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Redondo Beach Energy Project

(12-AFC-03)

Applicant's Comments on the Preliminary Staff Assessment

Submitted to
California Energy Commission

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Appendix A: Applicant’s Proposed Revisions to Preliminary Staff Assessment’s Proposed Conditions of Certification

Introduction

Attached are AES Southland Development, LLC's (AES or the Applicant) comments on the California Energy Commission's (CEC) Preliminary Staff Assessment (PSA) regarding the Redondo Beach Energy Project (RBEP) (12-AFC-03) Application for Certification (AFC). The Applicant provides general comments and specific comments grouped by PSA section.

General PSA Comments

Listed below are the Applicant's general comments on the Preliminary Staff Assessment (PSA) for the Redondo Beach Energy Project (RBEP). For ease of reference the comments have been placed in the same order of topics presented in the PSA, and sequentially numbered within each topic.

1. References to "Applicant" in the Conditions of Certification should be changed to "Project Owner."
2. Please revise the construction schedule to indicate a start of construction in the 3rd quarter of 2016 and adjust dates accordingly.
3. The Applicant is working with the California Water Service Company to secure a water supply letter for the process water supply. Please revise all process water supply discussions to indicate process water supply will be recycled water.
4. Please consider incorporating a 2-week review period in all Conditions of Certification that require third party reviews. Unless otherwise specified in the condition, the CPM may approve the review document without the party's comments if not received within 2 weeks.
5. In the Verification language where the submittal timing is specified, please add the words, "or such time as agreed upon by the project owner and the CPM."

PSA Comments by Section

Executive Summary

Page 1-2, 2nd full paragraph – Please revise the start of construction to the 3rd quarter of 2016 with the subsequent dates extended by the 3 calendar quarters.

Page 1-2, 3rd full paragraph – Revise this paragraph to note that Measure B failed to pass in the March 3, 2015 election.

Page 1-3, Water Supply and Use, 1st paragraph – Revise to state that the RBEP will use recycled water for the process water supply. The recycled water will be provided by California Water Service Company. RBEP's use of recycled water will require a short interconnection to an existing pipeline located in Herondo Street adjacent to the RBEP site. No changes to the potable water supply or the wastewater discharge location is proposed.

Page 1-20, Soil and Water, 1st paragraph – Revise this paragraph to note the Applicant's use of recycled water for process make up uses.

Project Description

General Comments

This section should be revised to include the use of recycled water for process make up water, which will require a short recycled water pipeline from the project site to Herondo Street to interconnect with the California Water Service Company's existing recycled water pipeline.

Specific Comments

Page 3-4, Water Supply and Use, 2nd and 3rd paragraphs - Please revise to indicate RBEP will use recycled water for the process water supply. The recycled water will be provided by California Water Service Company. RBEP's use of recycled water will require a short interconnection to an existing pipeline located in Herondo Street adjacent to the RBEP site. No changes to the potable water supply or the wastewater discharge location is proposed.

Page 3-7, Project Demolition and Construction Schedule, 1st paragraph and Project Description Table 1 – Please revise the start of construction to the 3rd quarter of 2016.

Air Quality

General Comments

The Applicant is continuing to request the necessary information from the South Coast Air Quality Management District (District) for the remaining four air emission sources (individual emission units) to complete the cumulative air quality impact assessment. This information was first requested in May 2, 2013. If the Applicant does not receive the information from the District by June 15, 2015, the Applicant will propose a protocol to provide these data for the Commission Staff to review and approve. Upon approval of the protocol, the Applicant will complete the cumulative air quality impact assessment within 20 business days of approval of the protocol.

Specific Comments

Page 4.1-16, Project Description and Proposed Emissions, 2nd paragraph and Air Quality Figure 1 – Revise the start of construction to the 3rd quarter of 2016 with the subsequent dates extended by the 3 calendar quarters.

Page 4.1-26, Construction Impacts and Mitigation, Air Quality Table 21 – Please correct the table source references as there is no reference for RBEP 2014r.

Alternatives

Page 4.2-17, Generation Technology Alternatives, 3rd paragraph – In addition to alternative generation technologies identified in the first sentence of this paragraph, the AFC also provided a detailed energy storage assessment as an alternative generating technology. Please revise this paragraph accordingly.

Page 4.2-22, 1st full paragraph – Please review and revise as appropriate. The first sentence references RBEP but the paragraph appears to be applicable to the AES's Huntington Beach Energy Project. Furthermore, the Transaction Numbers referenced do not match any HBEP documents.

Page 4.2-22, 2nd full paragraph – Please confirm that the reference to RBEP in this paragraph is appropriate.

Page 4.2-31, Socioeconomics – The no project analysis ignores RBEP's fiscal benefits shown in Socioeconomic Table 11 on page 4.9-28 of the PSA.

Biological Resources

General Comments

1. The Applicant disagrees that California Coastal Commission (CCC) jurisdictional wetlands occur onsite and has submitted documentation (TN #204609) discussing the artificial nature of conditions associated with the CCC's determination. The Applicant requests that the FSA provide an independent assessment that addresses the artificial nature of the conditions leading to the CCC's determination before concluding whether wetlands occur onsite or not.
2. Significant impacts to biological resources from the construction or operation of the RBEP have not been identified. Therefore, fulltime biological monitoring should not be required.
3. Native juniper (*Juniperus* spp.) does not occur onsite.
4. While the Applicant agrees with the overall impact assessment that noise impacts on biological resources will be less than significant, the PSA incorrectly cites literature, Dooling and Popper, 2007, and did not provide the beneficial findings presented in the Francis et al. 2009 paper. The Applicant is concerned that the resulting analysis did not properly incorporate the conclusions from those sources, and should be revised accordingly.

Specific Comments

1. The PSA defers to the CCC's conclusion that 5.93 acres of CCC-jurisdictional wetlands occur within the RBEP. The Applicant disputes that there wetlands are jurisdictional for the following reasons:
 - These "wetlands" were being fed artificially by the West Basin Municipal Water District who has been using injection wells in close proximity to the RBEP site to maintain a salt water intrusion barrier and protect the inland aquifers.
 - This injection well program has resulted in a rise in the ground water table and created the need to install and operate a groundwater dewatering system.
 - This system has kept the groundwater table approximately three to five feet below ground surface in the former fuel tank areas until the system's two dewatering pumps failed.
 - As expected, the system's pump failure allowed the groundwater table to rise to the ground surface thereby providing wetland hydrology and the subsequent development of the hydric soils and wetland vegetation conditions that Staff and the CCC observed in the former fuel tank basins in January 2014.
 - Both of these pumps are operational as of June 3, 2015.

- Even with only one pump functioning water levels have already receded in the former tank basins 1, 2, 3 and 4, as well as in the constructed pit. With these pumps operational, the basins are free of water.
 - Once the groundwater dewatering system is fully functioning, no wetland hydrology will exist in the constructed pit and former fuel tank areas. With a lack of artificially fed water, the wetland hydrology indicators, hydric soils and wetland vegetation will disappear as the area reverts back to upland habitat.
2. It is unclear from certain Conditions of Certification (COCs, i.e. BIO-2 and BIO-7), whether fulltime biological monitoring will be required for the RBEP. However, no significant impacts to biological resources have been identified that would require this intensity of monitoring. The Applicant requests that the FSA clarify that fulltime biological monitoring is not required for the RBEP.
 3. On page 4.3-9, the PSA states that juniper was found onsite. The FSA should clarify that juniper are not native vegetation because it does not occur within the area.
 4. On page 4.3-27, the PSA states “The wetland delineation (RBEP 2013a) conducted by the applicant did not accurately map the wetlands on site.” This is an inaccurate characterization of the wetland delineation conducted by the Applicant. The wetland delineation conducted by the Applicant met all applicable standards for such delineations, and accurately captured the conditions observed during the January 9, 2013 field effort. Artificial conditions led to the observation of certain wetland hydrology characteristics on the January 22, 2014 site visit. Therefore, the Applicant requests that this statement not be incorporated into the FSA.

The Applicant agrees with the overall assessment that noise impacts on biological resources would be less than significant, but disagrees with some of the analysis presented in the PSA to support the conclusion. On page 4.3-29, in the “General Construction and Demolition Impacts”, Staff state “Noise from demolition and construction activities could discourage birds from foraging and nesting near the proposed RBEP.” In the Huntington Beach Energy Project proceeding (12-AFC-02), the Commission Decision determined that

“...construction and demolition noises do not impact birds in the same way as humans, given bird anatomy and physiology. Applicant’s witness, Dr. Robert Dooling, testified that human hearing would be graphed as roughly bowl-shaped, with people hearing less well at low and high frequencies. Bird hearing, when graphed in connection with human hearing, appears as a “V” shape in the middle of the bowl. The placement of the “V” in the graph is based on the frequencies at which birds vocalize. Construction noise occurs at low frequencies outside of the vocalization range of birds. Thus, concluded Dr. Dooling, birds are not as impacted by construction noise as humans. (07/21/14 RT 178:1-178:23; Ex. 1127.)

We find Dr. Dooling’s testimony to be persuasive. ...”¹

Also, the PSA cite Francis et al. (2009), but neglects to present other findings from the study that shows noise-tolerant avian species benefited from a decrease in predation (i.e. noise indirectly facilitated reproduction success). The Applicant requests that these two sources be reevaluated, and a revised analysis accurately capturing the findings of these two sources be included for publication in the FSA.

Comments on the Conditions of Certification

Please refer to Appendix A for the Applicant’s proposed revisions to the biological resources conditions of certification.

¹ Huntington Beach Energy Project Final Decision, CEC-800-2014-001-CMF, November 2014.

For BIO-1, the Applicant suggests reducing the submittal period in the verification from 75 days to 30 days.

Number 5 on BIO-2 and BIO-7 imply that fulltime biological monitoring is required. This mitigation requirement is not warranted because no significant impacts to biological resources have been identified. The Designated Biologist should be able to direct site personnel how to perform daily inspections when the Designated Biologist and/or Biological Monitors are not onsite.

For BIO-5 and BIO-6, the Applicant recommends moving the specific requirements of the WEAP training to the verification section, to allow for flexibility in development and implementation, particularly since the WEAP is required for multiple technical disciplines.

For BIO-8, buffer sizes for non-special-status species have been included in the Verification. This will help prevent unnecessary delays in project demolition and construction. If special-status species are found nesting within the RBEP, the CPM will be contacted to determine an appropriate buffer. In addition, monitoring guidelines will be included in the BRMIMP and an additional nest monitoring plan is not necessary.

Further, the FSA should not incorporate the 60 dBA threshold for determining noise impacts on birds. As previously noted, the threshold is a crude estimate that is outdated and Staff are not considering avian hearing. Noise thresholds for human receptors are sufficient for avian species because birds do not hear as well at low frequencies.

BIO-9 should be deleted as a condition of certification. As explained above, there are no CCC-jurisdictional "wetlands" on the project site.

Cultural Resources

Page 4.4-10 - The PSA states "The AFC summarizes the human prehistory of the project vicinity with an emphasis on regional trends. In the AFC's summary, the prehistoric setting relies on a recent synthesis of regional prehistory (Byrd and Raab 2007). This source, however, holds limited relevance for the project vicinity; Byrd and Raab (2007:215, Figure 14.1) covers the prehistory of the Southern Bight (south of Point Conception), whereas the project site is located in the Northern Bight (Palos Verdes Peninsula northward to the vicinity of Vandenberg Air Force Base (Glassow et al. 2007:191, Figure 13.2). Although these two geographic areas are contiguous, the quantity and quality of archaeological research in the two areas differ, as do known trends in prehistory. Staff therefore presents a summary of the Northern Bight's prehistory in this PSA to establish a relevant context for prehistoric archaeological resources in the project vicinity."

The chronology for the Southern Bight was specifically chosen for the RBEP Prehistoric Setting by the authors of the AFC. The Northern Bight, according to Glassow et al. (2007: 191), includes the "coastline from Vandenberg Air Force Base to the vicinity of Palos Verdes". This does include the RBEP; however, the Southern Bight section (Byrd and Raab, 2007) includes archaeological data from excavations conducted at the Ballona Wetlands, which is located north of the RBEP (Byrd and Raab, 2007: Table 14.1 and Figure 14.1). As this chronology for the Southern Bight includes data from a site close to and north of the RBEP, this chronology is also appropriate, as the RBEP is located in an area technically covered by both chronologies. Please revise this discussion to include the Southern Bight.

Byrd, Brian F. and L. Mark Raab. 2007. Prehistory of the Southern California Bight: Models for a New Millennium. Chapter 14 in *California Prehistory: Colonization, Culture, and Complexity*, edited by Terry L. Jones and Kathryn A. Klar, pp. 215–227. Lanham, MD: AltaMira.

Glassow, Michael A. Lynn H. Gamble, Jennifer E. Perry, and Glenn S. Russell. 2007. Prehistory of the Northern California Bight and the Adjacent Transverse Ranges. Chapter 13 in *California Prehistory: Colonization, Culture, and Complexity*, edited by Terry L. Jones and Kathryn A. Klar, pp. 191–213. Lanham, MD: AltaMira.

Comments on the Conditions of Certification

Please refer to Appendix A for the Applicant's proposed revisions to the cultural resources conditions of certification.

Compliance Conditions and Compliance Monitoring Plan

General Comments

Consistent with the Commission's decision in the Huntington Beach Energy Project proceeding, COM-16 should be deleted, and the Compliance Monitoring Plan revised accordingly.

Specific Comments

Page 6-1: the Applicant recommends that the PSA be revised to acknowledge all circumstances under which a decision by the Commission becomes effective.

Page 6-3: the Applicant suggests that the PSA be revised to provide a more straightforward definition of facility closure.

Page 6-5: the Applicant recommends including a clarifying statement that CBO fees will be paid pursuant to the applicable agreement between the Applicant and the CBO.

Comments on the Conditions of Certification

The Applicant suggests revisions to the Compliance Conditions of Certification, to be consistent with the Compliance Conditions approved for the Huntington Beach Energy Project (12-AFC-02). Please refer to Appendix A for the Applicant's proposed revisions to the Compliance conditions of certification.

Hazardous Materials

Comments on the Conditions of Certification

Please refer to Appendix A for the Applicant's proposed revisions to the hazardous materials conditions of certification. The Applicant proposes revisions to three conditions of certification, HAZ-6, HAZ-7, and HAZ-8. Condition HAZ-6 requires all hazardous material deliveries to use a specific route for deliveries to RBEP. This condition is unworkable for small quantity deliveries where the delivery vehicle could have numerous deliveries on the vehicle. The Applicant suggests using language similar to the Huntington Beach Energy Project's HAZ-6 condition, which would make HAZ-6 applicable only to hazardous material deliveries greater than 800 gallons. For HAZ-7 and HAZ-8, the Applicant suggests moving the specific requirements of the Construction Security and Operation Security Plans to the verification for flexibility in drafting the plan. Also for, HAZ-8, the Applicant suggests replacing the reference to "applicant" in the last paragraph of the condition with "project owner".

Land Use

Page 4.6-3: The PSA lists APNs for project as 7503-013-015 and 7503-013-819. Please correct the APNs for the RBEP site as follows: 7503-013-014, 7503-013-015, 7503-013-819 and 7503-013-820 (AFC p. 5.6-1). Please also see the legal description contained in Appendix 1A of the AFC, which confirms the 4 APNs.

Page 4.6-9, California Coastal Act, 2nd paragraph – the PSA indicates that an assessment of compliance with the Local Coastal Program (LCP) cannot be rendered until receipt of the Coastal Commission finding. Because the FSA should present Staff's independent assessment of the Project's compliance with applicable LORS, the Applicant recommends that the FSA include Staff's assessment of the RBEP's conformance with the LCP, and incorporate any additional findings from the Coastal Commission.

Comments on the Conditions of Certification

Please refer to Appendix A for the Applicant's proposed revisions to the land use conditions of certification. Conditions LAND-2, LAND-3, and LAND-4 required the City of Redondo Beach to review and document that

RBEP's design complies with the City's zoning ordinance for the Coastal Zone. The Applicant agrees that the City should be involved in the design review process, but requests that the Chief Building Official (CBO) be the entity to approve any RBEP designs consistent with the description of the CBO's responsibilities on pages 5.1-4 and 6-4 and 6-5 of the PSA.

