DOCKETED

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State Of California The Resources Agency of California

Memorandum

Date: January 24, 2017
Telephone: (916) 654-4026

To: Janea A. Scott, Commissioner and Presiding Member
Karen Douglas, Commissioner and Associate Member

From: California Energy Commission – Shawn Pittard
1516 Ninth Street Project Manager
Sacramento, CA 95814-5512

Subject: **STAFF'S REBUTTAL TESTIMONY AND RESPONSES TO HEARING OFFICER'S REQUEST FOR INFORMATION**

In accordance with the Revised Committee Scheduling Order issued on November 18, 2016 and the Hearing Officer's "Updated Proceeding Dates and Deadlines and Committee Request for Information" memo issued on January 4, 2017, Energy Commission staff is filing its Rebuttal Testimony and the requested information.

Rebuttal Testimony

On January 18, 2017, all parties filed their Opening Testimony. Staff's Rebuttal Testimony is provided in Attachment 1, Energy Commission Staff Rebuttal Testimony.

Request for Information

In accordance with the Hearing Officer's "Updated Proceeding Dates and Deadlines and Committee Request for Information" memo issued on January 4, 2017, Staff offers the following responses to items 4 through 8:

4. Except for the City of Oxnard (which is also a formal party to these proceedings), no other agencies are currently listed on the Proof of Service list for this project. The Committee requests that Commission staff identify appropriate agency contacts for inclusion on the Proof of Service list to assure their timely receipt of filed documents.

Staff recommends the agency contacts identified in Attachment 2, Energy Commission Staff's Recommended Agency Contacts, be included on the Proof of Service List.

5. The April 14, 2005, Memorandum of Agreement between the Energy Commission and the California Coastal Commission commits the Coastal Commission to send a representative to "sponsor the [Coastal Commission's] report into the Energy Commission's evidentiary record and be available at appropriate Energy Commission workshop(s) and hearing(s) to answer any questions about the report." The Committee requests that Energy Commission staff confirm that the Coastal Commission will send a representative to the evidentiary hearings and report any schedule conflicts for that representative to the Committee.

Staff has contacted Coastal Commission legal counsel and staff. They intend to participate in the evidentiary hearings via WebEx.

6. Public Resources Code Section 25523(d)(1) requires that where a proposed project is found to conflict with a state, local, or regional ordinance or regulation, the Energy Commission "consult and meet with the state, local, or regional governmental agency concerned to attempt to correct or eliminate the noncompliance." Has Energy Commission staff already or does it plan to consult with the City of Oxnard about the Puente Power Project's conformance with the general plan policy discussed in the Land Use section of the FSA or any other alleged areas of conflict with local law? Please report all results by January 24, 2017.

See Attachment 3, Staff's Response to Hearing Officer's Question Regarding Consultation with the City of Oxnard.

7. If it is determined that the proposed project is inconsistent with the above general plan policy or any other laws, ordinances, regulations, or standards, or an unmitigable significant environmental impact is found, the Committee will consider whether it is appropriate to override the inconsistency or impact pursuant to Public Resources Code Section 25525 and Title 20, California Code of Regulations subsections 1745.5(b)(2)(C) and (b)(3)(B)(ii). Parties shall prepare and present evidence relevant to that determination as part of their opening and rebuttal testimony and by the deadlines described above. The Committee does not intend to conduct a separate hearing on the issue of overrides.

See Attachment 4, Energy Commission Staff Response to the Hearing Officer Request Regarding Override.

8. The Final Staff Assessment does not, as has been recent practice, combine the proposed Conditions of Certification into a single appendix. The Committee requests that staff create and file such a compilation no later than the deadline for rebuttal testimony.

See Attachment 5, Energy Commission Staff Response to Hearing Officer Request for a Compilation of the Final Staff Assessment's Conditions of Certification.

Attachment 1

Energy Commission Staff Rebuttal Testimony

PUENTE POWER PROJECT (15-AFC-01)
REBUTTAL TESTIMONY

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ALTERNATIVES

By: David Vidaver

Exhibit 7000: Bill Powers, P.E. Opening Testimony on Behalf of the Center for Biological Diversity

Q. Mr. Powers asserts that declining peak demand in the Big Creek/Ventura Local Capacity Area has eliminated the need for the project. Do you agree?

A. Mr. Powers cites changes in the Energy Commission's 2020 forecast of 1-in-10 peak demand for the Big Creek Ventura Local Capacity Area (LCA) over 2009 to date as evidence of his assertion. The relevant metric, however, is not peak demand for the LCA, nor even peak demand for the Moorpark sub-area, but the local capacity requirement (LCR) for the sub-area. While changes in assumptions regarding demand, the largest of which relate to potential energy efficiency savings, have led to a reduction in the ISO's estimate of LCR needs in the Moorpark sub-area for 2025 to 234 MW, it has not eliminated the need entirely.

Q: Mr. Powers asserts that changes in the average capacity factors of (more-efficient) combined cycle power plants in California (declining) on the one hand, and (less efficient) simple cycle power plants in California (rising) on the other, are evidence that development of the Puente Power Plant would exacerbate the problem of rising GHG emissions per MWh of gas-fired generation in California, and contribute to an increase in average GHG emissions per MWh of gas-fired generation across the Western U.S. Evidence of this problem is presented in the form of a table which shows slightly higher heat rates for gas-fired generation in California and across the Western U.S. in 2014 than in 2010. Do you agree with Mr. Powers' conclusions?

A: No. The assertion implies that utilities and balancing authorities in California and across the West are dispatching simple cycle facilities for no reason other than the fact that "they are there." In fact, changes in the shape of net load (the amount of energy needed to meet demand after solar and wind generation have been accounted for) and its variability have encouraged the dispatch of simple cycle resources as lower-cost (and thus lower-emitting) alternatives to the dispatch of combined cycles. Poor hydro conditions during the past several years have also encouraged the dispatch of simple-cycle generation; simple cycle resources are increasingly called upon to meet evening ramping needs to the extent that pondage hydro is unavailable to do so.

BIOLOGICAL RESOURCES

By: Carol Watson and Jon Hilliard

Q. What is the purpose of your testimony?

A. To respond to certain points made by Applicant in its January 13, 2017, testimony.

Q. Applicant's testimony includes changes to the wording of Condition **BIO-7**. What is your response?

A. Staff agrees with the edits made by the applicant to **BIO-7**. These changes specify ESHA (Environmentally Sensitive Habitat Area) within the proximity of the project site; thereby adding clarity to the condition.

Q. Applicant's testimony includes changes to the wording of Condition **BIO-9**. What is your response?

A. Applicant repeats previous assertions that the on-site wetlands under the jurisdiction of the California Coastal Commission are not of a quality that would necessitate mitigation at a 4:1 ratio. Applicant instead suggests that a 2:1 ratio is more appropriate. Staff rejects this change. The onsite wetlands have been recommended at a 4:1 mitigation ratio by the Coastal Commission (TN 213337), and staff is in agreement with this recommendation. Staff has already responded to the applicant's concerns in the FSA (TN 214712), page 4.2-58, Response to Comment 14. Applicant proposes further changes to **BIO-9**, including removal of CI through CVIII. Staff has previously rejected these edits (FSA (TN 214712) page 4.2-60, Response to Comment 23). Other, minor edits to the condition are accepted. Edits to the verification of **BIO-9** are mainly accepted; some minor edits are dismissed without incorporation; such as the inclusion of a 10-year performance criterion. See Attachment 1.

Q. What is the purpose of your testimony?

A: To respond to certain points made by Intervenor Center for Biological Diversity (CBD) in its January 18, 2017, testimony.

Q. CBD asserts that tidewater goby has a high chance of occurring in the project area, and may be adversely affected by the project.

A. Staff disagrees. While tidewater goby may have a low chance of occurring in the canal, (FSA page 4.3-17; Latham & Watkins 2016) no project impacts are expected to occur in the canal; riprap would be placed above the water line, and the discharges of project water to the canal would be treated for temperature and in compliance with all applicable water quality standards, such as NPDES (TN 214336). Therefore, no adverse impacts are expected to occur to the tidewater goby. The USFWS has similarly stated that they have no concerns with tidewater goby occurring in the Edison Canal (Personal Communication, January 2017, Chris Dellith, USFWS).

Furthermore, salinity of the Edison Canal is likely too high to support adult tidewater gobies, and none have been documented in the canal. Goby do not utilize ocean habitat, so there is little likelihood that they could access the canal. Entry into the canal would therefore be limited to overland flushing from stream input, and there is no known stream that crosses the Edison Canal. As stated in the recovery plan (page 1USFWS 2005), "Tidewater gobies may enter marine environments only when flushed out of lagoons, estuaries, and river mouths by normal breaching of the sandbars following storm events". Staff is unaware of any lagoon, estuary, or river mouth that would flow into the Edison Canal, following the removal of a sand bar.

Primary constituent elements of tidewater goby habitat include a salinity of up to 12 parts per thousand (ppt), and a sandbar across the mouth of a lagoon or estuary during the "late spring, summer, and fall that closes or partially closes the lagoon or estuary" (USFWS 2014; page 8755). Although tidewater goby may survive at higher salinities, and have been documented in waters up to 42 ppt, this has been documented to occur only in adults; juveniles are not believed to be able to survive in such a high salinity. Tidewater goby has never been documented in the Edison Canal; although staff acknowledges that focused surveys have not been conducted, due to limited suitability of the habitat.

Recent data show that during 2010, salinity ranged from 16.5 to 29.5 (NRG 2014, Table 4). Water quality measurements indicated that in 2013 the cooling water discharge from the Mandalay Generating
Station did not have an adverse effect on receiving waters in the study area (NRG 2014).

Q. CBD asserts that the California least tern may occur in the project area, is fully protected, and may be adversely affected by the project.

A. Staff agrees that the California least tern is a fully protected species, as well as federally and state listed endangered, and may occur in the project impact area. However, staff asserts that Conditions of Certification **BIO-1** through **BIO-10** avoid and minimize impacts to the least tern, which is referenced throughout staff's FSA (pages 4.2-23, 4.2-28, 4.2-30, 4.2-36, 4.2-38, 4.2-42, 4.2-63, 4.2-69, 4.2-72, 4.2-74, and 4.2-78).

Q. CBD asserts that the Ventura marsh milk-vetch is state and federally endangered, and is subject to adverse effects as a result of the project.

A. Staff agrees that the species has state and federal protection, and this is reflected throughout the FSA (page 4.2-6, 4.2-7, 4.2-8, 4.2-20, and 4.2-27). Staff has deliberately strengthened Condition of Certification **BIO-7** to include weed management and use of silt fencing to avoid impacts to the ESHA north of the project site, known to contain Ventura marsh milk-vetch. Staff believes any impacts to Ventura marsh milk-vetch would be mitigated below the level of significance.

Q. CBD lists species known to be rare in the vicinity of the project site.

A. Staff acknowledges that a variety of species may be found on the project site, but has recommended conditions of certification that are broad enough to avoid and minimize impacts to any such species (**BIO-1** through **BIO-10**). Also, surveys conducted on the project site did not reveal the presence of any of these species (AFC TN 204219-9); page 4.2-1 of the AFC states that the U.S. Fish and Wildlife Service (USFWS), Ventura Fish and Wildlife Office Endangered Species Lists, California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDB), California Native Plant Society (CNPS) Rare Plant Database; and Consortium of California Herbaria (CCH) were consulted during development of special-status species lists. No significant impacts are expected.

Q. What is the purpose of your testimony?

A. To respond to certain points made by Intervenors Sierra Club, Environmental Coalition Ventura County, and Environmental Defense Center (SC, ECVC, and EDC) in their January 18, 2017, testimony.

Q. The Intervenors state that the onsite habitat is an ESHA. What is your response?

A. Staff has already responded to this issue; see FSA page 4.2-57, response to Comment #9 and page 4.2-58, response to comment #15. The site is not an ESHA, and the city of Oxnard as well as the California Coastal Commission have declined to designate it as such (CCC 2016a). No responsible agencies have discussed similar concerns.

References Cited

CCC 2016a. CCC (California Coastal Commission). 2016a. F10a. Addendum for 15-AFC-01.
Commission's 30413(d) review and report on the NRG Puente Power Project.

Latham & Watkins 2016. TN 214336. Applicant's Responses to CEC Data Requests Set 4 (77-107).

NRG 2014. Mandalay Generating Station Compliance File No. CI-2O93 2O13 Annual Summary Report. Available at: Regional Water Quality Control Board 320 W. 4th Street Los Angeles, California 90013.

USFWS 2005. Recovery Plan for the Tidewater Goby (Eucyclogobius newberryi). U.S. Fish and Wildlife Service, Portland, Oregon.

USFWS 2013. Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for Tidewater Goby. 78 FR 8745. Available at: https://www.federalregister.gov/documents/2013/02/06/2013-02057/endangered-and-threatened-wildlife-and-plants-designation-of-critical-habitat-for-tidewater-goby.

USFWS 2017. Personal Communication. Chris Dellith and Carol Watson. January 23, 2017.

Attachment 1:

Staff supports the following condition additions to condition **BIO-9**. Additions are in **bold** text, deletions are in ~~strikethrough~~.

WETLAND IMPACT MITIGATION PLAN

BIO-9 The project owner shall fully mitigate for permanent impacts to on-site wetlands at a 4:1 ratio. The project owner shall provide funds to acquire mitigation land at an existing, **or soon to be established**, salt marsh, palustrine or estuary habitat restoration project **or mitigation bank**, or help fund an established salt marsh, palustrine or estuary habitat restoration project **or mitigation bank as** close to the site of impact as possible to fully mitigate impacts to Coastal Commission wetlands.

Mitigation shall occur using an established wetland restoration program or mitigation bank, with preference given to programs within the same watershed as the project (Santa Clara-Calleguas), or any other wetland restoration program approved by the CPM. The project owner shall provide the CPM a Wetland Compensation Plan (Plan). The Plan shall include:

a) Available information from the land owner or wetland ~~program~~ restoration program manager pertaining to existing physical, biological and hydrological conditions at the mitigation sites(s), including vegetation present, hydrologic regime of the site(s), known or expected fauna at the site(s), including any known or expected listed sensitive species, known or suspected contaminants that may be present at the site(s), and an analysis of existing ecological functions and values at the sites(s). The review shall also identify any known site constraints that may limit successful creation or restoration efforts.

b) A description of legal interests at the mitigation sites(s), and any landowner approval that the project owner may need to use the proposed site(s) for wetland creation or restoration.

c) Proposed goals, objectives and performance criteria for the proposed mitigation site(s) that identify specific creation or restoration measures to be implemented, including proposed habitat types to be created or restored, grading and planting plans, the timing of the mitigation measures, and monitoring that will be implemented to establish baseline conditions and to determine whether the sites are meeting performance criteria. Monitoring shall be for at least 5 years and final monitoring for success shall take place after at least 3 years with no remediation or maintenance other than weeding. The plan shall also identify contingency measures that the project owner will implement should any of the mitigation sites not meet performance criteria.

These goals, objectives, and performance criteria shall include:

I. Creation or restoration of habitat types that will support wetland-dependent species.

II. Created or restored areas shall be provided a buffer of a size adequate to ensure protection of wetland functions and values, and at least 100 feet wide, as measured from the nearest upland edge of the transition area. The plan may propose a lesser buffer width if the mitigation area is sited within existing wetland areas that are protected by a buffer meeting these criteria.

III. Measures to be implemented if soil or groundwater contamination is found at the site(s).

IV. A planting program that includes initial and ongoing removal of invasive or non-native species and identifies the vegetation species to be planted, local sources of those plants or seeds, measures needed to protect any existing native wetland vegetation species, timing of planting, plans for irrigation if needed to establish plants, and locations of plants. The plan shall also identify soil sources and amendments to be used.

V. Formal sampling design to assess performance criteria and shall identify the means by which success will be assessed. Where statistical tests are used, the plan shall include a requirement for a statistical power analysis to demonstrate that there will be sufficient replication to enable a robust test with beta equal to alpha.

VI. Topographic drawings for the final mitigation site(s) and construction drawings, schedules, and a description of equipment to be used in the project.

VII. "As-built" plans and annual monitoring reports for no less than five years or until the sites meet performance criteria.

VIII. Identify legal mechanism(s) proposed to ensure permanent protection of the mitigation site(s) – e.g., conservation easements, deed restrictions, or other methods.

Verification: At least 90 days prior to the start of project construction, the project owner shall submit to the CPM for approval the wetland restoration program or mitigation bank the project owner wishes to participate in. At least 60 days prior to the start of project construction, the project owner shall provide funding to support an existing, or soon to be established, salt marsh **palustrine** or estuary habitat restoration project **or mitigation bank**. At least 90 days prior to the start of project construction, the project owner shall submit to the CPM a Restoration Management Plan or similar plan (used by the land manager, or to be used by the land manager or restoration program manager) that discusses the details of the wetland restoration program **or mitigation bank**.

No less than 30 days prior to the start of project construction, the project owner shall provide a written verification to the CPM that the funding has been paid in full to the land manager **or mitigation bank** approved by the CPM. The project owner shall provide evidence that payment from the funding 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 or restoration program manager administering the restoration program(s) **or mitigation bank**. The annual reports will document how payments from the endowment required hereunder were used and applied to provide wetland habitat restoration/enhancement at approved locations and shall describe how implementation of the mitigation conformed to the above goals, objectives, and performance criteria. 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 restoration program or the project, whichever is sooner.

If after five years, the restoration has not achieved the success criteria, the project owner shall submit within 90 days (of the fifth year anniversary) a revised or supplemental plan to compensate for those portions of the original plan which did not meet the approved success criteria.

ENVIRONMENTAL JUSTICE

By: Staff[1]

Q: What is the purpose of your testimony?

A: To address the testimony of Strela Cervas, Co-Director of the California Environmental Justice Alliance, docketed on January 18, 2017 (TN 215443), on behalf of Intervenor California Environmental Justice Alliance

Q: Ms. Cervas' testimony identified that the Mandalay Generating Station and the proposed Puente Power Project (Puente) are in a census tract identified according to CalEnviroScreen 3.0 as a disadvantaged community. CalEnviroScreen 3.0 was finalized and released on January 9, 2017. What is staff's response?

A: The table below identifies the CalEnviroScreen 3.0 data for the census tract in which the project is proposed. The new data does not change staff's conclusions in the Puente Final Staff Assessment (FSA) on the impact of the proposed Puente project on the environmental justice (EJ) population.

Census Tract Number		6111002905
CalEnviroScreen Version Number		3.0
Total Population		5,478
CES Percentile		89.39
CES Percentile Range[2]		86-90
Ozone	PERCENTILES	40.49
PM 2.5		40.92
Diesel PM		28.19
Drinking Water		72.68
Pesticides		**99.76**
Toxic Release		29.63
Traffic		38.49
Cleanup Sites		**91.81**
Groundwater Threats		**91.81**
Hazardous Waste		77.83
Impaired Water Bodies		**91.47**
Solid Waste		78.52
POLLUTION BURDEN		93.88
Asthma		**92.22**
Low Birth Weight		88.62

[1] For a list of contributors, refer to the "Staff Contributors to the Environmental Justice Rebuttal Testimony" subsection below.

Cardiovascular Disease		**91.90**
Education		60.55
Linguistic Isolation		49.33
Poverty		37.75
Unemployment		15.84
Housing Burden		23.19
POPULATION CHARACTERISTICS		70.74
Indicators with percentiles that are shown as **bold** text are in the 90 percentile or higher.		

As the following technical areas could have the type of impacts that could combine with any of the indicators that make up the CalEnviroScreen score, staff from these technical areas have reviewed the CalEnviroScreen 3.0 data for the disadvantaged community census tract where the project is proposed. Staff has considered how this new data changes their conclusions of cumulative project impact on the Environmental Justice (EJ) population as reported in the Final Staff Assessment (FSA).

Air Quality

The updated CalEnviroScreen 3.0 data does not change staff's air pollution conclusion. The Puente project would not have an adverse air quality impact to any sector of the public, including the local EJ population.

Public Health

The updated CalEnviroScreen 3.0 data does not change staff's public health conclusion. The Puente project would not have an adverse public health impact to any sector of the public, including the local EJ population.

Soil and Water Resources

Staff analyzed the new data for the pollution indicators included in the Soil and Water Resources section of the FSA. With respect to potential impacts to groundwater, CalEnvironScreen 3.0 adds three additional drinking water contaminants to the Drinking Water Contaminants indicator, and adds data of produced water ponds from oil and gas operations to the Groundwater Threats indicator. The updated scores for Census tract 6111002905 for these two indicators are: 72.68 percentile for Drinking Water Contaminants and 91.81 percentile for Groundwater Threats. As discussed on page 4.11-67 of the FSA, the project would not affect potable water supplies mainly because no public water supply wells are within one mile of the project site.

With respect to potential impacts to surface water quality, CalEnviroScreen 3.0 updates the Impaired Waters indicator with more recent data, but data for Ventura Coastal Watershed Management Areas remain the same as the CalEnviroScreen Version 2.0. The updated indicator score for Census tract 6111002905 is very high at the 91.47 percentile, mainly due to the distance to impaired waters such as McGrath Lake, Santa Clara River, and Channel Islands Harbor. The proposed project would discharge

wastewater, under a Los Angeles Regional Water Quality Control Board (LARWQCB) permit, to the Edison Canal which directly connects to Channel Islands Harbor. Two small beaches located inside the entrance of the harbor, Kiddie Beach and Hobie Beach, can experience elevated levels of “indicator bacteria” that exceed water quality standards. As a result, LARWQCB imposed specific water quality standards for bacteria levels to restore the beneficial uses. The project would not contribute to bacteria levels because wastewater discharge to the Edison Canal would not contain any bacteria (see Table 2.7-6 of the AFC).

For these reasons, staff concludes that the project would not individually or cumulatively contribute to disproportionate impacts to the EJ community.

Traffic and Transportation

Staff reviewed the CalEnviroScreen 3.0 data for the disadvantaged community census tract where the project is proposed. With a traffic density percentile of 38.49, traffic is not a key contributor to this disadvantaged community. Project-generated traffic would travel within this disadvantaged community; however, as discussed on page 5.12-11 in part 1 of the FSA, the peak construction of Puente would cause less than significant impacts to traffic level of service. Also, as discussed on page 4.12-25 regarding cumulative impacts and mitigation, staff has proposed Condition of Certification **TRANS-2**, which includes a requirement for the project-owner to stagger the worker and truck traffic during peak hours for both Puente peak construction and Mandalay Generating Station Units 1 and 2 demolition so that worker arrival and departure trips do not occur simultaneously. These traffic impacts would be temporary. Staff concludes Puente would not contribute to traffic density that could impact the EJ community.

Waste Management

Waste Management staff has analyzed the new census tract data presented by the intervenor using CalEnviroscreen 3.0. CalEnviroscreen 3.0 shows Census tract 6111002905 either contains or is within 1 kilometer of at least one cleanup site. The cleanup sites percentile for this census tract is 92, meaning the number and type of cleanup sites is higher than 92 percent of the census tracts in California.

As discussed on page 5.6-21 in part 2 of the FSA, past contamination at the project site has been remediated by Southern California Edison and monitoring is ongoing to ensure there are no continuing impacts from conditions at the project site. In addition, staff has recommended conditions of certification that would require additional cleanup of contaminated soils and groundwater that are encountered during construction and demolition activities. Staff concludes Puente would not contribute to impacts from the offsite cleanup sites that could impact the EJ community.

Conclusions

Staff concluded that the project would not contribute to impacts from the indicators that could impact the EJ community. Staff also concluded that the project would not have adverse impacts on any population including the EJ population. As discussed above, the new CalEnviroScreen data for the census tract in which the Puente project is

proposed does not change staff's conclusions of the project's impact on the EJ population as included in the Puente FSA.

Staff Contributors to the Environmental Justice Rebuttal Testimony

The following staff contributed to the Environmental Justice rebuttal testimony.

Technical Area	Staff
Air Quality	Gerry Bemis
Public Health	Huei-An (Ann) Chu, Ph.D.
Soil and Water Resources	Marylou Taylor, P.E.
Traffic and Transportation	Jonathan Fong
Waste Management	Paul Marshall

REFERENCES

CalEPA 2016 – California Communities Environmental Health Screening Tool, Version. 3.0 (CalEnviroScreen 3.0), Guidance and Screening Tool, October 2014, <http://oehha.ca.gov/calenviroscreen/report/calenviroscreen-30>.

GEOLOGY AND PALEONTOLOGY RESOURCES

By: Paul Marshall and Garry Maurath

Q: What is the purpose of your testimony?
A: To address to the testimony of Dr. David Revell, witness for the City, docketed on January 18, 2017 (TN#: 215427). In the interest of time and efficiency, elements of these individuals' testimony not addressed here are covered in staff's FSA (TN#: 214713).

Sea level Rise (page 16 of TN#: 215427)
Q: Dr. Revell's testimony states that the time frame for evaluating sea level rise and coastal hazard impacts in the future does not follow state agency guidance or the most recent science funded by the CEC. At the very least, the project should examine the same 60-year operational life that the existing MGS plant has experienced. What is your response?
A: Dr. Revell did not identify how the staff analysis was not complying with state agency guidance and staff does not have access to the report referred to in their testimony (See also the rebuttal testimony for Soil and Water Resources for a discussion of the availability of this report). Staff disagrees that a project life of 60 years should be used for analysis. The project proposes licensing and operation for 30 years, therefore this is the appropriate time frame for analysis. If the project operated past a licensed time frame then the license would have to be amended and any new or additional impacts would be evaluated at that time.

Tsunamis (page 25 of TN#: 215427)
Q: Dr. Revell's testimony states that erosion of the dunes that would likely occur upon tsunamic impact has not been considered. What is your response?
A: Staff concurs that erosion from tsunami waves could occur along the dunes fronting the site. The dunes fronting the site are 21 to 32 feet above sea level. As discussed on page. 5.2-31 of the FSA, staff conservatively estimates the tsunami inundation elevation would be 16.4 feet. In an abundance of caution staff assumed that since there was a low point along the flood control berm at about 17 feet elevation and the methods used to estimate tsunami wave height are not precise, there could be flooding. In order for this to occur the tsunami must flow through any low points or over and around the dunes and onto the site where water levels would reach maximum inundation elevation.

Tsunamis (page 25-27 of TN#: 215427 and page 1 of TN#: 215428-6)
Q: Dr. Revell's testimony states that recent research published in the Journal of Geophysical Research Letters by UC Riverside and U.S. Geological Survey scientists in 2015 and analysis in TN 215428-6 (Everest, 2017) which shows there is significantly greater potential for tsunami inundation at the site, is NOT considered in the FSA. What is your response?
A: Staff has addressed the 2015 report and provides analysis of the worst case tsunami potential based on current understanding of fault mechanics on pg. 5.2-21 and the related inundation potential on Pg. 5.2-29.

The new information provided in TN 215428-6 (Everest,2017) was not available for staff review prior to publication of the FSA. Based on preliminary review of the information staff provides the following observations regarding the significantly greater tsunami inundation elevations. The Everest report does not take into consideration the effects of coastal topography or include the results of any modeling that would show how the tsunami would propagate onshore. The tsunami wave amplitude they estimate is based on the sum of the predicted tsunami wave heights from the Ryan 2015 report, average mean high water levels, and sea level rise at present and in the future. Additionally, the tsunami amplitude represents the range in amplitude along the entire coastline from the entrance to Channel Islands Harbor in the south to Ventura and the Pitas Point Fault in the north. The actual maximum tsunami amplitude reported by the Ryan 2015 report at the Puente site specifically was approximately 12 feet. The map Dr. Revell provides shows areas of inundation where any point lies below the inundation elevation. This approach does not take into account important variables that would affect wave propagation onshore such as sea floor bathymetry, high coastal dunes fronting the site, and the surrounding topography. Dr. Revell did not consider the results of inundation mapping shown in the Ryan, 2015 report which takes these affects into consideration while using accepted wave propagation models to show expected areas of inundation.

In Geology and Paleontology Figure 8, staff shows the results of the study by Ryan *et al.*(2015). Even with the maximum wave height cited in Dr. Revell's testimony, the predicted inundation area may be adjacent to or only occur at shallow depths at the site. Also, as pointed out in staff's analysis on pg. 5.2-29, CGS and USGS are currently evaluating these results to determine whether their statewide maps (which are the accepted standard used by local agencies to identify inundation potential and conduct emergency response planning) should be updated based on this new information.

Tsunamis (page 26 of TN#: 215427)

Q: Dr. Revell's testimony states that from the FSA it is not clear what seismic shaking parameters were considered in the structural design. But the site is clearly in a liquefaction zone. What is your response?

