g., related to climate and weather differences, spawning, feedings, and water column migration). These may include historical data that are representative of current operation of the facility and of biological conditions at the site.

AES must also document the current impingement mortality and entrainment of all life stages of fish, shellfish, and protected species and provide an estimate of impingement mortality and entrainment to be used as the "calculation baseline." See 40 CFR 125.95(b)(3)(iii). This may include historical data representative of the current operation of the facility and of biological conditions at the site. Impingement mortality and entrainment samples to support the calculations must be collected during periods of representative operational flows for the cooling water intake structure, and the flows associated with the samples must be documented.

AES expects to submit, within the PIC document, justification for using the historical and representative impingement and entrainment data as well as new data to be collected. AES is still evaluating how to most efficiently and reliably collect new representative data, but expects that new entrainment data will likely be collected for approximately one year. New data collected will not commence until the Board has approved AES's PIC and new sampling plan (40 CFR 125.95(b)(1)(iv)), which, as explained above, is expected to be submitted by September 30, 2005. Therefore, because the Board has 60 days to respond to the PIC and may ask for more information or clarification, the earliest likely date the new entrainment data collection period could commence is approximately the beginning of calendar year 2006, and likely concluding in early 2007.

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Design and Construction Technology Plan

Another analysis that must be provided is the Design and Construction Technology Plan. See 40 CFR 125.95(b)(4). If AES decides to use design and construction technologies and/or operational measures to comply with the Phase II rule, a plan must be submitted that provides the capacity utilization rate for the individual intake structures at ALGS and provide supporting data (including the average annual net generation of the facility in MWh) measured over a five-year period (if available) of representative operating conditions and the total net capacity of the facility in MW, along with the underlying calculations. The plan must explain the technologies and/or operational measures that ALGS has in place and/or have selected to meet the requirements of the rule.

This Design and Construction Technology Plan must contain a large amount of information, as described in 40 CFR 125.95(b)(4)(A)-(D). This information includes (A) a narrative description of the design and operation of all design and construction technologies and/or operational measures, including fish handling and return systems, and information that demonstrates the efficacy of the technologies and/or operational measures; (B) a narrative description of the design and operation of all design and construction technologies and/or operational measures and information that demonstrates the efficacy of the technologies and/or operational measures for entrainment; (C) calculations of the reduction in impingement mortality and entrainment of all life stages of fish and shellfish that would be achieved by the technologies and/or operational measures we have selected; and (D) design and engineering calculations, drawings, and estimates prepared by a qualified professional to support the descriptions described above.

Technology Installation and Operation Plan (TIOP)

Assuming AES decides that the best way to comply with the Phase II rule is to use design and construction technologies and/or operational measures, in whole or in part, we must submit to you the following information, in accordance with 40 CFR 125.95(b)(4)(ii): (A) A schedule for the installation and maintenance of any new design and construction technologies; (B) a list of operational and other parameters to be monitored and the location and frequency that we will monitor them; (C) a list of activities we will undertake to ensure to the degree practicable the efficacy of installed design and construction technologies and operational measures and our schedule for implementing them; (D) a schedule and methodology for assessing the efficacy of any installed design and construction technologies and operational measures in meeting applicable performance standards or site-specific requirements, including an "adaptive management plan" for revising design and construction technologies, operational measures, operation and maintenance requirements, and/or monitoring requirements in the event the assessment indicates that applicable performance or site-specific requirements are not being met; and (E) if AES chooses the compliance alternative in 125.94(a)(4) (wedge-wire screens or a technology approved by the state), documentation that the appropriate site conditions described in 125.99(a) or (b) exist at our facility.

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Restoration Plan

If AES determines that restoration measures are the best method to comply with the new rule, in whole or in part, then a Restoration Plan must be submitted in the CDS. This plan must include the information described in 40 CFR 125.95(b)(5). It must include a plan using an adaptive management method for implementing, maintaining, and demonstrating the efficacy of the restoration measures that are selected and for determining the extent to which the restoration measures, or the restoration measures in combination with design and construction technologies and operational measures, have met the applicable performance standards.

Site-Specific Requirements

If AES determines that site-specific requirements are appropriate because the cost of complying with the Phase II rule will be "significantly greater" than either the cost that EPA considered in its rulemaking or the benefits of complying with the rule, then AES will have to submit the information described in 40 CFR 125.95(b)(6). This includes a Comprehensive Cost Evaluation Study and, for the cost-benefit analysis, a Benefits Evaluation Study. AES must also include a Site-Specific Technology Plan describing and justifying the site-specific requirements.

Verification Monitoring Plan

Finally, AES must prepare a Verification Monitoring Plan as part of a complete CDS. See 40 CFR 125.95(b)(7). This is a plan to conduct, at a minimum, two years of monitoring to verify the full-scale performance of the proposed or already implemented technologies and/or operational measures.

PIC and CDS Schedule

The first official submittal (besides this request for a schedule) that AES will make to the Board in compliance with the Phase II 316(b) regulation will be the PIC. For the reasons explained above, AES proposes to submit a comprehensive PIC for the Board's review and approval by September 30, 2005. AES asks that the Board either approve the PIC or advise us of any needed changes within 60 days as described in See 40 CFR 125.95(a)(1), 125.95(b)(1).

Because AES plans to collect substantial new information as part of the expected PIC, and since the new data collection is not likely to begin until after the Board approves the PIC (approximately early 2006), it is unlikely that the information needed to commence the majority of the sections of the CDS (including the Design and Construction Technology Plan, the Technology Installation and Operation Plan, the Restoration Plan (if applicable), the Site Specific Requirements (if applicable), and the Verification Monitoring Plan) will be available until late 2006 or early 2007 when the data collection is complete or nearly complete.

Due to the step by step process by which the data must be collected, processed, evaluated, and then turned into a detailed plan of action to achieve the new Phase II 316(b) standards, AES does not believe a comprehensive CDS can be submitted earlier than January 7, 2008. It is for these important reasons that AES believes the most expeditious schedule possible for submittal of a comprehensive CDS is by January 7, 2008.

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Conclusion

Collecting, generating, compiling, and analyzing the large amount of information required by the Phase II 316(b) rule will require a substantial effort. AES will have to both collect and review already-existing data on the plant and the source waterbody, and we may have to generate significant new biological information.

Because the Phase II rule is new and untried, we foresee the need to coordinate closely with your department as we collect the necessary information, analyze it, and determine what combination of technology, operational measures, or restoration measures will best meet the Phase II rule for ALGS. AES hopes your staff will be available to consult with us throughout this schedule as we complete these efforts.

For the above reasons, we request that we be allowed until January 7, 2008, to submit the information required for a permit application by the Phase II Rule, 40 CFR Part 125 Subpart J.

Sincerely,

Steve Maghy
Environmental Manager
AES Southland LLC

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