Noise and Vibration

Page 4.7-11, Noise and Vibration, para. 4, sent. 4: The PSA's statement that exceeding "CEQA limit of significance of 5 dBA, mitigation measure must be implemented" incorrectly implies that this is a CEQA requirement. CEQA does not establish such a threshold. This statement is also inconsistent with the approach outlined on Page 4.7-6 that "[a]n increase of between 5 and 10 dBA should be considered adverse, but could be either significant or insignificant, depending upon the circumstances of a particular case." The Applicant is unaware of an absolute requirement to evaluate temporary construction activities in the manner that is provided for in the PSA. The FSA should be clarified to state that these are not absolute standards set forth in CEQA.

Comments on the Conditions of Certification

Please refer to Appendix A for the Applicant's proposed revisions to the noise and vibration conditions of certification.

Noise-2 - The proposed restrictions for short-term nighttime construction activities do not appear to account for variability in existing sound levels. The proposed relative limit of a 5 dBA increase may also prove ambiguous in practice. As noted by staff, NOISE-2 provides a process to investigate and resolve potential noise concerns. The Applicant suggests replacing Condition NOISE-2 in its entirety with the condition presented in Appendix A that was recently agreed to by Staff in the Carlsbad Energy Center preceding (07-AFC-06C).

Noise-4 – The Applicant requests that applicable LORS be used to establish the operational sound level limits in Condition NOISE-4 as outlined in the proposed changes in Appendix A. In some locations the limits currently proposed in the PSA are less than the measured levels.

Noise-9 – The Applicant suggests that the FSA consolidates the multiple notification requirements for the noise conditions of certification. For example, one initial mailing that provides a website that would allow one to register an email address for future electronic updates could be made, then the email list notified periodically with schedule information consistent with the notification requirements.

Public Health

Page 4.8-3, Site and Vicinity Description, 2nd paragraph – Please revise the RBEP's VOC concentration to 2 parts per million (ppmv) consistent with the discussion on page 4.1-21 of the PSA.

Page 4.8-17, 3rd full paragraph – The SCAQMD's Rules 212 and 1401 apply to sources requiring air permits (permit units). Rule 219(a) exempts mobile sources from the requirement to obtain an air permit from the SCAQMD. Please revise/remove the references to SCAQMD Rules 212 and 1401 and any subsequent provisions of said rules associated with construction impacts.

Page 4.8-23, Risk to Sensitive Receptors, 3rd paragraph – Please correct the acronym for the South Coast Air Quality Management District in the 3rd sentence.

CEC staff has requested a revised health risk assessment that incorporates Office of Environmental Health Hazard Assessment (OEHHA) March 6, 2015 Air Toxic Hot Spots Guidance Manual for Preparation of Health Risk Assessments (OEHHA 2015). After review of the OEHHA Guidance Manual, revised construction and operational health risk screening assessments were performed. The results of these assessments are presented below.

Construction/Demolition Health Risk Assessment

A revised construction health risk assessment estimates the rolling cancer risks for each 5-year period during a 30-year exposure duration (starting with exposure during the third trimester), align with the expected construction duration, at the Point of Maximum Impact (PMI), Maximum Exposed Individual Resident (MEIR), and sensitive receptor.

The revised excess cancer risks were estimated using:

- Equations 5.4.1.1 and 8.2.4A from the March 6, 2015 Air Toxic Hot Spots Guidance Manual for Preparation of Health Risk Assessments;
- The ground-level concentrations used to estimate risk were scaled from those presented in Table 5.9C.2 of Appendix C of the AFC (November 2012) with the revised construction emission estimates submitted on December 6, 2013 (TN 201383); and
- Use of Tier 4 exhaust emission factors for PM10 and PM2.5 during construction activities.

The use of the OEAHA guidance combined with the incorporation of the Tier 4 PM10/2.5 exhaust emission factors resulted in a reduction in RBEP's construction/demolition excess cancer risk of approximate 95.6 percent over the results presented in the PSA.

The results of the revised assessment shows the excess cancer risk at the PMI, MEIR, and sensitive receptor are 7.48, 3.80, and 3.18, respectively, which is less than the CEC's significant impact threshold of 10 in a million. The 2015 OEAHHA guidance does not alter the previously reported chronic hazard index of less than 0.1 as the chronic hazard index only assesses annual exposure and not lifetime exposure (OEAHHA does not have an acute Reference Exposure Level for diesel particulate matter so no acute hazard index estimate is provided). RBEP's chronic hazard index of less than 0.1 is below the significant impact threshold of 1.0.

The supporting documentation for the revised construction/demolition assessment included with this submission on a compact disc.

Operational Health Risk Assessment

The CEC Staff requested that AES Southland Development, LLC (AES) use the Office of Environmental Health Hazard Assessment's (OEHHA) 2015 Air Toxics Hot Spots Program Guidance Manual for the Preparation of Risk Assessments (2015 Guidance) to revise the assessments for evaluating operation- and construction-related health risks from the Redondo Beach Energy Project (RBEP). The methodology and results of each revised health risk assessment (HRA) are briefly described below.

The facility-wide operation HRA was conducted using the California Air Resource Board's (ARB) Hotspots Analysis and Reporting Program Version 2 (HARP 2), which incorporates methodology presented in OEHHA's 2015 Guidance. The operational emissions were based on the U.S. Environmental Protection Agency's (EPA) AP-42 emissions factors, per South Coast Air Quality Management District (SCAQMD) guidance, and were presented in Table 5.1B.5b of Appendix 5.1B of the Application for Certification (AFC; 12-AFC-03). The American Meteorological Society/EPA Regulatory Model (AERMOD) output files were used directly with HARP 2 program using the programs defaults, including the OEHHA Derived Method, and SCAQMD-specific triggers. In addition to the mandatory minimum pathways, the following SCAQMD-specific pathway triggers were used:

- Deposition velocity of 0.02 meters per second for the non-inhalation pathways
- Homegrown fruits and vegetables trigger at a default consumption rate of 5.2 percent

The cancer risks and the chronic and acute health index values are displayed in Table Public Health-1 for the point of maximum impact (PMI), maximum exposed individual resident (MEIR), maximum exposed individual worker (MEIW), and sensitive receptor. As shown, all predicted impacts are below the CEC's significant impact threshold of a 10 in 1 million for excess cancer risk and a chronic and acute hazard index of 1. The HARP 2 modeling files are included with this submission on a compact disc.

TABLE PUBLIC HEALTH-1
RBEP Revised Health Risk Assessment Summary: Facility (AP-42 Emission Factors)

Risk	Receptor Number	Value	Universal Transverse Mercator (NAD 83, km)
Excess Cancer Risk at the PMI	767	2.68 per million	(371.450, 3746.750)
Excess Cancer Risk at the MEIR	799	2.65 per million	(371.500, 3746.800)
Excess Cancer Risk at the MEIW	767	0.11 per million	(371.450, 3746.750)
Excess Cancer Risk at a Sensitive Receptor	9859	1.73 per million	(371.74922, 3747.10324)
Chronic Hazard Index at the PMI	767	0.0058	(371.450, 3746.750)
Chronic Hazard Index at the MEIR	799	0.0072	(371.500, 3746.800)
Chronic Hazard Index at the MEIW	767	0.0058	(371.450, 3746.750)
Chronic Hazard Index at a Sensitive Receptor	9859	0.0037	(371.74922, 3747.10324)
Acute Hazard Index at the PMI	21	0.037	(371.1302, 3746.655)
Acute Hazard Index at the MEIR	758	0.025	(370.850, 3746.750)
Acute Hazard Index at the MEIW	21	0.037	(371.1302, 3746.655)
Acute Hazard Index at a Sensitive Receptor	9855	0.028	(370.9114, 3746.25393)

Socioeconomics

Page 4.9-26, 1st paragraph, 2nd sentence - states that “The construction workforce would peak during months 82 and 83 with 338 workers onsite.” The project construction duration is anticipated to be 60 months, and the peak construction would likely occur in January 2019 or month 37 (see AFC Appendix 5.10B).

Page 4.9-28, the paragraph above Socioeconomics Table 11 - states “During the 60-month demolition and construction period, the project would generate almost 361 jobs (direct, indirect, and induced) and \$178.2 million in labor income (direct, indirect, and induced).” The first part of this sentence is incorrect as the 361 jobs are annual estimates, and are not the total number of jobs over the entire 60 month. The second part of the sentence is also incorrect. The sentence it should read “During the 60-month demolition and construction period, the project would generate almost 361 jobs (direct, indirect, and induced) annually and approximately \$38.7 million, annually, in labor income (direct, indirect, and induced).”

Page 4.9-28, the 2nd sentence in the paragraph above Socioeconomics Table 11 - states “The average annual economic impact of project operations would equal roughly 29 jobs (including 21 existing direct jobs, indirect, and induced) and \$3.7 million in labor income (direct, indirect, and induced).” This sentence should read “The average annual economic impact of project operations would equal roughly 29 jobs (including 21 existing direct jobs) and about \$2.7 million in labor income (direct, indirect, and induced).” Or “The average annual economic impact of project operations would equal roughly 29 jobs (including 21 existing direct jobs, 4 indirect, and 4 induced) and about \$2.7 million in labor income (direct, indirect, and induced).”

Page 4.9-28, Socioeconomics Table 11 – the categories in Table 11 should read as follows:

Total Direct, Indirect, and Induced benefits – Estimated Direct Benefits should read Annual Total Direct, Indirect, and Induced benefits – Estimated Direct Benefits (the numbers shown in the table represent annual estimates and not total estimates).

Soils & Surface Water

As noted above, the Applicant is working to secure a will server agreement for recycled water for RBEP. If an agreement can be secured, the Applicant will construct the necessary conveyance and will use recycled water.

Conditions of Certification

Please refer to Appendix A for the Applicant's proposed revision to the soils and surface water conditions of certification.

Page 4.10-15, Industrial Wastewater and Stormwater Discharge, 2nd paragraph – This paragraph indicates that Condition Soil & Water-5 is only required in the event the applicant finds it is more effective to dispose of the industrial wastewater from use of recycled water to the sanitary sewer. Therefore, the Applicant suggests a minor clarification to condition Soil & Water-5.

The Applicant also recommends a revision to SOIL&WATER-6 to remove the requirement that the "agreement specify all terms and costs for the receipt and use of recycled water," as there is no need for the condition of certification to dictate commercial terms.

Traffic and Transportation

Page 4.11-7, Level of Service, 1st paragraph- The description of how the existing baseline traffic conditions were evaluated is not entirely correct. The description in the PSA states that the volume to capacity (V/C) ratio and level of service (LOS) have been determined for each affected intersection and roadway. However, the study intersections were evaluated based on seconds of delay, not a V/C ratio. The study roadways were evaluated based on a V/C ratio.

Page 4.11-7, Traffic and Transportation Table 3 - The V/C values presented in Traffic and Transportation Table 3 are incorrect. The values shown are seconds of delay for a signalized intersection and should be updated consistent with Table 5.12-3 in the AFC (and also provided below). For clarification, it is recommended that a footnote is added or the headings updated to indicate that V/C correlates to the roadway analysis and Delay per Vehicle correlates to the intersection analysis.

TABLE 5.12-3
Level of Service Criteria for Multi-lane Highway and Local Roadway Segments

LOS	V/C Ratio	Traffic Flow Characteristics
A	0.000 – 0.600	Free flow; insignificant delays
B	0.601 – 0.700	Stable operation; minimal delays
C	0.701 – 0.800	Stable operation; acceptable delays
D	0.801 – 0.900	Approaching unstable flow; queues develop rapidly but no excessive delays
E	0.901 – 1.000	Unstable operation; significant delays
F	> 1.000	Forced flow; jammed conditions

Source: Transportation Research Board, 2000.

Page 4.11-9, Direct/Indirect Impacts and Mitigation, last sentence - The section states that “the below roadway segments and intersections were selected for evaluation because they provide the most direct route to the project site...”, however there are no roadways or intersections listed within this section.

Page 4.11-24, Conclusions and Recommendations - The word “require” should be added to: “Implementation of Condition of Certification TRANS-3 would *require* the applicant prepare and implement a traffic control plan (TCP) that would ensure sufficient parking during project construction and operation.”

Please refer to Appendix A for the Applicant’s proposed revisions to the traffic and transportation conditions of certification.

Visual Resources

Specific comments pertain to analysis from Key Observation Points (KOPs) as noted here. The three views from which potentially significant impacts were identified (and for which the PSA requires implementation of Conditions of Certification to reduce to less-than-significant levels) were added to the collection of KOPs through the Data Review (DR) process.

KOP 5 (View from Herondo Street at Valley; provided as DR 44).

We disagree with assessment of contrast with project and subsequent conclusion of degree of overall visual change and finding of a potentially significant impact.

The PSA states (p. 4-13-32):

The visual simulation for KOP 5 illustrates the proposed change in the arrangement and massing of structures at the power plant site. Under the proposed RBEP, the power block would be constructed in the northeast area of the project site, in the current location of the decommissioned fuel oil tank storage areas. The existing RBGS structures are situated along the west side of the project site, as shown in the right portion of the KOP 5 existing view (VR Figure 7a). The new RBEP structures would fill an area of space at the project site that currently has no vertical structures. As shown in the visual simulation for KOP 5, the new RBEP structures, combined with the existing transmission line towers, would contrast with the buildings of the surrounding environment; their massive, industrial-like vertical elements, blocky forms, and immense, flat, metallic surfaces would not be congruous with the relatively low-scale commercial development in the area. Because of its relatively large scale and close proximity to the viewpoint, the RBEP would have a visual effect on nearby sensitive viewers. Compared to the existing condition, the visual contrast created by the proposed RBEP power plant structures at the project site is considered moderate to high.

Compared with the existing condition, the proposed RBEP will reduce the number of visible stacks from 4 to 3, and will occupy only nominally more space above/beyond the commercial building in the foreground, resulting in no new obstruction of views. The new stacks will appear beyond and on either side of the existing transmission line towers and therefore will not introduce strong vertical form to the view. Rather, it will concentrate such new features with existing vertical features. Contrast will be low to moderate, and overall visual change will be low to moderate, with the resulting visual impact being less than significant. The proposed RBEP will not degrade the existing visual character and quality of the site and its surroundings for views at or near KOP 5.

KOP 8 (View from N. Francisca Avenue at N. Catalina Avenue; provided as DR 46).

We disagree with the assessment of high visual contrast from the project in this view. The contrast will be moderate. This will not change the assessed overall visual change.

PSA states (p. 4.13-35):

The visual simulation for KOP 8 illustrates the visual disharmony between the existing built commercial structures and residential buildings in the vicinity of the viewpoint. Although the new power plant structures would be smaller in scale than those of the existing condition, they would be placed in an area of the project site where no buildings currently exist, creating a substantial change in the level of contrast between the RBEP's structures and the adjacent commercial and residential buildings. The visual disharmony and relatively large scale of the RBEP structures would result in an acute visual effect for its viewers. Compared to the existing condition, the visual contrast that would result from the proposed RBEP structures at the project site is considered high.

The PSA correctly identifies the existing disharmony between commercial and residential uses. As the proposed RBEP will appear similar in scale with the commercial structures prominently visible from this location, the degree of contrast will be moderate to high, not high. Overall visual change will be moderate, and the potentially significant visual impact reduced to less-than-significant levels with implementation of conditions.

KOP 9 (View from N. Catalina Avenue at Beryl Street; provided as DR 47).

We disagree with the assessment of moderate to high visual contrast and dominance from the project in this view. Both will be moderate. This will not change the assessed overall visual change.

PSA states (pp. 4.13-36):

As shown in the visual simulation for KOP 9, the new RBEP structures would contrast with the buildings of the surrounding environment; their vertical elements, blocky forms, and immense, flat surfaces would not be compatible with the forms of the relatively lowscale development in the area. The degree of visual contrast of the proposed project compared to the existing condition is considered moderate to high.

And (pp. 4.13-36 to 4.13-37):

The new RBEP structures would occupy a proportion of the field of view similar to or greater than that of the existing condition. The new structures, while not as tall and massive as the existing structures, still appear prominently in the simulated view, and they would be conspicuous to sensitive viewers with northward views in the vicinity of KOP 9, such as viewers at the Salvation Army Senior Residence Center, the Crowne Plaza Hotel, and in adjacent residential areas. From the viewpoint at KOP 9, the RBEP would be conspicuous in the landscape. The degree of visual dominance of the proposed project compared to the existing condition is considered moderate to high.

The RBEP will be set back enough from this viewpoint to appear at a similar scale as closer buildings (specifically the Senior Center and more distant studios building). The vertical elements of the project will relate to the existing traffic lights, sign posts, architectural treatment of the Senior Center, and trees. Contrast resulting from RBEP will be moderate. Further, given that the dominant presence of the existing power plant will be removed from the view and replaced by a structure that will, in its more distant position

relative to the viewpoint, occupy roughly the same amount of space without contributing to a looming effect, the degree of visual dominance of the proposed project will be moderate.