A: Staff's analysis points out that the site is located within a Liquefaction Investigation Zone (page 5.2-24 of FSA). Table 2 (page 5.2-23 of the FSA) summarizes the planning level seismic design parameters for the project. Final seismic design parameters will be addressed in the project specific soils engineering report prepared as part of condition GEO-2 (page 5.2-41 of FSA). Conditions GEO-2, GEN-1, GEN-5, and CIVIL-1require the applicant address the issue of liquefaction in facility design and ensure that project facilities are designed and constructed in accordance with the CBC to mitigate impacts resulting from liquefaction (pages 5.2-24 and 5.2-41 of FSA).

HAZARDOUS MATERIALS MANAGEMENT

By: Brett Fooks, PE and Geoff Lesh, PE

Staff has reviewed the opening testimony (TN#215420) of the Oxnard Fire Department's Fire Chief. Staff acknowledges the fire department comments and staff's responses can be found below.

Q: "The OFD does not have adequate information regarding the decommissioned MGS or proposed P3 on-site security equipment and procedures to offer a review statement as to fire warning and suppression equipment and procedures for critical electric generation and grid facilities with hazardous chemicals stored on site. OFD requests that CEC require NRG to submit security plans and fees for security review to the OFD for review and to ensure the plans are adequate. OFD also requests that the CEC incorporate OFD's conditions of approval in the AFC permit, should an AFC permit be issued. This same concern extends to the P3 facility in 2050 when it ceases operations. OFD requests that the P3 AFC permit, should it be issued, require the P3 to be dismantled immediately after decommissioning."

A: Please refer to pages 4.6-19 & 20 of the Final Staff Assessment for staff's responses to this comment.

SOIL AND WATER RESOURCES

By: Marylou Taylor

Q: What is the purpose of your testimony?

A: To address the testimony of Dr. David Revell, representative to Intervenor City of Oxnard, docketed on January 18, 2017 (TN# 215427). In the interest of time and efficiency, elements of the intervenor's testimony not addressed here are covered in staff's FSA.

Coastal Topographic Changes

Q: Intervenor's testimony states that FSA's conclusions regarding the stability of the dunes and their ability to protect the site do not reflect actual beach conditions or reasonably predicted future conditions. Because all available hazard modeling relied on 2009 topographic LIDAR data collected when beaches historically were at their widest, all of the hazard models underpredict the existing risk to the project site. Intervenor presents different conclusions based on recent topographic LIDAR data that was collected in December 2016, stating that the present beach condition has much less protective dunes fronting the site than assumed in the 2009 data that was relied upon for the hazard modeling in the FSA. Should staff adopt the intervenor's conclusions as being more accurate?

A: No. The topography of the beach is highly variable over time (which the intervenor agrees with, as shown in Figures 5 and 6 of intervenor's testimony). The 2016 LIDAR data is more current, but it does not invalidate model results of 2009 data.

Because 2009 LIDAR data was used for all three hazard models that I reviewed, I could compare the mapped results under the same initial condition. This comparison showed very different results, prompting me to research their differences[2]. Staff concludes the use of the 2009 data was appropriate for analysis of risk to the project.

Removal of Outfall Riprap

Q: Intervenor's testimony states that removal of the outfall riprap may result in narrowing of the beach and an increase in the likelihood of dune erosion, which requires additional analysis as it relates specifically to the fragile dunes that, according to the FSA, protect the site. What is your response?

A: I agree that the riprap forming the outfall jetty obstructs longshore sand movement and contributes to the beach width next to the project site. However, shoreline armoring such as riprap is also connected to adverse impacts on coastal resources. The Coastal Commission 30413(d) Report recommended the full or partial removal of the outfall, a provision that prohibits shoreline protective devices, and

[2] See staff discussion of the differences on page 4.11-128 of the FSA

implementation of a Beach and Dune Monitoring Program. Condition of Certification SOIL&WATER-6 was included in the FSA to address potential beach and dune erosion.

Sediment Supply

Q: Intervenor's testimony states that the FSA discussion of the Santa Barbara littoral cell budget and the sediment contributions to the beach and dune fronting the project site is insufficient and incomplete, lacking a thorough discussion of the variability of sediment supply and other crucial considerations. What is your response?

A: The purpose of my discussion of sediment supplies is to explain that the contribution of Ventura Harbor dredging is small compared to the contribution supplied by the Santa Clara River.[3] My intent is to respond to the concerns of several members of the public worried that federal budget cuts would lead to significant beach erosion at the project site if Ventura Harbor dredging stops. A literature review of several documents[4] specifically covering the Santa Barbara littoral cell[5] led to my conclusion that long-term growth of the beach[6] is mainly due to the Santa Clara River, and the lack of dredging at Ventura Harbor would not significantly reduce the volume of sand needed to maintain the beach width at the project site. Intervenor's comments calling for further studies to correct the FSA's deficiencies, such as the need to analyze sediment grain diameters, is not necessary for my staff assessment.

Q: Intervenor's testimony states that the FSA does not consider anticipated frontal dune migration towards the project site where the proposed power plant would constrain its natural landward movement. Intervenor presents Figure 1 (site topography from 2016) to show that the dune field in front of the existing MGS site is unable to migrate inland, resulting in a narrow linear strip, while the wider dune field in front of the undeveloped proposed site was allowed to migrate inland. Intervenor states that this is a foreshadowing of future conditions if the new plant is built, the dunes will be constrained and the blowing sand will have to be removed slowly narrowing the fragile protective dune habitat. What is your response?

A: I understand that dune field naturally migrate inland slowly over time, however the intervenor's characterization of 2016 dune locations is not completely accurate. The project site is located on the portion of the MGS property that was graded around the time MGS Units 1 and 2 were constructed in the 1950s. The project site was originally graded for development of future steam-generating units that were never constructed. Aerial photos from the early 1930s show an extensive field of dunes reaching inland well beyond present-day Harbor Blvd located between the Santa Clara River and the

[3] See staff discussion on page 4.11-40 of the FSA

[4] Reports published by California Coastal Sediment Management Workgroup (CSMW 2006, CSMW 2007), Beach Erosion Authority for Clean Oceans and Nourishment (BEA 2009), Ventura County Watershed Protection District (SWS 2011), and U.S. Geological Survey (USGS 2006, USGS 2009a).

[5] The Ventura County coast is located in the Santa Barbara Littoral Cell where a southward net littoral drift dominates moving sand southward or southeastward along the beaches. Littoral drift refers to the movement of sand in the direction of the longshore current, analogous to a river of sand moving parallel to the shore

[6] Documented in aerial photographs from the period 1947 to 2012 (See Appendix N-2 of the AFC)

present-day Point Hueneme. The dune field fronting the project site is wider than the dune field in front of the MGS site mainly because less area was graded at the time. Aerial photos of the project site in 1959 show the wider dune field fronting the project site, similar to present-day conditions. Staff also notes that the dunes in front of the project site are well covered with vegetation that serve to stabilize the dunes. I agree that dune formations are dynamic in nature, but intervenor's testimony greatly exaggerates the results of dune migration at the project site and the potential narrowing of the fragile protective dune.

FEMA Preliminary Coastal Flood Maps

Q: Intervenor's testimony states that the Preliminary FEMA map does not reflect existing flood threats to the project site, concluding that wave run-up at the site may be as high as 38.6 feet (compared to FEMA's value of 20 feet). Jurisdictions within Ventura County are currently supporting a technical review as part of FEMA's map finalization process. How would changes in the final FEMA maps affect staff's conclusions?

A: It is very speculative to guess how the final FEMA map would affect staff's conclusion, because the information on the map is not yet final. However, based on the Preliminary FEMA map that currently shows the project site is not within the 1-percent annual chance flood, I concluded that this flood risk would be low because Puente is not a critical facility. If the final map places Puente within this hazard zone, my conclusion might change to a medium flood risk (as shown in Soil & Water Resources Table 3), assuming other data and information about the proposed project and setting did not change. However, a medium flood risk would not automatically warrant relocation of the project.

Recent Publications

Q: Intervenor's testimony states that the latest guidance for selecting sea level rise scenarios released by the Climate Action Team Research Working Group on October 10, 2016 contains data and implications not included in the FSA. Have you reviewed this document?

A: I personally contacted Guido Franco, who is cited in intervenor's testimony as authoring this guidance, on January 19, 2017 to request a copy of the document. I was informed that it is an internal research guidance document only for use by the 50 studies currently in progress as part of California's Fourth Climate Assessment so that research teams use some common assumptions. California's Fourth Climate Assessment is scheduled for release in late 2018.

I understand that the guidance document includes very extreme assumptions about sea level rise based on the latest science, but it does not provide guidance for regulatory work, planning development, or CEQA assessments. I was asked that this guidance not be used or cited for my staff assessment.

Q: Also in October 2016, a technical methods manual was released documenting a method of escalating the FEMA flood maps with sea level rise. Have you reviewed this document?

A: I was not aware of this document prior to seeing it in intervenor's testimony. It appears to be a guidance document meant to contribute to more effective planning for sea level rise. I will review this document to understand the intervenor's adjusted VE zones presented in Figure 9 of the testimony. As I stated earlier, if the project location is located within this hazard zone, my conclusion might change to a medium flood risk but would not automatically warrant relocation of the project.

TNC Coastal Resilience Ventura

Q: Intervenor's testimony vehemently criticizes staff's evaluation of the TNC model, stating that the FSA mischaracterized the TNC modelling work and dismisses it based on flawed reasoning. What is your response?

A: My evaluation was based on published documents about the model[7] and its use by the intervenor to assess the project site[8], in addition to taking into consideration the timeframe[9] and risk tolerance[10] of the proposed project. If the project is expected to operate for 60 or more years, or if sudden shutdown would cause severe repercussions to the electric grid or regional emergency response, then the TNC model would be more applicable to the project.

My intent is not to discredit the TNC model or imply its results are faulty. As explained in the FSA[11], the three models that I evaluated where chosen from several different publically-available mapping resources because these three were developed using dynamic modeling from reputable sources (TNC, FEMA, and USGS). I initially expected that these three sources would produce similar results, but a comparison showed very different results, prompting me to research their differences[12]. If the TNC model truly is the only reliable option to evaluate future coastal hazards, my conclusion regarding coastal flood risk during the project's 30-year lifespan might change to a medium flood risk. However, a medium flood risk would not automatically warrant relocation of the project.

USGS CoSMoS 3.0

Q: Intervenor's testimony asserts "serious" shortcomings of CoSMoS 3.0 preliminary data and staff's reliance on a draft model and failure to integrate other tested

[7] ESA 2013 – ESA PWA, prepared for the Nature Conservancy. Coastal Resilience Ventura, Final Technical Report for Coastal Hazard Mapping. D211452.00. July 25, 2013.
[8] COO 2015a – City of Oxnard/Ellison Folk, Edward T. Schexnayder, Shute, Mihaly & Weinberger LLP (TN 204942). Testimony of Dr. David Revell on Behalf of the City of Oxnard dated April 8, 2015. Submitted to CEC/Docket Unit on June 8, 2015.
[9] See page 4.11-123 of the FSA
[10] See page 4.11-124 and page 4.11-113 of the FSA
[11] See page 4.11-125 of the FSA
[12] See staff discussion of the differences on page 4.11-128 of the FSA

approaches. They suggest this shows a lack of due diligence in the FSA and likely overlooks some of the potential significant future impacts, not to mention the existing coastal hazards. What is your response?

A: The intervenor's attack on CoSMoS 3.0 implies its results are unfounded and questionable. I disagree. It identifies future risk through global forcing using the climate models to drive global and regional wind/wave models, which are then scaled down to local hazards projections. Its use of a downscaled global climate model is an approach different to TNC's approach (maximum storm wave of unlimited duration), but this approach to model future wave conditions is accepted by California Natural Resources Agency for Cal-Adapt efforts. As explained in the FSA, out of the three models that I evaluated, the CoSMoS model by USGS was most applicable to my assessment.

I reviewed all of the points presented in the intervenor's testimony, but my conclusions haven't changed. We seem to have a fundamental difference in opinion regarding the integrity of the USGS model. Although there is a difference of opinion about the applicability of the USGS versus intervenor's (TNC) model, as staff points out above, using the intervenors results the risk of flooding would increase from low to medium and this would not necessarily require relocation of the project.

City of Oxnard Land Use Policies

Q: The testimony of Ashley Golden, another representative to Intervenor City of Oxnard docketed on January 18, 2017 (TN# 215421), cites David Revell's testimony to conclude the proposed project would be located within the 100-year flood zone and, therefore, inconsistent with the City of Oxnard's 1982 Local Coastal Plan. What is your response?

A: I do not agree with that conclusion. Neither the official FEMA map (dated 2010) nor the preliminary FEMA map (released September 2016) show the project site within the 100-year flood zone. The 1982 LCP stipulates in Policy 56 that location of the flood zone is "designated by U.S. Department of Housing Insurance Program Administration", (which is now designated by FEMA for the National Flood Insurance Program). Furthermore, Revell's calculated VE zone under current conditions using 2016 topographic data (the yellow line shown in Figure 9 of his testimony) does not place the project site within his adjusted VE zone.

WORKER SAFETY / FIRE PROTECTION

By: Brett Fooks, PE and Geoff Lesh, PE

Staff has reviewed the opening testimony (TN#215420) of the Oxnard Fire Department's Fire Chief. Staff acknowledges the fire department comments and staff's responses can be found below.

Q**:** "The OFD does not have adequate information regarding the decommissioned MGS or proposed P3 on-site security equipment and procedures to offer a review statement as to fire warning and suppression equipment and procedures for critical electric generation and grid facilities with hazardous chemicals stored on site. OFD requests that CEC require NRG to submit security plans and fees for security review to the OFD for review and to ensure the plans are adequate. OFD also requests that the CEC incorporate OFD's conditions of approval in the AFC permit, should an AFC permit be issued. This same concern extends to the P3 facility in 2050 when it ceases operations. OFD requests that the P3 AFC permit, should it be issued, require the P3 to be dismantled immediately after decommissioning."

A: Please refer to pages 4.14-15 & 16 of the Final Staff Assessment for staff's responses to this comment.

Q: "OFD's largest vehicles cannot operate in floodwater above two feet in depth. Should the MGS/P3 area be flooded and require OFD response for either hazardous chemicals, fire, and/or paramedic service, OPF either could not respond or would request mutual aid assistance from the County for a helicopter."

A: Please refer to page 4.14-16 of the Final Staff Assessment for staff's response to this comment.

Q: "The existing MGS structure and proposed P3 structure present possible need for technical rescues in confined spaces for which the OFD has inadequate resources and training. The OFD would have to request mutual aid from the County and rely on the availability of County aid if it were available."

A: Please refer to page 4.14-16 of the Final Staff Assessment for staff's response to this comment.

Attachment 2

Energy Commission Staff's Recommended Agency Contacts

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Attachment 3

Staff's Response to Hearing Officer's Question Regarding Consultation with the City of Oxnard

BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT
COMMISSION OF THE STATE OF CALIFORNIA
1516 NINTH STREET, SACRAMENTO, CA 95814
1-800-822-6228 – WWW.ENERGY.CA.GOV

APPLICATION FOR CERFITICATION FOR THE:

PUENTE POWER PROJECT

Docket No. 15-AFC-01

STAFF'S RESPONSE TO HEARING OFFICER'S QUESTION REGARDING CONSULTATION WITH THE CITY OF OXNARD

On January 4, 2017, Paul Kramer, Hearing Officer for the Puente Power Project Application for Consideration (AFC) Committee, filed a memorandum regarding Updated Proceeding Dates and Deadlines and Committee Requests for Information. In the memorandum, Hearing Officer Kramer asks in part whether Energy Commission Staff (Staff) has consulted and met with the City of Oxnard regarding the project's conformance with general plan policy discussed in the Land Use section of the Final Staff Assessment (FSA). The short answer is "yes."

Public Resources Code section 25523(d)(1) states in pertinent part:

> *If the Commission finds that there is noncompliance with a state, local, or regional ordinance or regulation in the application, it shall consult and meet with the state, local, or regional governmental agency concerned to attempt to correct or eliminate the noncompliance. If the noncompliance cannot be corrected or eliminated, the commission shall inform the state, local, or regional governmental agency if it makes the findings required by Section 25525. (Pub. Resources Code, §25523(d)(1).)*

Furthermore, California Code of Regulations, title 20, section 1742 allows for Staff to consult with another jurisdiction when there is a potential LORS nonconformance:

> *The staff assessment shall provide a description of all applicable federal, state, regional, and local laws, ordinances, regulations and*

standards and the project's compliance with them. In the case of noncompliance, the staff assessment shall provide a description of all staff efforts with the agencies responsible for enforcing the laws, ordinances, regulations and standards, for which there is noncompliance, in an attempt to correct or eliminate the noncompliance.

On June 7, 2016, the Oxnard City Council approved the amended 2030 General Plan, Safety and Hazards, Policy 3.5, prohibiting thermal generating facilities 50 MW or greater in areas subject to coastal and other environmental hazards, which created a potential LORS nonconformance. Policy SH-3.5 was to take effect 30 days later. Shortly after the approval of Policy SH-3.5, and before it took effect, Staff published its Preliminary Staff Assessment (PSA) with a footnote that Staff would address any inconsistencies Policy SH-3.5 potentially created in the FSA.

Because the City is a party to the proceeding, Staff held discussions regarding nonconformance with LORS during publicly noticed meetings in accordance with California Code of Regulations, title 20, section 1711. On July 21, 2016, Staff held a nearly 13-hour PSA workshop in the City of Oxnard, during which Policy SH-3.5—the history of the City Council's vote, and its intent to disallow another power plant along the coast to create a tourist destination, was discussed at considerable length with the City's representatives.

In the City of Oxnard's January 3, 2017 Status Conference Statement, the City's counsel represents that..."the City reiterates that no consultation with the City of Oxnard has taken place to determine whether the conflicts with City policies may be avoided." Based on the discussion that occurred at Staff's PSA workshop, this statement is not accurate.

Following publication of the FSA, in which Staff analyzed Policy SH-3.5, Staff held another public workshop on January 10, 2017, during which, once again, Policy SH-3.5 was discussed with City representatives. During the discussion, the City's legal counsel insisted "consultation" had not taken place. Upon Staff's questioning of the City's legal counsel as to why she did not believe consultation had taken place, she responded that Staff and the City should be working to "redesign" the project.

Staff counsel explained that this is not within Staff's authority.

Based on the two extensive discussions of the City's LORS at two publicly noticed workshops, Staff believes that "consultation" in accordance with the Warren-Alquist Act and the Energy Commission's regulations has been satisfied.

Date: January 24, 2017

Respectfully submitted,

Kerry A. Willis

KERRY A. WILLIS
MICHELLE E. CHESTER
Attorneys for Energy Commission Staff

Attachment 4

Energy Commission Staff Response to Hearing Officer Request Regarding Override

ENERGY COMMISSION STAFF RESPONSE TO THE HEARING OFFICER REQUEST REGARDING OVERRIDE

In its Final Staff Assessment, staff discusses the benefits to the public and to electricity system reliability associated with the proposed Puente Power Project in the following sections.

ALTERNATIVES

The “Relationship of the Power Plant to the Project Site” subsection, starting on page 4.2-15, addresses the project’s strong relationship to the project site, both from a regulatory and practical standpoint and the potential for the project to contribute to local grid capacity requirements.

The proposed project would provide the benefit of necessary local reliability services, i.e., meeting California ISO-established local capacity requirements for the Moorpark subarea of the Big Creek – Ventura Local Capacity Area, as discussed in the Alternatives section on pages 4.2-10, 4.2-11, 4.2-14, 4.2-16, and 4.2-17.

EFFICIENCY AND RELIABILITY

The project would improve the overall thermal efficiency of electricity production compared to the existing Mandalay Generating Station Units 1 and 2 due to the higher efficiency of the proposed General Electric (GE) 7HA.01 combustion turbine unit (Power Plant Efficiency, “Setting” subsection, page 5.3-2, and “Project Energy Requirements and Energy Use Efficiency” subsection, page 5.3-3). This simple-cycle project would help to enhance power supply reliability in the California electricity market by providing operating flexibility (that is, the ability to quickly start up, shut down, turn down, and provide load following) to support renewable energy resources when needed (Power Plant Efficiency, “Setting” subsection, page 5.3-2 and footnote 4). Due to its high level of performance reliability and its modern technology, the GE 7H can well be expected to outperform the older existing combustion turbine units in the local electricity generation system (Power Plant Reliability, “Comparison with Existing Facilities” subsection, page 5.4-5).

LAND USE

The decommissioning and demolition of the legal non-conforming outfall structure and restoration of the beach parcel would improve pedestrian circulation and public access on the beach west of the project site. – “City of Oxnard 2030 General Plan” subsection, page 4.7-11; “Public Access Policies” subsection, page 4.7-16, “Oxnard Coastal Land Use Plan” subsection page 4.7-18, and “Noteworthy Public Benefits” subsection, page 4.7-30

SOCIOECONOMICS

Economic benefits would accrue to the city of Oxnard and Ventura and Los Angeles counties due to the construction and operation of Puente and demolition of Mandalay Generating Station (MGS) Units 1 and 2. – “Noteworthy Public Benefits” subsection, page 4.10-23 to 4.10-26, including Socioeconomics Table 8

SOIL AND WATER RESOURCES

The proposed project would use less potable water compared to MGS. This would free potable water for other uses. – “Cumulative Impacts, Water Supply” subsection, page 4.11-63

VISUAL RESOURCES

The project would result in beneficial visual impacts from the removal of MGS Units 1 and 2 and the outfall structure in 2022. Baseline viewing conditions from public beaches and other vantage points would be improved. – “Noteworthy Public Benefits” subsection, page 4.14-18

Attachment 5

Energy Commission Staff Response to Hearing Officer Request for a Compilation of the Final Staff Assessment's Conditions of Certification

AIR QUALITY PROPOSED CONDITIONS OF CERTIFICATION

Staff recommends the following conditions of certification to address the impacts associated with the construction and operation of the Puente Power Project (Puente) and demolition of MGS Units 1 and 2. These conditions include the District proposed conditions from the FDOC, with appropriate staff-proposed verification language added for each condition, as well as Energy Commission staff-proposed conditions. The temporary activities covered under the demolition of MGS Units 1 and 2 would be subject to the construction/demolition conditions only, while the temporary and long-term operation activities of Puente are subject to all of the proposed conditions of certification.

CEC STAFF CONDITIONS

AQ-SC1 Air Quality Construction/Demolition Mitigation Manager (AQCMM): The project owner shall designate and retain an on-site AQCMM who shall be responsible for directing and documenting compliance with conditions **AQ-SC3**, **AQ-SC4**, and **AQ-SC5** for the entire project site and linear facility construction/demolition. The on-site AQCMM may delegate responsibilities to one or more AQCMM Delegates. The AQCMM and AQCMM Delegates shall have full access to all areas of construction on the project site and linear facilities and shall have the authority to stop any or all construction/demolition activities as warranted by applicable construction/demolition mitigation conditions. The AQCMM and AQCMM Delegates may have other responsibilities in addition to those described in this condition. The AQCMM shall not be terminated without written consent of the compliance project manager (CPM).

Verification: At least 60 days prior to the start of ground disturbance, the project owner shall submit to the CPM for approval the name, resume, qualifications, and contact information for the on-site AQCMM and all AQCMM Delegates. The AQCMM and all Delegates must be approved by the CPM before the start of ground disturbance.

AQ-SC2 Air Quality Construction**/**Demolition Mitigation Plan (AQCMP): The project owner shall provide an AQCMP, for approval, which details the steps that will be taken and the reporting requirements necessary to ensure compliance with conditions **AQ-SC3**, **AQ-SC4**, and **AQ-SC5**.

Verification: At least 60 days prior to the start of any ground disturbance, the project owner shall submit the AQCMP to the CPM for approval. The CPM will notify the project owner of any necessary modifications to the plan within 30 days from the date of receipt. The AQCMP must be approved by the CPM before the start of ground disturbance.

AQ-SC3 Construction Fugitive Dust Control: The AQCMM shall submit documentation to the CPM in each Monthly Compliance Report (MCR) that demonstrates compliance with the following mitigation measures for the purposes of preventing all fugitive dust plumes from leaving the project site and linear facility routes. Any deviation from the following mitigation measures shall require prior CPM notification and approval.

a) All unpaved roads and disturbed areas in the project and laydown construction/demolition sites shall be watered as frequently as necessary to comply with the dust mitigation objectives of **AQ-SC4**. The frequency of watering may be reduced or eliminated during periods of precipitation.

b) No vehicle shall exceed ten miles per hour on unpaved areas within the project and laydown construction/demolition sites.

c) The construction/demolition site entrances shall be posted with visible speed limit signs.

d) All construction/demolition equipment vehicle tires shall be inspected and washed as necessary to be cleaned and free of dirt prior to entering paved roadways.

e) Gravel ramps of at least 20 feet in length must be provided at the tire washing/cleaning station.

f) All unpaved exits from the construction/demolition site shall be graveled or treated to prevent track-out to public roadways.

g) All construction/demolition vehicles shall enter the construction/demolition site through the treated entrance roadways, unless an alternative route has been submitted to and approved by the CPM.

h) Construction/demolition areas adjacent to any paved roadway shall be provided with sandbags or other measures as specified in the Storm Water Pollution Prevention Plan (SWPPP) to prevent runoff to offsite roadways.

i) All paved roads within the construction/demolition site shall be swept at least once daily or more often if necessary (or less during periods of precipitation) to prevent track-out, and to prevent visible dust from crossing the property line on days when construction/demolition activity occurs and dirt, track-out, or run-off is visible on the onsite paved roadways.

j) At least the first 500 feet of any public roadway exiting the construction/demolition site shall be swept visually clean, using wet sweepers or air filtered dry vacuum sweepers, at least once daily or more often if necessary (or less during periods of precipitation) to prevent track-out, and to prevent visible fugitive dust on days when construction/demolition activity occurs or on any other day when dirt,

track-out, or runoff from the construction/demolition site is visible on the public roadways.

k) All soil storage piles and disturbed areas that remain inactive for longer than fourteen days shall be covered or shall be treated with appropriate dust suppressant compounds.

l) All vehicles that are used to transport solid bulk material on public roadways and that have the potential to cause visible dust emissions shall be provided with a cover or the materials shall be sufficiently wetted and loaded onto the trucks in a manner to provide at least two feet of freeboard.

m) Wind erosion control techniques (such as windbreaks, water, chemical dust suppressants, and/or vegetation) shall be used on all construction/demolition areas that may be disturbed. Any windbreaks installed to comply with this condition shall remain in place until the soil is stabilized or permanently covered with vegetation.

n) Disturbed areas will be re-vegetated as soon as practical.

The fugitive dust requirements listed in this condition may be replaced in the Construction Fugitive Dust Control Plan with as stringent or more stringent methods as required by VCAPCD Rule 55.

Verification: The project owner shall include in the MCR: (1) a summary of all actions taken to maintain compliance with this condition, (2) copies of any complaints filed with the air district in relation to project construction**/**demolition, and (3) any other documentation deemed necessary by the CPM and AQCMM to verify compliance with this condition. Such information may be provided via electronic format or disk at the project owner's discretion.

AQ-SC4 Dust Plume Response Requirement: The AQCMM or Delegate shall monitor all construction/demolition activities for visible dust plumes. Observations of visible dust plumes that have the potential to be transported**:** (1) off the project site**,** (2) 200 feet beyond the centerline of the construction of linear facilities, (3) within 100 feet upwind of any regularly occupied structures not owned by the project owner indicate that existing mitigation measures are not resulting in effective mitigation. The AQCMM or Delegate shall implement the following procedures for additional mitigation measures in the event that such visible dust plumes, are observed:

Step 1: The AQCMM or Delegate shall direct more intensive application of the existing mitigation methods within 15 minutes of making such a determination.

Step 2: The AQCMM or Delegate shall direct implementation of additional methods of dust suppression if Step 1 specified above fails to result in adequate mitigation within 30 minutes of the original determination.

Step 3: The AQCMM or Delegate shall direct a temporary shutdown of the activity causing the dust if Step 2 specified above fails to result in effective mitigation within one hour of the original determination. The activity shall not restart until the AQCMM or Delegate is satisfied that appropriate additional mitigation or other site conditions have changed so that visual dust plumes will not result upon restarting the shut-down source. The owner/operator may appeal to the CPM any directive from the AQCMM or Delegate to shut down an activity, provided that the shutdown shall go into effect within one hour of the original determination, unless overruled by the CPM before that time.