Overall visual change will be moderate, and the potentially significant visual impact reduced to less-than-significant levels with implementation of conditions.

Conceptual Aesthetic Treatment Plan

The PSA suggests the Applicant provide a revised Site Screening and Landscape Concept Plan and with a set of options from which additional plan components could be selected. While we disagree with the PSA's characterization of the degree of impact for some of the KOPs, we agree that additional landscaping and surface treatment would result in fewer visual effects from the project with regard to contrast, dominance, and overall visual change.

To that effect, a conceptual Aesthetic Treatment Plan for the project has been developed. This plan, which incorporates and replaces the proposed Landscape Concept Plan submitted with the AFC, takes guidance from the proposed Site Screening and Landscape Concept Plan referenced by the Commission staff and includes the following:

- Enhanced landscape screening along the north, east and south of the project site
- Conceptual surface color scheme intended to reduce the degree to which the proposed project appears as a flat expanse of single color by incorporating multiple paint colors that relate to the appearance of structures on adjacent properties.

Figure PSA-VIS-1 shows the enhanced Aesthetic Treatment Plan. Figure PSA-VIS-2 shows the enhanced landscape concept on an aerial base.

The proposed conceptual color scheme and landscaping will be shown in revised simulations, which will be filed by the middle of June.

Comments on the Conditions of Certification

Please refer to Appendix A for the Applicant's proposed revisions to the visual resources conditions of certification. For VIS-1, VIS-3 and VIS-4, the Applicant recommends moving the specific plan requirements to the verification section, to allow for flexibility in development and implementation.

Worker Safety/Fire Protection

Conditions of Certification

Please refer to Appendix A for the Applicant's proposed revisions to the worker safety/fire protection conditions of certification. In general, the Applicant suggests reducing the submittal period in the Worker Safety Conditions from 60 days to 30 days.

EQUIPMENT LIST		EQUIPMENT LIST		EQUIPMENT LIST				
NO.	DESCRIPTION	DIMENSIONS	NO.	DESCRIPTION	DIMENSIONS	NO.	DESCRIPTION	DIMENSIONS
1	COMBUSTION GAS TURBINE (CGT)	100x20x24'	16	SFC ENCLOSURE	40x21x15'	31	ACC	209x114x83'
2	CGT GENERATOR ENCLOSURE	110x20x24'	17	SFC TRANSFORMER	110x15'	32	WATER TREATMENT BUILDING	370x20x15'
3	CGT HRSG TRANSITION DUCT	14x32x31'	18	SEC. TRANSFORMER	114x15'	33	NEW CONTROL/ADMIN BUILDING	100x72x15'
4	CGT ENCLOSURE	61x32x25'	19	UNIT TRANSFORMER	8x11x9'	34	EXIST. HAZARDOUS MTRL STORAGE	50' x 27' x 12'
5	FUEL GAS SKID	25' x 12x15'	20	GENERATOR MAIN CIRCUIT BREAKER	15' x 12'	35	AMMONIA TANK AND CONTAINMENT	15' x 30x14'
6	CGT CONTROLLING OIL SKID	50' x 14.5x12'	21	FUEL GAS COMPRESSOR ENCLOSURE	125x60x25'	36	DI WATER TANK	28' DIAx20.5 S.
7	STG STEP UP TRANSFORMER	30' x 22x15'	22	BOILER FEEDPUMP ENCLOSURE	30' x 30x15'	37	RETENTION POND	100X180'
8	TURBINE COOLING AIR SKID	15' x 8' x 20'	23	CBMS	150x15x10'	38	AMMONIA UNLOADING	50x12'
9	CGT STEP UP TRANSFORMER	35' x 22x15'	24	BOP FAN COOLER	86x48x15'	39	TRANSMISSION POLE (TYP.)	80' - 130' TALL
10	CO2 FIP (P TANK)	18' x 9' x 6'	25	STEAM TURBINE GENERATOR	52' x 22'	40	TRANSFORMER WALL	52x42x20'
11	STG ENCLOSURE	77' x 12' x 40'	26	STG CONTROLLING OIL SKID	28' x 17'	41	NEW SERVICE WATER TANK	28' DIAx39.5 S.
12	HEAT RECOVERY STEAM GENERATOR	90x45x72'	27	FUEL GAS CONDITIONING SKID	71.5' x 34'	42	TRANSMISSION A-FRAME	70' TALL
13	STACK	18' DIA	28	EXIST. SERVICE WTR. TANK 1	40' DIAx48' S.S.	43	TURBINE HALL ENCLOSURE HRSG	349x95x42'-6"
14	CGT AIR INTAKE SYSTEM	48' x 38'	29	EXIST. FIRE WATER PUMP ENCLOSURE	58' x 32x18'	44	TURBINE HALL ENCLOSURE CGT	349x120x45'-6"
15	ELECTRICAL/CONTROL PACKAGE	29' x 60x15'	30	EXISTING GAS METERING STATION	100' x 38'			

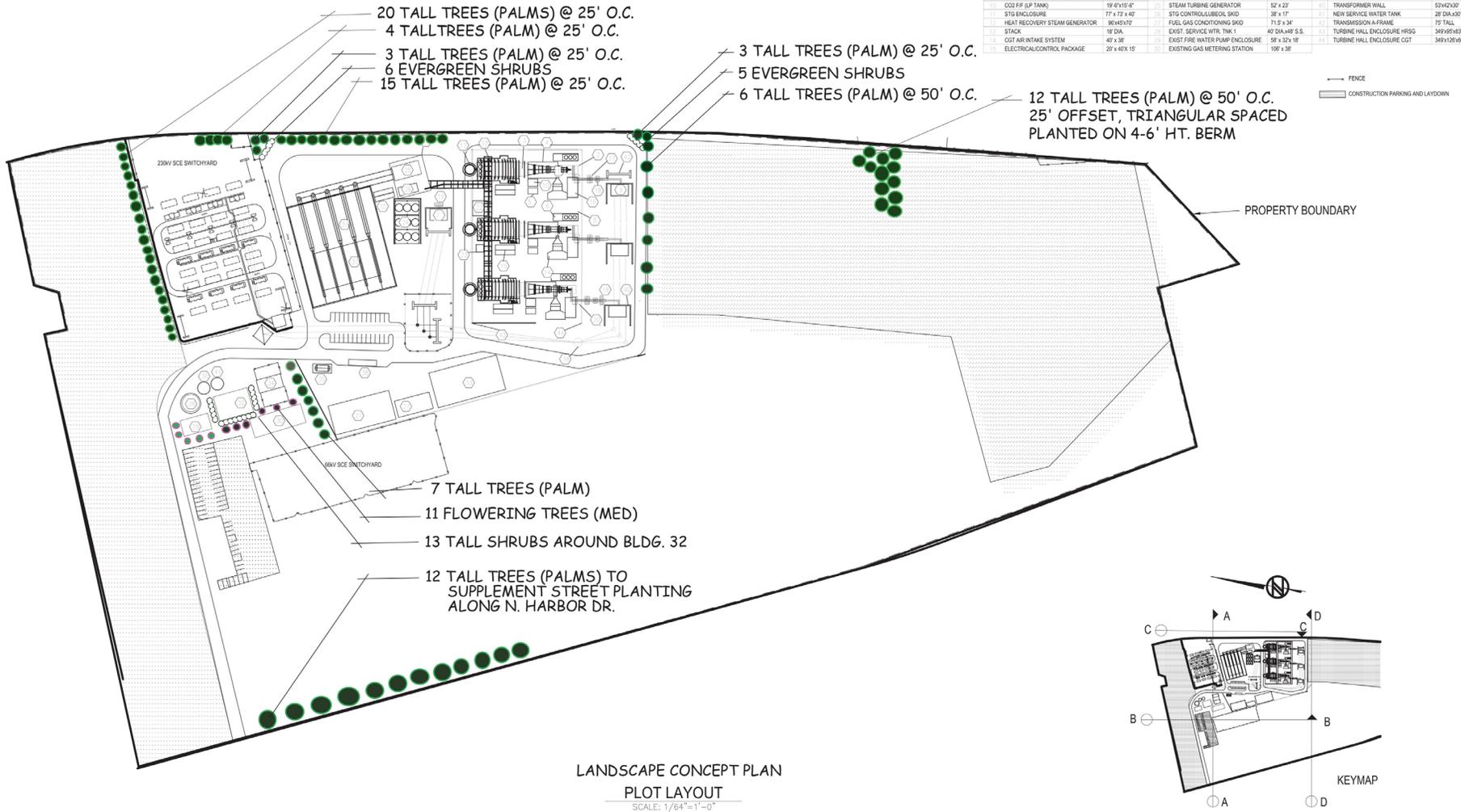


FIGURE PSA-VIS-1
Aesthetic Treatment Plan –
Conceptual Plan View
 AES Redondo Beach Energy Project – PSA Comments
 Redondo Beach, California

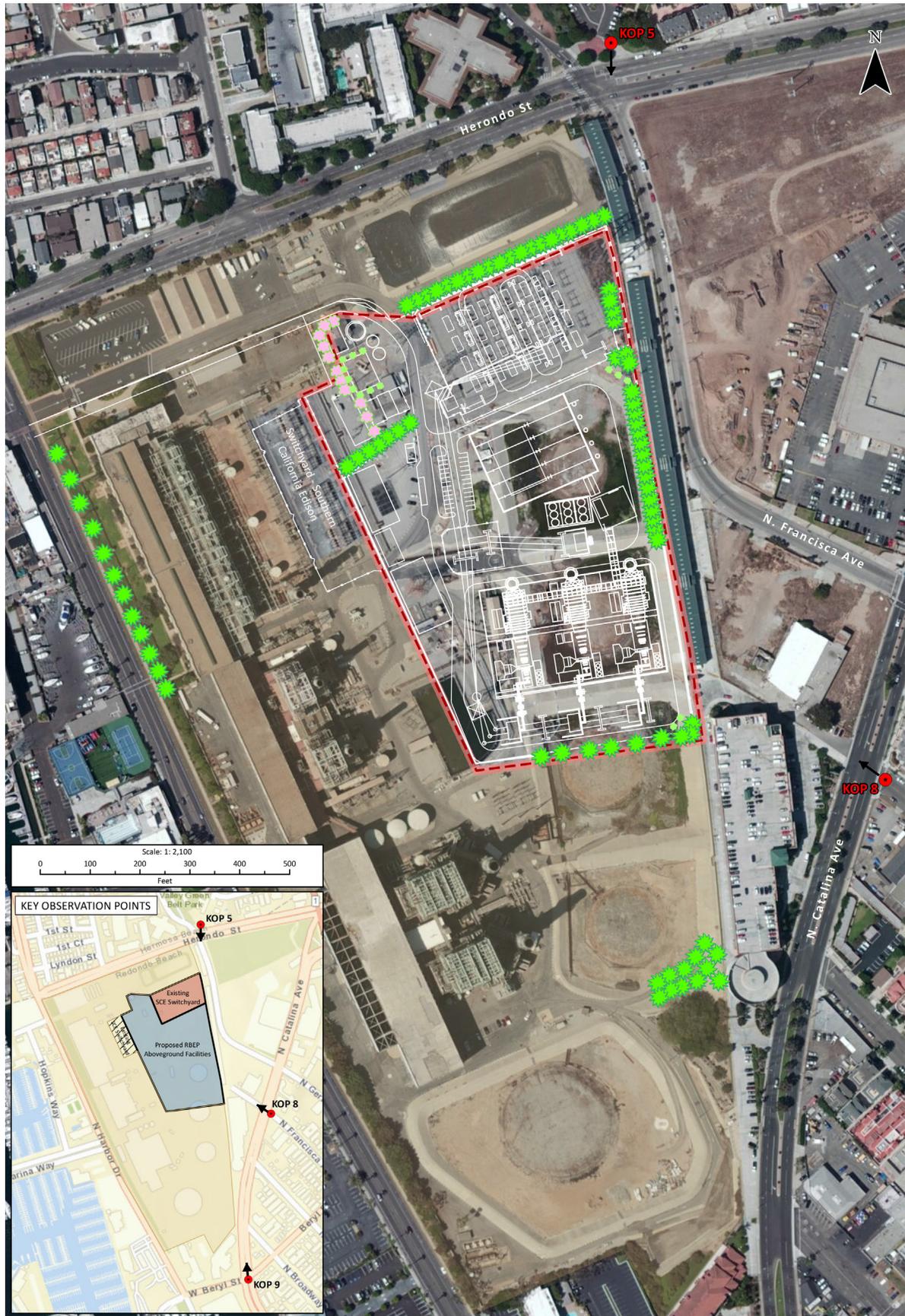


FIGURE PSA-VIS-2
Aesthetic Treatment Plan –
Conceptual Plan on Aerial Base
 AES Redondo Beach Energy Project – PSA Comments
 Redondo Beach, California
CH2MHILL

Appendix A

Applicant's Proposed Revisions to Preliminary Staff Assessment's Proposed Conditions of Certification

Biological Resources Conditions of Certification

Designated Biologist Selection

BIO-1 The project owner shall assign at least one Designated Biologist to the project. The project owner shall submit the resume of the proposed Designated Biologist, with at least three references and contact information, to the Energy Commission Compliance Project Manager (CPM) for approval in consultation with CDFW and USFWS.

The Designated Biologist must meet the following minimum qualifications:

1. Bachelor's degree in biological sciences, zoology, botany, ecology, or a closely related field;
2. Three years of experience in field biology or current certification of a nationally recognized biological society, such as The Ecological Society of America or The Wildlife Society; and
3. At least one year of field experience with biological resources found in or near the project area.

In lieu of the above requirements, the resume shall demonstrate to the satisfaction of the CPM, in consultation with CDFW and USFWS, that the proposed Designated Biologist or alternate has the appropriate training and background to effectively implement the conditions of certification.

Verification: The project owner shall submit the specified information to the CPM, CDFW, and USFWS at least ~~75~~ 30 days prior to the start of site mobilization or construction-related ground disturbance activities. No pre-construction site mobilization or construction related activities shall commence until a CPM approved Designated Biologist is available to be on site.

If a Designated Biologist is replaced, the specified information of the proposed replacement must be submitted to the CPM at least ten working days prior to the termination or release of the preceding Designated Biologist. In an emergency, the project owner shall immediately notify the CPM to discuss the qualifications and approval of a short-term replacement while a permanent Designated Biologist is proposed to the CPM for consideration.

Designated Biologist Selection

BIO-2 The project owner shall ensure that the Designated Biologist performs the following during any site (or related facilities) mobilization, ground disturbance, grading, construction, operation, and closure activities. The Designated Biologist may be assisted by the approved Biological Monitor(s) but remains the contact for the project owner and CPM. The Designated Biologist Duties shall include the following:

1. Advise the project owner's Construction and Operation Managers, supervising construction and operations engineer on the implementation of the biological resources conditions of certification;
2. Consult on the preparation of the Biological Resources Mitigation Implementation and Monitoring Plan (BRMIMP) to be submitted by the project owner;
3. Be available to supervise, conduct and coordinate mitigation, monitoring, and other biological resources compliance efforts, particularly in areas requiring avoidance or containing sensitive biological resources, such as special status species or their habitat;

4. Clearly mark sensitive biological resource areas and inspect these areas at appropriate intervals for compliance with regulatory terms and conditions;
5. Inspect and/or direct site personnel how to inspect active construction areas where animals may have become trapped prior to construction commencing each day. At the end of the day, inspect for the installation of structures that prevent entrapment or allow escape during periods of construction inactivity. Periodically inspect areas with high vehicle activity (e.g., parking lots) for animals in harm's way;
6. Notify the project owner and the CPM of any non-compliance with any biological resources condition of certification;
7. Respond directly to inquiries of the CPM regarding biological resource issues;
8. Maintain written records of the tasks specified above and those included in the BRMIMP. Summaries of these records shall be submitted in the monthly compliance reports and the annual compliance reports;
9. Train the Biological Monitors as appropriate, and ensure their familiarity with the BRMIMP, Worker Environmental Awareness Program (WEAP) training, and all permits; and
10. Maintain the ability to be in regular, direct communication with representatives of CDFW, USFWS, and CPM, including notifying these agencies of dead or injured listed species and reporting special status species observations to the California Natural Diversity Database.

Verification: The Designated Biologist shall submit in the monthly compliance report to the CPM copies of all written reports and summaries that document construction activities that have the potential to affect biological resources. If actions may affect biological resources during operation the Biological Monitor(s), under the supervision of the Designated Biologist, shall be available for monitoring and reporting. During project operation, the Designated Biologist(s) shall submit record summaries in the annual compliance report unless their duties cease, as approved by the CPM.