Verification: The AQCMM shall provide to the CPM in the MCR:

1. A summary of all actions taken to maintain compliance with this condition;

2. Copies of any complaints filed with the District in relation to project construction; and

3. Any other documentation deemed necessary by the CPM or AQCMM to verify compliance with this condition. Such information may be provided via electronic format or disk at the project owner's discretion.

AQ-SC5 Diesel-Fueled Engine Control: The AQCMM shall submit to the CPM, in the Monthly Compliance Report, a construction/demolition mitigation report that demonstrates compliance with the AQCMP mitigation measures for purposes of controlling diesel construction/demolition-related emissions. The following off-road diesel construction/demolition equipment mitigation measures shall be included in the Air Quality Construction Mitigation Plan (AQCMP) required by **AQ-SC2**, and any deviation from the AQCMP mitigation measures shall require prior CPM notification and approval.

a) All diesel-fueled engines used in the construction/demolition of the facility shall have clearly visible tags issued by the on-site AQCMM showing that the engine meets the conditions set forth herein.

b) All construction/demolition diesel engines with a rating of 50 hp or higher shall meet, at a minimum, the Tier 4 or 4i California Emission Standards for Off-Road Compression-Ignition Engines, as specified in California Code of Regulations, Title 13, section 2423(b)(1), unless a good faith effort to the satisfaction of the CPM that is certified by the on-site AQCMM demonstrates that such engine is not available for a particular item of equipment. In the event that a Tier 4 or 4i engine is not available for any off-road equipment larger than 50 hp, that equipment shall be equipped with a Tier 3 engine, or an engine that is equipped with retrofit controls to reduce exhaust emissions of nitrogen oxides (NOx) and diesel particulate matter (DPM) to no more than Tier 3 levels unless certified by engine manufacturers or the on-site AQCMM that the use of such devices is not practical for specific engine types. For purposes of this condition, the use of such devices is "not practical" for the following, as well as other, reasons.

1. There is no available retrofit control device that has been verified by either the California Air Resources Board or U.S. Environmental Protection Agency to control the engine in question to Tier 3 equivalent emission levels and the highest level of available control using retrofit or Tier 2 engines is being used for the engine in question; or

2. The construction/demolition equipment is intended to be on site for ten working days or less.

3. The CPM may grant relief from this requirement if the AQCMM can demonstrate a good faith effort to comply with this requirement and that compliance is not practical.

c) The use of a retrofit control device may be terminated immediately, provided that the CPM is informed within ten working days of the termination and that a replacement for the equipment item in question meeting the controls required in item "b" occurs within ten days of termination of the use, if the equipment would be needed to continue working at this site for more than 15 days after the use of the retrofit control device is terminated, if one of the following conditions exists:

1. The use of the retrofit control device is excessively reducing the normal availability of the construction/demolition equipment due to increased down time for maintenance, and/or reduced power output due to an excessive increase in back pressure.

2. The retrofit control device is causing or is reasonably expected to cause engine damage.

3. The retrofit control device is causing or is reasonably expected to cause a substantial risk to workers or the public.

4. Any other seriously detrimental cause which has the approval of the CPM prior to implementation of the termination.

d) All heavy earth-moving equipment and heavy duty construction/demolition-related trucks with engines meeting the requirements of (b) above shall be properly maintained and the engines tuned to the engine manufacturer's specifications.

e) All diesel heavy construction/demolition equipment shall not idle for more than five minutes. Vehicles that need to idle as part of their normal operation (such as concrete trucks) are exempted from this requirement.

f) Construction/demolition equipment will employ electric motors when feasible.

Verification: The AQCMM shall include in a table in the Monthly Compliance Report the following to demonstrate control of diesel construction/demolition-related emissions:

A. A summary of all actions taken to control diesel construction/demolition-related emissions;

B. A list of all heavy equipment used on site during that month, including the owner of that equipment and a letter from each owner indicating that equipment has been properly maintained; and

C. Any other documentation deemed necessary by the CPM, and the AQCMM to verify compliance with this condition. Such information may be provided via electronic format or disk at the project owner's discretion.

AQ-SC6 The project owner shall submit to the CPM for review and approval any project air permit modification proposed by the project owner. The project owner shall submit to the CPM any modification to any permit proposed by the District or U.S. EPA and any revised permit issued by the District or U.S. EPA~~,~~ for the project.

Verification: The project owner shall submit any proposed air permit modification to the CPM within five working days for 1) documents the project owner submits to an agency, or 2) receipt of proposed modifications from an agency. The project owner shall submit all final air permits to the CPM within 15 days of receipt.

AQ-SC7 The project owner shall submit to the CPM Quarterly Operation Reports, following the end of each calendar quarter that include operational and emissions information as necessary to demonstrate compliance with the conditions of certification herein. The Quarterly Operation Report will specifically state that the facility meets all applicable conditions of certification or note or highlight all incidences of noncompliance.

Verification: The project owner shall submit the Quarterly Operation Reports to the CPM and District, if requested by the District, no later than 30 days following the end of each calendar quarter.

AQ-SC8 The emergency generator shall not be operated for nonemergency use (testing or maintenance) whenever the GE 7HA.01 combustion turbine is undergoing commissioning operation.

Verification: The project owner of this engine shall maintain a monthly operating log containing, at a minimum, the following:

a) Dates and times of emergency generator engine operation; whether the operation was for maintenance and readiness testing purposes or emergency use; and the nature of any emergency, if known;

b) Hours of operation for all uses other than those specified above and identification of the nature of that use.

The project owner shall submit to the CPM a copy of the monthly emergency generator engine operating log data demonstrating compliance with this condition as part of the Quarterly Operation Reports (**AQ-SC7**). The project owner shall make the site available

for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-SC9 The project owner shall mitigate 3.1 tons per year (tpy) of PM10/PM2.5 and 0.48 tpy of SOx emissions by using any a combination of the following:

a. The project owner may provide ERC's for either or both pollutants satisfying the requirements of the VCAPCD. Such ERC's shall be from emission reductions occurring within the VCAPCD air basin. The applicant must obtain these ERCs within the census track areas provided in **Environmental Justice – Figure 1** or demonstrate a good faith effort to do so before using ERCs not within these census tract areas. These ERCs shall be at a minimum 1:1 offset ratio.

b. Diesel emission reduction projects funded by the Ventura County Air Pollution Control District with the funds contributed by the project owner shall be weighted for evaluation, qualification, and selection, in accordance with the California Air Resources Board's Carl Moyer Program Guidelines. Other emission reduction projects with the cost-effectiveness of $18,030 per tpy, or equivalent, may be selected by the Ventura County Air Pollution Control District.

The CPM, in consultation with the District, may approve any such change to the ERC list provided that the project remains in compliance with all applicable laws, ordinances, regulations, and standards, and that the requested change(s) will not cause the project to result in a significant environmental impact. The District must also confirm that each requested change is consistent with applicable federal and state laws and regulations.

Verification: The project owner shall submit to the CPM confirmation that the appropriate initial funding has been provided within 90 days after the issuance of the Authority to Construct (ATC) by the District, and within 90 days after the beginning of a calendar year thereafter. The project owner shall provide quarterly summaries of the emission reduction project selection information to the CPM for review until such time that all funds have been committed by the Ventura Air Pollution Control District to qualifying projects. The project owner shall submit to the CPM confirmation that the appropriate funding has been provided to the District, and/or ERC's have been surrendered at least 30 days prior to turbine first fire.

AQ-SC10 The project owner shall comply with all staff (**AQ-SC**) and district (**AQ**) conditions of certification. The CPM, in consultation with the District, may approve any change to a Condition of Certification regarding air quality, as a staff approved modification, provided that: (1) the Project remains in compliance with all applicable laws, ordinances, regulations, and standards, (2) the requested change clearly will not cause the Project to result in a significant environmental impact, (3) no additional mitigation or offsets will be required as a result of the change, (4) no existing daily, quarterly, or annual permit limit will be exceeded as a result of the change, and (5) no increase in any daily, quarterly, or annual permit limit will be necessary as a result of the change.

Verification: The project owner shall submit a petition to amend for any proposed change to a condition of certification pursuant to this condition and shall provide the CPM with any additional information the CPM requests to substantiate the basis for approval.

AQ-SC11 The project owner shall not allow the overlap of specific construction and demolition phase activities. The following activities shall not be conducted concurrently with any of the other listed activities:

1. Puente Construction

2. MGS Units 1 and 2 demolition, and outfall structure

In addition, the combustion turbine's initial commissioning activity and the EPS demolition activity shall not be performed concurrently.

Verification: The project owner shall identify the start and conclusion of the work phases described above in the Monthly Compliance reports.

AQ-SC12 The Project Owner shall provide proof of applying to the U.S. EPA for a Prevention of Significant Deterioration (PSD) Permit for Puente or provide certification from the U.S. EPA that no such permit is required.

Verification: The project owner shall document compliance with this condition before beginning construction.

District Final Determination of Compliance Proposed Permit Conditions (VCAPCD 2016c)

Combustion Turbine Conditions

AQ-1 Prior to completion of construction, the project owner shall submit an application for a revised Title V Part 70 Permit for the Mandalay Generating Station. The application shall also include the Title IV Acid Rain Permit application, VCAPCD Permit to Operate application, and all applicable supplementary forms and filing fees. (Rules 10, 33, 34)

Verification: The project owner shall submit to the CPM copies of the acid rain permit application within five working days of its submittal by the project owner to the District.

AQ-2 Prior to operation of the new CTG, the project owner shall surrender NOx emission reduction credits (ERCs) in the amount of 38.91 tons per year. The project owner shall cancel the permit for Mandalay Generating Station (MGS) Unit 2 prior to the start of commissioning of the new Puente Power Project CTG. The project owner shall cancel the permit for MGS Unit 1 within 90 operating days, but no later than 180 calendar days, after the start of the commissioning period for the new Puente Power Project CTG. (Rule 26.2 and 26.8)

Verification: The project owner shall submit to the CPM, within 30 days of ERC surrender to the District, information demonstrating compliance with this condition.

AQ-3 The project owner shall use any of the following ERC Certificates to satisfy the NOx emission offset requirements of Rule 26.2: ERC Certificate Nos. 1078, 1079, 1080, 1083, 1085, 1091, 1092, 1094, 1097, 1104, and / or 1107.

Verification: The project owner shall submit to the CPM confirmation that the appropriate quantity of ERCs have been provided at least 30 days prior to turbine first fire.

AQ-4 The combustion turbine generator (CTG) lube oil vents and the electrical generator lube oil vents shall be equipped with mist eliminators to maintain visible emissions from lube oil vents to no greater than 5% opacity, except for no more than three minutes in any one hour. (Rule 26)

Verification: The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-5 The CTG shall be operated with a continuously recording fuel gas flowmeter. The flowmeter shall be installed, calibrated, maintained, and operated according to the manufacturer's instructions. Alternatively, a gas fuel flowmeter that meets the installation, certification, and quality assurance requirements of Appendix D to 40 CFR Part 75 is acceptable for use. (Rules 26.2 and 74.23, 40 CFR Part 60 Subpart KKKK and 40 CFR Part 75)

Verification: The project owner shall submit to the CPM the natural gas usage data from the fuel flow meters as part of the Quarterly Operation Report (**AQ-SC7**).

AQ-6 The CTG exhaust after the SCR (selective catalytic reduction) unit shall be equipped with continuously recording emissions monitors (CEM) for NOx, CO, and O_2. Continuous emissions monitors shall meet the requirements of Rule 74.23, Rule 103, 40 CFR Part 60, Appendices B and F, 40 CFR Part 60 Subpart KKKK, and 40 CFR Part 75, Appendices A and B, as applicable, and shall be capable of monitoring emissions during startups, shutdowns, and unplanned load changes as well as normal operating conditions. (Rules 74.23 and 103, 40 CFR Part 60 Subpart KKKK, and 40 CFR Part 75)]

Verification: The project owner shall submit to the CPM for review and the District for approval a turbine operation monitoring protocol in compliance with this condition at least 90 days prior to the initial startup of the combustion turbine.

AQ-7 CEM cycling times shall be those specified in 40 CFR Part 60, Subpart KKKK and 40 CFR, Part 51, Appendix P, Sections 3.4, 3.4.1 and 3.4.2, or shall meet equivalent specifications established by mutual agreement of the District, the ARB and the EPA. For NOx monitoring for 40 CFR Part 60 Subpart KKKK, during each full unit operating hour, both the NOx monitor and the diluent monitor must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour, to validate the hour. For partial unit operating hours, at least one valid data point must be obtained with each monitor for each quadrant of the hour in which the unit operates. For unit operating hours in which required quality assurance and maintenance activities are performed on the CEMS, a minimum of two valid data points (one in each of two quadrants) are required

for each monitor to validate the NOx emission rate for the hour. (Rule 103 and 40 CFR Part 60 Subpart KKKK)

Verification: The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-8 The exhaust stack of the CTG shall be equipped with permanent provisions to allow collection of stack gas samples consistent with EPA test methods and shall be equipped with safe permanent provisions to sample stack gases with a portable NOx, CO, and O_2 analyzer during District inspections. The sampling ports shall be located in accordance with the CARB regulation titled California Air Resources Board Air Monitoring Quality Assurance Volume VI, Standard Operating Procedures for Stationary Source Emission Monitoring and Testing. (Rules 74.23, 101, and 102)

Verification: The project owner shall submit to the CPM for review and District for approval a stack test port and platform plan at least 90 days before the construction of the turbine stacks.

AQ-9 Results of the NOx, CO, and O_2 continuous emissions monitoring shall be reduced according to the applicable procedure established in 40 CFR Part 60, Subpart KKKK (for NOx CEMS), 40 CFR Part 75 Appendix F (for NOx and O_2 CEMS), and 40 CFR, Part 51, Appendix P, paragraphs 5.0 through 5.3.3 (for CO CEMS), or by other methods deemed equivalent by mutual agreement with the District, the ARB, and the U.S. EPA. (Rule 103, 40 CFR Part 60 Subpart KKKK, and 40 CFR Part 75)

Verification: None required.

AQ-10 In accordance with the applicable sections of 40 CFR Part 60, Appendix F, the CO CEMS shall be audited at least once each calendar quarter by conducting cylinder gas audits (CGA) or relative accuracy audits (RAA). CGA or RAA may be conducted during three of four calendar quarters, but no more than three calendar quarters in succession. The NOx and O_2 CEMS shall be audited in accordance with the applicable requirements of 40 CFR Part 75. The District and CPM shall be notified prior to completion of the audits. Audit reports shall be submitted along with quarterly compliance reports to the District upon request. (Rule 103)

Verification: The project owner shall submit to the CPM for review and the District for approval the periodic RATA and source test protocols, and RATA source test reports within the timeframes specified in Condition **AQ-11.**

AQ-11 For the CO CEMS, the project owner shall perform a relative accuracy test audit (RATA) as specified by 40 CFR Part 60, Appendix F at least once every four calendar quarters. For the NOx and O_2 CEMS, the project owner shall perform a relative accuracy test audit (RATA) as specified by 40 CFR Part 75, Appendix B at least once every two calendar quarters unless the project owner achieves 7.5% or below relative accuracy. If the project owner meets the incentive of 7.5% or better relative accuracy, then the project owner shall perform a RATA once every four calendar quarters. For the CO CEMS, the

project owner shall comply with the applicable requirements for quality assurance testing and maintenance of the continuous emission monitor equipment in accordance with the procedures and guidance specified in 40 CFR Part 60, Appendix F. (Rule 103 and 40 CFR Part 75)

Verification: The project owner shall submit to the CPM for review and the District for approval the periodic RATA and source test protocols, and RATA source test reports within the timeframes specified in this condition**.**

AQ-12 The project owner shall report any violation of the NOx and CO emissions limit of this permit, as measured by the CEMS, in writing to the District and CPM within 96 hours of each occurrence. (Rule 103)

Verification: The project owner shall notify the District and CPM within 96 hours of each occurrence regarding any emission standard violation and shall document all such occurrences in each Quarterly Operation Report **(AQ-SC7)**.

AQ-13 The project owner shall maintain permanent continuous monitoring records, in a form suitable for inspection, for a period of at least five (5) years. Such records shall be made available to the Air Resources Board or the District upon request. The report shall include the following:

1. Time intervals of report,

2. The date, time and duration of any startup, shutdown or malfunction in the operation of the gas turbine and CEMS,

3. The results of performance testing, evaluations, calibrations, checks, adjustments, and maintenance of the CEMS,

4. Emission Measurements, and

5. Net megawatt-hours produced. (Rule 103)

Verification: The project owner shall submit to the District the CEMS reports as required in this condition and shall make the site available for inspection of records and equipment by representatives of the District, ARB, and the Energy Commission.

AQ-14 Upon written request of the APCO, the project owner shall submit a written CEM report for each calendar quarter to the APCO. The report is due on the 30th day following the end of the calendar quarter and shall include the following:

1. Time intervals of report,

2. The date, time, duration and magnitude of excess emissions of NOx and/or CO, the nature and cause of the excess (if known), the corrective actions taken, and the preventive measures adopted,

3. The averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard,

4. The date, time and duration of each period during which the CEMS was inoperative, except for zero and span checks, and a description of the system repairs and adjustments undertaken during each period, and,

5. A negative declaration when no excess emissions occurred. (Rule 103)

Verification: The project owner shall provide CEMS emissions data to demonstrate compliance with this condition as part of the Quarterly Operation Reports **(AQ-SC7)**.

AQ-15 For the purposes of 40 CFR Part 60, Subpart KKKK, excess emissions shall be defined as any unit operating period in which the 4-hour rolling average NOx concentration exceeds the applicable concentration limit or, alternatively, as elected by the permittee, the 4-hour rolling average NOx emission rate exceeds the applicable lb/MWh emissions rate limit, as defined in Part 60.4320, Table 1. The 4-hour rolling average NOx concentration limit for any operating hour is determined by the arithmetic average of 15 ppmvd at 15% O_2 for each hour in which the unit operated above 75% of peak load for the entire hour, and 96 ppmvd at 15% O_2 for each hour in which it did not. The 4-hour rolling average NOx lbs/MWh emission limit for any operating hour is determined by the arithmetic average of 0.43 lb/MWh for each hour in which the unit operated above 75% of peak load for the entire hour, and 4.7 lb/MWh for each hour in which it did not. The 4-hour rolling average is the arithmetic average of the average NOx concentration in ppm measured by the CEMS for a given hour (corrected to 15 percent O_2) or lb/MWh if elected by the permittee and the average NOx concentrations or lb/MWh emission rates during the three unit operating hours immediately preceding that unit operating hour. A period of monitor downtime shall be any unit operating hour in which sufficient data are not obtained to validate the hour for either NOx or O_2. (40 CFR Part 60 Subpart KKKK)

Verification: The project owner shall submit to the CPM for review and the District for approval a CEMS protocol, as required by **AQ-37**, which includes description of the methods of compliance with the requirements of this condition. The project owner shall make the site available for inspection of records and equipment by representatives of the District, ARB, and the Energy Commission.

AQ-16 For the purposes of 40 CFR Part 60, Subpart KKKK, the project owner shall submit reports of NOx excess emissions and monitor downtime, in accordance with 40 CFR 60.7(c) on a semi-annual basis. In addition, the project owner shall submit the results of the initial and annual source test for NOx. All semi-annual reports of excess emissions and monitor downtime shall be postmarked by the 30th day following the end of each six-month period, or by the close of business on the 60th day following the completion of the source test. (40 CFR Part 60 Subpart KKKK)

Verification: The project owner shall submit to the District and the CPM all semi-annual reports of excess emissions and monitor downtime shall be postmarked by the 30th day following the end of each six-month period, or by the close of business on the 60th day following the completion of the source test.

AQ-17 For the purposes of 40 CFR Part 60, Subpart KKKK, if the total duration of)NOx excess emissions for the reporting period is less than 1 percent of the total operating time for the reporting period and CEMS downtime for the reporting period is less than 5 percent of the total operating time for the reporting period, only the summary report form in 40 CFR Part 60.7(d) shall be submitted and the excess emission report described in 40 CFR Part 60.7(c) need not be submitted unless requested by the U.S. EPA or the VCAPCD. (40 CFR Part 60 Subpart KKKK)

Verification: The project owner shall provide CEMS emissions data to demonstrate compliance with this condition as part of the Quarterly Operation Reports **(AQ-SC7)**.

AQ-18 The ammonia injection grid shall be equipped with operational ammonia flowmeter and injection pressure indicator. All data shall be reduced to hourly averages. (Rule 74.23 and 40 CFR Part 60 Subpart KKKK)

Verification: The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-19 The project owner shall monitor and record exhaust gas temperature at the oxidation catalyst inlet and the selective catalytic reduction (SCR) catalyst inlet. All data shall be reduced to hourly averages. (Rule 74.23 and 40 CFR Part 60 Subpart KKKK)

Verification: The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-20 The CTG shall be fired exclusively on natural gas, consisting primarily of methane and ethane, with a sulfur content no greater than 0.75 grains of sulfur compounds (as sulfur) per 100 dry scf of natural gas. (Rules 26.2 and 64, 40 CFR Part 60 Subpart KKKK)

Verification: The project owner shall submit the quarterly fuel sulfur content values, as verified by **AQ-21**, in the Quarterly Operation Reports **(AQ-SC7)** and make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-21 The natural gas sulfur content shall be: (i) documented in a valid purchase contract, supplier certification, tariff sheet or transportation contract or (ii) monitored weekly using ASTM Methods D4084, D5504, D6228, or Gas Processors Association Standard 2377, or verified using an alternative method approved by the District. If the natural gas sulfur content is less than 0.75 gr/100 scf for 8 consecutive weeks, then the monitoring frequency shall be once every six (6) months. If any six (6) month monitoring shows an exceedance, weekly monitoring shall resume. (Rules 26.2 and 64 and 40 CFR Part 60 Subpart KKKK)

Verification: The project owner shall submit the quarterly fuel sulfur content values in the in the Quarterly Operation Reports **(AQ-SC7)** and make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-22 Startup is defined as the period beginning with turbine initial firing. Shutdown is defined by the period beginning with initiation of turbine shutdown sequence and ending with cessation of firing of the gas turbine engine. Unplanned load change is defined as the automatic release of power from the turbine and the subsequent restart. For an unplanned load change, the loss of power during the release must exceed forty (40) percent of the turbine rating. Startup, shutdown, and unplanned load change durations shall not exceed 60 minutes (1 hour) for a startup, 60 minutes (1 hour) for a shutdown, and 60 minutes (1 hour) for an unplanned load change, per occurrence. For failed start-ups, each restart shall begin a new exemption period. (Rules 26.2, 29, and 74.23)`

Verification: The project owner shall provide CEMS emissions data to demonstrate compliance with this condition as part of the Quarterly Operation Reports **(AQ-SC7)**.

AQ-23 The CTG, air pollution control equipment, and monitoring equipment shall be operated in a manner consistent with good air pollution control practice for minimizing emissions at all times including during startup, shutdown, and malfunction. (40 CFR Part 60 Subpart KKKK)

Verification: The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-24 The project owner shall submit to the District and CPM information correlating the NOx control system operating parameters to the associated measured NOx output. The information must be sufficient to allow the District and CPM to determine compliance with the NOx emission limits of this permit when the CEMS is not operating properly. (Rules 26.2, 29, and 74.23)

Verification: The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-25 The HHV (higher heating value) and LHV (lower heating value) of the natural gas combusted shall be determined upon request using ASTM D3588, ASTM 1826, ASTM 1945, or an alternative method approved by the District. (Rules 26.2, 29, and 74.23)

Verification: The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-26 When the CTG is operating, ammonia shall be injected when the selective catalytic reduction system catalyst temperature exceeds 300 degrees F. The project owner shall monitor and record catalyst temperature during periods of startup. (Rules 26.2 and 74.23)

Verification: The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-27 During startup of the CTG, emissions (in pounds = lbs) from the CTG in any one hour shall not exceed any of the following limits:

ROC = 20.30 lbs,
NOx (as NO_2) = 98.87 lbs,
PM10/PM2.5 = 8.75 lbs,
SOx (as SO_2) = 5.50 lbs, and
CO = 178.55 lbs

For the purpose of this condition, all PM10 emissions are assumed to be PM2.5 emissions.

If the CTG is in startup mode during any portion of a clock hour, the facility will be subject to the aforementioned limits during that clock hour.

Compliance with the ROC, and PM10/PM2.5 emission limits shall be verified by CTG manufacturer's emission data. Compliance with the SOx emission limit shall be verified by complying with the natural gas sulfur content limit of this permit. In addition, compliance with the NOx and CO emission limits shall be verified by continuous emissions monitors (CEMS) as required by this permit. If the CEMS is not operating properly, as required below, the CEMS missing data procedures required by **AQ-55** shall be implemented. (Rules 26.2, 29, and 74.23)

Verification: The project owner shall provide CEMS emissions data to demonstrate compliance with this condition as part of the Quarterly Operation Reports **(AQ-SC7)**.

AQ-28 During shutdown of the CTG, emissions (in pounds = lbs) from the CTG in any one hour shall not exceed any of the following limits:

ROC = 30.28 lbs,
NOx (as NO_2) = 22.98 lbs,
PM10/PM2.5 = 9.58 lbs,
SOx (as SO_2) = 5.50 lbs, and
CO = 163.48 lbs

For the purpose of this condition, all PM10 emissions are assumed to be PM2.5 emissions.

If the CTG is in shutdown mode during any portion of a clock hour, the facility will be subject to the aforementioned limits during that clock hour.

Compliance with the ROC, and PM10/PM2.5 emission limits shall be verified by CTG manufacturer's emission data. Compliance with the SOx emission limit shall be verified by complying with the natural gas sulfur content limit of this permit. In addition, compliance with the NOx and CO emission limits shall be verified by continuous emissions monitors (CEMS) as required by this permit. If the CEMS is not operating properly, as required below, the CEMS missing data procedures required by **AQ-55** shall be implemented. (Rules 26.2, 29, and 74.23)

Verification: The project owner shall provide CEMS emissions data to demonstrate compliance with this condition as part of the Quarterly Operation Reports **(AQ-SC7)**.

AQ-29 During normal operation of the CTG, emission concentrations and emission rates from the CTG, except during startup, shutdown, and/or unplanned load change, shall not exceed any of the following limits:

ROC = 6.60 pounds per hour and 2.0 ppmvd @ 15% O_2,
NOx (as NO_2) = 23.73 pounds per hour and 2.5 ppmvd @ 15% O_2,
PM10/PM2.5 = 10.10 pounds per hour,
SOx (as SO_2) = 5.50 pounds per hour,
CO = 23.10 pounds per hour and 4 ppmvd @ 15% O_2,
Ammonia (NH_3) = 17.53 pounds per hour and 5 ppmvd @ 15%O_2.

For the purpose of this condition, all PM10 emissions are assumed to be PM2.5 emissions.

ROC and NOx (as NO_2) ppmvd and pounds per hour limits are expressed as a one-hour rolling average limit. All other ppmvd and pounds per hour limits are three-hour rolling averages. If the CTG is in either startup or shutdown mode during any portion of a clock hour, the CTG shall not be subject to these limits during that clock hour. Startup limits and shutdown limits are listed in the above conditions.

Compliance with the ROC, NOx, PM10/PM2.5, CO, and NH_3 emission limits shall be verified by initial and annual source testing as required below. Compliance with the SOx emission limit shall be verified by complying with the natural gas sulfur content limit of this permit. Compliance with the NH_3 limits shall also be verified by monitoring the ammonia injection rate as required below. In addition, compliance with the NOx and CO emission limits shall be verified by continuous emissions monitors (CEMS) as required by this permit. If the CEMS is not operating properly, as required below, the project owner shall provide documentation, including a certified source test, correlating the control system operating parameters to the associated measured NOx and CO emissions. (Rules 26.2, 29, and 74.23)

Verification: The project owner shall provide CEMS emissions data to demonstrate compliance with this condition as part of the Quarterly Operation Reports **(AQ-SC7)**.

AQ-30 Emissions rates from the CTG during the commissioning period shall not exceed the following limits:

ROC = 164.10 pounds per hour and 3.52 tons per year,
NOx (as NO_2) = 246.30 pounds per hour and 11.70 tons per year, and
CO = 1973.00 pounds per hour and 31.74 tons per year.

The commissioning period is the period of time commencing with the initial startup of the turbine and ending after 366 hours of turbine operation, or the date the project owner notifies the District and CPM the commissioning period has ended. For purposes of this condition, the number of hours of turbine

operation is defined as the total unit operating minutes during the commissioning period divided by 60.

Compliance with the ROC, NOx and CO emission limits shall be verified by CTG manufacturer's emission data. In addition, compliance with the NOx and CO emission limits shall be verified by continuous emissions monitors (CEMS) as required by this permit. If the CEMS is not operating properly, as required below, the project owner shall provide documentation, including a certified source test, correlating the control system operating parameters to the associated measured NOx and CO emissions. (Rules 26.2, 29, and 74.23)

Verification: A log of the dates, times, and cumulative unit operating hours when fuel is being combusted during the commissioning period shall be maintained by the project owner. The project owner shall submit, commencing one month from the time of gas turbine first fire, a monthly commissioning status report throughout the duration of the commissioning phase that demonstrates compliance with the requirements listed in this condition. The monthly commissioning status report shall be submitted to the CPM by the 10th of each month for the previous month, for all months with turbine commissioning activities following the turbine first fire date. The project owner shall also provide the reporting required by this condition to the District and CPM within 30 day of completing commissioning of the turbine. The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-31 Annual emissions from the CTG calculated on a twelve consecutive calendar month rolling basis shall not exceed any of the following limits:

ROC = 10.84 tons per year,
NOx (as NO_2) = 32.95 tons per year,
PM10/PM2.5 = 10.68 tons per year,
SOx (as SO_2) = 5.91 tons per year, and
CO = 54.42 tons per year.

For the purpose of this condition, all PM10 emissions are assumed to be PM2.5 emissions.

These tons per year limits include normal operation, startups, shutdowns, unplanned load changes, and the commissioning period.

Compliance with the NOx and CO emission limits shall be verified with the CEMS. In addition, compliance with the NOx and CO emission limits shall be verified with initial and annual source testing combined with compliance with the CTG's annual operating limit in hours per year.

Compliance with the ROC and PM10/PM2.5 emission limits shall be verified with initial and annual source testing combined with compliance with the CTG's annual operating limit in hours per year.

Compliance with the SOx emission limit shall be verified by complying with the natural gas sulfur content limit of this permit combined with compliance with the CTG's annual operating limit in hours per year. (Rules 26.2 and 29)

Verification: The project owner shall provide emissions data to demonstrate compliance with this condition as part of the 1st Quarter Operations Report to account for the previous twelve consecutive calendar months **(AQ-SC7)**.

AQ-32 Each one-hour period in a one-hour rolling average, three-hour rolling average, or four-hour rolling average shall commence on the hour. (Rules 26.2 and 29)

Verification: none.

AQ-33 Each calendar month in a twelve consecutive calendar month rolling emissions calculation will commence at the beginning of the first day of the month. The twelve consecutive calendar month rolling emissions total to determine compliance with the annual tons per year emissions limits shall be compiled for each and every twelve consecutive calendar month rolling period. (Rules 26.2 and 29)

Verification: none.

AQ-34 The ammonia (NH_3) slip emission concentration limit shall be verified by initial and annual source testing as required below, and by the continuous recording of the ammonia injection rate to the SCR system. The correlation between the gas turbine heat input rate, the SCR system ammonia injection rate, and the corresponding ammonia (NH_3) slip emission concentration shall be determined in accordance with required initial and annual ammonia source testing. Alternatively, the project owner may utilize a continuous in-stack ammonia (NH_3) slip monitor, acceptable to the District and CPM, to monitor compliance. At least 60 days prior to using an ammonia (NH_3) slip continuous in-stack monitor, the project owner shall submit a monitoring plan to the District and CPM for review and approval. (Rules 26.2, 74.23 and 103)

Verification: Source tests demonstrating compliance with this condition shall be provided to the CPM and are due within the timeframes specified as part of this condition. At least 60 days prior to using an ammonia (NH_3) slip continuous in-stack monitor, the project owner shall submit a monitoring plan to the District and CPM for review and approval. The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission

AQ-35 Within 90 days after the completion of the commissioning period for the combustion turbine, the project owner shall conduct an Initial Emissions Source Test at the exhaust of the turbine to determine the ammonia (NH_3) emission concentration to demonstrate compliance with the ammonia concentration limit. After the initial source test, the NH_3 emissions source test shall be conducted on an annual basis.

The source test shall determine the correlation between the heat input rate of the gas turbine, SCR system ammonia injection rate, and the corresponding

NH_3 emission concentration at the unit exhaust. NOx emissions at the CEM shall also be recorded during the test. The source test shall be conducted over the expected operating range of the turbine (including, but not limited to, minimum and full load modes) to establish the range of ammonia injection rates necessary to achieve NOx emission reductions while maintaining ammonia slip levels. The project owner shall repeat the source testing on an annual basis thereafter. Ongoing compliance with the ammonia emission concentration limit shall be demonstrated through calculations of corrected ammonia concentrations based upon the source test correlation and continuous records of ammonia injection rate. The project owner shall submit the source test results to the District and CPM within 45 days of conducting tests. (Rules 26.2, 29, and 74.23)

Verification: Within 90 days after the completion of the commissioning period for the combustion turbine, the project owner shall conduct an Initial Emissions Source Test to determine the ammonia (NH_3) emission concentration to demonstrate compliance with the ammonia concentration limit of 5 ppm. The project owner shall submit the source test results to the District and CPM within 45 days of conducting the tests. After the initial source test, the NH_3 emissions source test shall be conducted on an annual basis.

AQ-36 Within 90 days after the completion of the commissioning period for the combustion turbine, the project owner shall conduct an Initial Emissions Source Test at the exhaust of the turbine to demonstrate compliance with the ROC, NOx, PM10/PM2.5, and CO emission limits. The source test shall be conducted over the expected operating range of the turbine including, but not limited to, minimum and full load modes. This source test shall demonstrate compliance with the following short term emission limits during normal operation: ROC = ppmvd @ 15% O_2 and pounds per hour, NOx = ppmvd @ 15% O_2 and pounds per hour, PM10/PM2.5 = pounds per hour, and CO = ppmvd @ 15% O_2 and pounds per hour. The project owner shall submit the source test results to the District and CPM within 45 days of conducting tests.

After the initial source test, the ROC, NOx, PM10, and CO emissions source test shall be conducted on an annual basis. (Rules 26.2, 29, and 74.23)

Verification: Source tests demonstrating compliance with this condition shall be provided to the CPM and are due on an annual basis after the initial source test is conducted.

AQ-37 The District and CPM must be notified 30 days prior to any source test, and a source test plan must be submitted for approval no later than 30 days prior to testing. Unless otherwise specified in this permit or authorized in writing by the District and CPM, within 45 days after completion of a source test or RATA performed by an independent source test contractor, a final test report shall be submitted to the District and CPM for review and approval. (Rule 102)

Verification: The project owner shall submit to the District and CPM for approval the initial source test protocol at least 30 days prior to the initial source test. The project

owner shall the final test report to the District and the CPM within 45 days after completion of a source test or RATA.

AQ-38 The following source test methods shall be used for the initial and annual compliance verification:

ROC: EPA Methods 18 or 25,
NOx: EPA Methods 7E or 20,
PM10/PM2.5: EPA Method 5 (front half and back half) or EPA Methods 201A and 202,
CO: EPA Methods 10 or 10B,
O_2: EPA Methods 3, 3A, or 20,
Ammonia (NH_3): BAAQMD ST-1B.

For the purpose of this condition, all PM10 emissions are assumed to be PM2.5 emissions.

EPA approved alternative test methods as approved by the District and CPM may also be used to address the source testing requirements of this permit. (Rules 26, 29, and 74.23 and 40 CFR Part 60 Subpart KKKK)

Verification: The project owner shall submit to the CPM operating data demonstrating compliance with this condition as part of the Quarterly Operation Reports **(AQ-SC7)**.

AQ-39 An initial and annual source test and a periodic NOx and CO Relative Accuracy Test Audit (RATA) shall be conducted on the CTG and its CEMS to demonstrate compliance with the NOx and CO emission limits of this permit and applicable relative accuracy requirements for the CEMS systems using District approved methods. The annual source test and the NOx CEMS RATA shall be conducted in accordance with the applicable RATA frequency requirements of 40 CFR75, Appendix B, Sections 2.3.1 and 2.3.3. The annual source test and CO CEMS RATAs shall be conducted in accordance with the applicable RATA frequency requirements of 40 CFR 60, Appendices B and F. The initial and annual RATA may be conducted during the initial and annual emission source tests required above and shall be conducted in accordance with a protocol complying with all the applicable requirements of an approved source test protocol. (Rule 74.23 and 103, 40 CFR Part 60 Subpart KKKK, and 40 CFR Part 75)

Verification: The project owner shall submit to the CPM for review and the District for approval the RATA certification test protocol at least 60 days prior to the RATA test and shall notify the CPM**,** and District of the RATA test date at least 45 days prior to conducting the RATA and other certification tests. The project owner will submit all RATA or source test reports to the CPM for review and the District for approval within 45 days of the completion of those tests.

AQ-40 Relative Accuracy Test Audits (RATAs) and all other required certification tests shall be performed and completed on the NOx CEMS in accordance with applicable provisions of 40 CFR Part 75 Appendix A and B and 40 CFR

Part 60 Subpart KKKK; and on the CO CEMS in accordance with applicable provisions of 40 CFR Part 60 Appendix B and F. (Rules 74.23 and 103, 40 CFR Part 60 Subpart KKKK, 40 CFR Part 60, and 40 CFR Part 75)

Verification: The project owner shall submit to the CPM for review and the District for approval the periodic RATA and source test protocols, and RATA source test reports within the timeframes specified in Conditions **AQ-39**.

AQ-41 The project owner shall maintain hourly records of NOx, CO, and NH_3 emission concentrations in ppmvd @15% oxygen. NOx and CO concentrations are measured by the CEM; NH_3 emission concentrations are determined and demonstrated through calculations of corrected ammonia concentrations based upon the source test correlation and continuous records of the ammonia injection rate as required above and below. The project owner shall maintain records of NOx and CO emissions in pounds per hour, tons per month, and tons per rolling 12 month periods. (Rules 26.2 and 29)

Verification: The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-42 The project owner shall maintain records that contain the following: the occurrence and duration of any start-up, shutdown, unplanned load change or malfunction, performance testing, evaluations, calibrations, checks, adjustments, any periods during which a continuous monitoring system or monitoring device is inoperative, maintenance of any CEM system that has been installed pursuant to District Rule 103, and emission measurements. (Rules 74.23 and 103)

Verification: The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission..

AQ-43 The APCO or an authorized representative shall be allowed to inspect, as determined to be necessary, the monitoring devices required by this permit to ensure that such devices are functioning properly. (Rule 103)

Verification: The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-44 The project owner shall maintain a stationary gas turbine system operating log that includes, on a daily basis, the actual local startup and stop time, length and reason for reduced load periods, total hours of operation, amount of natural gas consumed, and duration of each start-up, each shutdown, and each unplanned load change time period. (Rules 26 and 74.23)

Verification: The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission..

AQ-45 All records required to be maintained by this permit shall be maintained for a period of five years and shall be made readily available for District and CPM inspection upon request. (Rules 33 and 103)

Verification: The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-46 For purposes of determining compliance with emission limits based on source testing, the average of three subtests shall be used. For purposes of determining compliance with emission limits based on a Continuous Emission Monitoring System (CEMS), data collected in accordance with the CEMS protocol shall be used and the averages for averaging periods specified herein shall be calculated as specified in the CEMS protocol. (Rules 26.2 and 74.23)

Verification: The project owner shall provide emissions summary data in compliance with this condition as part of the Quarterly Operation Reports **(AQ-SC7)**. The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-47 For purposes of determining compliance with emission limits based on CEMS data, all CEMS calculations, averages, and aggregates shall be performed in accordance with the CEMS protocol approved in writing by the District and CPM. (Rules 26, 74.23, and 103)

Verification: The project owner shall maintain a copy of the CEMS protocol on site and provide it for inspection on request by representatives of the District, ARB, and the Energy Commission.

AQ-48 The number of annual operating hours (including startup and shutdown) for the CTG shall not exceed 2,150 hours per year. The number of startup periods occurring shall not exceed 200 per year. The number of shutdown periods occurring shall not exceed 200 per year.

The CTG shall be equipped with an operating, non-resettable, elapsed hour meter. The project owner shall maintain a log that differentiates normal operation from startup operation and shutdown operation. These hours of operation records shall be compiled into a monthly total. The monthly operating hour records shall be summed for the previous 12 months and reported to the District and CPM on an annual basis. (Rules 26 and 74.23)

Verification: The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-49 Not later than 90 calendar days prior to the installation of the selective catalytic reduction (SCR)/oxidation catalyst emission control systems, the project owner shall submit to the District and CPM the final selection, design parameters and details of the SCR and oxidation catalyst emission control systems for the CTG including, but not limited to, the minimum ammonia injection temperature for the SCR; the catalyst dimensions and volume, catalyst material, catalyst manufacturer, space velocity and area velocity at full load; and control efficiencies of the SCR and the oxidation catalyst CO at temperatures between 100 ºF and 1000 ºF at space velocities corresponding to 100% and 25% load. (Rules 26.2 and 74.23)

Verification: The project owner shall submit to the CPM for review and District for approval final selection, design parameters and details of the SCR and oxidation catalyst emission control systems at least 90 days prior to the start of construction of the SCR or oxidation catalyst.

AQ-50 Continuous monitors shall be installed on SCR system prior to their initial operation to monitor or calculate, and record the ammonia solution injection rate in pounds per hour and the SCR catalyst temperature in degrees Fahrenheit for each unit operating minute. The monitors shall be installed, calibrated and maintained in accordance with a District and CPM approved protocol, which may be part of the CEMS protocol. This protocol, which shall include the calculation methodology, shall be submitted to the District and CPM for written approval at least 90 days prior to installation of the SCR system. Following the initial operation of the SCR system, the monitors shall be in full operation at all times when the turbine is in operation. (Rules 26 and 103)

Verification: The project owner shall submit to the CPM for review and the District for approval a turbine operation monitoring protocol in compliance with this condition at least 90 days prior to the initial startup.

AQ-51 Except during periods when the ammonia injection system is being tuned or is in manual control for compliance with applicable permit conditions, the automatic ammonia injection system serving the SCR system shall be in operation in accordance with manufacturer's specifications at all times when ammonia is being injected into the SCR system. Manufacturer specifications shall be maintained on site and made available to District and CPM personnel upon request. (Rules 26 and 74.23)

Verification: The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission..

AQ-52 The concentration of ammonia solution used in the SCR ammonia injection system shall be less than 20% ammonia by weight. Records of ammonia solution concentration shall be maintained on site and made available to District and CPM personnel upon request. (40 CFR Part 68)

Verification: The project owner shall maintain on site and provide on request of the CPM or District the ammonia delivery records that demonstrate compliance with this condition.

AQ-53 A continuous emission monitoring system (CEMS) shall be installed and operated on the CTG and properly maintained and calibrated to measure, calculate, and record the following, in accordance with the District and CPM approved CEMS protocol:

a. Hourly average concentration of oxides of nitrogen (NOx) uncorrected and corrected to 15% oxygen, in parts per million (ppmvd), necessary to demonstrate compliance with the NOx limits of this permit;

b. Hourly average concentration of carbon monoxide (CO) uncorrected and corrected to 15% oxygen, in parts per million (ppmvd), necessary to demonstrate compliance with the CO limits of this permit;

c. Percent oxygen (O_2) in the exhaust gas averaged over each operating hour;

d. Hourly mass emissions of oxides of nitrogen (NOx) calculated as NO_2, in pounds;

e. Cumulative mass emissions of oxides of nitrogen (NOx) calculated as NO_2 in each startup and shutdown period, in pounds;

f. Daily mass emissions of oxides of nitrogen (NOx) calculated as NO_2, in pounds;

g. Calendar monthly mass emissions of oxides of nitrogen (NOx) calculated as NO_2, in pounds;

h. Rolling 4-hour average concentration of oxides of nitrogen (NOx) corrected to 15% oxygen, in parts per million (ppmvd);

i. Rolling 4-hour average oxides of nitrogen (NOx) calculated as NO_2, in pounds per megawatt-hour (MWh);

j. Calendar month, calendar year, and rolling 12-calendar-month period mass emissions of oxides of nitrogen (NOx), calculated as NO_2 in tons;

k. Hourly mass emissions of carbon monoxide (CO), in pounds;

l. Cumulative mass emissions of carbon monoxide (CO) in each startup and shutdown period, in pounds;

m. Daily mass emissions of carbon monoxide (CO), in pounds;

n. Calendar monthly mass emissions of carbon monoxide (CO), in pounds;

o. Calendar month, calendar year, and rolling 12-calendar-month period mass emissions of carbon monoxide (CO), in tons;

p. Average concentration of oxides of nitrogen (NOx) and carbon monoxide (CO) uncorrected and corrected to 15% oxygen, in parts per million (ppmvd), averaged over each unit operating hour;

q. Average emission rate in pounds per hour of oxides of nitrogen (NOx) calculated as NO_2 and pounds per hour of carbon monoxide (CO) during each unit operating hour.

Verification: The project owner shall submit to the CPM for review and the District for approval a CEMS protocol, as required by **AQ-54**, which includes description of the methods of compliance with the requirements of this condition. The project owner shall

make the site available for inspection of records and equipment by representatives of the District, ARB, and the Energy Commission.

AQ-54 No later than 90 calendar days prior to initial startup of the CTG, the project owner shall submit a CEMS protocol to the District, for written approval that shows how the CEMS will be able to meet all of the monitoring requirements of this permit. (Rules 74.23 and 103)

Verification: The project owner shall submit to the CPM for review and the District for approval a CEMS operating protocol at least 90 days prior to the initial startup of each combustion turbine.

AQ-55 When the NOx CEMS is not recording data and the CTG is operating, hourly NOx emissions for purposes of rolling 12-calendar-month period emission calculations shall be determined in accordance with 40 CFR 75 Subpart C. Additionally, when the CO CEMS is not recording data and the CTG is operating, hourly CO emissions for purposes of rolling 12-calendar-month period emission calculations shall be determined using CO emission factors to be determined from source test emission factors, and hourly fuel consumption data. Emission calculations used to determine hourly emission rates shall be reviewed and approved by the District and CPM, in writing, before the hourly emission rates are incorporated into the CEMS emissions data. (Rules 26.2 and 29)

Verification: The project owner shall provide the District for approval and the CPM for review all emission calculations required by this condition, in a manner and time required by the District, and shall provide notation of when such calculations are used in place of operating CEMS data in the Quarterly Operation Reports **(AQ-SC7)**.

AQ-56 The CTG shall be equipped with continuous monitors to measure, calculate, and record unit operating days and hours and the following operational characteristics and operating parameters (Rule 74.23):

a. Date and time;

b. Natural gas flow rate to the CTG during each unit operating minute, in standard cubic feet per hour;

c. Total heat input to the combustion turbine based on the natural gas higher heating value (HHV) during each unit operating minute, in Million British Thermal Units Per Hour (MMBTU/Hr);

d. Higher heating value (HHV) of the fuel on an hourly basis, in Million British Thermal Units Per Standard Cubic Foot (MMBTU/SCF);

e. Stack exhaust gas temperature during each unit operating minute, in degrees Fahrenheit;

f. Combustion turbine energy output during each unit operating minute in megawatts hours (MWh)

Verification: The project owner shall submit to the CPM for review and the District for approval a turbine operation monitoring protocol in compliance with this condition and within the timeframes specified in **AQ-58** and the project owner shall make the site available for inspection of records and equipment required in this condition by representatives of the District, ARB, and the Energy Commission.

AQ-57 The values of these operational characteristics and parameters shall be reduced to hourly averages. The monitors shall be installed, calibrated, and maintained in accordance with a turbine operation monitoring protocol, which may be part of the CEMS protocol, approved by the District and CPM, which shall include any relevant calculation methodologies. The monitors shall be in full operation at all times when the combustion turbine is in operation. Calibration records for the continuous monitors shall be maintained on site and made available to the District and CPM upon request. (Rule 74.23)

Verification: The project owner shall submit to the CPM for review and the District for approval a turbine operation monitoring protocol in compliance with this condition and within the timeframes specified in **AQ-58** and the project owner shall make the site available for inspection of records and equipment required in this condition by representatives of the District, ARB, and the Energy Commission.

AQ-58 At least 90 calendar days prior to initial startup of the CTG, the project owner shall submit a CTG operating parameter monitoring protocol to the District and CPM for written approval. This may be part of the CEMS protocol.

Verification: The project owner shall submit to the CPM for review and the District for approval a turbine monitoring protocol in compliance with this condition at least 90 days prior to the initial startup of each combustion turbine.

AQ-59 Thirty (30) calendar days after the end of the commissioning period for the CTG, the project owner shall submit a written report to the District and CPM. This report shall include, a minimum, the date the commissioning period ended, the startup and shutdown periods, the emissions of NOx and CO during startup and shutdown periods, and the emissions of NOx and CO during steady state operation. This report shall also detail any CTG or emission control equipment malfunction, upset, repairs, maintenance, modifications, or replacements affecting emissions of air contaminants that occurred during the commissioning period. All of the following continuous monitoring information shall be reported and averaged over each hour of operation, except for cumulative mass emissions. (Rules 26.2 and 29):

Concentration of oxides of nitrogen (NOx) uncorrected and corrected to 15% oxygen, in parts per million (ppmvd);

a. Concentration of carbon monoxide (CO) uncorrected and corrected to 15% oxygen, in parts per million (ppmvd);

b. Percent oxygen (O_2) in the exhaust gas;

c. Mass emissions of oxides of nitrogen (NOx) calculated as NO_2, in pounds and tons;

d. Cumulative mass emissions of oxides of nitrogen (NOx) calculated as NO_2 in each startup and shutdown period, in pounds and tons;

e. Cumulative mass emissions of carbon monoxide (CO) in each startup and shutdown period, in pounds and tons;

f. Mass emissions of carbon monoxide (CO), in pounds and tons;

g. Total heat input to the combustion turbine based on the fuel's higher heating value, in Million British Thermal Units Per Hour (MMBTU/Hr);

h. Higher Heating Value (HHV) of the natural gas fuel on an hourly basis, in Million British Thermal Units Per Standard Cubic Foot (MMBTU/SCF);

i. Gross electrical power output of the CTG, in megawatts hours (MWh) for each hour;

j. SCR catalyst temperature, in degrees Fahrenheit.

Verification: A log of the dates, times, and cumulative unit operating hours when fuel is being combusted during the commissioning period shall be maintained by the project owner. The project owner shall submit, commencing one month from the time of gas turbine first fire, a monthly commissioning status report throughout the duration of the commissioning phase that demonstrates compliance with the requirements listed in this condition. The monthly commissioning status report shall be submitted to the CPM by the 10th of each month for the previous month, for all months with turbine commissioning activities following the turbine first fire date. The project owner shall also provide the reporting required by this condition to the District and CPM within 30 day of completing commissioning of each turbine. The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-60 Upon request of the APCO, the hourly average information required by this permit shall be submitted in writing and /or in an electronic format approved by the District and CPM. Upon request of the APCO, the minute-by-minute information required by this permit shall be submitted in an electronic format approved by the District and CPM. (Rules 26.2, 74.23, and 103)

Verification: The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-61 The CTG shall comply with 40 CFR Part 60, Subpart TTTT, Standards of Performance for Greenhouse Gas Emissions From New, Modified, and Reconstructed Stationary Sources: Electric Utility Generating Units. As defined by the annual hours of operation limits, and the natural gas fuel only requirements, of this permit, the CTG is subject to a CO_2 emission standard of 120 lb CO_2 per MMBTU, averaged over a 12 operating month rolling average.

To verify compliance with this condition, as required above by this permit, the project owner shall record and maintain written monthly records of the CTG natural gas consumption and the CTG net electrical sales supplied to the utility grid.

Verification: To verify compliance with this condition, as required above by this permit, the project owner shall record and maintain written monthly records of the CTG natural gas consumption and the CTG net electrical sales supplied to the utility grid and submit to the District and CPM in the Quarterly Compliance Reports (**AQ-SC7**).

779 BHP Tier 4-Final Emergency Diesel Engine

AQ-DE1 The annual hours of operation for maintenance and readiness testing of the 779 BHP Emergency Diesel Engine shall not exceed 50 hours per year. This limit does not include emergency operation when electrical grid power line service has failed. When not being operated for maintenance or readiness testing, the emergency engine shall only be used during a failure or loss of all or part of normal electrical power service to the facility.

The engine shall be equipped with an operating, non-resettable, elapsed hour meter. The project owner shall maintain a log that differentiates operation during maintenance and testing from operation during emergency use. These hours of operation records shall be compiled into a monthly total. The monthly operating hour records shall be summed for the previous 12 months and reported to the District and CPM after every calendar year by February 15. (Rule 74.9 and ATCM)

Verification: The project owner shall submit to the CPM the emergency diesel engine operating data demonstrating compliance with this condition as part of the Quarterly Operation Report **(AQ-SC7)**. The monthly operating hour records shall be summed for the previous 12 months and reported to the District and CPM after every calendar year by February 15.

AQ-DE2 Only CARB certified diesel fuel containing not more than 0.0015% sulfur by weight shall be used to fuel the Emergency Diesel Engine. (ATCM)

Verification: The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-DE3 No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which are as dark or darker in shade as that designated as No. 1 on the Ringelmann Chart as published by the United States Bureau of Mines, or 20% opacity. (Rule 50)

Verification: The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-DE4 The emergency engine shall be EPA-certified to the applicable emissions requirements for emergency engines of 40 CFR Part 60 Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, based on the power rating of the engine and the engine

model year. The ROC, NOx, and PM10 emission limits below have been applied as BACT pursuant to Rule 26.2 and are more stringent than this condition. (Rule 26.2, ATCM, and NSPS IIII)

Verification: The project owner shall provide to the CPM for review and approval engine documentation demonstrating compliance with the condition at least 30 days prior to purchasing the engine.

AQ-DE5 ROC emissions shall not exceed the EPA Tier 4-Final Standard for NMHC of 0.14 g/bhp-hr. The project owner shall maintain documentation certifying that the emergency diesel engine meets this emission standard. (Rule 26.2)

Verification: The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-DE6 NOx emissions shall not exceed the EPA Tier 4-Final Standard for NOx of 0.50 g/bhp-hr. The project owner shall maintain documentation certifying that the emergency diesel engine meets this emission standard. (Rule 26.2)

Verification: The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-DE7 PM10 emissions from the engine shall not exceed shall not exceed the EPA Tier 4-Final Standard for PM of 0.02 g/hp-hr. The project owner shall maintain documentation certifying that the emergency diesel engine meets this emission standard. (Rules 26.2 and 51)

Verification: The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-DE8 CO emissions from the engine shall not exceed the EPA Tier 4-Final Standard for CO of 2.6 g/bhp-hr. The project owner shall maintain documentation certifying that the emergency diesel engine meets this emission standard. (ATCM and NSPS IIII)

Verification: The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-DE9 The exhaust stack of the Emergency Diesel Engine shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap, roof overhang, or any other obstruction. A flapper type rain cap that is open while the engine is operating may be used. (Rule 51)

Verification: The project owner shall make the site available for inspection of records and equipment by representatives of the District, ARB, and the Energy Commission.

AQ-DE10 The Emergency Diesel Engine shall be operated and maintained in proper operating condition as recommended by the engine manufacturer or emissions control system supplier. (ATCM and NSPS IIII)

Verification: The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.

AQ-DE11 Project owner shall monitor the operational characteristics of the engine as recommended by the engine manufacturer or emissions control system supplier. (ATCM and NSPS IIII)

Verification: The project owner shall make the site available for inspection of equipment and records by representatives of the District, ARB, and the Energy Commission.

AQ-DE12 The existing 154 BHP emergency fire pump engine and 201 BHP emergency generator engine at the Mandalay Generating Station shall be removed from service prior to operation of this new 779 BHP Emergency Diesel Engine. (Rules 26.2)

Verification: The project owner shall provide to the CPM for review and approval documentation demonstrating compliance with this condition at least 30 days prior to operating the new 779 BHP emergency diesel engine.

BIOLOGICAL RESOURCES PROPOSED CONDITIONS OF CERTIFICATION

Staff proposes the following Biology 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 .

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 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 at least 75 days prior to the start of construction-related ground disturbance activities. No pre-construction site mobilization or construction related activities shall commence until a Designated Biologist has been approved by the CPM.