Worker Environmental Awareness Program (WEAP)

BIO-5 The project owner shall develop and implement an RBEP-specific Worker Environmental Awareness Program (WEAP) and shall secure approval for the WEAP from the CPM. The WEAP shall be administered to all onsite personnel including surveyors, construction engineers, employees, contractors, contractor's employees, supervisors, inspectors, and subcontractors, ~~and delivery personnel.~~ The WEAP shall be implemented during site mobilization, ground disturbance, demolition, grading, construction, operation, and closure. ~~The WEAP shall:~~

- ~~1. Be developed by or in consultation with the Designated Biologist and consist of an on-site or training center presentation in which supporting electronic media and written material, is made available to all participants;~~
- ~~2. Discuss the locations and types of sensitive biological resources on the project site and adjacent areas, explain the reasons for protecting these resources, and the function of flagging in designating sensitive resources and authorized work areas;~~

- ~~3. Discuss federal and state laws afforded to protect the sensitive species and explain penalties for violation of applicable laws, ordinances, regulations, and standards (e.g., federal, and state endangered species acts);~~
- ~~4. Include a discussion of fire prevention measures to be implemented by workers during project activities; request workers to dispose of cigarettes and cigars appropriately and not leave them on the ground or buried;~~
- ~~5. Present the meaning of various temporary and permanent habitat protection measures, if any;~~
- ~~6. Identify whom to contact if there are further comments and questions about the material discussed in the program; and~~
- ~~7. Include a training acknowledgment form to be signed by each worker indicating that they received the WEAP training and shall abide by the guidelines.~~

~~The specific WEAP shall be administered by a competent individual(s) acceptable to the Designated Biologist, and documented in the monthly compliance report.~~

Verification: At least 45 days prior to the start of any project-related site disturbance activities, the project owner shall provide to the CPM a copy of the draft WEAP and all supporting written materials and electronic media prepared or reviewed by the Designated Biologist and a resume of the person(s) administering the program. The CPM shall approve the WEAP materials prior to their use.

The WEAP shall:

1. Be developed by or in consultation with the Designated Biologist and consist of an on-site or training center presentation in which supporting electronic media and written material, is made available to all participants;
2. Discuss the locations and types of sensitive biological resources on the project site and adjacent areas, explain the reasons for protecting these resources, and the function of flagging in designating sensitive resources and authorized work areas;
3. Discuss federal and state laws afforded to protect the sensitive species and explain penalties for violation of applicable laws, ordinances, regulations, and standards (e.g., federal, and state endangered species acts);
4. Include a discussion of fire prevention measures to be implemented by workers during project activities; request workers to dispose of cigarettes and cigars appropriately and not leave them on the ground or buried;
5. Present the meaning of various temporary and permanent habitat protection measures, if any;
6. Identify whom to contact if there are further comments and questions about the material discussed in the program; and
7. Include a training acknowledgment form to be signed by each worker indicating that they received the WEAP training and shall abide by the guidelines.

The specific WEAP shall be administered by a competent individual(s) acceptable to the Designated Biologist, and documented in the monthly compliance report.

The project owner shall provide in the monthly compliance report the number of persons who have completed the training in the prior month and a running total of all persons who have completed the training to date. At least ten days prior to site and related facilities mobilization, the project owner shall submit two copies of the CPM-approved final WEAP.

Training acknowledgement forms signed during construction shall be kept on file by the project owner for at least six months after the start of commercial operation.

Throughout the life of the project, the worker education program shall be repeated annually for permanent employees, and shall be routinely administered within one week of arrival to any new construction personnel, foremen, contractors, subcontractors, and other personnel potentially working within the project area. Upon completion of the orientation, employees shall sign a form stating that they attended the program and understand all protection measures. These forms shall be maintained by the project owner and shall be made available to the CPM upon request.

During project operation, signed statements for operational personnel shall be kept on file for six months following the termination of an individual's employment.

Biological Resources Mitigation Implementation and Monitoring Plan (BRMIMP)

BIO-6 The project owner shall develop a BRMIMP and submit two copies of the proposed BRMIMP to the CPM (for review and approval) and to CDFW and USFWS (for review and comment), if applicable, and shall implement the measures identified in the approved BRMIMP. ~~The BRMIMP shall be prepared in consultation with the Designated Biologist and shall include the following:~~

- ~~1. All biological resource conditions of certification identified in the Commission Decision as necessary to avoid or mitigate impacts;~~
- ~~2. All biological resource mitigation, monitoring, and compliance measures required in other state agency terms and conditions, such as those provided in the National Pollution Discharge Elimination System (NPDES) Construction Activities Stormwater General Permit;~~
- ~~3. All sensitive biological resources to be impacted, avoided, or mitigated by project construction, operation, and closure;~~
- ~~4. All required mitigation measures for each sensitive biological resource;~~
- ~~5. A detailed description of measures that shall be taken to avoid or mitigate disturbances from construction and demolition activities;~~
- ~~6. All locations on a map, at an approved scale, of sensitive biological resource areas subject to disturbance and areas requiring temporary protection and avoidance during construction;~~
- ~~7. Aerial photographs, at an approved scale, of all areas to be disturbed during project construction activities; include one set prior to any site or related facilities mobilization disturbance and one set subsequent to completion of project construction.~~
- ~~8. Duration for each type of monitoring and a description of monitoring methodologies and frequency;~~

- ~~9. Performance standards to be used to help decide if/when proposed mitigation and conditions are or are not successful;~~
- ~~10. All performance standards and remedial measures to be implemented if performance standards are not met;~~
- ~~11. A discussion of biological resources-related facility closure measures including a description of funding mechanism(s);~~
- ~~12. A process for proposing plan modifications to the CPM and appropriate agencies for review and approval; and~~
- ~~13. A requirement to submit any sightings of any special status species that are observed on or in proximity to the project site, or during project surveys, to the California Natural Diversity Database (CNDDDB) per CDFW requirements.~~

Verification: The project owner shall provide the BRMIMP to the CPM, CDFW, and USFWS at least 45 days prior to start of any project-related ground disturbing activities.

The BRMIMP shall be prepared in consultation with the Designated Biologist and shall include the following:

1. All biological resource conditions of certification identified in the Commission Decision as necessary to avoid or mitigate impacts;
2. All biological resource mitigation, monitoring, and compliance measures required in other state agency terms and conditions, such as those provided in the National Pollution Discharge Elimination System (NPDES) Construction Activities Stormwater General Permit;
3. All sensitive biological resources to be impacted, avoided, or mitigated by project construction, operation, and closure;
4. All required mitigation measures for each sensitive biological resource;
5. A detailed description of measures that shall be taken to avoid or mitigate disturbances from construction and demolition activities;
6. All locations on a map, at an approved scale, of sensitive biological resource areas subject to disturbance and areas requiring temporary protection and avoidance during construction;
7. Aerial photographs, at an approved scale, of all areas to be disturbed during project construction activities; include one set prior to any site or related facilities mobilization disturbance and one set subsequent to completion of project construction.
8. Duration for each type of monitoring and a description of monitoring methodologies and frequency;
9. Performance standards to be used to help decide if/when proposed mitigation and conditions are or are not successful;

10. All performance standards and remedial measures to be implemented if performance standards are not met;
11. A discussion of biological resources-related facility closure measures including a description of funding mechanism(s);
12. A process for proposing plan modifications to the CPM and appropriate agencies for review and approval; and
13. A requirement to submit any sightings of any special-status species that are observed on or in proximity to the project site, or during project surveys, to the California Natural Diversity Database (CNDDDB) per CDFW requirements.

If there are any permits that have not yet been received when the BRMIMP is first submitted, these permits shall be submitted to the CPM, the CDFG, and USFWS within five days of their receipt, and the BRMIMP shall be revised or supplemented to reflect the permit condition within ten days of their receipt by the project owner. Ten days prior to site (and related facilities) mobilization, the revised BRMIMP shall be resubmitted to the CPM.

The project owner shall notify the CPM no less than five working days before implementing any modifications to the approved BRMIMP to obtain CPM approval.

Any changes to the approved BRMIMP must also be approved by the CPM in consultation with CDFG, the USFWS, and appropriate agencies to ensure no conflicts exist.

Implementation of BRMIMP measures shall be reported in the monthly compliance reports by the designated biologist (i.e., survey results, construction activities that were monitored, species observed). Within 30 days after completion of project construction, the project owner shall provide to the CPM, for review and approval, a written construction closure report identifying which items of the BRMIMP have been completed; a summary of all modifications to mitigation measures made during the project's site mobilization, ground disturbance, grading, and construction phases; and which mitigation and monitoring items are still outstanding.

General Impact Avoidance and Minimization Measures

BIO-7 The project owner shall implement the following measures during site mobilization, construction, operation, and closure to manage their project site and related facilities in a manner to avoid or minimize impacts to biological resources:

1. At the end of each work day, the Designated Biologist, ~~or~~ Biological Monitor, or site personnel shall ensure that all potential wildlife pitfalls (trenches, bores, and other excavations) outside the permanently fenced area have been backfilled. If backfilling is not feasible, all trenches, bores, and other excavations shall be sloped at a 3:1 ratio at the ends to provide wildlife escape ramps, or covered completely to prevent wildlife access. Should wildlife become trapped, the Designated Biologist or Biological Monitor shall remove and relocate the individual to a safe location. Any wildlife encountered during the course of construction shall be allowed to leave the construction area unharmed.
2. Soil bonding and weighting agents used on unpaved surfaces shall be non-toxic to wildlife and plants.
3. Facility lighting shall be designed, installed, and maintained to prevent side casting of light towards the project boundaries. Lighting shall be shielded, directional, and at the lowest intensity required for safety. Lighting shall be directed away from biologically

sensitive areas (e.g. Hermosa Beach). FAA visibility lighting shall employ only strobed, strobe-like or blinking incandescent lights, preferably with all lights illuminating simultaneously. Minimum intensity, maximum "off-phased" dual strobes are preferred, and no steady burning lights (e.g., L-810s) shall be used.

4. Water applied to dirt roads and construction areas (trenches or spoil piles) for dust abatement shall use the minimal amount needed to meet safety and air quality standards in an effort to prevent the formation of puddles. During construction, a Designated Biologist, ~~or Biological Monitor,~~ or site personnel shall patrol these areas to ensure water does not puddle and attract crows and other wildlife to the site, and shall take appropriate action to reduce water application rates where necessary.
5. Report all inadvertent deaths of special-status species to the appropriate project representative, including road kill. Species name, physical characteristics of the animal (sex, age class, length, weight), and other pertinent information shall be noted and reported in the monthly compliance reports. For special-status species, the Biological Monitor shall contact CDFW and USFWS within one working day of receipt of the carcass for guidance on disposal or storage of the carcass. Injured special-status species ~~animals~~ shall be reported to CDFW and/or USFWS and the CPM, and the project owner shall follow instructions that are provided by CDFW or USFWS. During construction, injured or dead special-status species ~~animals~~ detected by personnel in the project area shall be reported immediately to a Biological Monitor or Designated Biologist, who shall remove the carcass or injured animal promptly. ~~During operations, the Project Environmental Compliance Monitor shall be notified.~~
6. All vehicles and equipment shall be maintained in proper working condition to minimize the potential for fugitive emissions of motor oil, antifreeze, hydraulic fluid, grease, or other hazardous materials. The Designated Biologist shall be informed of any hazardous spills immediately as directed in the project Hazardous Materials Plan. Hazardous spills shall be immediately cleaned up and the contaminated soil would be properly disposed of at a licensed facility. Servicing of construction equipment shall take place only at a designated area. Service/maintenance vehicles shall carry a bucket and pads to absorb leaks or spills.
7. During construction all trash and food-related waste shall be placed in self-closing containers and removed weekly or more frequently from the site. Workers shall not feed wildlife, or bring pets to the project site.
8. Except for law enforcement personnel, no workers or visitors to the site shall bring firearms or weapons.
9. Standard best management practices (BMPs) from the project Stormwater Pollution Prevention Plan shall be implemented during all phases of the project (construction, demolition, operation, and decommissioning) where stormwater run-off from the site could to enter adjacent marshes or channels. Sediment and other flow-restricting materials shall be moved to a location where they shall not be washed back into the jurisdictional waters. All disturbed soils within the project site shall be stabilized to reduce erosion potential, both during and following construction.
10. The project owner shall implement the following measures during construction and operation to prevent the spread and propagation of nonnative, invasive weeds:

- a. Limit the size of any vegetation removal and/or ground disturbance to the absolute minimum and limit ingress and egress to defined routes;
 - b. Use only weed-free straw, hay bales, and seed for erosion control and sediment barrier installations. Invasive non-native species shall not be used in landscaping plans and erosion control. Monitor and rapidly implement control measures to ensure early detection and eradication of weed invasions.
11. During construction and operation, the project owner shall conduct pesticide management in accordance with standard BMPs. The BMPs shall include non-point source pollution control measures. The project owner shall use a licensed herbicide applicator and obtain recommendations for herbicide use from a licensed Pest Control Advisor. Herbicide applications must follow EPA label instructions. Minimize use of rodenticides and herbicides in the project area and prohibit the use of chemicals and pesticides known to cause harm to non-target plants and wildlife. The project owner shall only use pesticides for which a "no effect" determination has been issued by the EPA's Endangered Species Protection Program for any species likely to occur within the project area or adjacent wetlands. If rodent control must be conducted, zinc phosphide or an equivalent product shall be used.

Verification: All mitigation measures and their implementation methods shall be included in the BRMIMP and implemented. Implementation of the measures would be reported in the monthly compliance reports by the Designated Biologist. Within 30 days after completion of project construction, the project owner shall provide to the CPM, for review and approval, a written construction termination report identifying how measures have been completed.

Pre-Construction Nest Surveys and Impact Avoidance and Minimization Measures for Breeding Birds

BIO-8 Pre-construction nest surveys shall be conducted if site mobilization, grading, demolition, and construction activities would occur from February 1 through August 31.

Verification: The Designated Biologist or Biological Monitor shall perform surveys in accordance with the following guidelines:

1. Surveys shall cover all potential nesting habitat within the project site and areas surrounding the project site that are next to construction and demolition activities.
2. At least two pre-construction surveys shall be conducted, separated by a minimum ten-day interval. Pre-construction surveys shall be conducted no more than 14 days prior to initiation of construction activity. One survey needs to be conducted within the three-day period preceding initiation of construction activity. Additional follow-up surveys may be required if periods of construction inactivity exceed two weeks in any given area, an interval during which birds may establish a nesting territory and initiate egg laying and incubation.
3. If active nests are detected during the survey, a no-disturbance buffer zone (protected area surrounding the nest) shall be established around each nest. The size of each buffer zone, excluding special-status species, is provided in the Verification below, shall be determined by the Designated Biologist in consultation with the CPM (in coordination with CDFW and USFWS). Nest locations shall be mapped using GPS technology and included in the monthly compliance reports.
4. The Designated Biologists or Biological Monitor shall monitor all nests with buffers at least once per week, to determine whether birds are being disturbed. If signs of

disturbance or distress are observed, the Designated Biologist or Biological Monitor shall immediately implement adaptive measures to reduce disturbance. These measures could include, but are not limited to, increasing buffer size, halting disruptive construction activities in the vicinity of the nest until fledging is confirmed, or placement of visual screens or sound dampening structures between the nest and construction activity.

5. The Designated Biologist shall monitor the nest until he or she determines that nestlings have fledged and dispersed or the nest is no longer active. ~~Activities that might, in the opinion of the Designated Biologist, disturb nesting activities (e.g., excessive noise above ambient levels or 60 dBA in areas where pre-construction noise levels were below 60 dBA shall be prohibited within the buffer zone, as determined by the Designated Biologist in consultation with the CPM, until additional noise minimization measures are implemented.~~

Prior to the start of any site mobilization or construction, the project owner shall provide the CPM a letter-report describing the findings of the preconstruction nest surveys, including the time, date, and duration of the survey; identity and qualifications of the surveyor(s); and a list of species observed. If active nests are detected during the survey, the report shall include a map or aerial photo identifying the location of the nest and shall depict the boundaries of the no disturbance buffer zone around the nest, ~~and a monitoring plan shall be submitted to the CPM for review and approval.~~ Additional copies shall be provided to the CDFW and USFWS for review and comment. ~~Approval of the plan is required before construction may commence.~~ All impact avoidance and minimization measures related to nesting birds shall be included in the BRMIMP and implemented. Implementation of the measures shall be reported in the monthly compliance reports by the Designated Biologist.

Avian Group	Species Potentially Nesting in the Project Vicinity	Buffer for Construction and Demolition Activities (feet)
Bitterns and herons	Black-crowned night heron, great blue heron, great egret, green heron, snowy egret	250
Cormorants	Double-crested cormorant	100
Doves	Mourning dove	25
Geese and ducks	American widgeon, blue-winged teal, cinnamon teal, Canada goose, gadwall, mallard, northern pintail, ruddy duck	100
Grebes	Clark's grebe, eared grebe, horned grebe, pied-billed grebe, western grebe	100
Hummingbirds	Allen's hummingbird, Anna's hummingbird, black-chinned hummingbird	25
Plovers	Black-bellied plover, killdeer	50
Raptors (Category 1)	American kestrel, barn owl, red-tailed hawk	50
Raptors (Category 2)	Cooper's hawk, red-shouldered hawk, sharp-shinned hawk	150
Raptors (Category 3)	Northern harrier, white-tailed kite	These are special-status species; buffer determined in consultation with CPM
Stilts and Avocets	American avocet, black-necked stilt	150

Avian Group	Species Potentially Nesting in the Project Vicinity	Buffer for Construction and Demolition Activities (feet)
Terns	Elegant tern, Forster's tern, royal tern	100
Passerines (cavity and crevice nesters)	House wren, Say's phoebe, western bluebird	25
Passerines (bridge, culvert, and building nesters)	Black phoebe, cliff swallow, house finch, Say's phoebe	25
Passerines (ground nesters, open habitats)	Horned lark	100
Passerines (understory and thicket nesters)	American goldfinch, blue-gray gnatcatcher, bushtit, California towhee, common yellowthroat, red-winged blackbird, song sparrow, Swainson's thrush	25
Passerines (scrub and tree nesters)	American crow, American goldfinch, American robin, blue-gray gnatcatcher, Bullock's oriole, bushtit, Cassin's kingbird, common raven, hooded oriole, house finch, lesser goldfinch, northern mockingbird	25
Passerines (tower nesters)	Common raven, house finch	25
Passerines (marsh nesters)	Common yellowthroat, red-winged blackbird	25
Species not covered under MBTA	Domestic waterfowl, including domesticated mallards, feral (rock) pigeon, European starling, and house sparrow	N/A

Restoration Program Funding

~~**BIO-9** — Prior to the start of project operation the project owner shall provide funding to support an existing or soon to be established salt marsh or estuary habitat restoration project to fully mitigate for impacts to Coastal Commission wetlands. Permanent impacts shall be mitigated at a 3:1 ratio. Mitigation shall occur as close to the site of impact as possible. Mitigation shall be in kind and consist of at least 17.79 acres of salt marsh or estuary habitat restoration.~~

~~Mitigation shall occur at an established wetland restoration program such as Huntington Beach Wetlands Restoration Project (includes Magnolia Marsh, Talbert Marsh, and Brookhurst Marsh), Bolsa Chica, Long Beach, and/or the soon to be established Los Cerritos Wetlands or any other wetland restoration program approved by the CPM in consultation with the Coastal Commission.~~

~~**Verification:** — At least 90 days prior to the start of project operations, the project owner shall submit the restoration program(s) the project owner wishes to participate in for approval by the CPM (in consultation with the Coastal Commission). At least 60 days prior to the start of project operation the project owner shall submit a Restoration Management Plan or similar plan (used by the land manager) that discusses the details of the wetland restoration program to the CPM. No less than 30 days prior to the start of project operation, the project owner shall provide a written verification to the CPM that the endowment has been paid in full to the land manager approved by the CPM (in coordination with the Coastal Commission in accordance with this condition of certification. The project owner shall provide evidence that it has specified that its annual payment from the endowment to the third party(ies)~~

~~approved by the CPM can be used only to assist in coastal wetland restoration to mitigate the project's effects for the loss of Coastal Commission wetlands. Thereafter, within 30 days after each anniversary date of the commencement of project operation, the project owner shall obtain an annual report from the land manager administering the restoration program(s), as approved by the CPM. The annual reports will document how each annual payment from the endowment required hereunder was used and applied to assist in wetland habitat restoration/enhancement at approved locations. The project owner shall provide copies of such reports to the CPM within 30 days of receipt. This verification shall be provided annually for the operating life of the project.~~

Cultural Resources Conditions of Certification

CUL-1 Prior to the start of construction-related ground disturbance or grading, boring, and trenching, as defined in the Compliance Conditions for this project; or surface grading or subsurface soil work during pre-construction activities or site mobilization, the project owner shall obtain the services of a Cultural Resources Specialist (CRS) and one or more alternate CRSs. The project owner shall submit the resumes and qualifications for the CRS, CRS alternates, and all technical specialists to the compliance project manager (CPM) for review and approval.

The CRS shall manage all cultural resources monitoring, mitigation, curation, and reporting activities, and any pre-construction cultural resources activities (i. e., geoarchaeology or data recovery, unless management of these is otherwise provided for), in accordance with the conditions for the proposed project. The CRS shall obtain the services of Cultural Resources Monitors (CRMs), Native American Monitors (NAMs), and other technical specialists, as needed, to assist in monitoring, mitigation, and curation activities. The project owner shall ensure that the CRS makes recommendations regarding the eligibility for listing in the CRHR of any cultural resources that are newly discovered or that may be affected in an unanticipated manner.

No construction-related ground disturbance or grading, boring, and trenching, as defined in the Compliance Conditions for this project; or surface grading or subsurface soil work during pre-construction activities or site mobilization shall occur prior to CPM approval of the CRS and alternates.

~~Approval of a CRS may be denied or revoked for reasons including, but not limited to, non-compliance on this or other Energy Commission projects and for concurrent service as CRS on an unmanageable number of Energy Commission projects, as determined by the CPM.~~ After all construction-related ground disturbance is completed and the CRS has fulfilled all responsibilities specified in these cultural resources conditions, the project owner may discharge the CRS, if the CPM approves. With the discharge of the CRS, these cultural resources conditions no longer apply to the construction activities of this power plant.

If, during operation of the power plant, circumstances develop that would require ground disturbance in soils or sediments previously undisturbed during project construction, no surface grading or subsurface soil work shall occur prior to submission of a Petition to Modify or Amend and CPM review and approval of a project-specific protocol for addressing unanticipated discoveries, consistent with the approved CRMMP.

CULTURAL RESOURCES SPECIALIST

The resumes for the CRS and alternate(s) shall include information demonstrating to the satisfaction of the CPM that their training and backgrounds conform to the U.S. Secretary of the Interior's Professional Qualifications Standards, as published in Title 36, Code Fed. Regs., part 61. In addition, the CRS and alternate CRS(s) shall have the following qualifications:

1. Qualifications appropriate to the needs of the project, including a background in anthropology, archaeology, history, architectural history, or a related field;
2. At least three years of archaeological or historical, as appropriate (per nature of predominant cultural resources on the project site), resources mitigation and field experience in California; and
3. At least one year of experience in a decision-making capacity on cultural resources projects in California and the appropriate training and experience to knowledgeably make recommendations regarding the significance of cultural resources.

~~The resumes of the CRS and alternate CRS shall include the names and telephone numbers of contacts familiar with the work of the CRS/alternate CRS on referenced projects and demonstrate to the~~

~~satisfaction of the CPM that the CRS/alternate CRS has the appropriate training and experience to implement effectively the Conditions.~~

CULTURAL RESOURCES MONITORS

CRMs shall have the following qualifications:

1. a B.S. or B.A. degree in anthropology, archaeology, historical archaeology, or a related field, and one year experience monitoring in California; or
2. an A.S. or A.A. degree in anthropology, archaeology, historical archaeology, or a related field, and four years experience monitoring in California; or
3. enrollment in upper division classes pursuing a degree in the fields of anthropology, archaeology, historical archaeology, or a related field, and two years of monitoring experience in California.

CULTURAL RESOURCES TECHNICAL SPECIALISTS

The resume(s) of any additional technical specialist(s), e.g., historical archaeologist, historian, architectural historian, and/or physical anthropologist, shall be submitted to the CPM for approval.

Verification:

1. At least 45 days prior to the start of ground disturbance, the project owner shall submit the resume for the CRS and alternate(s) to the CPM for review and approval.
2. At least ten days prior to a termination or release of the CRS, or within ten days after the resignation of a CRS, the project owner shall submit the resume of the proposed new CRS, if different from the alternate CRS, to the CPM for review and approval. At the same time, the project owner shall also provide to the proposed new CRS the AFC and all cultural resources documents, field notes, photographs, and other cultural resources materials generated by the project.
3. At least 20 days prior to ground disturbance, the CRS shall provide a letter naming CRMs and providing their resumes to demonstrate that the identified CRMs meet the minimum qualifications for cultural resources monitoring required by this condition of certification.
4. At least five days prior to additional CRMs beginning on-site duties during the project, the CRS shall provide letters and resumes to the CPM identifying the new CRMs and their qualifications.
5. At least ten days prior to any technical specialists, other than CRMs, beginning tasks, the resume(s) of the specialists shall be provided to the CPM for review and approval.
6. At least ten days prior to the start of ground disturbance, the project owner shall confirm in writing to the CPM that the approved CRS will be available for onsite work and is prepared to implement the cultural resources conditions.

CUL-3 Prior to the start of construction-related ground disturbance or grading, boring, and trenching, as defined in the Compliance Conditions for this project; or surface grading or subsurface soil work during pre-construction activities or site mobilization, the project owner shall submit the Cultural Resources Monitoring and Mitigation Plan (CRMMP), as prepared by, or under the direction of, the CRS, to the CPM for review and approval. The CRMMP shall follow the content and organization of the draft model CRMMP, provided by the CPM, and the authors' name(s) shall appear on the title page of the CRMMP. The CRMMP shall identify measures to minimize potential impacts to sensitive cultural resources.

Implementation of the CRMMP shall be the responsibility of the CRS and the project owner. Copies of the CRMMP shall reside with the CRS, alternate CRS, each CRM, and the project owner's on-site

construction manager. No ground disturbance shall occur prior to CPM approval of the CRMMP, unless such activities are specifically approved by the CPM.

The CRMMP shall include, but not be limited to, the following elements and measures:

1. The following statement included in the Introduction: “Any discussion, summary, or paraphrasing of the conditions of certification in this CRMMP is intended as general guidance and as an aid to the user in understanding the conditions and their implementation. The conditions, as written in the Commission Decision, shall supersede any summarization, description, or interpretation of the conditions in the CRMMP. The Cultural Resources conditions of certification from the Commission Decision are contained in Appendix A.”
2. A proposed general research design that includes a discussion of archaeological research questions and testable hypotheses specifically applicable to the project area, and a discussion of artifact collection, retention/disposal, and curation policies as related to the research questions formulated in the research design. The research design will specify that the preferred treatment strategy for any buried archaeological deposits is avoidance. A specific mitigation plan shall be prepared for any unavoidable impacts to any CRHR-eligible (as determined by the CPM) resources. A prescriptive treatment plan may be included in the CRMMP for limited data types.
3. Specification of the implementation sequence and the estimated time frames needed to accomplish all project-related tasks during the ground-disturbance and post-ground–disturbance analysis phases of the project.
4. Identification of the person(s) expected to perform each of the tasks, their responsibilities, and the reporting relationships between project construction management and the mitigation and monitoring team.
5. A description of the manner in which Native American observers or monitors will be included, the procedures to be used to select them, and their role and responsibilities.
6. A description of all impact-avoidance measures (such as flagging or fencing) to prohibit or otherwise restrict access to sensitive resource areas that are to be avoided during ground disturbance, construction, and/or operation, and identification of areas where these measures are to be implemented. The description shall address how these measures would be implemented prior to the start of ground disturbance and how long they would be needed to protect the resources from project-related effects.
7. A statement that all encountered cultural resources over 50 years old shall be recorded on Department of Parks and Recreation (DPR) 523 forms and mapped and photographed. In addition, all archaeological materials retained as a result of the archaeological investigations (survey, testing, data recovery) shall be curated in accordance with the California State Historical Resources Commission’s *Guidelines for the Curation of Archaeological Collections*, into a retrievable storage collection in a public repository or museum.
8. A statement that the project owner will pay all curation fees for artifacts recovered and for related documentation produced during cultural resources investigations conducted for the project. The project owner shall identify ~~three~~^{one} possible curation facilities that could accept cultural resources materials resulting from project activities.
9. A statement demonstrating when and how the project owner will comply with Health and Human Safety Code 7050.5(b) and Public Resources Code 5097.98(b) and (e), including the statement that the project owner will notify the CPM and the NAHC of the discovery of human remains.

10. A statement that the CRS has access to equipment and supplies necessary for site mapping, photography, and recovery of any cultural resource materials that are encountered during ground disturbance and cannot be treated prescriptively.

11. A description of the contents, format, and review and approval process of the final Cultural Resource Report (CRR), which shall be prepared according to Archaeological Resource Management Report (ARMR) guidelines³⁴.

CUL-6 Prior to the start of construction-related ground disturbance or grading, boring, and trenching, as defined in the Compliance conditions for this project; or surface grading or subsurface soil work during pre-construction activities or site mobilization, the project owner shall notify the CPM and all interested Native Americans of the date on which ground disturbance will ensue. The project owner shall ensure that the CRS, alternate CRS, or CRMs monitor full time all of the above specified ground disturbance at the project site, along the linear facilities routes, and at laydown areas, roads, and other ancillary areas, to ensure there are no impacts to undiscovered resources and to ensure that known resources are not impacted in an unanticipated manner.

Full-time archaeological monitoring for this project shall be the archaeological monitoring of ground-disturbing activities within those areas of the project site where ground disturbance would reach native sediments (~~see Cultural Resources Table 2~~), for as long as the activities are ongoing. Where excavation equipment is actively removing dirt and hauling the excavated material farther than 50 feet from the location of active excavation, full-time archaeological monitoring shall require at least two monitors per excavation area. In this circumstance, one monitor shall observe the location of active excavation and a second monitor shall inspect the dumped material. For excavation areas where the excavated material is dumped no farther than 50 feet from the location of active excavation, one monitor shall both observe the location of active excavation and inspect the dumped material.

The project owner shall obtain the services of ~~one or more~~ Native Americans to monitor ground disturbance within the project site. ~~Contact lists of interested Native Americans and guidelines for monitoring shall be obtained from the NAHC. Groups or individuals identified during the consultation process, as interested in monitoring the project, will be contacted regarding monitoring.~~

Preference in selecting a monitor shall be given to Native Americans with traditional ties to the area where the project is located, but the project owner shall make a reasonable and good faith effort to accommodate equally all groups expressing the desire to monitor. If efforts to obtain the services of at least one qualified Native American monitor, acceptable to all groups that want monitoring, are unsuccessful, the project owner shall immediately inform the CPM. The CPM may either identify potential monitors or allow ground disturbance to proceed without a Native American monitor.

The research design in the CRMMP shall govern the collection, treatment, retention/disposal, and curation of any archaeological materials encountered.

On forms provided by the CPM, CRMs shall keep a ~~weekly~~daily log of any monitoring and other cultural resources activities and any instances of non-compliance with the conditions of certification and/or applicable LORS. Copies of the ~~weekly~~daily monitoring logs shall be provided by the CRS to the CPM, if requested by the CPM. From these logs, the CRS shall compile a monthly monitoring summary report to be included in the MCR. If there are no monitoring activities, the summary report shall specify why monitoring has been suspended.

The CRS or alternate CRS shall report ~~weekly~~daily to the CPM on the status of the project's cultural resources-related activities, unless reducing or ending ~~weekly~~daily reporting is requested by the CRS and approved by the CPM.

In the event that the CRS believes that the current level of monitoring is not appropriate in certain locations, a letter or e-mail detailing the justification for changing the level of monitoring shall be provided to the CPM for review and approval prior to any change in the level of monitoring.

The CRS, at his or her discretion, or at the request of the CPM, may informally discuss cultural resources monitoring and mitigation activities with Energy Commission technical staff.

Cultural resources monitoring activities are the responsibility of the CRS. Any interference with monitoring activities, removal of a monitor from duties assigned by the CRS, or direction to a monitor to relocate monitoring activities by anyone other than the CRS shall be considered non-compliance with these conditions of certification.

Upon becoming aware of any incidents of non-compliance with the conditions of certification and/or applicable LORS, the CRS and/or the project owner shall notify the CPM by telephone or e-mail within 24 hours. The CRS shall also recommend corrective action to resolve the problem or achieve compliance with the conditions.