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 DUTIES

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, closure, and restoration activities that may impact special-status species. 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 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 active construction areas where animals may have become trapped prior to construction commencing each day. Inspect, or direct the site personnel how to inspect, 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 (MCRs) and the Annual Compliance Report (ACR);

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 MCRs 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, and shall be present when biological resources are affected and the Designated Biologist is not onsite. 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.

BIOLOGICAL MONITOR SELECTION

BIO-3 The project owner's CPM-approved Designated Biologist shall submit the resume(s), at least three references, and contact information of the proposed Biological Monitor(s) to the CPM for approval. Biological monitor(s) may assist but do not supplant, Designated Biologists, and are not required. The resume(s) shall demonstrate, to the satisfaction of the CPM, the appropriate education and experience to accomplish the assigned biological resource tasks.

Verification: The project owner shall submit the specified information to the CPM for approval at least 30 days prior to the start of any construction-related ground disturbance activities. The Designated Biologist shall submit a written statement to the CPM confirming that individual Biological Monitor(s) have been trained, including the date when training was completed. If additional Biological Monitors are needed during construction, the specified information shall be submitted to the CPM for approval at least 10 days prior to their first day of monitoring activities.

DESIGNATED BIOLOGIST AND BIOLOGICAL MONITOR AUTHORITY

BIO-4 The project owner's construction/operation manager shall act on the advice of the Designated Biologist and Biological Monitor(s) to ensure conformance with the biological resources conditions of certification.

If required by the Designated Biologist and/or Biological Monitor(s) the project owner's construction/operation manager shall halt all site mobilization, ground disturbance, grading, construction, and operation activities in areas specified by the Designated Biologist. The Designated Biologist shall:

1. Require a halt to all activities in any area when determined that there would be an unpermitted adverse impact to any special-status biological resources (those that have significance under CEQA) if the activities continued;

2. Inform the project owner and the construction/operation manager when to resume activities; and

3. Notify the CPM if there is a halt of any activities and advise the CPM of any corrective actions that have been taken or will be implemented as a result of the work stoppage.

If the Designated Biologist is unavailable for direct consultation, the Biological Monitor shall act on behalf of the Designated Biologist.

Verification: The project owner shall ensure that the Designated Biologist or Biological Monitor notifies the CPM immediately (and no later than the morning following the incident, or Monday morning in the case of a weekend) of any non-compliance with biological resources conditions of certification or a halt of any site mobilization, ground disturbance, grading, construction, and operation activities with the potential to adversely impact any special-status biological resources. The project owner shall notify the CPM of the circumstances and actions being taken to resolve the problem, and shall respond to any CPM verbal or written requests for information within a timely manner.

WORKER ENVIRONMENTAL AWARENESS PROGRAM

BIO-5 The project owner shall develop and implement a project-specific Worker Environmental Awareness Program (WEAP). The WEAP shall be administered to all onsite personnel including surveyors, construction engineers, employees, contractors, contractor's employees, supervisors, inspectors, and subcontractors. The WEAP shall be implemented during site mobilization, ground disturbance, 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, including wallet-sized cards with summary information on special status species and sensitive biological resources, is made available to all participants;

2. Discuss the locations and types of special-status biological resources on the project site and adjacent areas, explain the reasons for protecting these resources, and the function of flagging in designating special-status resources and authorized work areas;

3. Discuss federal and state laws protecting the special-status species and explain penalties for violation of applicable laws, ordinances, regulations, and standards (e.g., Endangered Species Act);

4. Place special emphasis on the light-footed clapper rail, western snowy plover, California least tern and Belding's savannah sparrow, including information on physical characteristics, distribution, behavior, ecology, sensitivity to human activities, legal protection and status, penalties for violations, reporting requirements, and protection measures;

5. Include a discussion of fire prevention measures to be implemented by workers during project activities; require workers to dispose of cigarettes and cigars appropriately and not leave them on the ground or buried;

6. Present the meaning of various temporary and permanent habitat protection measures;

7. Identify whom to contact if there are further comments and questions about the material discussed in the program; and

8. 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.

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 must approve the WEAP materials prior to their use. At least 10 days prior to site and related facilities mobilization, the project owner shall provide the CPM a copy of the CPM-approved final WEAP.

The project owner shall provide in the MCRs 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.

The WEAP shall be routinely administered within one week of arrival to any new construction personnel, foremen, contractors, subcontractors, and other personnel working at the project site. Upon completion of the orientation, employees shall sign a form stating that they attended the training and understand all protection measures. These forms shall be maintained by the project owner and shall be made available to the CPM upon request. Workers shall receive and be required to visibly display a hardhat sticker or certificate indicating that they have completed the required training.

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.

During project operation, the WEAP shall be repeated annually for permanent employees. 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

BIO-6 The project owner shall develop and implement a Biological Resources Mitigation Implementation and Monitoring Plan (BRMIMP). The BRMIMP shall be prepared in consultation with the Designated Biologist and shall include the following:

1. all biological resource mitigation, monitoring, and compliance measures proposed and agreed to by the project owner;

2. all biological resource conditions of certification identified in the Commission Decision as necessary to avoid or mitigate impacts;

3. all biological resource mitigation, monitoring, and compliance measures required in federal regulatory agency terms and conditions, such as those provided in the National Pollution Discharge Elimination System (NPDES) Construction Activities Stormwater General Permit;

4. a discussion of all special-status biological resources that could be impacted by project construction, operation, and closure;

5. a detailed description of measures that shall be taken to avoid or mitigate impacts on each special-status species potentially impacted by construction, demolition, and operation activities;

6. all locations on a map, at an approved scale, of special-status 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. A discussion of biological resources-related facility closure measures;

10. A process for proposing plan modifications to the CPM for review and approval; and

11. 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 (CNDDB) per CDFW requirements.

Verification: The project owner shall submit the BRMIMP to the CPM for review and approval at least 45 days prior to start of any project-related ground disturbing activities.

If there are any permits that have not yet been received when the BRMIMP is first submitted, copies of these permits shall be submitted to the CPM within 5 days of their receipt, and a revised BRMIMP shall be submitted to the CPM for review within 10 days of receipt of permits by the project owner.

Implementation of BRMIMP measures shall be reported in the MCRs (e.g., 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 and which 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 special-status biological resources, including offsite environmentally sensitive habitat areas (ESHA as defined by the City of Oxnard local coastal plan):

1. The boundaries of all areas to be temporarily or permanently disturbed (including staging areas, access roads, and sites for temporary placement of spoils) shall be delineated with stakes and flagging prior to construction activities in consultation with the Designated Biologist. Spoils shall be stockpiled in disturbed areas, which do not provide habitat for special-status species. Parking areas, staging and disposal site locations shall similarly be

located in areas without native vegetation or special-status species habitat. All disturbances, vehicles, and equipment shall be confined to the flagged areas.

2. At the end of each work day, the Designated Biologist, Biological Monitor, and/or site personnel shall ensure that all potential wildlife pitfalls (trenches, bores, and other excavations) have been backfilled. If site personnel are inspecting trenches, bores, and other excavations and wildlife is trapped, they will immediately notify the Designated Biologist and/or Biological Monitor. 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.

3. Transmission lines and all electrical components shall be designed, installed, and maintained in accordance with the Avian Power Line Interaction Committee's (APLIC) Suggested P*ractices for Avian Protection on Power Lines* (APLIC 2006) and *Reducing Avian Collisions with Power Lines* (APLIC 2012) to reduce the likelihood of large bird electrocutions and collisions.

4. Soil bonding and weighting agents used on unpaved surfaces shall be non-toxic to wildlife and plants.

5. 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, which could attract California least tern predators to construction sites. During construction, 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.

6. 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 MCRs. For special-status species, the Designated Biologist or Biological Monitor shall contact CDFW and USFWS within 1 working day of receipt of the carcass for guidance on disposal or storage of the carcass. Injured 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 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.

7. All vehicles and equipment shall be maintained in proper working condition to minimize the potential for spills of motor oil, antifreeze, hydraulic fluid, grease, or other hazardous materials or wastes. The Designated Biologist shall be informed immediately of any spills of hazardous materials or wastes. Servicing of construction equipment shall take place only at a designated area. During construction all trash and food-related waste shall be placed in containers with lids 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 Storm Water Pollution Prevention Plan shall be implemented during all phases of the project (construction, demolition, operation, and decommissioning) where storm water run-off from the site could 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:

    Limit the size of any vegetation and/or ground disturbance to the absolute minimum and limit ingress and egress to defined routes;

    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.

    The project owner shall ensure that the northern boundary of the project site remains free of ice plant mats and other invasive weed species. The remainder of the site shall be kept weed-free to the extent possible.

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.

12. The project owner shall install silt fencing along the northern and southern perimeter of the project site. Silt fencing shall be inspected weekly or after significant rain events by the Designated Biologist or Biological Monitor, and shall be maintained in good condition, with no holes or gaps. If sedimentation occurs along the fence due to normal sand movement processes, the silt fencing may be removed, with permission from the CPM.
13. Construction activities will maintain a 100-feet buffer from all ESHA.

Verification: All general impact avoidance and minimization measures shall be included in the BRMIMP and implemented. Implementation of the measures shall be reported by the Designated Biologist in the MCRs. 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 construction or demolition activities will occur from February 1 through August 31. The Designated Biologist or Biological Monitor shall perform surveys in accordance with the following guidelines:

1. Surveys shall cover all potential nesting habitat and substrate within the project site, and publically-accessible areas within 0.25-mile of the project boundary within potential western snowy plover and least tern nesting habitat.

2. At least two pre-construction surveys shall be conducted, separated by a minimum 10-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 3-day period preceding initiation of construction activity. Additional follow-up surveys may be required if periods of construction inactivity exceed three 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 on-site surveys, a no-disturbance buffer zone (protected area surrounding the nest) shall be established around each nest. For special-status species, if an active nest is identified, the size of each buffer zone shall be determined by the Designated Biologist in consultation with the CPM. Nest locations shall be mapped using GPS technology. Off-site special-status nests shall be mapped and monitored, but shall not be fenced.

4. If active nests of special-status species are detected during surveys, the Designated Biologist or Biological Monitor shall inform the CPM within one business day, and shall monitor all on-site and off-site nests 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 in coordination with the CPM. 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, where possible.

5. If active nests are detected during surveys, the Designated Biologist or Biological Monitor shall monitor the nest until he or she determines that nestlings have fledged and dispersed or the nest is no longer active. Buffer zones may be removed and monitoring may cease when the nest is deemed inactive by the Designated Biologist or Biological Monitor.

6. Sound levels shall not exceed 65 decibels at 100 feet from active bird nests (nest locations established in **BIO-8 parts #1-3**), as established by continuous noise monitoring during the first two days of any major construction milestone such as: demolition, site clearing, foundation work, or steel erection. These efforts are in addition to weekly monitoring per **BIO-8 #4**.

7. Demolition and Pile Driving: explosive demolition of Mandalay Generating Station Units 1 and 2 and associated exhaust stack are to take place outside of nesting season (February 1 through August 31st). The project owner shall schedule the noisiest activities, such as pile driving, outside of breeding season.

Verification: The project owner shall provide notification to the CPM, CDFW, and USFWS at least 2 weeks prior to initiating surveys; notification will include the name and resume of the biologist(s) conducting the surveys and the timing of the surveys. Prior to the start of any pre-construction site mobilization, the project owner shall provide the CPM, CDFW, and USFWS a letter-report describing the findings of the preconstruction nest surveys, including the time, date, methods, and duration of the surveys; identity and qualifications of the surveyor(s); and a list of species observed. If active nests are detected during the surveys, the reports shall include a map or aerial photo identifying the location of the nest(s) and shall depict the boundaries of the proposed no-disturbance buffer zone around the nest(s). 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 MCRs by the Designated Biologist. Should pile driving occur during nesting season, then at least 30 days before the use of pile driving, the project owner shall prepare a letter report detailing an appropriate plan to reduce project-related adverse effects on nearby ESHA and special-status avian species. The plan shall be developed in consultation with the USFWS and the CPM, and shall detail additional noise reduction measures to be implemented, along with all necessary goals, objectives, and performance standards.

WETLAND IMPACT MITIGATION PLAN

BIO-9 The project owner shall fully mitigate for permanent impacts to on-site wetlands at a 4:1 ratio. The project owner shall provide funds to acquire mitigation land at an existing, or soon to be established, salt marsh, palustrine or estuary habitat restoration project, or help fund an established salt marsh, palustrine or estuary habitat restoration project close to the site of impact as possible to fully mitigate impacts to Coastal Commission wetlands.

Mitigation shall occur using an established wetland restoration program or mitigation bank, with preference given to programs within the same watershed as the project (Santa Clara-Calleguas), or any other wetland restoration program approved by the CPM. The project owner shall provide the CPM a Wetland Compensation Plan (Plan). The Plan shall include:

a) Available information from the land owner or wetland program restoration program manager pertaining to existing physical, biological and hydrological conditions at the mitigation sites(s), including vegetation present, hydrologic regime of the site(s), known or expected fauna at the site(s), including any known or expected listed sensitive species, known or suspected contaminants that may be present at the site(s), and an analysis of existing ecological functions and values at the sites(s). The review shall also identify any known site constraints that may limit successful creation or restoration efforts.

b) A description of legal interests at the mitigation sites(s), and any landowner approval that the project owner may need to use the proposed site(s) for wetland creation or restoration.

c) Proposed goals, objectives and performance criteria for the proposed mitigation site(s) that identify specific creation or restoration measures to be implemented, including proposed habitat types to be created or restored, grading and planting plans, the timing of the mitigation measures, and monitoring that will be implemented to establish baseline conditions and to determine whether the sites are meeting performance criteria. Monitoring shall be for at least 5 years and final monitoring for success shall take place after at least 3 years with no remediation or maintenance other than weeding. The plan shall also identify contingency measures that the project owner will implement should any of the mitigation sites not meet performance criteria.

<u>These goals, objectives, and performance criteria shall include:</u>

I. Creation or restoration of habitat types that will support wetland-dependent species.

II. Created or restored areas shall be provided a buffer of a size adequate to ensure protection of wetland functions and values, and at least 100 feet wide, as measured from the nearest upland edge of the transition area. The plan may propose a lesser buffer width if the mitigation area is sited

within existing wetland areas that are protected by a buffer meeting these criteria.

III. Measures to be implemented if soil or groundwater contamination is found at the site(s).

IV. A planting program that includes initial and ongoing removal of invasive or non-native species and identifies the vegetation species to be planted, local sources of those plants or seeds, measures needed to protect any existing native wetland vegetation species, timing of planting, plans for irrigation if needed to establish plants, and locations of plants. The plan shall also identify soil sources and amendments to be used.

V. Formal sampling design to assess performance criteria and shall identify the means by which success will be assessed. Where statistical tests are used, the plan shall include a requirement for a statistical power analysis to demonstrate that there will be sufficient replication to enable a robust test with beta equal to alpha.

VI. Topographic drawings for the final mitigation site(s) and construction drawings, schedules, and a description of equipment to be used in the project.

VII. "As-built" plans and annual monitoring reports for no less than five years or until the sites meet performance criteria.

VIII. Identify legal mechanism(s) proposed to ensure permanent protection of the mitigation site(s) – e.g. , conservation easements, deed restrictions, or other methods.

Verification: At least 90 days prior to the start of project construction, the project owner shall submit to the CPM for approval the wetland restoration program or mitigation bank the project owner wishes to participate in. At least 60 days prior to the start of project construction, the project owner shall provide funding to support an existing, or soon to be established, salt marsh or estuary habitat restoration project. At least 90 days prior to the start of project construction, the project owner shall submit to the CPM a Restoration Management Plan or similar plan (used by the land manager, or to be used by the land manager or restoration program manager) that discusses the details of the wetland restoration program.

No less than 30 days prior to the start of project construction, the project owner shall provide a written verification to the CPM that the funding has been paid in full to the land manager approved by the CPM. The project owner shall provide evidence that payment from the funding 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 or restoration program manager administering the restoration program(s). The annual reports will document how payments from the endowment required hereunder were used and applied to provide wetland habitat restoration/enhancement at approved locations and shall

describe how implementation of the mitigation conformed to the above goals, objectives, and performance criteria. 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 restoration program or the project, whichever is sooner.

If after five years, the restoration has not achieved the success criteria, the project owner shall submit within 90 days (of the fifth year anniversary) a revised or supplemental plan to compensate for those portions of the original plan which did not meet the approved success criteria.

OUTFALL REMOVAL IMPACTS AVOIDANCE PLAN

BIO-10 Prior to initiation of outfall removal activities or any associated ground-disturbing activities, the project owner shall prepare an Outfall Removal Impacts Avoidance Plan. The Plan shall be developed in consultation with the Designated Biologist; and at a minimum, the shall detail the following avoidance and minimization measures:

1. Pre-construction surveys for special-status plants shall be conducted in all impact areas and within 500 feet of said areas. If special status species are found onsite or within 500 feet of the site, all individuals of these species shall be avoided.

2. Pre-construction surveys for special-status wildlife shall be conducted in all impact areas and within 500 feet of said areas. If special status species are found onsite or within 500 feet of the site, all individuals of these species shall be avoided.

3. Vegetation in the construction area shall be removed prior to March 1 (the beginning of the bird-nesting season) to avoid conflicts with nesting birds during the nesting season. Pre-construction surveys for nesting birds that are listed (including California least tern and western snowy plover) and all non-listed bird species shall be conducted in all areas within 500 feet of the perimeter of the project site. Construction during the breeding season (generally March 1 – August 30) is not allowed.

4. During demolition activities, exclusionary fencing shall be installed around the outfall structure demolition area to prevent marine mammals from using the area.

5. Prior to each day, pre-construction/demolition surveys for marine mammals shall be conducted within 500 feet of the outfall structure. If a marine mammal is sighted within or is about to enter the demolition area, work shall be halted until the animal leaves the area. Alternately, an approved biologist may immediately notify the Channel Islands Marine Resource Institute (the local approved National Marine Fisheries Service) to make every reasonable effort to rescue such an animal.

6. Protective silt fencing shall be erected around patches of sand dune mats, and inspected daily by the Designated Biologist or Biological Monitor, to

ensure that no animals are entrapped, and that the fencing is in good repair. Fencing repairs shall occur within 1 business day of detection of damage.

7. Heavy equipment used during the demolition of the outfall structure shall use a soft-start (i.e. ramp-up) technique at the beginning of activities each day, or following an equipment shut-down, to allow any marine mammal that may be in the immediate area to leave before the sound source reaches full energy.

Verification: The project owner shall submit the Outfall Removal Impacts Avoidance Plan to the CPM for approval at least 30 days prior to the start of ground disturbing activities associated with the outfall removal. All impact avoidance and minimization measures related to the outfall removal shall be included in the BRMIMP and implemented. Implementation of the measures shall be reported on the MCRs by the Designated Biologist. At the conclusion of the demolition of the outfall, the Designated Biologist shall prepare a final report detailing observations of any special status plants or wildlife, a table of common species observed, a description of any adaptive management or mitigation strategies implemented, and a discussion of the efficacy of said measures.

COMPLIANCE CONDITIONS OF CERTIFICATION

Compliance Table 1:
Summary of Compliance Conditions of Certification

Condition Number	Subject	Description
COM-1	Unrestricted Access	The project owner shall grant Energy Commission staff and delegate agencies or consultants unrestricted access to the power plant site.
COM-2	Compliance Record	The project owner shall maintain project files on-site. Energy Commission staff and delegate agencies shall be given unrestricted access to the files.
COM-3	Compliance Verification Submittals	The project owner is responsible for the delivery and content of all verification submittals to the CPM, regardless of whether the conditions were satisfied directly by the project owner or by an agent.
COM-4	Pre-construction Matrix and Tasks Prior to Start of Construction	Construction shall not commence until all of the following activities/submittals have been completed: Project owner has submitted a pre-construction matrix identifying conditions to be fulfilled before the start of construction; Project owner has completed all pre-construction conditions to the CPM's satisfaction; and CPM has issued a letter to the project owner authorizing construction.
COM-5	Compliance Matrix	The project owner shall submit a compliance matrix (in a spreadsheet format) with each Monthly and Annual Compliance Report, which includes the current status of all Compliance Conditions of Certification.
COM-6	Monthly Compliance Reports and Key Events List	During construction, the project owner shall submit Monthly Compliance Reports (MCRs) which include specific information. The first MCR is due 1 one month following the docketing of the Energy Commission's Decision on the project and shall include an initial list of dates for each of the events identified on the Key Events List.
COM-7	Periodic and Annual Compliance Reports	After construction ends**,** and throughout the life of the project, the project owner shall submit Annual Compliance Reports (ACRs) instead of MCR's.
COM-8	Confidential Information	Any information the project owner designates as confidential shall be submitted to the Energy Commission's Executive Director with a request for confidentiality.
COM-9	Annual Fees	Required payment of the Annual Energy Facility Compliance Fee.
COM-10	Amendments, Staff-Approved Project Modifications, Ownership Changes, and Verification Changes	The project owner shall petition the Energy Commission to delete or change a condition of certification, modify the project design or operational requirements, and/or transfer ownership or operational control of the facility. Petitions to Amend require the payment of amendment processing fees.

Condition Number	Subject	Description
COM-11	Reporting of Complaints, Notices, and Citations	Prior to the start of construction, the project owner shall provide all property owners within a one-mile radius a telephone number to contact project representatives with questions, complaints, or concerns. The project owner shall respond to all recorded complaints within 24 hours. Within 5 five days of receipt, the project owner shall report to the CPM all notices, complaints, violations, and citations.
COM-12	Site Contingency Plan	No less than 60 days prior to the start of commercial operation, the project owner shall submit an on-site Contingency Plan to ensure protection of public health and safety and environmental quality during a response to an emergency.
COM-13	Incident-Reporting Requirements	The project owner shall notify the CPM within one 1 hour of an incident and submit a detailed incident report within 1 one week, maintain records of incident report, and submit public health and safety documents with employee training provisions.
COM-14	Non-Operation	No later than two 2 weeks prior to a facility's planned non-operation, or no later than one 1week after the start of unplanned non-operation, the project owner shall notify the CPM, interested agencies and nearby property owners of this status. During non-operation, the project owner shall provide written updates to the CPM.
COM-15	Facility Closure Planning	No less than one 1year prior to closing, or upon an order compelling permanent closure, the project owner shall submit a Final Closure Plan and Cost Estimate.

COM-1 **Unrestricted Access**. The project owner shall take all steps necessary to ensure that the CPM, responsible Energy Commission staff, and delegate agencies or consultants have unrestricted access to the facility site, related facilities, project-related staff, and the records maintained on-site for the purpose of conducting audits, surveys, inspections, or general or closure-related site visits. Although the CPM will normally schedule site visits on dates and times agreeable to the project owner, the CPM reserves the right to make unannounced visits at any time, whether such visits are by the CPM in person or through representatives from Energy Commission staff, delegated agencies, or consultants.

COM-2 **Compliance Record**. The project owner shall maintain electronic copies of all project files and submittals on-site, or at an alternative site approved by the CPM, for the operational life and closure of the project. The files shall also contain at least one hard copy of:

1. the facility's Application for Certification;
2. all amendment petitions and Energy Commission orders;
3. all site-related environmental impact and survey documentation;
4. all appraisals, assessments, and studies for the project;

5. all finalized original and amended structural plans and “as-built” drawings for the entire project;

6. all citations, warnings, violations, or corrective actions applicable to the project, and

7. the most current versions of any plans, manuals, and training documentation required by the conditions of certification or applicable LORS.

Verification: Energy Commission staff and delegate agencies shall, upon request to the project owner, be given unrestricted access to the files maintained pursuant to this condition.

COM-3: Compliance Verification Submittals. Verification lead times associated with the start of construction may require the project owner to file submittals during the amendment process, particularly if construction is planned to commence shortly after certification. The verification procedures, unlike the conditions, may be modified as necessary by the CPM after notice to the project owner.

A cover letter from the project owner or an authorized agent is required for all compliance submittals and correspondence pertaining to compliance matters. The cover letter subject line shall identify the project by AFC number, cite the appropriate condition of certification number(s), and give a brief description of the subject of the submittal. When submitting supplementary or corrected information, the project owner shall reference the date of the previous submittal and the condition(s) of certification applicable.

All reports and plans required by the project’s conditions of certification shall be submitted in a searchable electronic format (.pdf, MS Word or Excel, etc.) and include standard formatting elements such as a table of contents identifying by title and page number each section, table, graphic, exhibit, or addendum. All report and/or plan graphics and maps shall be adequately scaled and shall include a key with descriptive labels, directional headings, a bar scale, and the most recent revision date.

The project owner is responsible for the content and delivery of all verification submittals to the CPM, the actions required by the verification were satisfied by the project owner or an agent of the project owner. All submittals shall be accompanied by an electronic copy on an electronic storage medium, or by e-mail, as agreed upon by the CPM. If hard copy submittals are required, please address as follows:

Compliance Project Manager
Puente Power Project (15-AFC-01C)
California Energy Commission
1516 Ninth Street (MS-2000)
Sacramento, CA 95814

COM-4 **Pre-Construction Matrix and Tasks Prior to Start of Construction**. Prior to construction, the project owner shall submit to the CPM a compliance matrix including only those conditions that must be fulfilled before the start of construction. The matrix shall be included with the project owner's first compliance submittal or prior to the first pre-construction meeting, whichever comes first, and shall be submitted in a format similar to the description below.

Site mobilization and construction activities shall not start until the following have occurred:

1. the project owner has submitted the pre-construction matrix and all compliance verifications pertaining to pre-construction conditions of certification; and

2. the CPM has issued an authorization-to-construct letter to the project owner.

The deadlines for submitting various compliance verifications to the CPM allow staff sufficient time to review and comment on, and, if necessary, also allow the project owner to revise the submittal in a timely manner. These procedures help ensure that project construction proceeds according to schedule. Failure to submit required compliance documents by the specified deadlines may result in delayed authorizations to commence various stages of the project.

If the project owner anticipates site mobilization immediately following project certification, it may be necessary for the project owner to file compliance submittals prior to project certification. In these instances, compliance verifications can be submitted in advance of the required deadlines and the anticipated authorizations to start construction. The project owner must understand that submitting items required in compliance verifications prior to these authorizations is at the owner's own risk. Any approval by Energy Commission staff prior to project certification is subject to change based upon the Commission Decision, or amendment thereto, and early staff compliance approvals do not imply that the Energy Commission will certify the project for actual construction and operation.

COM-5 **Compliance Matrix**. The project owner shall submit a compliance matrix to the CPM with each MCR and ACR. The compliance matrix shall identify:

1. the technical area (e.g., biological resources, facility design, etc.);

2. the condition number;

3. a brief description of the verification action or submittal required by the condition;

4. the date the submittal is required (e.g., (60) days prior to construction, after final inspection, etc.);

5. the expected or actual submittal date;

6. the date a submittal or action was approved by the Delegate Chief Building Official (DCBO), CPM, or delegate agency, if applicable;

7. the compliance status of each condition (e.g., “not started,” “in progress” or “completed” (include the date); and

8. if the condition was amended, the updated language and the date the amendment was proposed or approved.

The CPM can provide a template for the compliance matrix upon request.

COM-6 **Monthly Compliance Report** The first MCR is due 1 one month following the docketing of the project’s Decision unless otherwise agreed to by the CPM. The first MCR shall include the AFC number and an initial list of dates for each of the events identified on the Key Events List. (The Key Events List form is found at the end of this Compliance Conditions and Compliance Monitoring Plan section.)

During pre-construction, construction, or closure, the project owner or authorized agent shall submit an electronic searchable version of the MCR to the CPM within 10 ten business days after the end of each reporting month. MCRs shall be submitted each month until construction is complete and the final certificate of occupancy is issued by the DCBO. MCRs shall be clearly identified for the month being reported. The MCR shall contain, at a minimum:

1. a summary of the current project construction status, a revised/updated schedule if there are significant delays, and an explanation of any significant changes to the schedule;

2. documents required by specific conditions to be submitted along with the MCR. Each of these items shall be identified in the transmittal letter, as well as the conditions they satisfy, and submitted as attachments to the MCR;

3. an initial, and thereafter updated, compliance matrix showing the status of all conditions of certification;

4. a list of conditions that have been satisfied during the reporting period, and a description or reference to the actions that satisfied the condition;

5. a list of any submittal deadlines that were missed, accompanied by an explanation and an estimate of when the information will be provided;

6. a cumulative listing of any approved changes to conditions of certification;

7. a listing of any filings submitted to, and permits issued by, other governmental agencies during the month;

8. a projection of project compliance activities scheduled during the next 2 two months; the project owner shall notify the CPM as soon as any changes are made to the project construction schedule that would affect compliance with conditions of certification;

9. a listing of the month's additions to the on-site compliance file; and

10. a listing of incidents, complaints, notices of violation, official warnings, and citations received during the month; a list of any incidents that occurred during the month, a description of the actions taken to date to resolve the issues; and the status of any unresolved actions noted in the previous MCRs.