When the issue is resolved, the CRS shall write a report describing the issue, the resolution of the issue, and the effectiveness of the resolution measures. This report shall be provided in the next MCR for the review of the CPM.

Verification:

1. At least 30 days prior to the start of ground disturbance, the CPM will notify all Native Americans with whom the Energy Commission communicated during the project review of the date on which the project's ground disturbance will begin.
2. At least 30 days prior to the start of ground disturbance, the CPM will provide to the CRS an electronic copy of a form to be used as a daily monitoring log.
3. Monthly, while monitoring is on-going, the project owner shall include in each MCR a copy of the monthly summary report of cultural resources-related monitoring prepared by the CRS and shall attach any new DPR 523A forms completed for finds treated prescriptively, as specified in the CRMMP.
4. At least 24 hours prior to implementing a proposed change in monitoring level, the project owner shall submit to the CPM, for review and approval, a letter or e-mail (or some other form of communication acceptable to the CPM) detailing the CRS's justification for changing the monitoring level.
5. ~~Weekly~~ Daily, as long as no cultural resources are found, the CRS shall provide a statement that "no cultural resources over 50 years of age were discovered" to the CPM as an e-mail or in some other form of communication acceptable to the CPM.
6. At least 24 hours prior to reducing or ending daily reporting, the project owner shall submit to the CPM, for review and approval, a letter or e-mail (or some other form of communication acceptable to the CPM) detailing the CRS's justification for reducing or ending daily reporting.
7. Within 15 days of receiving them, the project owner shall submit to the CPM copies of any comments or information provided by Native Americans in response to the project owner's transmittals of information.

CUL-9 Prior to the start of demolition or alteration of the existing RBGS Plants 1, 2 and 3, and the Administration Wing of Plant 1, including appurtenant facilities, the project owner shall provide the CPM with the name and statement of qualifications of an architectural historian who will prepare Historic

American Engineering Record (HAER) Level I documentation of the existing RBGS and appurtenant facilities, including SEA Lab.

The statement of qualifications for the architectural historian shall include all information needed to demonstrate that the architectural historian meets the necessary qualifications, including:

- a) Meets the Secretary of the Interior's Professional Standards for architectural history;
- ~~b) Has at least five years experience in recording twentieth-century American architecture and engineering structures;~~
- ~~c) Names and contact information of contacts familiar with the architectural historian's work on referenced projects.~~

CUL-10 Prior to demolition of the existing RBGS Plants 1, 2 and 3, and the Administration Wing of Plant 1, including appurtenant facilities, the architectural historian retained by the project owner shall prepare HAER Level I documentation of the RBGS Plants 1, 2 and 3, and the Administration Wing of Plant 1, including appurtenant facilities and SEA Lab. This will include large format photography (views of the overall site, individual buildings, building details and interiors, a full set of measured drawings depicting historic or existing conditions), a descriptive and historical narrative of the RBGS and the contexts of the Art Moderne style of architecture, the work of Stone and Webster and trends in steam electric generating plant design pre-World War II and post World War II in the United States and California. This documentation shall be completed in accordance with the Guidelines for Architectural and Engineering Documentation, published by the Department of the Interior-National Park Service, in the Federal Register/Volume 68, No. 139/ Monday, July 21, 2003/Notices, pp. 43159 to 43162.

Verification: At least 45 days prior to demolition or alteration of the existing RBGS Plants 1, 2 and 3, the Administration Wing of Plant 1 and appurtenant facilities, the HAER documentation shall be provided to the CPM for review and approval.

HAER documentation at Level 1 shall be provided to the Library of Congress and the California Energy Commission Library. The project owner shall also provide a copy of the HAER documentation to consult with the California State Library, Huntington Library and the city of Redondo Beach and provide to those facilities the documentation in a format that the repository can accommodate and/or prefers. A record of ~~those consultations~~ transmittal to these copies shall be submitted to the CPM for review and approval.

Within 30 days after the CPM approval of the HAER, the project owner shall provide a copy of the transmittal letters to the CPM of the HAER documentation to the Library of Congress, Energy Commission Library, California State Library, Huntington Library, and city of Redondo Beach.

Hazardous Material Handling Conditions of Certification

Condition HAZ-6 requires all hazardous material deliveries to use a specific route for deliveries to RBEP. This condition is unworkable for small quantity deliveries where the delivery vehicle could have numerous deliveries on the vehicle. The Applicant suggests using language similar to the Huntington Beach Energy Project's HAZ-6 condition.

HAZ-6 The project owner shall direct all vendors delivering any hazardous material (>800 gallons per delivery) to the site to use only the route approved by the CPM. The project owner shall obtain approval of the CPM if an alternate route is desired.

Verification: At least 60 days prior to receipt of any hazardous materials material (>800 gallons per delivery) on site, the project owner shall submit copies of the required transportation route limitation direction to the CPM for review and approval.

Land Use Conditions of Certification

LAND-1 The project owner shall ~~comply with Title 20, California Code of Regulations, Appendix B(g)(3)(c) of the Siting Regulations~~ by ensuring the Project ensure that the generating facilities for the RBEP, excluding linears and temporary laydown or staging area, will be located on a single legal parcel.

Verification: Prior to construction of the power block, the project owner shall submit evidence to the Compliance Project Manager (CPM), indicating approval of a Lot Line Adjustment by city of Redondo Beach, establishing that the generating facilities for the RBEP are located on a single parcel for the RBEP site. The submittal to the CPM shall include evidence of compliance with all conditions and requirements associated with the approval of the Lot Line Adjustment by the city.

LAND-2 The project owner shall comply with the ~~minimum~~ design and performance standards for the Public-Generating Plant (P-GP) District, if any, set forth in the city of Redondo Beach Zoning Ordinance for the Coastal Zone.

Verification: At least 30 days prior to the start of construction, the project owner shall submit written documentation, ~~including evidence of review by~~ that the project owner has requested the city of Redondo Beach review the RBEP design for conformance with ~~that the project meets~~ the above referenced requirements.

LAND-3 The project owner shall comply with the parking standards established by the city of Redondo Beach Zoning Ordinance for the Coastal Zone (Title 10, Chapter ~~25~~, Article 5).

Verification: At least 30 days prior to start of construction, the project owner shall submit to the CPM, written documentation, ~~including evidence of review by~~ that the project owner has requested the city review the RBEP design for conformance with ~~that the project conforms to all~~ applicable parking standards.

LAND-4 The project owner shall ensure that any signs erected (either permanent or for construction only) comply with the ~~outdoor advertising~~ regulations established by the city of Redondo Beach Zoning Ordinance for the Coastal Zone (Title 10, Chapter ~~25~~, Article 6).

Verification: At least 30 days prior to start of construction, the project owner shall submit to the CPM, written documentation, ~~including evidence of review by~~ that the project owner has requested the city review, ~~that all erected signs will conform to~~ for conformance with the zoning ordinance.

Noise and Vibration Conditions of Certification

Noise Complaint Process

NOISE-2 Throughout the demolition construction and operation of the project, the project owner shall document, investigate, evaluate, and attempt to resolve all project-related noise complaints. The project owner or authorized agent shall:

Use the Noise Complaint Resolution Form (below), or a functionally equivalent procedure acceptable to the CPM, to document and respond to each noise complaint;

- Attempt to contact the person(s) making the noise complaint within 24 hours (within 12 hours if the complaint is related to nighttime concrete pour);
- Conduct an investigation to determine the source of noise related to the complaint;
- Take all feasible measures to reduce the noise at its source if the noise is project related; and
- Submit a report documenting the complaint and the actions taken. The report shall include: a complaint summary, including final results of noise reduction efforts, and if obtainable, a signed statement by the complainant that states that the noise problem has been resolved to the complainant's satisfaction.

Verification:

Within five days of receiving a noise complaint, the project owner shall file a copy of the Noise Complaint Resolution Form with the CPM, documenting the resolution of the complaint. If mitigation is required to resolve a complaint and the complaint is not resolved within a three-day period (within 24 hours for noise complaints related to nighttime concrete pour), the project owner shall submit an updated Noise Complaint Resolution Form when the mitigation is implemented.

~~**NOISE 2** Throughout the construction and operation of the project, the project owner shall document, investigate, and evaluate all noise complaints and attempt to resolve all legitimate² noise complaints. The project owner or authorized agent shall:~~

~~use the Noise Complaint Resolution Form (below), or a functionally equivalent procedure acceptable to the CPM, to document and respond to each project-related noise complaint;~~

~~attempt to contact the person(s) making the noise complaint within 24 hours;~~

~~conduct an investigation to determine the source of noise in the complaint;~~

~~if the noise is project related, take all feasible measures to reduce the source of the noise;~~

~~and~~

~~submit a report documenting the complaint and actions taken. The report shall include: a complaint summary, including the final results of noise reduction efforts and, if obtainable, a signed statement by the complainant that states that the noise problem has been resolved to the complainant's satisfaction.~~

Nighttime Construction

~~For construction noise complaints received outside construction hours allowed as described by Condition of Certification **NOISE-6**, the project owner shall ask if the complainant would like a returned phone call within one hour. If the complainant requests a returned call, the~~

² A legitimate complaint refers to a complaint about noise that is caused by the RBEP project as opposed to another source. A legitimate complaint constitutes a violation by the project of any noise condition of certification (as confirmed by the CPM).

~~project owner shall contact the complainant within one hour, with information on the status of the complaint. The project owner shall monitor noise levels at or near the complainant's residence during the following night to determine the source and severity of the noise.~~

~~The project owner shall share a summary of its findings, as the result of this monitoring, with the complainant the following day. At the same time, the project owner shall notify the CPM of its findings, by either emailing the CPM or calling the phone number designated for the CPM. If the activity causing the noise is project related, the project owner shall take appropriate actions to reduce the noise level of that activity, or take other appropriate action to remedy the complaint, such as offering off-site noise abatement mitigation at or near the affected residence or establishing a program for temporary lodging for the occupants of this residence. The project owner shall mutually agree with the complainant on a deadline for implementing this action(s).~~

~~Within five days of receiving a noise complaint related to construction performed within the construction hours allowed by **NOISE-6** or related to project operation, the project owner shall file a Noise Complaint Resolution Form, shown below, with the CPM, which documents the nature of the complaint and the definition of the problem after investigation by plant personnel. If mitigation is required to resolve the complaint, this form shall include a description of the corrective measure. If mitigation is required to resolve the complaint, and the complaint is not resolved within a three-day period, the project owner shall submit an updated Noise Complaint Resolution Form when the mitigation is implemented.~~

~~Within 24 hours of determining the resolution of the complaint related to nighttime construction, the project owner shall email the CPM or call the phone number designated for the CPM, with information about this resolution. Within three days of implementing this resolution, the project owner shall notify the CPM of this implementation.~~

Operational Noise Restrictions

NOISE-4 The project design and implementation shall include appropriate noise mitigation measures adequate to ensure that the operation of the project will not cause the noise levels due to normal steady-state plant operation alone, during the four quietest consecutive hours of the nighttime, to exceed an average of ~~43~~50 dBA L₉₀ measured at or near monitoring location M1, ~~44~~50 dBA L₉₀ measured at or near monitoring location M2, 50 dBA L₉₀ measured at or near monitoring location M3a, and ~~45~~47 dBA L₉₀ measured at or near monitoring location M4.

No new pure-tone components (as defined in **Noise Table A1**, bottom row defining pure tone) shall be caused by the project. No single piece of equipment shall be allowed to stand out as a source of noise that draws legitimate complaints.

When the project first achieves a sustained output of 85 percent or greater of its rated capacity, the project owner shall conduct a 25-hour community noise survey at monitoring locations M1, M2, M3a, and M4, or at a closer location acceptable to the CPM. This survey shall also include measurement of one-third octave band sound pressure levels to ensure that no new pure-tone noise components have been caused by the project.

The measurement of power plant noise for the purposes of demonstrating compliance with this condition of certification may alternatively be made at a location, acceptable to the CPM, closer to the plant and this measured level then mathematically extrapolated to determine the plant noise contribution at the affected residence. The character of the plant

noise shall be evaluated at the affected receptor locations to determine the presence of pure tones or other dominant sources of plant noise.

If the results from the noise survey indicate that the power plant noise at the affected receptor sites exceed the above values, mitigation measures shall be implemented to reduce noise to a level of compliance with these limits.

If the results from the noise survey indicate that pure tones are present, mitigation measures shall be implemented to reduce the pure tones to a level that complies with **Noise Table A1** (bottom row defining pure tone) below.

Verification: The above noise survey shall take place within 45 days of the power plant first achieving a sustained output of 85 percent or greater of its rated capacity.

Within 15 days after completing this survey, the project owner shall submit a summary report to the CPM. Included in the survey report shall be a description of any additional mitigation measures necessary to achieve compliance with the above listed noise limits, and a schedule, subject to CPM approval, for implementing these measures. When these measures are implemented and in place, the project owner shall repeat the noise survey.

Within 15 days of completion of the new survey, the project owner shall submit to the CPM a summary report of the new noise survey, performed as described above and showing compliance with this condition.

Concrete Pour Noise Control

NOISE-9 When concrete work requires continuous pouring that may extend beyond the times specified in Condition of Certification **NOISE-6**, the project owner shall notify all residences in the vicinity of the project site of the commencement date and the duration of concrete pouring activities.

~~The average L_{eq} noise levels from these activities shall not exceed the hourly average nighttime ambient L_{eq} levels at M1, M2, M3a, and M4, by more than 5 dBA. In the event that noise complaints require resolution pursuant to Condition of Certification **NOISE-2**, the complaint will be resolved according to the procedures outlined in **NOISE-2**.~~

VERIFICATION: At least ten days prior to concrete pouring activities that are anticipated to extend beyond the times specified in Condition of Certification **NOISE-6**, the project owner shall submit a statement to the CPM, specifying the time of night and the number of nights for which activities will occur, the approximate distance of activities to receptor locations M1, M2, M3a, and M4, and the expected sound levels at these receptors, ~~stating that the expected sound levels from this activity do not exceed the nighttime noise limits specified above.~~

At the same time, the project owner shall notify the residents within one mile of this work. The notification may be in the form of letters, or other effective means as approved by the CPM. In this notification, the project owner shall state that it will perform this activity in a manner to ensure excessive noise is prohibited, and include a telephone number that will be staffed throughout this activity for use by the public to report any undesirable noise conditions associated with this activity. The project owner shall submit a copy of this notification to the CPM prior to the start of this work.

Soil and Water Conditions of Certification

SOIL&WATER-5: The project owner shall pay the city of Redondo Beach all fees normally associated with industrial connections (associated with the use of recycled water) to the city's sanitary sewer system as defined in the city's code, Title 5 Chapter 4 Article 5, Wastewater System, Schedule of Fees and Charges.

SOIL&WATER-6: Water supply for project construction and industrial uses during project operation shall be recycled water supplied from Cal-Water. Water supply for domestic uses shall be potable water supplied from the city of Redondo Beach by Cal-Water. Water use for operation shall not exceed 52.5 AFY consisting of a maximum of 0.5 AFY of potable water for sanitary purposes and 52 AFY of recycled water for industrial purposes. Water use for construction shall not exceed 100 AF during the 60-month construction period. A monthly summary of water use shall be submitted to the CPM.

The recycled water use shall meet the requirements of California Code of Regulations, title 22, Division 4, Chapter 3 and Title 17, Division 1, Chapter 5. Hydrostatic testing water shall be recycled water meeting the same requirements. The project owner shall provide the CPM two copies of the executed agreement between the project owner and Cal-water for the supply of recycled water for project construction and operation. ~~This agreement shall specify all terms and costs for the receipt and use of recycled water.~~

Visual Resources Conditions of Certification

VIS-1 Temporary Screening of Demolition, Construction, and Commissioning. The project owner shall prepare and implement a Demolition, Construction, and Commissioning Screening Plan (Construction Screening Plan) to screen project demolition, construction, and commissioning activities and areas on the project site, including all construction, laydown, and parking areas, from public view.