COM-7 **Periodic and Annual Compliance Reports**. After construction is complete, the project must submit searchable electronic ACRs to the CPM, as well as other periodic compliance reports (PCRs) required by the various technical disciplines. ACRs shall be completed for each year of commercial operation and are due each year on a date agreed to by the CPM. Other PCRs (e.g. quarterly reports or decommissioning reports to monitor closure compliance), may be specified by the CPM. The searchable electronic copies may be filed on an electronic storage medium or by e-mail, subject to CPM approval. Each ACR must include the AFC number, identify the reporting period, and contain the following:

1. an updated compliance matrix which shows the status of all conditions of certification (fully satisfied conditions do not need to be included in the matrix after they have been reported as completed);

2. a summary of the current project operating status and an explanation of any significant changes to facility operations during the year;

3. documents required by specific conditions to be submitted along with the ACR; each of these items shall be identified in the transmittal letter with the condition(s) it satisfies, and submitted as an attachments to the ACR;

4. a cumulative list of all post-certification changes approved by the Energy Commission or the CPM;

5. an explanation for any submittal deadlines that were missed, accompanied by an estimate of when the information will be provided;

6. a listing of filings submitted to, or permits issued by, other governmental agencies during the year;

7. a projection of project compliance activities scheduled during the next year;

8. a listing of the year's additions to the on-site compliance file;

9. an evaluation of the Site Contingency Plan, including amendments and plan updates; and

10. a listing of complaints, incidents, notices of violation, official warnings, and citations received during the year, a description of how the issues were resolved, and the status of any unresolved complaints.

COM-8 **Confidential Information.** Any information that the project owner designates as confidential shall be submitted to the Energy Commission's Executive Director with an application for confidentiality, pursuant to Title 20, California Code of Regulations, section 2505(a). Any information deemed confidential pursuant to the regulations will remain undisclosed, as provided in Title 20, California Code of Regulations, section 2501 *et seq*.

COM-9 **Annual Energy Facility Compliance Fee**. Pursuant to the provisions of section 25806 (b) of the Public Resources Code, the project owner is required to pay an annually adjusted compliance fee. Current compliance fee information is available on the Energy Commission's website at http://www.energy.ca.gov/siting/filing_fees.html. The project owner may also contact the CPM for the current fee information. The initial payment is due on the date the Energy Commission dockets its final Decision. All subsequent payments are due by July 1 of each year in which the facility retains its certification.

COM-10 **Amendments, Staff-Approved Project Modifications, Ownership Changes, and Verification Changes**. The project owner shall petition the Energy Commission, pursuant to Title 20, California Code of Regulations, section 1769, to modify the design, operation, or performance requirements of the project or linear facilities, or to transfer ownership or operational control of the facility. The CPM will determine whether staff approval will be sufficient, or whether Commission approval will be necessary. It is the project owner's responsibility to contact the CPM to determine if a proposed project change triggers the requirements of section 1769. Section 1769 details the required contents for a Petition to Amend an Energy Commission Decision. The only change that can be requested by means of a letter to the CPM is a request to change the verification method of a condition of certification.

A project owner is required to submit a five thousand ($5,000) dollar fee for every petition to amend a previously certified facility, pursuant to Public Resources Code section 25806(e). If the actual amendment processing costs exceed $5,000.00, the total Petition to Amend reimbursement fees owed by a project owner will not exceed seven hundred fifty thousand dollars ($750,000), adjusted annually. Current amendment fee information is available on the Energy Commission's website at http://www.energy.ca.gov/siting/filing_fees.html.

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 1 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 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.

Within 5 five business days of receipt, the project owner shall report, and provide copies to the CPM, of all complaints, including, but not limited to, 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 [1]**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. Additionally, the project owner must include in the next subsequent MCR, ACR or PCR, copies of all complaints, notices, warnings, citations and fines, a description of how the issues were resolved, and the status of any unresolved or ongoing matters.

COM-12 Emergency Response Site Contingency Plan. No less than 60 days prior to the start of construction (or other CPM-approved) date the project owner shall submit for CPM review and approval, an Emergency Response Site Contingency Plan (Contingency Plan). Subsequently, no less than 60 days prior to the start of commercial operation, the project owner shall update (as necessary) and resubmit the Contingency Plan for CPM review and approval. The Contingency Plan shall evidence a facility's coordinated emergency response and recovery preparedness for a series of reasonably foreseeable emergency events. The CPM may require Contingency Plan updating over the life of the facility. Contingency Plan elements include, but are not limited to:

Verification:

1. a site-specific list and direct contact information for persons, agencies, and responders to be notified for an unanticipated event;

2. a detailed and labeled facility map, including all fences and gates, the windsock location (if applicable), the on and off-site assembly areas, and the main roads and highways near the site;

3. a detailed and labeled map of population centers, sensitive receptors, and the nearest emergency response facilities;

[1] The CPM needs to cross-check this with the Final Decision.

4. a description of the on-site, first response and backup emergency alert and communication systems, site-specific emergency response protocols, and procedures for maintaining the facility's contingency response capabilities, including a detailed map of interior and exterior evacuation routes, and the planned location(s) of all permanent safety equipment;

5. an organizational chart including the name, contact information, and first aid/emergency response certification(s) and renewal date(s) for all personnel regularly on-site;

6. a brief description of reasonably foreseeable, site-specific incidents and accident sequences (on- and off-site), including response procedures and protocols and site security measures to maintain twenty-four-hour site security;

7. procedures for maintaining contingency response capabilities; and

8. the procedures and implementation sequence for the safe and secure shutdown of all non-critical equipment and removal of hazardous materials and waste (see also specific conditions of certification for the technical areas of **Public Health, Waste Management, Hazardous Materials Management, and Worker Safety).**

COM-13 Incident-Reporting Requirements. The project owner shall notify the CPM within 1 one hour after it is safe and feasible, of any incident at the facility that results in any of the following:

1. An event of any kind that causes a "Forced Outage" as defined in the CAISO tariff;

2. The activation of onsite emergency fire suppression equipment to combat a fire;

3. Any chemical, gas or hazardous materials release that could result in potential health impacts to the surrounding population; or create an off-site odor issue; and /or

4. Notification to, or response by, any off-site emergency response federal, state or local agency regarding a fire, hazardous materials release, on-site injury, or any physical or cyber security incident.

Notification shall describe the circumstances, status, and expected duration of the incident. If warranted, as soon as it is safe and feasible, the project owner shall implement the safe shutdown of any non-critical equipment and removal of any hazardous materials and waste that pose a threat to public health and safety and to environmental quality (also, see specific conditions of certification for the technical areas of **Hazardous Materials Management and Waste Management.**

Within 6 six business days of the incident, the project owner shall submit to the CPM a detailed incident report, which includes, as appropriate, the following information:

1. A brief description of the incident, including its date, time, and location;

2. A description of the cause of the incident, or likely causes if it is still under investigation;

3. The location of any off-site impacts;

4. Description of any resultant impacts;

5. A description of emergency response actions associated with the incident;

6. Identification of responding agencies;

7. Identification of emergency notifications made to federal, state, and/or local agencies;

8. Identification of any hazardous materials released and an estimate of the quantity released;

9. A description of any injuries, fatalities, or property damage that occurred as a result of the incident;

10. Fines or violations assessed or being processed by other agencies;

11. Name, phone number, and e-mail address of the appropriate facility contact person having knowledge of the event; and

12. Corrective actions to prevent a recurrence of the incident.

The project owner shall maintain all incident report records for the life of the project, including closure. After the submittal of the initial report for any incident, the project owner shall submit to the CPM copies of incident reports within 48 hours of a request.

COM-14 **Non-Operation and Repair/Restoration Plans.** (a.) If the facility ceases operation temporarily (excluding planned and unplanned maintenance for longer than one 1 week (or other CPM-approved date), but less than three 3 months (or other CPM-approved date), the project owner shall notify the CPM. 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 and inspection or restoration activities;

3. A proposed schedule for completing the repair and inspection 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.

(b.) Written monthly updates (or other CPM-approved intervals) 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.

(d.) During non-operation, all applicable conditions of certification and reporting requirements remain in effect. If, after 1 one 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 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; or

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 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.

Final Closure Plan and Cost Estimate

(a) No less than one 1 year (or other CPM-approved date) prior to initiating a permanent facility closure, or upon an order compelling permanent closure, the project owner shall submit for Energy Commission

review and approval, a Final Closure Plan and Cost Estimate, which includes any site maintenance and monitoring.

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 1 one or more workshops and/or the Energy Commission may hold public hearings as part of its approval procedure.

(b.) 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 or maintenance agreements 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 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;
    e. exterior maintenance, including paint, landscaping and fencing;
    f. site security and lighting; and
    g. any contingencies.
5. a final cost estimate for all closure activities, by phases, including site monitoring and maintenance costs, and long-term equipment replacement;

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 DCBO'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 site maintenance activities.

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; and
    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 and Listserv of all responsible agencies, potentially interested parties, and property owners within 1 one 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 **Public Health, Waste Management, Hazardous Materials Management and Worker Safety).**

Verification: If the Energy Commission-approved Final Closure Plan and Cost Estimate procedures are not initiated within one year of the plan approval date, it shall be updated and re-submitted to the Energy Commission for supplementary review and approval. If a project owner initiates but then suspends closure activities, and the suspension continues for longer than one year, the Energy Commission may initiate correction actions against the project owner to complete facility closure. The project owner remains liable for all costs of contingency planning and closure.

CULTURAL RESOURCES PROPOSED CONDITIONS OF CERTIFICATION

Staff proposes the following Cultural Resources conditions of certification:

CUL-1 APPOINTMENT AND QUALIFICATIONS OF CULTURAL RESOURCES SPECIALIST

A. CULTURAL RESOURCE SPECIALIST

1. Appointment and Qualifications

The project owner shall assign a Cultural Resources Specialist (CRS) and at least one Alternate CRS to the project. The project owner shall submit the resumes of the proposed CRS and Alternative CRS(s), with at least three references and contact information, to the Energy Commission compliance project manager (CPM) for review and approval.

The CRS and Alternate CRS(s) shall have training and background that conform to the U.S. Secretary of the Interior's Professional Qualifications Standards, as published in Title 36, Code of Federal Regulations, part 61. In addition, the CRS and Alternate CRS(s) shall have the following qualifications:

1. A background in anthropology, archaeology, history, architectural history, or a related field;

2. At least 10 years of archaeological or historical experience (as appropriate for the project site), with resources mitigation and fieldwork;

3. At least one year of field experience in California; and

4. At least three years of experience in a decision-making capacity on cultural resources projects in California and the appropriate training and experience to knowledgably make recommendations regarding the significance of cultural resources.

The project owner may replace the CRS by submitting the required resume, references and contact information of the proposed replacement CRS to the CPM.

2. Duties of Cultural Resources Specialist

The CRS shall manage all cultural resource monitoring, mitigation, curation, and reporting activities, and any pre-construction cultural resource activities, unless management of these is otherwise provided for in accordance with the cultural resource conditions of certification (conditions). The CRS shall serve as the primary point

of contact on all cultural resource matters for the Energy Commission. The CRS may elect to obtain the services of Cultural Resource Monitors (CRMs), Native American Monitors (NAMs), and other technical specialists, if 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 California Register of Historical Resources (CRHR) of any cultural resources that are newly discovered or that may be affected in an unanticipated manner.

After all ground disturbances are completed and the CRS has fulfilled all responsibilities specified in these cultural resources conditions, the project owner may discharge the CRS, after receiving approval from the CPM.

The cultural resource conditions shall continue to apply during operation of the proposed power plant, limited to those ground disturbing activities in non-fill sediments.

B. CULTURAL RESOURCES MONITORS

1. Appointment and Qualifications

The CRS may assign Cultural Resources Monitors (CRMs). CRMs shall have the following qualifications:

1. B.S. or B.A. degree in anthropology, archaeology, historical archaeology, or a related field; and one year of archaeological field experience in California; or

2. A.S. or A.A. degree in anthropology, archaeology, historical archaeology, or a related field, and four years of archaeological field experience 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 archaeological field experience in California.

C. NATIVE AMERICAN MONITORS

1. Appointment and Qualifications:

The project owner shall obtain the services of qualified Native American Monitors (NAMs). Preference in selecting NAMs shall be given to Native Americans with:

1. traditional ties to the area to be monitored, and

2. the highest qualifications as described by the Native American Heritage Commission (NAHC) document entitled: Guidelines for

Monitors/Consultants of Native American Cultural, Religious, and Burial Sites (NAHC 2005).

D. CULTURAL RESOURCES TECHNICAL SPECIALISTS

The resume(s) of any additional technical specialist(s), e.g., geoarchaeologist, historical archaeologist, historian, architectural historian, and/or physical anthropologist, shall be submitted to the CPM for approval. The resume of each proposed specialist shall demonstrate that their training and background meet the U.S. Secretary of Interior's Professional Qualifications Standards for their specialty (if appropriate), as published in Title 36, Code of Federal Regulations, part 61, and show the completion of appropriate graduate-level coursework. The resumes of specialists shall include the names and telephone numbers of contacts familiar with the work of these persons on projects referenced in the resumes and demonstrate to the satisfaction of the CPM that these persons have the appropriate training and experience to undertake the required research. The project owner may name and hire any specialist prior to certification. All specialists are under the supervision of the CRS.

Verification:

1. The project owner shall submit the specified information at least 75 days prior to the start of (1) ground disturbance (as defined in the Compliance Conditions and Compliance Monitoring Plan section); (2) post-certification cultural resources activities (including, but not limited to, "survey", "in-field data recording," "surface collection," "testing," "data recovery" or "geoarchaeology"); or (3) site preparation or subsurface soil work during pre-construction activities or site mobilization.

2. The project owner may replace a CRS by submitting the required resume, references and contact information to the CPM at least 10 working days prior to the termination or release of the then-current CRS. 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 CRS is proposed to the CPM for consideration.

3. At least 20 days prior to ground disturbance, the CRS shall provide proof of qualifications for any anticipated CRMs and additional specialists for the project to the CPM.

4. If efforts to obtain the services of a qualified NAM are unsuccessful, the project owner shall inform the CPM of this situation in writing at least 30 days prior to the beginning of post-certification cultural resources field work or construction-related ground disturbance.

5. At least 5 days prior to additional CRMs or NAMs beginning on-site duties during the project, the CRS shall review the qualifications of the proposed CRMs or NAMs

and send approval letters to the CPM, identifying the monitors and attesting to their qualifications.

6. At least 10 days prior to any technical specialists beginning tasks, the resume(s) of the specialists shall be provided to the CPM for review and approval.

7. At least 10 days prior to the start of construction-related 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.

8. No ground disturbance shall occur prior to CPM approval of the CRS and alternates, unless such activities are specifically approved by the CPM.

CUL-2 INFORMATION TO BE PROVIDED TO CULTURAL RESOURCES SPECIALIST

Prior to the start of ground disturbance, the project owner shall provide the CRS with copies of the application for certification (AFC), data responses, confidential cultural resources reports, all supplements, the Energy Commission staff's Cultural Resources Final Staff Assessment, and the cultural resources Conditions from the Final Decision for the project, if the CRS does not already possess copies of these materials. The project owner shall also provide the CRS and the CPM with maps and drawings showing the footprints of the power plant, all linear facility routes, all access roads, and all laydown areas. Maps shall include the appropriate USGS quadrangles and a map at an appropriate scale (e.g., 1:24,000 and 1 inch = 200 feet, respectively) for plotting cultural features or materials. If the CRS requests enlargements or strip maps for linear facility routes, the project owner shall provide copies to the CRS and CPM. The CPM shall review map submittals and, in consultation with the CRS, approve those that are appropriate for use in cultural resources planning activities. No ground disturbance shall occur prior to CPM approval of maps and drawings, unless such activities are specifically approved by the CPM.

Maps shall include any National Register of Historic Places (NRHP)/California Register of Historical Resources (CRHR) -eligible cultural resources, including any historic built environment resources, identified in the project area of analysis.

If construction of the project would proceed in phases, maps and drawings not previously provided shall be provided to the CRS and CPM prior to the start of each phase. Written notice identifying the proposed schedule of each project phase shall be provided to the CRS and CPM.

Weekly, until ground disturbance is completed, the project construction manager shall provide to the CRS and CPM a schedule of project activities

for the following week, including the identification of area(s) where ground disturbance will occur during that week.

The project owner shall notify the CRS and CPM of any changes to the scheduling of the construction phases.

The project owner shall provide the documents described in the first paragraph of this condition to new CRSs in the event that the approved CRS is terminated or resigns.

Verification:

1. At least 40 days prior to the start of ground disturbance, the project owner shall provide the CPM notice that the AFC, data responses, confidential cultural resources documents, all supplements, FSA, and Final Commission Decision have been provided to the CRS, if needed, and the subject maps and drawings to the CRS and CPM. The CPM will review submittals in consultation with the CRS and approve maps and drawings suitable for cultural resources planning activities.

2. At least 15 days prior to the start of ground disturbance, if there are changes to any project-related footprint, the project owner shall provide revised maps and drawings for the changes to the CRS and CPM.

3. At least 15 days prior to the start of each phase of a phased project, the project owner shall submit the appropriate maps and drawings, if not previously provided, to the CRS and CPM.

4. Weekly, during ground disturbance, a schedule of the next week's anticipated project activity shall be provided to the CRS and CPM by letter, e-mail, or fax.

5. Within 5 days of changing the scheduling of phases of a phased project, the project owner shall provide written notice of the changes to the CRS and CPM.

6. If a new CRS is approved by the CPM as provided for in CUL-1, the project owner shall provide the CPM notice that the AFC, data responses, confidential cultural resources documents, all supplements, FSA, Final Commission Decision, and maps and drawings have been provided to the new CRS within 10 days of such approval.

CUL-3 CULTURAL RESOURCES MITIGATION AND MONITORING PLAN

Prior to the start of ground disturbance, the project owner shall submit a Cultural Resources Mitigation and Monitoring 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 be designated as a confidential document if the location(s) of cultural resources are described or mapped.

The CRMMP shall include 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."

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, 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 (SHRC's) *Guidelines for the Curation of Archaeological Collections* (1993, or future updated guidelines from the SHRC), 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 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)* guidelines.

Verification:

1. Upon approval of the CRS proposed by the project owner, the CPM will provide to the project owner an electronic copy of the draft model CRMMP for the CRS.

2. At least 30 days prior to the start of ground disturbance, the project owner shall submit the CRMMP to the CPM for review and approval.

3. At least 30 days prior to the start of ground disturbance, in a letter to the CPM, the project owner shall agree to pay curation fees for any materials generated or collected as a result of the archaeological investigations (survey, testing, data recovery).

4. Within 90 days after completion of ground disturbance (including landscaping), if cultural materials requiring curation were generated or collected, the project owner shall provide to the CPM a copy of an agreement with, or other written commitment from, a curation facility that meets the standards stated in the State Historic Resources Commission's (SHRC) *Guidelines for the Curation of Archaeological Collections* (1993, or future updated guidelines from SHRC), to accept the cultural materials from this project. Any agreements concerning curation will be retained and available for audit for the life of the project.

CUL-4 FINAL CULTURAL RESOURCES REPORT

The project owner shall submit the final Cultural Resources Report (CRR) to the CPM for approval. The final CRR shall be written by or under the direction of the CRS and shall be provided in the Archaeological Resource Management Report (ARMR) format. The final CRR shall report on all field activities including dates, times and locations, results, samplings, and analyses. All survey reports, DPR 523 forms, data recovery reports, and any additional research reports not previously submitted to the California Historical Resources Information System (CHRIS) shall be included as appendices to the final CRR.

If the project owner requests a suspension of ground disturbance and/or construction activities, then a draft CRR that covers all cultural resources activities associated with the project shall be prepared by the CRS and submitted to the CPM for review and approval on the same day as the suspension/extension request. The draft CRR shall be retained at the project site in a secure facility until ground disturbance and/or construction resumes or the project is withdrawn. If the project is withdrawn, then a final CRR shall be submitted to the CPM for review and approval at the same time as the withdrawal request.

Verification:

1. Within 30 days after requesting a suspension of construction activities, the project owner shall submit a draft CRR to the CPM for review and approval.

2. Within 90 days after completion of ground disturbance (including landscaping), the project owner shall submit the final CRR to the CPM for review and approval. If any reports have previously been sent to the CHRIS, then receipt letters from the CHRIS or other verification of receipt shall be included in an appendix.

3. Within 10 days after CPM approval of the CRR, the project owner shall provide documentation to the CPM confirming that copies of the final CRR have been provided to the CHRIS, the curating institution, if archaeological materials were collected, and to the tribal chairpersons of any Native American groups requesting copies of project-related reports.

CUL-5 CULTURAL RESOURCES WORKER ENVIRONMENTAL AWARENESS PROGRAM

Prior to and for the duration of ground disturbance, the project owner shall provide Worker Environmental Awareness Program (WEAP) training to all new workers within their first week of employment at the project site, along the linear facilities routes, and at laydown areas, roads, and other ancillary areas. The cultural resources part of this training shall be prepared by the CRS, may be conducted by any member of the archaeological team, and may be presented in the form of a video. The CRS is encouraged to include a Native American presenter in the training to contribute the Native American perspective on archaeological and ethnographic resources. During the training and during construction, the CRS shall be available (by telephone or in person) to answer questions posed by employees. The training may be discontinued when ground disturbance is completed or suspended, but must be resumed when ground disturbance, such as landscaping, resumes.

The training shall include:

1. A discussion of applicable laws and penalties under law;

2. Samples or visuals of artifacts that might be found in the project vicinity;

3. A discussion of what such artifacts may look like when partially buried, or wholly buried and then freshly exposed;

4. A discussion of what prehistoric and historical archaeological deposits look like at the surface and when exposed during construction, and the range of variation in the appearance of such deposits;

5. Instruction that the CRS, Alternate CRS, and CRMs have the authority to halt ground disturbance in the area of a discovery to an extent sufficient to ensure that the resource is protected from further impacts, as determined by the CRS;

6. Instruction that employees, if the CRS, Alternate CRS, or CRMs are not present, are to halt work on their own in the vicinity of a potential cultural resources discovery, and shall contact their supervisor and the CRS or CRM, and that redirection of work would be determined by the construction supervisor and the CRS;

7. An informational brochure that identifies reporting procedures in the event of a discovery;

8. An acknowledgement form signed by each worker indicating that they have received the training; and

9. A sticker that shall be placed on hard hats indicating that environmental training has been completed.

No ground disturbance shall occur prior to implementation of the WEAP program, unless such activities are specifically approved by the CPM.

Verification:

1. At least 30 days prior to the beginning of ground disturbance, the CRS shall provide the cultural resources WEAP training program draft text and/or training video, including Native American participation, graphics and the informational brochure, to the CPM for review and approval.

2. At least 15 days prior to the beginning of ground disturbance, the CPM will provide to the project owner a WEAP Training Acknowledgement form for each WEAP-trained worker to sign.

3. Monthly, until ground disturbance is completed, the project owner shall provide in the Monthly Compliance Report (MCR) the WEAP Training Acknowledgement forms of workers who have completed the training in the prior month and a running total of all persons who have completed training to date.

CUL-6 CULTURAL RESOURCES MONITORING

The project owner shall ensure that a CRS, alternate CRS, or CRMs shall be on site for all ground disturbance in areas slated for excavation into non-fill (native) sediments.

Prior to the start of ground disturbance, the project owner shall notify the CPM and Native American monitors(s) retained as per **CUL-1** of the date on which ground disturbance will ensue. 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 observe both the location of active excavation and inspect the dumped material.

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

The project owner shall obtain the services of one or more NAMs to monitor construction-related ground disturbance in areas slated for excavation into non-fill (native) sediments. Contact lists of interested Native Americans and guidelines for monitoring shall be obtained from the

NAHC. Preference in selecting a NAM shall be given to Native Americans with traditional ties to the area that shall be monitored. If efforts to obtain the services of a qualified NAM are unsuccessful, the project owner shall immediately inform the CPM. The CPM will either identify potential monitors or will allow construction-related ground disturbance to proceed without an NAM.

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 daily log of any monitoring and other cultural resources activities and any instances of non-compliance with the conditions and/or applicable LORS. The daily monitoring logs shall, at a minimum, include the following information.

- First and last name of the CRM and any accompanying NAM.
- Time in and out.
- Weather. Specify if weather conditions led to work stoppages.
- Work location (project component). Provide specifics—.e.g., power block, landscaping.
- Proximity to site location. Specify if work conducted within 1000 feet of a known cultural resource.
- Work type (machine).
- Work crew (company, operator, and foreman).
- Depth of excavation.
- Description of work.
- Stratigraphy.
- Artifacts, listed with the following identifying features:
- Field artifact #: When recording artifacts in the daily monitoring logs, the CRS shall institute a field numbering system to reduce the likelihood of repeat artifact numbers. A typical numbering system could include a project abbreviation, monitor’s initials, and a set of numbers given to that monitor: e.g., P3-MB-123.
- Description.
- Measurements.
- Universal Transverse Mercator coordinates.
- Whether artifacts are likely to be isolates or components of larger resources.
- Assessment of significance of any finds.
- Actions taken.

- Plan for the next work day.
- A cover sheet shall be submitted with each day's monitoring logs, and shall at a minimum include the following:
    - Count and list of first and last names of all CRMs and of all NAMs for that day.
    - General description (in paragraph form) of that day's overall monitoring efforts, including monitor names and locations.
    - Any reasons for halting work that day.
    - Count and list of all artifacts found that day: include artifact #, location (i.e., grading in Unit X), measurements, UTMs, and very brief description (i.e., historic can, granitic biface, quartzite flake).
    - Whether any artifacts were found out of context (i.e., in fill, caisson drilling, flood debris, spoils pile).

Copies of the daily monitoring logs and cover sheets shall be provided by email from the CRS to the CPM, as follows:

- Each day's monitoring logs and cover sheet shall be merged into one PDF document
- The PDF title and headings, and emails shall clearly indicate the date of the applicable monitoring logs.
- PDFs for any revised or resubmitted versions shall use the word "revised" in the title.

Daily and/or weekly maps shall be submitted along with the monitoring logs as follows:

- The CRS shall provide daily and/or weekly maps of artifacts at the request of the CPM. A map shall also be provided if artifact locations show complexity, high density, or other unique considerations.
- Maps shall include labeled artifacts, project boundaries, previously recorded sites and isolates, aerial imagery background, and appropriate scales.

From the daily monitoring 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 Cultural Resources section of the MCR shall be prepared in coordination with the CRS, and shall include a monthly summary report of cultural resources-related monitoring. The summary shall:
    - List the number of CRMs and NAMs on a daily basis, as well as provide monthly monitoring-day totals.

- Give an overview of cultural resource monitoring work for that month, and discuss any issues that arose.
- Describe fulfillment of requirements of each cultural mitigation measure.
- Summarize the confidential appendix to the MCR, without disclosing any specific confidential details.
- Include the artifact concordance table (as discussed under the next bullet point), but with removal of UTMs.
- A concordance table that matches field artifact numbers with the artifact numbers used in the DPR forms shall be included. The sortable table shall contain each artifact's date of collection and UTM numbers, and note if an artifact has been deaccessioned or otherwise does not have a corresponding DPR form. Any post-field log recordation changes to artifact numbers shall also be noted.
- DPR forms shall be submitted as one combined PDF.
- The PDF shall organize DPR forms by site and/or artifact number.
- The PDF shall include an index and bookmarks.
- If artifacts from a given site location (in close proximity of each other or an existing site) are collected month after month, and if agreed upon with the CPM, a final updated DPR for the site may be submitted at the completion of monitoring. The monthly concordance table shall note that the DPR form for the included artifacts is pending.

Each MCR, prepared under supervision of the CRS, shall be accompanied by a confidential appendix that contains completed DPR 523A forms for all artifacts recorded or collected in that month. For any artifact without a corresponding DPR form, the CRS shall specify why the DPR form is not applicable or pending (i.e. as part of a larger site update).

The CRS or alternate CRS shall report daily to the CPM on the status of the project's cultural resources-related activities, unless reducing or ending 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.

Upon becoming aware of any incidents of non-compliance with the conditions and/or applicable LORS, the CRS and/or the project owner shall notify the CPM.