- A. The project owner shall prepare, install, and maintain a construction screening fence along the perimeter of the project site for all areas visible from public use areas, including Herondo Street, King Harbor Marina/N. Harbor Drive, and N. Catalina Avenue.
- B. The project owner shall submit the Construction Screening Plan to the compliance project manager (CPM), the Planning Director of the City of Redondo Beach, and the Executive Director of the Coastal Commission for simultaneous review and comment. Any comments on the plan from the city and the Coastal Commission shall be provided to the CPM. The project owner shall not purchase or order any materials for screening fencing until written approval of the final plan is received from the CPM. Modifications to the Construction Screening Plan are prohibited without the CPM's approval.
- ~~C. The Construction Screening Plan shall include three printed sets of full-size plans (24" x 36", minimum), three sets of 11" x 17" reductions, and a digital copy in PDF format, and contain the following information:

 - ~~1. A detailed Construction Screening Plan at a proper scale (1"=40") showing proposed fence locations, height, materials, and details.~~
 - ~~2. Graphics showing options for screening materials. The examples shall include fence materials in unobtrusive colors as well as printed decorative designs. Possible options include knitted polyethylene material, bottom-locking fence slats with chain link fencing, pre-printed mesh fabric, or printable mesh vinyl.~~
 - ~~3. A detailed schedule for completion of the construction screening installation.~~
 - ~~4. A procedure for monitoring and replacement of damaged or worn fencing.~~
 - ~~5. The screening fence for the power plant site shall be opaque and no less than eight feet tall.~~
 - ~~6. All screening fencing shall be well maintained and repaired or replaced, when damaged or worn, in a timely manner for the duration of project demolition, construction, and commissioning.~~~~

Verification: At least ~~120~~ 60 calendar days before the start of site mobilization (i.e., the start of ground disturbance at the project site), the project owner shall submit the Construction Screening Plan to the CPM, the Planning Director of the City of Redondo Beach, and the Executive Director of the Coastal Commission for simultaneous review and comment.

The Construction Screening Plan shall include three printed sets of full-size plans (24" x 36", minimum), three sets of 11" x 17" reductions, and a digital copy in PDF format, and contain the following information:

1. A detailed Construction Screening Plan at a proper scale (1"=40") showing proposed fence locations, height, materials, and details.

2. Graphics showing options for screening materials. The examples shall include fence materials in unobtrusive colors as well as printed decorative designs. Possible options include knitted polyethylene material, bottom-locking fence slats with chain link fencing, pre-printed mesh fabric, or printable mesh vinyl.
3. A detailed schedule for completion of the construction screening installation.
4. A procedure for monitoring and replacement of damaged or worn fencing.
5. The screening fence for the power plant site shall be opaque and no less than eight feet tall.
6. All screening fencing shall be well maintained and repaired or replaced, when damaged or worn, in a timely manner for the duration of project demolition, construction, and commissioning.

The project owner shall provide the CPM with a copy of the transmittal letters submitted to the city and the Coastal Commission requesting those agencies' respective reviews of the Construction Screening Plan. The CPM shall deem the Construction Screening Plan acceptable to any of those agencies that do not provide their review comments to the CPM within 30 calendar days of receipt of said plan.

If the CPM determines that the Construction Screening Plan requires revision, the project owner shall provide a plan with the specified revision(s) for review and approval by the CPM. A copy of the revised plan shall be provided to the city's Planning Director and the Executive Director of the Coastal Commission. No work to implement the Construction Screening Plan shall begin until final plan approval is received from the CPM.

The project owner shall install all construction screening before the start of site mobilization. The project owner shall notify the CPM within seven calendar days of installing the screening fencing that it is ready for inspection. The project owner shall report any work required to repair or replace temporary screening fencing in the Monthly Compliance Report for the project.

VIS-3 Lighting Management Plan – Project Operation. The project owner shall prepare and implement a comprehensive Lighting Management Plan.

- A. The comprehensive Lighting Management Plan shall be submitted to the CPM, the Planning Director of the City of Redondo Beach, and the Executive Director of the Coastal Commission for simultaneous review and comment. Any comments on the plan from the city and the Coastal Commission shall be provided to the CPM. The project owner shall not purchase or order any lighting fixtures or apparatus until written approval of the final plan is received from the CPM. Modifications to the Lighting Management Plan are prohibited without the CPM's approval. Installation of lighting must be completed by the start of commercial operation of the new power block.
- B. Consistent with applicable worker safety regulations, the project owner shall ensure the design, installation, and maintenance of all permanent exterior lighting such that light sources are not directly visible from areas beyond the project site, glare is avoided, and night lighting impacts are minimized or avoided to the maximum extent feasible. All lighting fixtures shall be selected to achieve high energy efficiency for the RBEP facility. ~~The project owner shall meet these requirements for permanent project lighting:~~
 1. ~~The Lighting Management Plan shall include three printed sets of full-size plans (24" x 36", minimum), three sets of 11" x 17" reductions, a digital copy in PDF format, and contain the following information:~~

- ~~2. The Lighting Management Plan shall be prepared with the direct involvement of a certified lighting professional trained to integrate efficient technologies and designs into lighting systems.~~
 - ~~3. Exterior lights shall be hooded and shielded and directed downward or toward the area to be illuminated to prevent obtrusive spill light (i.e., light trespass) beyond the project site.~~
 - ~~4. Exterior lighting shall be designed to minimize backscatter to the night sky to the maximum extent feasible.~~
 - ~~5. Energy efficient lighting products and systems shall be used for all permanent new lighting installations. Smart bi-level exterior lighting using high efficiency directional LED fixtures shall be used as appropriate for exterior installations. The lighting system shall work in conjunction with occupancy sensors, photo-sensors, wireless controls, and/or other scheduling or controls technologies to provide adequate light for security and maximize energy savings.~~
 - ~~6. Lighting fixtures shall be kept in good working order and continuously maintained according to the original design standards.~~
 - ~~7. The Lighting Management Plan shall be consistent with all applicable laws, ordinances, regulations, and standards.~~
- C. The compliance project manager (CPM) shall be notified of any complaints about permanent lighting at the project site. Complaints shall be documented using a form in the format shown in Attachment 1, and completed forms shall record resolution of each complaint. A copy of each completed complaint form shall be provided to the CPM. Records of lighting complaints shall also be kept in the compliance file at the project site.

Verification: At least 90 calendar days before ordering any permanent lighting equipment for the RBEP, the project owner shall submit the comprehensive Lighting Management Plan to the CPM, the Planning Director of the City of Redondo Beach, and the Executive Director of the Coastal Commission for simultaneous review and comment. The project owner shall provide the CPM with a copy of the transmittal letters submitted to the city and the Coastal Commission requesting those agencies' respective reviews of the Lighting Management Plan.

- A. The project owner shall meet these requirements for permanent project lighting:
 1. The Lighting Management Plan shall include three printed sets of full-size plans (24" x 36", minimum), three sets of 11" x 17" reductions, a digital copy in PDF format, and contain the following information.
 2. The Lighting Management Plan shall be prepared with the direct involvement of a certified lighting professional trained to integrate efficient technologies and designs into lighting systems.
 3. Exterior lights shall be hooded and shielded and directed downward or toward the area to be illuminated to prevent obtrusive spill light (i.e., light trespass) beyond the project site.
 4. Exterior lighting shall be designed to minimize backscatter to the night sky to the maximum extent feasible.

5. Energy efficient lighting products and systems shall be used for all permanent new lighting installations. Smart bi-level exterior lighting using high efficiency directional LED fixtures shall be used as appropriate for exterior installations. The lighting system shall work in conjunction with occupancy sensors, photo sensors, wireless controls, and/or other scheduling or controls technologies to provide adequate light for security and maximize energy savings.
6. Lighting fixtures shall be kept in good working order and continuously maintained according to the original design standards.
7. The Lighting Management Plan shall be consistent with all applicable laws, ordinances, regulations, and standards.

The CPM shall deem the Lighting Management Plan acceptable to any of those agencies that do not provide their review comments to the CPM within 45 calendar days of receipt of said plan.

If the CPM determines that the plan requires revision, the project owner shall provide a plan with the specified revision(s) for review and approval by the CPM. A copy of the revised plan shall be provided to the Planning Director of the City of Redondo Beach and the Executive Director of the Coastal Commission. No work to implement the plan (e.g., purchasing of fixtures) shall begin until final plan approval is received from the CPM.

Prior to the start of commercial operation of the RBEP, the project owner shall notify the CPM that installation of permanent lighting for the RBEP has been completed and that the lighting is ready for inspection. If the CPM notifies the project owner that modifications to the lighting system are required, within 30 days of receiving that notification, the project owner shall implement all specified changes and notify the CPM that the modified lighting system(s) is ready for inspection.

Within 48 hours of receiving a complaint about permanent project lighting, the project owner shall provide to the CPM a copy of the complaint report and resolution form, including a schedule for implementing corrective measures to resolve the complaint.

The project owner shall report any complaints about permanent lighting and document their resolution in the Annual Compliance Report for the project, accompanied by copies of completed complaint report and resolution forms for that year.

VIS-4 Surface Treatment of Project Structures and Buildings. The project owner shall prepare and implement a Surface Treatment Plan addressing treatment of the surfaces of all project structures and buildings visible to the public such that proposed colors and finishes: (1) minimize visual intrusion and reduce contrast by blending with the existing visual environment, (2) avoid creating new sources of substantial glint and glare, and (3) are consistent with all applicable laws, ordinances, regulations, and standards.

- A. The Surface Treatment Plan shall be submitted to the compliance project manager (CPM), the Planning Director of the City of Redondo Beach, for simultaneous review and comment. Any comments on the plan from the city shall be provided to the CPM. Modifications to the Surface Treatment Plan are prohibited without the CPM's approval. ~~The Surface Treatment Plan shall provide the following:~~
 - ~~1. A discussion of all considered surface treatments and the rationale for choosing the proposed surface treatment colors and finishes;~~
 - ~~2. An assessment of each considered surface treatment's effectiveness in avoiding or minimizing impacts to visual resources, ensuring compatibility between the energy~~

facility site and its surroundings, and enhancing design and visual quality of the site and its surroundings;

- ~~3. Three printed sets (11" x 17"), and a digital copy in PDF format of elevation drawings depicting at life-size scale the major project structures and buildings, and specifying for each structure and building: (1) the proposed color and finish; and (2) the height, length, and width or diameter;~~
 - ~~4. Two sets of color brochures, color chips, and or physical samples showing each proposed color and finish. Digital files showing proposed colors may not be submitted in place of original samples. Colors must be identified by vendor, name, and number, or according to a universal designation system;~~
 - ~~5. Three printed sets (11' x 17") and a digital copy in PDF format of color visual simulations at life-size scale showing the surface treatment proposed for the project structures. The visual simulations for key observation point (KOP) 7, KOP 8, and KOP 9 shall be used to prepare images showing the proposed surface treatment plan;~~
 - ~~6. A detailed schedule for completing the surface treatments;~~
 - ~~7. A procedure to ensure proper surface treatment maintenance for the life of the project.~~
- B. The monopoles for the on-site 230-kV transmission line shall be constructed using self-weathering steel to blend with the environment to the greatest extent feasible, and the finish shall appear as a matte patina. No galvanizing process shall be used that produces a reflective or shiny metallic finish. Unpainted exposed lagging and surfaces of steel structures that are visible to the public shall be embossed or otherwise treated to reduce glare.

Verification: At least 90 calendar days before submitting instructions for colors and other surface treatments to manufacturers or vendors of project structures, and/or ordering prefabricated project structures, the project owner shall submit the Surface Treatment Plan to the CPM, the Planning Director of the City of Redondo Beach, and the Executive Director of the Coastal Commission for simultaneous review and comment. The project owner shall provide the CPM with a copy of the transmittal letters submitted to the city and the Coastal Commission requesting those agencies' respective reviews of the Surface Treatment Plan.

The Surface Treatment Plan shall provide the following:

1. A discussion of all considered surface treatments and the rationale for choosing the proposed surface treatment colors and finishes;
2. An assessment of each considered surface treatment's effectiveness in avoiding or minimizing impacts to visual resources, ensuring compatibility between the energy facility site and its surroundings, and enhancing design and visual quality of the site and its surroundings;
3. Three printed sets (11" x 17"), and a digital copy in PDF format of elevation drawings depicting at life-size scale the major project structures and buildings, and specifying for each structure and building: (1) the proposed color and finish; and (2) the height, length, and width or diameter;
4. Two sets of color brochures, color chips, and or physical samples showing each proposed color and finish. Digital files showing proposed colors may not be submitted in

place of original samples. Colors must be identified by vendor, name, and number, or according to a universal designation system;

5. Three printed sets (11' x 17") and a digital copy in PDF format of color visual simulations at life-size scale showing the surface treatment proposed for the project structures. The visual simulations for key observation point (KOP) 7, KOP 8, and KOP 9 shall be used to prepare images showing the proposed surface treatment plan;
6. A detailed schedule for completing the surface treatments;
7. A procedure to ensure proper surface treatment maintenance for the life of the project.

The CPM shall deem the Surface Treatment Plan acceptable to any of those agencies that do not provide their review comments to the CPM within 45 calendar days of receipt of said plan.

If the CPM determines that the plan requires revision, the project owner shall provide a plan with the specified revision(s) for review and approval by the CPM. A copy of the revised plan shall be provided to the city's Planning Director and the Executive Director of the Coastal Commission. No work to implement the Surface Treatment Plan shall begin until final plan approval is received from the CPM.

Prior to the start of commercial operation of the RBEP, the project owner shall notify the CPM that surface treatments of all publicly visible structures and buildings identified in the Surface Treatment Plan have been completed and that the facilities are ready for inspection. The project owner shall obtain written confirmation from the CPM that the project complies with the Surface Treatment Plan.

The project owner shall provide a status report regarding surface treatment maintenance in the Annual Compliance Report for the project. At a minimum, the report shall specify:

1. The condition of the surfaces and finishes of all structures at the power plant site,
2. All major maintenance activities that occurred during the reporting year, and
3. A schedule for major maintenance activities for the next year.

Worker Safety and Health Conditions of Certification

WORKER SAFETY-1 The project owner shall submit to the compliance project manager (CPM) a copy of the Project Construction Safety and Health Program containing the following:

- a Construction Personal Protective Equipment Program;
- a Construction Exposure Monitoring Program;
- a Construction Injury and Illness Prevention Program;
- a Construction Emergency Action Plan; and
- a Construction Fire Prevention Plan.

The Personal Protective Equipment Program, the Exposure Monitoring Program, and the Injury and Illness Prevention Program shall be submitted to the CPM for review and approval concerning compliance of the program with all applicable safety orders. The Construction Emergency Action Plan and the Fire Prevention Plan shall be submitted to the Redondo Beach Fire Department for review and comment prior to submittal to the CPM for approval.

Verification: At least ~~60~~30 days prior to the start of construction, the project owner shall submit to the Redondo Beach Fire Department for review and comment a copy of the Construction Emergency Action Plan and the Fire Prevention Plan. At least 30 days prior to the start of construction, the project owner shall submit to the CPM for review and approval a copy of the Project Construction Safety and Health Program addressing any comments received from the Redondo Beach Fire Department. The final plan submittal shall also include a letter containing comments received from the Redondo Beach Fire Department on the Construction Emergency Action Plan and the Fire Prevention Plan or a statement that no timely comments were received, and a copy of the transmittal letter that accompanied the submittal of the plans.

WORKER SAFETY-2 The project owner shall submit to the CPM a copy of the Project Operations and Maintenance Safety and Health Program containing the following:

- an Operation Injury and Illness Prevention Plan;
- an Emergency Action Plan;
- Hazardous Materials Management Program;
- Fire Prevention Plan (Cal. Code Regs., tit. 8, § 3221); and
- Personal Protective Equipment Program (Cal. Code Regs., tit. 8, §§3401—3411).

The Operation Injury and Illness Prevention Plan, Emergency Action Plan, and Personal Protective Equipment Program shall be submitted to the CPM for review and approval concerning compliance of the programs with all applicable safety orders. The Fire Prevention Plan and the Emergency Action Plan shall also be submitted to the Redondo Beach Fire Department for review and comment.

Verification: At least ~~60~~30 days prior to the start of first-fire or commissioning, the project owner shall submit to the Redondo Beach Fire Department for review and comment a copy of the Project Operations and Maintenance Safety and Health Program. At least 30 days prior to the start of construction, the project owner shall submit to the CPM for review and approval a copy of the Project Construction Safety and Health Program addressing any comments received from the Redondo Beach Fire Department. The final plan submittal shall also include a letter containing comments received from the Redondo Beach Fire Department or a statement that no timely comments were received, and a copy of the transmittal letter that accompanied the submittal of the plans.

COMPLIANCE CONDITIONS OF CERTIFICATION

KEY PROJECT EVENT DEFINITIONS

The following terms and definitions help determine when various conditions of certification are implemented.

Project Certification

Project certification occurs on the day the Energy Commission docket its decision after adopting it at a publically noticed Business Meeting or hearing, unless the adoption decision provides for a different effective date. At that time, all Energy Commission conditions of certification become binding on the project owner and the proposed facility. Also at that time, the project enters the compliance phase. It retains the same docket number it had during its siting review, but the letter "C" is added at the end (for example, 09-AFC-7C) to differentiate the compliance phase activities from those of the certification proceeding.

Non-Operation and Closure

Non-operation is time-limited and can encompass part or all of a facility. Non-operation can be a planned event, usually for equipment maintenance or repair, or unplanned, usually the result of unanticipated events or emergencies.

Closure is a facility shutdown with no intent to restart operation. ~~It may also be the cumulative result of unsuccessful efforts to re-start over an increasingly lengthy period of non-operation, condemned by inadequate means and/or lack of a viable plan. Facility closures can occur due to a variety of factors, including, but not limited to, irreparable damage and/or functional or economic obsolescence.~~

Energy Commission Records

The Energy Commission maintains the following documents and information as public records, in either the Compliance files or Dockets Unit files, for the life of the project (or other period as specified):

- all documents demonstrating compliance with any legal requirements relating to the construction, operation, and closure of the facility;
- all Monthly and Annual Compliance Reports (MCRs, ACRs) filed by the project owner;
- all project-related complaints of alleged noncompliance filed with the Energy Commission; and
- all petitions for project or condition of certification changes and the resulting staff or Energy Commission action.

CHIEF BUILDING OFFICIAL DELEGATION AND AGENCY COOPERATION

Under the California Building Code standards, while monitoring project construction and operation, staff acts as, and has the authority of, the Chief Building Official (CBO). Staff may delegate some CBO responsibility to either an independent third-party contractor or a local building official. However, staff retains CBO authority when selecting a delegate CBO, including the interpretation and enforcement of state and local codes, and the use of discretion, as necessary, in implementing the various codes and standards.

The delegate CBO will be responsible for facilitating compliance with all environmental conditions of certification, including cultural resources, and for the implementation of all appropriate codes, standards, and Energy Commission requirements. The CBO will conduct on-site (including linear

facilities) reviews and inspections at intervals necessary to fulfill these responsibilities. The project owner will pay all reasonable delegate CBO fees necessary to cover the costs of these reviews and inspections pursuant to the applicable fee schedule and agreement.

NONCOMPLIANCE COMPLAINT PROCEDURES

~~Any person or agency may file a complaint alleging noncompliance with the conditions of certification. Such a complaint will be subject to review by the Energy Commission pursuant to Title 20, California Code of Regulations, section 1237, but, in many instances, the issue(s) can be resolved by using an informal dispute resolution process. Both the informal and formal complaint procedures, as described in current state law and regulations, are summarized below. Energy Commission staff will follow these provisions unless superseded by future law or regulations. The California Office of Administrative Law provides on-line access to the California Code of Regulations at <http://www.oal.ca.gov/>.~~

Informal Dispute Resolution Process

The following informal process is designed to resolve code and compliance interpretation disputes stemming from the project's conditions of certifications and other LORS. The project owner, the Energy Commission, or any other party, including members of the public, may initiate the informal dispute resolution process. Disputes may pertain to actions or decisions made by any party, including the Energy Commission's delegate agents.

~~This process may precede the formal complaint and investigation procedure specified in the Commission's regulations, Title 20, California Code of Regulations, section 1237, but is not intended to be a prerequisite or substitute for it. This informal procedure may not be used to change the terms and conditions of certification in the Decision, although the agreed-upon resolution may result in a project owner proposing an amendment. The informal dispute resolution process encourages all parties to openly discuss the conflict and reach a mutually agreeable solution. If a dispute cannot be resolved, then the matter must be brought before the full Energy Commission for consideration via the complaint and investigation procedure specified in Title 20, California Code of Regulations, section 1237.~~

Request for Informal Meeting

In the event that either the requesting party or Energy Commission staff are not satisfied with the project owner's investigative report or corrective measures, either party may submit a written request to the CPM for a meeting with the project owner. The request shall be made within 14 days of the project owner's filing of the required investigative report. Upon receipt of such a request, the CPM will attempt to:

1. immediately schedule a meeting with the requesting party and the project owner, to be held at a mutually convenient time and place;
2. secure the attendance of appropriate Energy Commission staff and staff of any other agencies with expertise in the subject area of concern, as necessary; and
3. conduct the meeting in an informal and objective manner so as to encourage the voluntary settlement of the dispute in a fair and equitable manner.

~~After the meeting, the CPM will promptly prepare and distribute copies to all parties and to the project file, of a summary memorandum that fairly and accurately identifies the positions of all parties and any understandings reached. If no agreement was reached, the CPM will direct the complainant to the formal complaint process provided under Title 20, California Code of Regulations, section 1237.~~

Formal Dispute Resolution Procedure

~~Any person may file a complaint with the Energy Commission's Dockets Unit alleging noncompliance with a Commission Decision adopted pursuant to Public Resources Code section 25500. Requirements for complaint filings and a description of how complaints are processed are provided in Title 20, California Code of Regulations, section 1237.~~

Change of Ownership and/or Operational Control

~~Change of ownership or operational control also requires that the project owner file a petition pursuant to section 1769 (b). This process requires public notice and approval by the full Commission. The petition shall be in the form of a legal brief and fulfill the requirements of section 1769 (b).~~

FACILITY CLOSURE

The Energy Commission cannot reasonably foresee all potential circumstances in existence when a facility permanently closes. Therefore, the closure conditions provided herein strive for the flexibility to address circumstances that may exist at some future time. Most importantly, facility closure must be consistent with all applicable Energy Commission conditions of certification and the LORS in effect at that time.

~~Although a non-operational facility may intend to resume operations, if it remains non-operational for longer than one year and the project owner does not present a viable plan to resume operation, the Energy Commission can conclude that closure is imminent and direct the project owner to commence closure preparations. Should the project owner effectively abandon a facility, the Energy Commission can access the required financial assurance funds to begin closure, but the owner remains liable for all associated costs.~~

Prior to submittal of the facility's Final Closure Plan to the Energy Commission, the project owner and the CPM will hold a meeting to discuss the specific contents of the plan. In the event that significant issues are associated with the plan's approval, the CPM will hold one or more workshops and/or the Commission may hold public hearings as part of its approval procedure.

~~With the exception of measures to eliminate any immediate threats to public health and safety or to the environment, facility closure activities cannot be initiated until the Energy Commission approves the Final Closure Plan, and Cost Estimate, and the project owner complies with any requirements the Commission may incorporate as conditions of approval of the Final Closure Plan.~~

COM-11: Reporting of Complaints, Notices, and Citations. Prior to the start of construction or closure, the project owner shall send a letter to property owners within one mile of the project, notifying them of a telephone number to contact project representatives with questions, complaints, or concerns. If the telephone is not staffed 24 hours per day, it must include automatic answering with a date and time stamp recording.

The project owner shall respond to all recorded complaints within 24 hours or the next business day. The project site shall post the telephone number on-site and make it easily visible to passersby during construction, operation, and closure. The project owner shall provide the contact information to the CPM and promptly report any disruption to the contact system or telephone number change to the CPM, who will provide it to any persons contacting him or her with a complaint.

~~In addition to including a~~All complaints, notices, and citations must be included with the MCRs and ACRs. ~~W~~within five days of receipt, the project owner shall report, and provide copies to the CPM of, all complaints, including noise and lighting complaints, notices of violation, notices of fines, official warnings, and citations. Complaints shall be logged and numbered. Noise complaints shall be recorded on the form provided in the **NOISE AND VIBRATION** Conditions of Certification. All other complaints shall be recorded on the complaint form (Attachment A) at the end of this Compliance Plan.

COM-14: Non-operation. If the facility ceases operation (excluding planned and unplanned maintenance) temporarily, either planned or unplanned, for longer than one week (or other CPM-approved ~~date~~interval), but less than three (3) months (or other CPM-approved date), the project owner shall notify the CPM, interested agencies, and nearby property owners. Notice of planned non-operation shall be given at least two (2) weeks prior to the scheduled date. Notice of unplanned non-operation shall be provided no later than one (1) week after non-operation begins.

For any non-operation, a Repair/Restoration Plan for conducting the activities necessary to restore the facility to availability and reliable and/or improved performance shall be submitted to the CPM within one (1) week after notice of non-operation is given. If non-operation is due to an unplanned incident, temporary repairs and/or corrective actions may be undertaken before the Repair/Restoration Plan is submitted. The Repair/Restoration Plan shall include:

1. identification of operational and non-operational components of the plant;
2. a detailed description of the repair or restoration activities;
3. a proposed schedule for completing the repair or restoration activities;
4. an assessment of whether or not the proposed activities would require changing, adding, and/or deleting any conditions of certification, and/or would cause noncompliance with any applicable LORS; and
5. planned activities during non-operation, including any measures to ensure continued compliance with all conditions of certification and LORS;

Written updates to the CPM for non-operational periods, until operation resumes, shall include:

1. progress relative to the schedule;
2. developments that delayed or advanced progress or that may delay or advance future progress;
3. any public, agency, or media comments or complaints; and
4. projected date for the resumption of operation.

During non-operation, all applicable conditions of certification and reporting requirements remain in effect. If, after one (1) year from the date of the project owner's last report of productive Repair/Restoration Plan work, the facility does not resume operation or does not provide a plan to resume operation, the Executive Director may assign suspended status to

the facility and recommend commencement of permanent closure activities. Within ninety (90) days of the Executive Director's determination, the project owner shall do one of the following:

1. If the facility has a closure plan, the project owner shall update it and submit it for Energy Commission review and approval.
2. If the facility does not have a closure plan, the project owner shall develop one consistent with the requirements in this Compliance Plan and submit it for Energy Commission review and approval.

COM-15: Facility Closure Planning. To ensure that a facility's eventual permanent closure and long-term maintenance do not pose a threat to public health and safety and/or to environmental quality, the project owner shall coordinate with the Energy Commission to plan and prepare for eventual permanent closure.

A. Provisional Closure Plan and Estimate of Permanent Closure Costs

To assure satisfactory long-term site maintenance and adequate closure for "the whole of a project," the project owner shall submit a Provisional Closure Plan and Cost Estimate for CPM review and approval within sixty (60) days after the ~~project owner either initiates start of commercial operation of the facility, or puts into operation or effect a modification approved by the Energy Commission.~~ The Provisional Closure Plan and Cost Estimate shall consider applicable final closure plan requirements, ~~including interim and long term, post-closure site maintenance costs, and reflect:~~ and reflect that permanent closure will be carried out by qualified personnel.

- ~~1. facility closure costs at a time in the facility's projected life span when the mode and scope of facility operation would make permanent closure the most expensive;~~
- ~~2. the use of an independent third party to carry out the permanent closure; and~~
- ~~3. no use of salvage value to offset closure costs.~~

The Provisional Closure Plan and Cost Estimate shall provide for a phased closure process and include but not be limited to:

1. comprehensive scope of work and itemized budget;
2. closure plan development costs;
3. dismantling and demolition;
4. recycling and site clean-up;
5. mitigation and monitoring direct, indirect, and cumulative impacts;
6. site remediation and/or restoration;
7. interim and long term operation and post-closure monitoring and maintenance, including long-term equipment replacement costs; and
8. contingencies.

~~The project owner shall include an updated Provisional Closure Plan and Cost Estimate in every fifth year ACR for CPM review and approval. Each updated Provisional Closure Plan and Cost Estimate shall reflect the most current regulatory standards, best management practices, and applicable LORS.~~

B. Final Closure Plan and Cost Estimate

~~When feasible, a~~At least three (3) years prior to initiating a permanent facility closure, the project owner shall submit for Energy Commission review and approval, a Final Closure Plan and Cost Estimate, which includes any long-term, post-closure site maintenance and monitoring. Final Closure Plan and Cost Estimate contents include, but are not limited to:

1. a statement of specific Final Closure Plan objectives;
2. a statement of qualifications and resumes of the technical experts proposed to conduct the closure activities, with detailed descriptions of previous power plant closure experience;
3. identification of any facility-related installations not part of the Energy Commission certification, designation of who is responsible for these, and an explanation of what will be done with them after closure;
4. a comprehensive scope of work and itemized budget for permanent plant closure and ~~long term~~ site maintenance activities, with a description and explanation of methods to be used, broken down by phases, including, but not limited to:
 - a. dismantling and demolition;
 - b. recycling and site clean-up;
 - c. impact mitigation and monitoring;
 - d. site remediation and/or restoration and;
 - e. ~~post closure maintenance; and~~
 - f. any contingencies.
5. a revised/updated Final Cost Estimate for all closure activities, by phases, including ~~long term, post-closure~~ site monitoring and maintenance costs, and longterm equipment replacement ~~of long term post closure equipment~~;
6. a schedule projecting all phases of closure activities for the power plant site and all appurtenances constructed as part of the Energy Commission-certified project;
7. an electronic submittal package of all relevant plans, drawings, risk assessments, and maintenance schedules and/or reports, including an above- and below-ground infrastructure inventory map and registered engineer's or delegate CBO's assessment of demolishing the facility; additionally, for any facility that permanently ceased operation prior to submitting a Final Closure Plan and Cost Estimate and for which only minimal or no maintenance has been done since, a comprehensive condition report focused on identifying potential hazards;

8. all information additionally required by the facility's conditions of certification applicable to plant closure;
9. an equipment disposition plan, including:
 - a. recycling and disposal methods for equipment and materials; and
 - b. identification and justification for any equipment and materials that will remain on-site after closure;
10. a site disposition plan, including but not limited to:
 - a. proposed rehabilitation, restoration, and/or remediation procedures, as required by the conditions of certification and applicable LORS; and
 - b. ~~long-term~~ site maintenance activities, ~~and~~
 - c. ~~anticipated future land use options after closure;~~
11. identification and assessment of all potential direct, indirect, and cumulative impacts and proposal of mitigation measures to reduce significant adverse impacts to a less-than-significant level; potential impacts to be considered shall include, but not be limited to:
 - a. traffic
 - b. noise and vibration
 - c. soil erosion
 - d. air quality degradation
 - e. solid waste
 - f. hazardous materials
 - g. waste water discharges
 - h. contaminated soil
12. identification of all current conditions of certification, LORS, federal, state, regional, and local planning efforts applicable to the facility, and proposed strategies for achieving and maintaining compliance during closure;
13. updated mailing list or listserv of all responsible agencies, potentially interested parties, and property owners within one (1) mile of the facility;
14. identification of alternatives to plant closure and assessment of the feasibility and environmental impacts of these; and
15. description of and schedule for security measures and safe shutdown of all non-critical equipment and removal of hazardous materials and waste (see conditions of

certification for **PUBLIC HEALTH, SOLID WASTE MANAGEMENT, HAZARDOUS MATERIALS MANAGEMENT, and WORKER SAFETY**).

If ~~implementation of~~ an Energy Commission-approved Final Closure Plan and Cost Estimate ~~is not implemented~~ initiated within one (1) year of its approval date, it shall be updated and re-submitted to the Commission for supplementary review and approval. If a project owner initiates but then suspends closure activities, and the suspension continues for longer than one (1) year, or subsequently abandons the facility, the Energy Final Closure Plan and Cost Estimate shall be resubmitted to the Commission ~~may access the required financial assurance funds to complete the closure for supplementary review and approval.~~ The project owner remains liable for all costs of contingency planning and closure.

COM-16: ~~Financial Assurance for Closure and Post-Closure Care.~~ ~~The project owner shall provide financial assurances to the Energy Commission, guaranteeing adequate and readily available funds to finance interim operation, facility closure, and post-closure site care, as needed.~~

~~Within 30 days following CPM approval of the project owner's first Provisional Closure Plan and Cost Estimate, pursuant to **COM-15**, the project owner shall establish an irrevocable closure surety bond and standby trust fund. The surety bond shall guarantee the project owner's performance of closure, as specified in the Provisional Closure Plan, and shall be in the amount of the CPM-approved Provisional Closure Cost Estimate. The standby trust fund shall have as its beneficiary the California State Energy Resources Conservation and Development Commission.~~

~~Within 60 days of CPM approval of each sequential Provisional Cost Estimate prepared pursuant to **COM-15**, the amount of the surety bond shall be adjusted to reflect any change in the estimate. Within 30 days of making the adjustment, the project owner shall submit for CPM review and approval documentation of the adjustment. Each year, on the anniversary of the establishment of the surety bond and standby trust fund, the project owner shall provide to the CPM documentation from the sureties of the bond's current value.~~

~~Using surety bond funds to implement closure may not fully satisfy the project owner's obligations under these conditions.~~

~~Provisions from California Bond and Undertaking Law, as well as other statutory and case law, may be applicable.~~