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 and information to be included in the cover sheet for the daily monitoring logs.
3. While monitoring is on-going, the project owner shall submit each day's monitoring logs and cover sheet merged into one PDF document by email within 24 hours.
4. The CRS and/or project owner shall notify the CPM of any incidents of non-compliance with the conditions and/or applicable LORS by telephone or email within 24 hours.
5. The CRS shall provide daily maps of artifacts along with the daily monitoring logs if more than 10 artifacts are found per day, or as requested by the CPM.
6. The CRS shall provide weekly maps of artifacts if there more than 50 artifacts are found per week, or as requested by the CPM. The map shall be submitted within two business days after the end of each week.
7. Within 15 days of receiving from a local Native American group a request that a NAM be employed, the project owner shall submit a copy of the request and a copy of a response letter to the group notifying them that a NAM has been employed and identifying the NAM.
8. While monitoring is on-going, the project owner shall submit monthly MCRs and accompanying weekly summary reports. The project owner shall attach any new DPR 523A forms, under confidential cover, completed for finds treated prescriptively, as specified in the CRMMP.

9. Final updated DPRs with sites (where artifacts are collected month after month) can be submitted at the completion of monitoring, as agreed upon with the CPM.

10. 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.

11. 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.

12. 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-7 POWERS OF CULTURAL RESOURCES SPECIALIST / CULTURAL RESOURCES DISCOVERY PROTOCOLS

The CRS shall have the authority to halt ground disturbance in the event of a discovery. Redirection of ground disturbance shall be accomplished under the direction of the construction supervisor in consultation with the CRS.

In the event that a cultural resource over 50 years of age is found (or if younger, determined exceptionally significant by the CRS), or impacts to such a resource can be anticipated, ground disturbance shall be halted or redirected in the immediate vicinity of the discovery sufficient to ensure that the resource is protected from further impacts. If the discovery includes human remains, the project owner shall comply with the requirements of Health and Human Safety Code § 7050.5(b) and shall additionally notify the CPM and the NAHC of the discovery of human remains. No action with respect to the disposition of human remains of Native American origin shall be initiated without direction from the CPM. Monitoring, including Native American monitoring, and daily reporting, as provided in other conditions, shall continue during the project's ground-disturbing activities elsewhere, while the halting or redirection of ground disturbance in the vicinity of the discovery shall remain in effect until the CRS has visited the discovery, and all of the following have occurred:

1. The CRS has notified the project owner, and the CPM has been notified within 24 hours of the discovery, or by Monday morning if the cultural resources discovery occurs between 8:00 AM on Friday and 8:00 AM on Sunday morning, including a description of the discovery (or changes in character or attributes), the action taken (i.e., work stoppage or redirection), a recommendation of CRHR eligibility, and recommendations for data recovery from any cultural resources discoveries, whether or not a determination of CRHR eligibility has been made.

2. If the discovery would be of interest to Native Americans, the CRS has notified all Native American groups that expressed a desire to be notified in the event of such a discovery.

3. The CRS has completed field notes, measurements, and photography for a DPR 523 "Primary Record" form. Unless the find can be treated prescriptively, as specified in the CRMMP, the "Description" entry of the DPR 523 "Primary Record" form shall include a recommendation on the CRHR/NRHP eligibility of the discovery. The project owner shall submit completed forms to the CPM.

4. The CRS, the project owner, and the CPM have conferred, and the CPM has concurred with the recommended eligibility of the discovery and approved the CRS's proposed data recovery, if any, including the curation of the artifacts, or other appropriate mitigation; and any necessary data recovery and mitigation have been completed.

5. Ground disturbance may resume only with the approval of the CPM.

Verification:

1. At least 30 days prior to the start of ground disturbance, the project owner shall provide the CPM and CRS with a letter confirming that the CRS, Alternate CRS, and CRMs have the authority to halt ground disturbance in the vicinity of a cultural resources discovery, and that the project owner shall ensure that the CRS notifies the CPM within 24 hours of a discovery, or by Monday morning if the cultural resources discovery occurs between 8:00 AM on Friday and 8:00 AM on Sunday morning.

2. Unless the discovery can be treated prescriptively, as specified in the CRMMP, completed DPR 523 forms for resources newly discovered during ground disturbance shall be submitted to the CPM for review and approval no later than 24 hours following the notification of the CPM, or 48 hours following the completion of data recordation/recovery, whichever the CRS decides is more appropriate for the subject cultural resource.

3. Within 48 hours of the discovery of a resource of interest to Native Americans, the project owner shall ensure that the CRS notifies all Native American groups that expressed a desire to be notified in the event of such a discovery, and the CRS must inform the CPM when the notifications are complete.

4. No later than 30 days following the discovery of any Native American cultural materials, the project owner shall submit to the CPM copies of the information transmittal letters sent to the Chairpersons of the Native American tribes or groups who requested the information. Additionally, the project owner shall submit to the CPM copies of letters of transmittal for all subsequent responses to Native American requests for notification, consultation, and reports and records.

5. 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-8 FILL SOILS

If fill soils must be acquired from a non-commercial borrow site or disposed of to a non-commercial disposal site, unless less-than-five-year-old surveys of these sites for archaeological resources are provided to and approved by the CPM, the CRS shall survey the borrow or disposal site(s) for cultural resources and record on DPR 523 forms any that are identified. When the survey is completed, the CRS shall convey the results and recommendations for further action to the project owner and the CPM, who will determine what, if any, further action is required. If the CPM determines that significant archaeological resources that cannot be avoided are present at the borrow site, the project owner must either select another borrow or disposal site or implement **CUL-7** prior to any use of the site. The CRS shall report on the methods and results of these surveys in the final CRR.

Verification:

1. As soon as the project owner knows that a non-commercial borrow site and/or disposal site will be used, he/she shall notify the CRS and CPM and provide documentation of previous archaeological survey, if any, dating within the past five years, for CPM approval.

2. In the absence of documentation of recent archaeological survey, at least 30 days prior to any soil borrow or disposal activities on the non-commercial borrow and/or disposal sites, the CRS shall survey the site(s) for archaeological resources. The CRS shall notify the project owner and the CPM of the results of the cultural resources survey, with recommendations, if any, for further action.

CUL-9 FLAG AND AVOID

The project owner shall avoid impacts to archaeological site CA-VEN-1807 by:

1. Ensuring that all equipment, including vehicles, remain on the access road to the transmission structure east of Harbor Boulevard;

2. Ensuring that a CRS or alternate CRS re-establish and flag the boundaries of CA-VEN-1807 and add as much of a buffer as is feasible without impeding use of the access road;

3. Ensuring that a CRM enforces avoidance of the flagged areas during rerouting/reconfiguring the transmission line from the take-off structure to the transmission structure east of Harbor Boulevard, and monitors any disturbance by vehicles or workers.

Verification: At least 24-hours prior to the start of rerouting/reconfiguring the transmission line from the take-off structure to the transmission structure east of Harbor Boulevard, and any additional unanticipated activities by the project owner in the vicinity of this area, the project owner shall ensure that the CRS or alternate CRS establishes the temporary site markers and that they are visible and in place on a daily basis, during work in the area of the transmission structure. The status of these boundary markers will be reported in the daily and weekly monitoring summary report and will be accompanied by pictures

FACILITY DESIGN CONDITIONS OF CERTIFICATION

Staff proposes the following Facility Design conditions of certification:

GEN-1 The project owner shall design, construct, and inspect the project in accordance with the 2013 California Building Standards Code (CBSC), also known as Title 24, California Code of Regulations, which encompasses the California Building Code (CBC), California Building Standards Administrative Code, California Electrical Code, California Mechanical Code, California Plumbing Code, California Energy Code, California Fire Code, California Code for Building Conservation, California Reference Standards Code, and all other applicable engineering LORS in effect at the time initial design plans are submitted to the CBO for review and approval (the CBSC in effect is the edition that has been adopted by the California Building Standards Commission and published at least 180 days previously). The project owner shall ensure that all the provisions of the above applicable codes are enforced during the construction, addition, alteration, moving (onsite), demolition, repair, or maintenance of the completed facility.

In the event that the initial engineering designs are submitted to the CBO when the successor to the 2013 CBSC is in effect, the 2013 CBSC provisions shall be replaced with the applicable successor provisions. Where, in any specific case, different sections of the code specify different materials, methods of construction or other requirements, the most restrictive shall govern. Where there is a conflict between a general requirement and a specific requirement, the specific requirement shall govern.

The project owner shall ensure that all contracts with contractors, subcontractors, and suppliers clearly specify that all work performed and materials supplied comply with the codes listed above.

Verification: Within 30 days following receipt of the certificate of occupancy, the project owner shall submit to the CPM a statement of verification, signed by the responsible design engineer, attesting that all designs, construction, installation, and inspection requirements of the applicable LORS and the Energy Commission's decision have been met in the area of facility design. The project owner shall provide the CPM a copy of the certificate of occupancy within 30 days of receipt from the CBO.

Once the certificate of occupancy has been issued, the project owner shall inform the CPM at least 30 days prior to any construction, addition, alteration, moving, demolition, repair, or maintenance to be performed on any portion(s) of the completed facility that requires CBO approval for compliance with the above codes. The CPM will then determine if the CBO needs to approve the work.

GEN-2 Before submitting the initial engineering designs for CBO review, the project owner shall furnish the CPM and the CBO with a schedule of facility design submittals, and master drawings and master specifications list. The master

drawings and master specifications list shall contain a list of proposed submittal packages of designs, calculations, and specifications for major structures, systems, and equipment. Major structures, systems, and equipment are structures and their associated components or equipment that are necessary for power production, costly or time consuming to repair or replace, are used for the storage, containment, or handling of hazardous or toxic materials, or could become potential health and safety hazards if not constructed according to applicable engineering LORS. The schedule shall contain the date of each submittal to the CBO. To facilitate audits by Energy Commission staff, the project owner shall provide specific packages to the CPM upon request.

Verification: At least 60 days (or a project owner- and CBO-approved alternative time frame) prior to the start of rough grading, the project owner shall submit to the CBO and to the CPM the schedule, and the master drawings and master specifications list of documents to be submitted to the CBO for review and approval. These documents shall be the pertinent design documents for the major structures, systems, and equipment defined above in Condition of Certification **GEN-2**. Major structures and equipment shall be added to or deleted from the list only with CPM approval. The project owner shall provide schedule updates in the monthly compliance report.

GEN-3 The project owner shall make payments to the CBO for design review, plan checks, and construction inspections, based upon a reasonable fee schedule to be negotiated between the project owner and the CBO. These fees may be consistent with the fees listed in the 2013 CBC, adjusted for inflation and other appropriate adjustments; may be based on the value of the facilities reviewed; may be based on hourly rates; or may be otherwise agreed upon by the project owner and the CBO.

Verification: The project owner shall make the required payments to the CBO in accordance with the agreement between the project owner and the CBO. The project owner shall send a copy of the CBO's receipt of payment to the CPM in the next monthly compliance report indicating that applicable fees have been paid.

GEN-4 Prior to the start of rough grading, the project owner shall assign a California-registered architect, or a structural or civil engineer, as the resident engineer (RE) in charge of the project.

The RE may delegate responsibility for portions of the project to other registered engineers. Registered mechanical and electrical engineers may be delegated responsibility for mechanical and electrical portions of the project, respectively. A project may be divided into parts, provided that each part is clearly defined as a distinct unit. Separate assignments of general responsibility may be made for each designated part.

The RE shall:

1. Monitor progress of construction work requiring CBO design review and inspection to ensure compliance with LORS;

2. Ensure that construction of all facilities subject to CBO design review and inspection conforms in every material respect to applicable LORS, these conditions of certification, approved plans, and specifications;

3. Prepare documents to initiate changes in approved drawings and specifications when either directed by the project owner or as required by the conditions of the project;

4. Be responsible for providing project inspectors and testing agencies with complete and up-to-date sets of stamped drawings, plans, specifications, and any other required documents;

5. Be responsible for the timely submittal of construction progress reports to the CBO from the project inspectors, the contractor, and other engineers who have been delegated responsibility for portions of the project; and

6. Be responsible for notifying the CBO of corrective action or the disposition of items noted on laboratory reports or other tests when they do not conform to approved plans and specifications.

The resident engineer (or his delegate) must be located at the project site, or be available at the project site within a reasonable period of time, during any hours in which construction takes place.

The RE shall have the authority to halt construction and to require changes or remedial work if the work does not meet requirements.

If the RE or the delegated engineers are reassigned or replaced, the project owner shall submit the name, qualifications and registration number of the newly assigned engineer to the CBO for review and approval. The project owner shall notify the CPM of the CBO's approval of the new engineer.

Verification: At least 30 days (or project owner- and CBO-approved alternative time frame) prior to the start of rough grading, the project owner shall submit to the CBO for review and approval, the resume and registration number of the RE and any other delegated engineers assigned to the project. The project owner shall notify the CPM of the CBO's approvals of the RE and other delegated engineer(s) within five days of the approval.

If the RE or the delegated engineer(s) is subsequently reassigned or replaced, the project owner has five days to submit the resume and registration number of the newly assigned engineer to the CBO for review and approval. The project owner shall notify the CPM of the CBO's approval of the new engineer within five days of the approval.

GEN-5 Prior to the start of rough grading, the project owner shall assign at least one of each of the following California registered engineers to the project: a civil engineer; a soils, geotechnical, or civil engineer experienced and knowledgeable in the practice of soils engineering; and an engineering

geologist. Prior to the start of construction, the project owner shall assign at least one of each of the following California registered engineers to the project: a design engineer who is either a structural engineer or a civil engineer fully competent and proficient in the design of power plant structures and equipment supports; a mechanical engineer; and an electrical engineer. (California Business and Professions Code section 6704 et seq., and sections 6730, 6731 and 6736 require state registration to practice as a civil engineer or structural engineer in California).

The tasks performed by the civil, mechanical, electrical, or design engineers may be divided between two or more engineers, as long as each engineer is responsible for a particular segment of the project (for example, proposed earthwork, civil structures, power plant structures, equipment support). No segment of the project shall have more than one responsible engineer. The transmission line may be the responsibility of a separate California registered electrical engineer.

The project owner shall submit, to the CBO for review and approval, the names, qualifications, and registration numbers of all responsible engineers assigned to the project.

If any one of the designated responsible engineers is subsequently reassigned or replaced, the project owner shall submit the name, qualifications and registration number of the newly assigned responsible engineer to the CBO for review and approval. The project owner shall notify the CPM of the CBO's approval of the new engineer.

A. The civil engineer shall:

1. Review the foundation investigations, geotechnical, or soils reports prepared by the soils engineer, the geotechnical engineer, or by a civil engineer experienced and knowledgeable in the practice of soils engineering;

2. Design (or be responsible for the design of), stamp, and sign all plans, calculations, and specifications for proposed site work, civil works, and related facilities requiring design review and inspection by the CBO. At a minimum, these include: grading, site preparation, excavation, compaction, construction of secondary containment, foundations, erosion and sedimentation control structures, drainage facilities, underground utilities, culverts, site access roads and sanitary sewer systems; and

3. Provide consultation to the RE during the construction phase of the project and recommend changes in the design of the civil works facilities and changes to the construction procedures.

B. The soils engineer, geotechnical engineer, or civil engineer experienced and knowledgeable in the practice of soils engineering, shall:

1. Review all the engineering geology reports;

2. Prepare the foundation investigations, geotechnical, or soils reports containing field exploration reports, laboratory tests, and engineering analysis detailing the nature and extent of the soils that could be susceptible to liquefaction, rapid settlement or collapse when saturated under load;

3. Be present, as required, during site grading and earthwork to provide consultation and monitor compliance with requirements set forth in the 2013 CBC (depending on the site conditions, this may be the responsibility of either the soils engineer, the engineering geologist, or both); and

4. Recommend field changes to the civil engineer and RE.

This engineer shall be authorized to halt earthwork and to require changes if site conditions are unsafe or do not conform to the predicted conditions used as the basis for design of earthwork or foundations.

C. The engineering geologist shall:

1. Review all the engineering geology reports and prepare a final soils grading report; and

2. Be present, as required, during site grading and earthwork to provide consultation and monitor compliance with the requirements set forth in the 2013 CBC (depending on the site conditions, this may be the responsibility of either the soils engineer, the engineering geologist, or both).

D. The design engineer shall:

1. Be directly responsible for the design of the proposed structures and equipment supports;

2. Provide consultation to the RE during design and construction of the project;

3. Monitor construction progress to ensure compliance with engineering LORS;

4. Evaluate and recommend necessary changes in design; and

5. Prepare and sign all major building plans, specifications, and calculations.

E. The mechanical engineer shall be responsible for, and sign and stamp a statement with, each mechanical submittal to the CBO, stating that the proposed final design plans, specifications, and calculations conform to all of the mechanical engineering design requirements set forth in the Energy Commission's decision.

F. The electrical engineer shall:

1. Be responsible for the electrical design of the project; and

2. Sign and stamp electrical design drawings, plans, specifications, and calculations.

Verification: At least 30 days (or project owner- and CBO-approved alternative time frame) prior to the start of rough grading, the project owner shall submit to the CBO for review and approval, resumes and registration numbers of the responsible civil engineer, soils (geotechnical) engineer and engineering geologist assigned to the project.

At least 30 days (or project owner- and CBO-approved alternative time frame) prior to the start of construction, the project owner shall submit to the CBO for review and approval, resumes and registration numbers of the responsible design engineer, mechanical engineer, and electrical engineer assigned to the project.

The project owner shall notify the CPM of the CBO's approvals of the responsible engineers within five days of the approval.

If the designated responsible engineer is subsequently reassigned or replaced, the project owner has five days in which to submit the resume and registration number of the newly assigned engineer to the CBO for review and approval. The project owner shall notify the CPM of the CBO's approval of the new engineer within five days of the approval.

GEN-6 Prior to the start of an activity requiring special inspection, including prefabricated assemblies, the project owner shall assign to the project, qualified and certified special inspector(s) who shall be responsible for the special inspections required by the 2013 CBC.

A certified weld inspector, certified by the American Welding Society (AWS), and/or American Society of Mechanical Engineers (ASME) as applicable, shall inspect welding performed on-site requiring special inspection (including structural, piping, tanks and pressure vessels).

The special inspector shall:

1. Be a qualified person who shall demonstrate competence, to the satisfaction of the CBO, for inspection of the particular type of construction requiring special or continuous inspection;

2. Inspect the work assigned for conformance with the approved design drawings and specifications;

3. Furnish inspection reports to the CBO and RE. All discrepancies shall be brought to the immediate attention of the RE for correction, then, if uncorrected, to the CBO and the CPM for corrective action; and

4. Submit a final signed report to the RE, CBO, and CPM, stating whether the work requiring special inspection was, to the best of the inspector's knowledge, in conformance with the approved plans, specifications, and other provisions of the applicable edition of the CBC.

Verification: At least 15 days (or project owner- and CBO-approved alternative time frame) prior to the start of an activity requiring special inspection, the project owner shall submit to the CBO for review and approval, with a copy to the CPM, the name(s) and qualifications of the certified weld inspector(s), or other certified special inspector(s) assigned to the project to perform one or more of the duties set forth above. The project owner shall also submit to the CPM a copy of the CBO's approval of the qualifications of all special inspectors in the next monthly compliance report.

If the special inspector is subsequently reassigned or replaced, the project owner has five days in which to submit the name and qualifications of the newly assigned special inspector to the CBO for approval. The project owner shall notify the CPM of the CBO's approval of the newly assigned inspector within five days of the approval.

GEN-7 If any discrepancy in design and/or construction is discovered in any engineering work that has undergone CBO design review and approval, the project owner shall document the discrepancy and recommend required corrective actions. The discrepancy documentation shall be submitted to the CBO for review and approval. The discrepancy documentation shall reference this condition of certification and, if appropriate, applicable sections of the CBC and/or other LORS.

Verification: The project owner shall transmit a copy of the CBO's approval of any corrective action taken to resolve a discrepancy to the CPM in the next monthly compliance report. If any corrective action is disapproved, the project owner shall advise the CPM, within five days, of the reason for disapproval and the revised corrective action to obtain CBO's approval.

GEN-8 The project owner shall obtain the CBO's final approval of all completed work that has undergone CBO design review and approval. The project owner shall request the CBO to inspect the completed structure and review the submitted documents. The project owner shall notify the CPM after obtaining the CBO's final approval. The project owner shall retain one set of approved engineering plans, specifications, and calculations (including all approved changes) at the project site or at another accessible location during the operating life of the project. Electronic copies of the approved plans, specifications, calculations,

and marked-up as-builts shall be provided to the CBO for retention by the CPM.

Verification: Within 15 days of the completion of any work, the project owner shall submit to the CBO, with a copy to the CPM, in the next monthly compliance report, (a) a written notice that the completed work is ready for final inspection, and (b) a signed statement that the work conforms to the final approved plans. After storing the final approved engineering plans, specifications, and calculations described above, the project owner shall submit to the CPM a letter stating both that the above documents have been stored and the storage location of those documents.

Within 90 days of the completion of construction, the project owner shall provide to the CBO three sets of electronic copies of the above documents at the project owner's expense. These are to be provided in the form of "read only" (Adobe .pdf 6.0 or newer version) files, with restricted (password-protected) printing privileges, on archive quality compact discs.

CIVIL-1 The project owner shall submit to the CBO for review and approval the following:

1. Design of the proposed drainage structures and the grading plan;
2. An erosion and sedimentation control plan;
3. A construction storm water pollution prevention plan (SWPPP);
4. Related calculations and specifications, signed and stamped by the responsible civil engineer; and
5. Soils, geotechnical, or foundation investigations reports required by the 2013 CBC.

Verification: At least 15 days (or project owner- and CBO-approved alternative time frame) prior to the start of site grading the project owner shall submit the documents described above to the CBO for design review and approval. In the next monthly compliance report following the CBO's approval, the project owner shall submit a written statement certifying that the documents have been approved by the CBO.

CIVIL-2 The resident engineer shall, if appropriate, stop all earthwork and construction in the affected areas when the responsible soils engineer, geotechnical engineer, or the civil engineer experienced and knowledgeable in the practice of soils engineering identifies unforeseen adverse soil or geologic conditions. The project owner shall submit modified plans, specifications, and calculations to the CBO based on these new conditions. The project owner shall obtain approval from the CBO before resuming earthwork and construction in the affected area.

Verification: The project owner shall notify the CPM within 24 hours when earthwork and construction is stopped as a result of unforeseen adverse geologic/soil conditions. Within 24 hours of the CBO's approval to resume earthwork and construction in the

affected areas, the project owner shall provide to the CPM a copy of the CBO's approval.

CIVIL-3 The project owner shall perform inspections in accordance with the 2013 CBC. All plant site-grading operations, for which a grading permit is required, shall be subject to inspection by the CBO.

If, in the course of inspection, it is discovered that the work is not being performed in accordance with the approved plans, the discrepancies shall be reported immediately to the resident engineer, the CBO, and the CPM. The project owner shall prepare a written report, with copies to the CBO and the CPM, detailing all discrepancies, non-compliance items, and the proposed corrective action.

Verification: Within five days of the discovery of any discrepancies, the resident engineer shall transmit to the CBO and the CPM a non-conformance report (NCR), and the proposed corrective action for review and approval. Within five days of resolution of the NCR, the project owner shall submit the details of the corrective action to the CBO and the CPM. A list of NCRs, for the reporting month, shall also be included in the following monthly compliance report.

CIVIL-4 After completion of finished grading and erosion and sedimentation control and drainage work, the project owner shall obtain the CBO's approval of the final grading plans (including final changes) for the erosion and sedimentation control work. The civil engineer shall state that the work within his/her area of responsibility was done in accordance with the final approved plans.

Verification: Within 30 days (or project owner- and CBO-approved alternative time frame) of the completion of the erosion and sediment control mitigation and drainage work, the project owner shall submit to the CBO, for review and approval, the final grading plans (including final changes) and the responsible civil engineer's signed statement that the installation of the facilities and all erosion control measures were completed in accordance with the final approved combined grading plans, and that the facilities are adequate for their intended purposes. The project owner shall submit a copy of the CBO's approval to the CPM in the next monthly compliance report.

STRUC-1 Prior to the start of any increment of construction, the project owner shall submit plans, calculations and other supporting documentation to the CBO for design review and acceptance for all project structures and equipment identified in the CBO-approved master drawing and master specifications list. The design plans and calculations shall include the lateral force procedures and details as well as vertical calculations.

Construction of any structure or component shall not begin until the CBO has approved the lateral force procedures to be employed in designing that structure or component. The project owner shall:

1. Obtain approval from the CBO of lateral force procedures proposed for project structures;

2. Obtain approval from the CBO for the final design plans, specifications, calculations, soils reports, and applicable quality control procedures. If there are conflicting requirements, the more stringent shall govern (for example, highest loads, or lowest allowable stresses shall govern). All plans, calculations, and specifications for foundations that support structures shall be filed concurrently with the structure plans, calculations, and specifications;

3. Submit to the CBO the required number of copies of the structural plans, specifications, calculations, and other required documents of the designated major structures prior to the start of on-site fabrication and installation of each structure, equipment support, or foundation;

4. Ensure that the final plans, calculations, and specifications clearly reflect the inclusion of approved criteria, assumptions, and methods used to develop the design. The final designs, plans, calculations, and specifications shall be signed and stamped by the responsible design engineer; and

5. Submit to the CBO the responsible design engineer's signed statement that the final design plans conform to applicable LORS.

Verification: At least 30 days (or project owner- and CBO-approved alternative time frame) prior to the start of any increment of construction of any structure or component listed in the CBO-approved master drawing and master specifications list, the project owner shall submit to the CBO the above final design plans, specifications and calculations, with a copy of the transmittal letter to the CPM.

The project owner shall submit to the CPM, in the next monthly compliance report, a copy of a statement from the CBO that the proposed structural plans, specifications, and calculations have been approved and comply with the requirements set forth in applicable engineering LORS.

STRUC-2 The project owner shall submit to the CBO the required number of sets of the following documents related to work that has undergone CBO design review and approval:

1. Concrete cylinder strength test reports (including date of testing, date sample taken, design concrete strength, tested cylinder strength, age of test, type and size of sample, location and quantity of concrete placement from which sample was taken, and mix design designation and parameters);

2. Concrete pour sign-off sheets;

3. Bolt torque inspection reports (including location of test, date, bolt size, and recorded torques);

4. Field weld inspection reports (including type of weld, location of weld, inspection of non-destructive testing (NDT) procedure and results, welder qualifications, certifications, qualified procedure description or number (ref: AWS); and

5. Reports covering other structural activities requiring special inspections shall be in accordance with the 2013 CBC.

Verification: If a discrepancy is discovered in any of the above data, the project owner shall, within five days, prepare and submit an NCR describing the nature of the discrepancies and the proposed corrective action to the CBO, with a copy of the transmittal letter to the CPM. The NCR shall reference the condition(s) of certification and the applicable CBC chapter and section. Within five days of resolution of the NCR, the project owner shall submit a copy of the corrective action to the CBO and the CPM.

The project owner shall transmit a copy of the CBO's approval or disapproval of the corrective action to the CPM within 15 days. If disapproved, the project owner shall advise the CPM, within five days, the reason for disapproval, and the revised corrective action to obtain CBO's approval.

STRUC-3 The project owner shall submit to the CBO design changes to the final plans required by the 2013 CBC, including the revised drawings, specifications, calculations, and a complete description of, and supporting rationale for, the proposed changes, and shall give to the CBO prior notice of the intended filing.

Verification: On a schedule suitable to the CBO, the project owner shall notify the CBO of the intended filing of design changes, and shall submit the required number of sets of revised drawings and the required number of copies of the other above-mentioned documents to the CBO, with a copy of the transmittal letter to the CPM. The project owner shall notify the CPM, via the monthly compliance report, when the CBO has approved the revised plans.

STRUC-4 Tanks and vessels containing quantities of toxic or hazardous materials exceeding amounts specified in the 2013 CBC shall, at a minimum, be designed to comply with the requirements of that chapter.

Verification: At least 30 days (or project owner- and CBO-approved alternate time frame) prior to the start of installation of the tanks or vessels containing the above specified quantities of toxic or hazardous materials, the project owner shall submit to the CBO for design review and approval final design plans, specifications, and calculations, including a copy of the signed and stamped engineer's certification.

The project owner shall send copies of the CBO approvals of plan checks to the CPM in the following monthly compliance report. The project owner shall also transmit a copy of the CBO's inspection approvals to the CPM in the monthly compliance report following completion of any inspection.

MECH-1 The project owner shall submit, for CBO design review and approval, the proposed final design, specifications and calculations for each plant major piping and plumbing system listed in the CBO-approved master drawing and master specifications list. The submittal shall also include the applicable QA/QC procedures. Upon completion of construction of any such major piping or plumbing system, the project owner shall request the CBO's inspection approval of that construction.

The responsible mechanical engineer shall stamp and sign all plans, drawings, and calculations for the major piping and plumbing systems, subject to CBO design review and approval, and submit a signed statement to the CBO when the proposed piping and plumbing systems have been designed, fabricated, and installed in accordance with all of the applicable laws, ordinances, regulations and industry standards, which may include, but are not limited to:

- American National Standards Institute (ANSI) B31.1 (Power Piping Code);
- ANSI B31.2 (Fuel Gas Piping Code);
- ANSI B31.3 (Chemical Plant and Petroleum Refinery Piping Code);
- ANSI B31.8 (Gas Transmission and Distribution Piping Code);
- NACE R.P. 0169-83;
- NACE R.P. 0187-87;
- NFPA 56;
- Title 24, California Code of Regulations, Part 5 (California Plumbing Code);
- Title 24, California Code of Regulations, Part 6 (California Energy Code, for building energy conservation systems and temperature control and ventilation systems);
- Title 24, California Code of Regulations, Part 2 (California Building Code); and

The CBO may deputize inspectors to carry out the functions of the code enforcement agency.

Verification: At least 30 days (or project owner- and CBO-approved alternative time frame) prior to the start of any increment of major piping or plumbing construction listed in the CBO-approved master drawing and master specifications list, the project owner shall submit to the CBO for design review and approval the final plans, specifications, and calculations, including a copy of the signed and stamped statement from the responsible mechanical engineer certifying compliance with applicable LORS, and shall send the CPM a copy of the transmittal letter in the next monthly compliance report.

The project owner shall transmit to the CPM, in the monthly compliance report following completion of any inspection, a copy of the transmittal letter conveying the CBO's inspection approvals.

MECH-2 For all pressure vessels installed in the plant, the project owner shall submit to the CBO and California Occupational Safety and Health Administration (Cal-OSHA), prior to operation, the code certification papers and other documents required by applicable LORS. Upon completion of the installation of any pressure vessel, the project owner shall request the appropriate CBO and/or Cal-OSHA inspection of that installation.

The project owner shall:

1. Ensure that all boilers and fired and unfired pressure vessels are designed, fabricated, and installed in accordance with the appropriate section of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, or other applicable code. Vendor certification, with identification of applicable code, shall be submitted for prefabricated vessels and tanks; and

2. Have the responsible design engineer submit a statement to the CBO that the proposed final design plans, specifications, and calculations conform to all of the requirements set forth in the appropriate ASME Boiler and Pressure Vessel Code or other applicable codes.

Verification: At least 30 days (or project owner- and CBO-approved alternative time frame) prior to the start of on-site fabrication or installation of any pressure vessel, the project owner shall submit to the CBO for design review and approval, the above listed documents, including a copy of the signed and stamped engineer's certification, with a copy of the transmittal letter to the CPM.

The project owner shall transmit to the CPM, in the monthly compliance report following completion of any inspection, a copy of the transmittal letter conveying the CBO's and/or Cal-OSHA inspection approvals.

MECH-3 The project owner shall submit to the CBO for design review and approval the design plans, specifications, calculations, and quality control procedures for any heating, ventilating, air conditioning (HVAC) or refrigeration system. Packaged HVAC systems, where used, shall be identified with the appropriate manufacturer's data sheets.

The project owner shall design and install all HVAC and refrigeration systems within buildings and related structures in accordance with the CBC and other applicable codes. Upon completion of any increment of construction, the project owner shall request the CBO's inspection and approval of that construction. The final plans, specifications and calculations shall include approved criteria, assumptions, and methods used to develop the design. In addition, the responsible mechanical engineer shall sign and stamp all plans,

drawings and calculations and submit a signed statement to the CBO that the proposed final design plans, specifications and calculations conform with the applicable LORS.

Verification: At least 30 days (or project owner- and CBO-approved alternative time frame) prior to the start of construction of any HVAC or refrigeration system, the project owner shall submit to the CBO the required HVAC and refrigeration calculations, plans, and specifications, including a copy of the signed and stamped statement from the responsible mechanical engineer certifying compliance with the CBC and other applicable codes, with a copy of the transmittal letter to the CPM.

ELEC-1 Prior to the start of any increment of electrical construction for all electrical equipment and systems 110 Volts or higher (see a representative list, below) the project owner shall submit, for CBO design review and approval, the proposed final design, specifications, and calculations. Upon approval, the above listed plans, together with design changes and design change notices, shall remain on the site or at another accessible location for the operating life of the project. The project owner shall request that the CBO inspect the installation to ensure compliance with the requirements of applicable LORS.

A. Final plant design plans shall include:

1. one-line diagram for the 18 kV, 4.16 kV and 480 V systems;
2. system grounding drawings;
3. lightning protection system; and
4. hazard area classification plan.

B. Final plant calculations must establish:

1. short-circuit ratings of plant equipment;
2. ampacity of feeder cables;
3. voltage drop in feeder cables;
4. system grounding requirements;
5. coordination study calculations for fuses, circuit breakers and protective relay settings for the 18 kV, 4.16 kV and 110/480 V systems;
6. system grounding requirements;
7. lighting energy calculations; and
8. 110 volt system design calculations and submittals showing feeder sizing, transformer and panel load confirmation, fixture schedules and layout plans.

C. The following activities shall be reported to the CPM in the monthly compliance report:

1. Receipt or delay of major electrical equipment;

2. Testing or energizing of major electrical equipment; and

3. A signed statement by the registered electrical engineer certifying that the proposed final design plans and specifications conform to requirements set forth in the Energy Commission decision.

Verification: At least 30 days (or project owner- and CBO-approved alternative time frame) prior to the start of each increment of electrical construction, the project owner shall submit to the CBO for design review and approval the above listed documents. The project owner shall include in this submittal a copy of the signed and stamped statement from the responsible electrical engineer attesting compliance with the applicable LORS, and shall send the CPM a copy of the transmittal letter in the next monthly compliance report.

GEOLOGY AND PALEONTOLOGY PROPOSED CONDITIONS OF CERTIFICATION

Staff proposes the following Geology and Palentology conditions of certification:

Staff proposes a condition of certification to ensure public health and safety in the event of inundation due to a tsunami in **GEO-1**. General Conditions of Certification with respect to engineering geology are proposed under Conditions of Certification **GEN-1, GEN-5**, and **CIVIL-1** in the **Facility Design** section and in **GEO-2** of this section. **GEO-2** also focuses on ensuring adequate design consideration is given to the effects of a tsunami event on the facility. Proposed paleontological Conditions of Certification follow in **PAL-1** through **PAL-8**. It is staff's opinion that the likelihood of encountering paleontologic resources is possible in areas where Pleistocene age deposits occur. Staff would consider reducing monitoring intensity, at the recommendation of the project's PRS, following examination of sufficient, representative excavations that fully describe site stratigraphy if data shows there are no significant paleontological resources present.

GEO-1 The project's owner shall ensure that all staff and visitors at the project are informed of tsunami hazards in the region and have been shown how and where to evacuate the site if there is potential for a tsunami to affect public health and safety at the site. The project's owner shall ensure that the information provided to staff and visitors complies with the recommendations and procedures provided in the 2015 Ventura County Hazard Mitigation Plan and any of its successors. The project's owner shall provide a Tsunami Hazard Mitigation Plan (THMP) to the compliance project manager (CPM) for review and approval.

The THMP shall include:

A. A general discussion of tsunami hazards and the public safety risk they present at the site.

B. Identification of what tsunami hazards exist specific to the project and how the project's owner proposes to ensure compliance with applicable hazard response plans.

C. A discussion of the Ventura County Hazard Mitigation Plan and Ventura County Operational Area Tsunami Evacuation Plan and how they apply to the project.

D. A discussion of criteria for a response to ensure public safety for a tsunami warning or event and show where on- and offsite refuge can be accessed, and evacuation routes that are recommended by the applicable Ventura County Operational Area Tsunami Evacuation Plan.

E. Identification of any site modifications or signage that may be needed to show how and where refuge is accessible.

F. The THMP shall also include a training program for visitors and workers. The purpose of training is to inform workers and visitors on how to respond to tsunami hazards and where they may obtain refuge in the event it is determined it is necessary to evacuate the project. The project's owner may include the training for tsunami hazard response as a part of the worker health and safety plans required in Conditions of Certification **WORKER SAFETY-1** and **WORKER SAFETY-2** in the Worker Safety and Fire Protection section, and Worker Environmental Awareness Program. The training shall include:

1. Information on whom and how staff and visitors will be notified that there is a tsunami warning or potential for a tsunami event to impact the site and how they should respond.

2 Graphics showing methods of seeking refuge and routes for evacuation of the site.

3. A certification of completion form signed by each worker indicating that he/she has received the training.

4. Submittal of the training script and, if the project's owner is planning to use a video for training, a copy of the training video, with the set of reporting procedures for workers to follow that will be used to present the training.

5. Provision for conducting a tsunami evacuation drill for the entire site at least once every two years or whenever other site safety drills are conducted. A report summarizing the results of an evacuation drill, including a list of participants and any recommendations for modification of the THMP arising from issues identified during conduct of these drills, shall be prepared.

The THMP shall be updated whenever the Site Safety Plan is updated, or when a later version of the Ventura County Operational Area Tsunami Evacuation Plan is published, to ensure appropriate measures are taken to comply with current requirements. Whenever there is an update of the Ventura County Operational Area Tsunami Evacuation Plan, the project's owner shall submit for CPM approval an updated THMP showing how the project's owner proposes to comply.

Verification: The project's owner shall submit the THMP 60 days prior to ground disturbance for CPM review and approval. The project's owner shall submit any subsequent updates to the THMP to the CPM within 90 days after an update to an applicable THMP.

GEO-2 A Soils Engineering Report as required by Section 1803 of the California Building Code (CBC 2013), or its successor in effect at the time construction of the project commences, shall specifically include laboratory test data,

associated geotechnical engineering analyses, and a thorough discussion of seismicity; liquefaction; dynamic compaction; compressible soils; corrosive soils; and tsunami. The tsunami discussion shall incorporate the highest rate of sea level rise, as presented in NRC 2012, into the run-up calculations for the operating life of the project. In accordance with CBC, the report must also include recommendations for ground improvement and/or foundation systems necessary to mitigate these potential geologic hazards, if present.

Verification: The project's owner shall include in the application for a grading permit a copy of the Soils Engineering Report which addresses the potential for strong seismic shaking; liquefaction; dynamic compaction; settlement due to compressible soils; corrosive soils: and tsunami, and a summary of how the results of the analyses were incorporated into the project's foundation and grading plan design for review and comment by the delegate chief building official (CBO). A copy of the Soils Engineering Report, application for grading permit and any comments by the CBO are to be provided to the CPM at least 30 days prior to grading.

PAL-1 The project's owner shall provide the CPM with the resume and qualifications of its paleontological resource specialist (PRS) for review and approval. If the approved PRS is replaced prior to completion of project mitigation and submittal of the paleontological resources report (PRR), the project's owner shall obtain CPM approval of the replacement PRS. The project's owner shall keep resumes on file for qualified paleontological resources monitors (PRMs). If a PRM is replaced, the resume of the replacement PRM shall also be provided to the CPM for review and approval.

The PRS's resume shall include the names and phone numbers of references. The resume shall also demonstrate to the satisfaction of the CPM the appropriate education and experience to accomplish the required paleontological resource tasks.

As determined by the CPM, the PRS shall meet the minimum qualifications for a Qualified Professional Paleontologist as defined in the Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources by the Society of Vertebrate Paleontology (SVP 2010). The experience of the PRS shall include the following:

1. Institutional affiliations, appropriate credentials, and college degree.
2. Ability to recognize and collect fossils in the field.
3. Local geological and biostratigraphic expertise.
4. Proficiency in identifying vertebrate and invertebrate fossils.
5. At least three years of paleontological resource mitigation and field experience in California and at least one year of experience leading paleontological resource mitigation and field activities.

The project's owner shall ensure that the PRS obtains qualified paleontological resource monitors to monitor as he or she deems necessary on the project. Paleontologic resource monitors (PRMs) shall have the equivalent of the following qualifications:

- BS or BA degree in geology or paleontology and a minimum of one year experience monitoring in California; or
- AS or AA in geology, paleontology, or biology and a minimum four years' experience monitoring in California; or
- Enrollment in upper division classes pursuing a degree in the fields of geology or paleontology and two years of monitoring experience in California.

Verification:

1. At least 60 days prior to the start of ground disturbance, the project's owner shall submit a resume and statement of availability of its designated PRS for on-site work to the CPM, whose approval must be obtained prior to initiation of ground disturbing activities.

2. At least 20 days prior to ground disturbance, the PRS or the project's owner shall provide a letter with resumes naming anticipated PRMs for the project. The letter shall state that the identified monitors meet the minimum qualifications for paleontological resource monitoring as required by this condition of certification. If additional monitors are obtained during the project, the PRS shall provide additional letters and resumes to the CPM. The letter shall be provided to the CPM for approval no later than one week prior to the monitor's beginning on-site duties.

3. Prior to any change in the PRS, the project's owner shall submit the resume of the proposed new PRS to the CPM for review and approval.

PAL-2 The project's owner shall provide to the PRS and the CPM for approval, maps and drawings showing the footprint of the power plant, construction laydown areas, and all related facilities. Maps shall identify all areas of the project where ground disturbance is anticipated. If the PRS requests enlargements or strip maps for linear facility routes, the project's owner shall provide copies to the PRS and CPM. The site grading plan and the plan and profile drawings for the utility lines would be acceptable for this purpose. The plan drawings must show the location, depth, and extent of all ground disturbances and be at a scale between 1 inch = 40 feet and 1 inch = 100 feet. If the footprint of the project or its linear facilities change, the project's owner shall provide maps and drawings reflecting those changes to the PRS and CPM.

If construction of the project proceeds in phases, maps and drawings may be submitted prior to the start of each phase. A letter identifying the proposed schedule of each project phase shall be provided to the PRS and CPM. Before work commences on affected phases, the project's owner shall notify the PRS and CPM of any construction phase scheduling changes.

At a minimum, the project's owner shall ensure that the PRS or PRM consults weekly with the project's superintendent and construction field manager to confirm area(s) to be worked the following week, until ground disturbance is completed.

Verification:

1. At least 30 days prior to the start of ground disturbance, the project's owner shall provide the maps and drawings to the PRS and CPM.

2. If there are changes to the footprint of the project, revised maps and drawings shall be provided to the PRS and CPM at least 15 days prior to the start of ground disturbance.

3. If there are changes to the scheduling of the construction phases, the project's owner shall submit a letter to the CPM within five days of identifying the changes.

PAL-3 The project's owner shall ensure that the PRS prepares a Paleontological Resources Monitoring and Mitigation Plan (PRMMP) and submits the PRMMP to the CPM for review and approval. Approval of the PRMMP by the CPM shall occur prior to any ground disturbance. The PRMMP shall function as the formal guide for monitoring, collecting, sampling, and reporting activities, and may be modified with CPM approval. The PRMMP shall be used as the basis of discussion when on-site decisions or changes are proposed. Copies of the PRMMP shall include all updates and reside with the PRS, each monitor, the project's owner's on-site manager, and the CPM.

The PRMMP shall be developed in accordance with the guidelines of the Society of Vertebrate Paleontology (SVP 2010) and shall include, but not be limited, to the following:

1. Procedures for, and assurance that, the performance and sequence of project-related tasks, such as any literature searches, pre-construction surveys, worker environmental training, fieldwork, flagging or staking, construction monitoring, mapping and data recovery, fossil preparation and collection, identification and inventory, preparation of final reports, and transmittal of materials for curation will be performed according to PRMMP procedures.

2. Identification of the person(s) expected to assist with each of the tasks required by the PRMMP and these conditions of certification.

3. A thorough discussion of the anticipated geologic units expected to be encountered, the location and depth of the units relative to the project when known, and the known sensitivity of those units based on the occurrence of fossils either in that unit or in correlative units.

4. An explanation of why sampling is needed, a description of the sampling methodology, and how much sampling is expected to take place in which

geologic units. Include descriptions of different sampling procedures that shall be used for fine-grained and coarse-grained units.

5. A discussion of the locations of where the monitoring of project construction activities is deemed necessary, and a proposed plan for monitoring and sampling at these locations.

6. A discussion of procedures to be followed: (a) in the event of a significant fossil discovery, (b) stopping construction, (c) resuming construction, and (d) how notifications will be performed.

7. A discussion of equipment and supplies necessary for collection of fossil materials and any specialized equipment needed to prepare, remove, load, transport, and analyze large-sized fossils or extensive fossil deposits.

8. Procedures for inventory, preparation, and delivery for curation into a retrievable storage collection in a public repository or museum that meet the Society of Vertebrate Paleontology's standards and requirements for the curation of paleontological resources.

9. Identification of the institution that has agreed to receive data and fossil materials collected requirements or specifications for materials delivered for curation, and how they will be met, and the name and phone number of the contact person at the institution.

10. A copy of the paleontological conditions of certification.

Verification: At least 30 days prior to ground disturbance, the project's owner shall provide a copy of the PRMMP to the CPM. Approval of the PRMMP by the CPM shall occur prior to any ground disturbance. The PRMMP shall include an affidavit of authorship by the PRS, and acceptance of the PRMMP by the project's owner evidenced by a signature.

PAL-4 Prior to ground disturbance the project's owner and the PRS shall prepare a CPM-approved Worker Environmental Awareness Program (WEAP).

The WEAP shall address the possibility of encountering paleontological resources in the field, the sensitivity and importance of these resources, and legal obligations to preserve and protect those resources. The purpose of the WEAP is to train project workers to recognize paleontologic resources and identify procedures they must follow to ensure there are no impacts to sensitive paleontologic resources. The WEAP shall include:

1. A discussion of applicable laws and penalties under the law.

2. Good quality photographs or physical examples of fossils expected to be found in units of high paleontologic sensitivity at, or near, the site.

3. Information that the PRS or PRM has the authority to stop or redirect construction in the event of a discovery or unanticipated impact to a paleontological resource.

4. Instruction that employees are to stop or redirect work in the vicinity of a find and to contact their supervisor and the PRS or PRM.

5. An informational brochure that identifies reporting procedures in the event of a discovery.

6. A WEAP certification of completion form signed by each worker indicating that he/she has received the training.

7. A sticker that shall be placed on hard hats indicating that environmental training has been completed.

The project's owner shall also submit the training script and, if the project's owner is planning to use a video for training, a copy of the training video, with the set of reporting procedures for workers to follow that will be used to present the WEAP and qualify workers to conduct ground disturbing activities that could impact paleontologic resources.

Verification:

1. At least 30 days prior to ground disturbance, the project's owner shall submit to the CPM for review and comment the draft WEAP, including the brochure and sticker. The submittal shall also include a draft training script and, if the project's owner is planning to use a video for training, a copy of the training video with the set of reporting procedures for workers to follow.

2. At least 15 days prior to ground disturbance, the project's owner shall submit to the CPM for approval the final WEAP and training script.

PAL-5 No worker shall excavate or perform any ground disturbance activity prior to receiving CPM-approved WEAP training by the PRS, unless specifically approved by the CPM.

Prior to project kick-off and ground disturbance, the following workers shall be WEAP trained by the PRS in-person: project managers, construction supervisors, foremen, and all general workers involved with, or who operate, ground-disturbing equipment or tools. Following project kick-off, a CPM-approved video or in-person training may be used for new employees. The training program may be combined with other training programs prepared for cultural and biological resources, hazardous materials, or other areas of interest or concern. A WEAP certification of completion form shall be used to document who has received the required training.

Verification:

1. In the monthly compliance report (MCR), the project's owner shall provide copies of the WEAP certification of completion forms with the names of those trained and the trainer or type of training (in-person and/or video) offered that month. An example of a suitable WEAP certification completion form is provided below. The MCR shall also include a running total of all persons who have completed the training to date.

2. If the project's owner requests an alternate paleontological WEAP trainer, the resume and qualifications of the trainer shall be submitted to the CPM for review and approval prior to installation of an alternate trainer. Alternate trainers shall not conduct WEAP training prior to CPM authorization.

PAL-6 The project's owner shall ensure that the PRS and PRM(s) monitor, consistent with the PRMMP, all construction-related grading and excavation in areas where potential fossil-bearing materials have been identified, both at the site and along any constructed linear facilities associated with the project. In the event that the PRS determines full-time monitoring is not necessary in locations that were identified as potentially fossil-bearing in the PRMMP, the project's owner shall notify and seek the concurrence of the CPM. The PRS may not further delegate the responsibility for determining whether full time monitoring is necessary.

The project's owner shall ensure that the PRS and PRM(s) have the authority to stop or redirect construction if paleontological resources are encountered. The project's owner shall ensure that there is no interference with monitoring activities unless directed by the PRS. Monitoring activities shall be conducted as follows:

1. Any change of monitoring from the accepted schedule in the PRMMP shall be proposed in a letter or email from the PRS and the project's owner to the CPM prior to the change in monitoring and be included in the monthly compliance report. The letter or email shall include the justification for the change in monitoring and be submitted to the CPM for review and approval.

2. The project's owner shall ensure that the PRM(s) keep a daily monitoring log of paleontological resource activities, and copies of these logs shall be submitted with the monthly compliance report. The PRS may informally discuss paleontological resource monitoring and mitigation activities with the CPM at any time.

3. The project's owner shall ensure that the PRS notifies the CPM within 24 hours of the occurrence of any incidents of non-compliance with any paleontological resources conditions of certification. The PRS shall recommend corrective action to resolve the issues or achieve compliance with the conditions of certification.

4. For any significant paleontological resources encountered, either the project's owner or the PRS shall notify the CPM within 24 hours, or Monday morning in the case of a weekend event, when construction has been stopped because of a paleontological find.

The project's owner shall ensure that the PRS prepares a summary of monitoring and other paleontological activities that will be included in each MCR. The summary will include the name(s) of PRS or PRM(s) active during the month, general descriptions of training and monitored construction activities, and general locations of excavations, grading, and other activities. A section of the report shall include the geologic units or subunits encountered, descriptions of samplings within each unit, and a list of identified fossils. Negative findings, when no fossils are identified, shall also be reported. A final section of the report will address any issues or concerns about the project relating to paleontologic monitoring, including any incidents of non-compliance or any changes to the monitoring plan that have been approved by the CPM. If no monitoring took place during the month, the report shall include an explanation in the summary as to why monitoring was not conducted.

Verification:

1. A copy of the daily monitoring log of paleontological resource activities shall be included In the monthly compliance report (MCR).

2. The project's owner shall ensure that the PRS submits the summary of monitoring and paleontological activities in the MCR. When feasible, the CPM shall be notified ten days in advance of any proposed changes in monitoring different from that identified in the PRMMP. If there is any unforeseen change in monitoring, the notice shall be given as soon as possible prior to implementation of the change.

PAL-7 The project's owner shall ensure preparation of a Paleontological Resources Report (PRR) by the designated PRS. The PRR shall be prepared following completion of ground-disturbing activities. The PRR shall include an analysis of the collected fossil materials and related information, and shall be submitted to the CPM for approval.

The report shall include, but not be limited to, a description and inventory of recovered fossil materials; a map showing the location of paleontological resources encountered; and the PRS' description of sensitivity and significance of those resources.

Verification: Within 90 days after completion of ground-disturbing activities, including landscaping, the project's owner shall submit the PRR under confidential cover to the CPM.

PAL-8 The project's owner, through the designated PRS, shall ensure that all components of the PRMMP are adequately performed, including collection of fossil material, preparation of fossil material for analysis, analysis of fossils,

identification and inventory of fossils, preparation of fossils for curation, and delivery for curation of all significant paleontological resource materials encountered and collected during project construction. The project's owner shall pay all curation fees charged by the museum for fossil material collected and curated as a result of paleontological mitigation. The project's owner shall also provide the curator with documentation showing the project's owner irrevocably and unconditionally donates, gives, and assigns permanent, absolute, and unconditional ownership of the fossil material.

Verification: Within 60 days after the submittal of the PRR, the project's owner shall submit documentation to the CPM showing fees have been paid for curation and the owner relinquishes control and ownership of all fossil material.

HAZARDOUS MATERIALS MANAGEMENT PROPOSED CONDITIONS OF CERTIFICATION

Staff proposes the following Hazardous Material Management conditions of certification:

HAZ-1 The project owner shall not use any hazardous materials not listed in Appendix B, below, or in greater quantities or strengths than those identified by chemical name in Appendix B, below, unless approved in advance by the compliance project manager (CPM).

Verification: The project owner shall provide to the CPM, in the Annual Compliance Report, the Hazardous Materials Business Plan's list of hazardous materials and quantities contained at the facility.

HAZ-2 The project owner shall concurrently provide a Hazardous Materials Business Plan (HMBP), a Spill Prevention Control and Countermeasure Plan (SPCC), and a Risk Management Plan (RMP) to the city of Oxnard Fire Department (OFD) and the CPM for review. After receiving comments from the OFD and the CPM, the project owner shall reflect all recommendations in the final documents. Copies of the final Hazardous Materials Business Plan and RMP shall then be provided to the OFD for information and to the CPM for approval.

Verification: At least 30 days prior to receiving any hazardous material on the site for commissioning or operations, the project owner shall provide a copy of a final HMPB and SPCC to the CPM for approval.

At least 30 days prior to delivery of aqueous ammonia to the site, the project owner shall provide the final RMP to the Certified Unified Program Agency (the city of Oxnard Fire Department) for information and to the CPM for approval.

HAZ-3 The project owner shall develop and implement a Safety Management Plan for delivery of aqueous ammonia and other liquid hazardous materials by tanker truck. The plan shall include procedures, protective equipment requirements, training, and a checklist. It shall also include a section describing all measures to be implemented to prevent mixing of incompatible hazardous materials including provisions to maintain lockout control by a power plant employee not involved in the delivery or transfer operation. This plan shall be applicable during construction, commissioning, and operation of the power plant.

Verification: At least 30 days prior to the delivery of any liquid hazardous material to the facility, the project owner shall provide a Safety Management Plan as described above to the CPM for review and approval.

HAZ-4 The aqueous ammonia storage facility shall be designed to the ASME Code for Unfired Pressure Vessels, Section VIII, Division 1. The storage tank shall be protected by a secondary containment vault capable of holding precipitation from a 24-hour, 25-year storm event plus 100 percent of the

capacity of the largest tank within its boundary. The containment vault shall contain one layer of high-density polyethylene (HDPE) balls that would serve as the passive mitigation. The final design drawings and specifications for the ammonia storage tank and secondary containment basin shall be submitted to the CPM. A Best Management Practices (BMPs) plan for the maintenance of the HDPE balls shall also be submitted to the CPM.

Verification: At least 30 days prior to start of construction of the aqueous ammonia storage and transfer facility, the project owner shall submit final design drawings and specifications for the ammonia storage tank, ammonia pumps, ammonia detectors, and secondary containment basin along with the BMP plan to the CPM for review and approval. In the Annual Compliance Report, the project owner shall include a report on the annual HDPE ball inspection and how many damaged balls were replaced.

HAZ-5 The project owner shall direct all vendors delivering aqueous ammonia to the site to use only tanker truck transport vehicles, which meet or exceed the specifications of MC-307/DOT-407.

Verification: At least 30 days prior to receipt of aqueous ammonia on site, the project owner shall submit copies of the notification letter to supply vendors indicating the transport vehicle specifications to the CPM for review and approval.

HAZ-6 Prior to initial delivery, the project owner shall direct vendors delivering bulk quantities (>800 gallons per delivery) of hazardous material (e.g., aqueous ammonia, lubricating and insulating oils) to the site to use only the route approved by the CPM (from US Highway 101 along Victoria Avenue to Gonzales Road via North Harbor Boulevard to the facility). The project owner shall obtain approval of the CPM if an alternate route is desired.

Verification: At least 60 days prior to initial receipt of bulk quantities (>800 gallons per delivery) of hazardous materials (e.g., aqueous ammonia, lubricating or insulating oils) and at least 10 days prior to a new vendor delivery of bulk quantities (>800 gallons per delivery), the project owner shall submit a copy of the letter containing the route restriction directions that were provided to the hazardous materials vendor to the CPM for review and approval.

HAZ-7 Prior to commencing construction, a site-specific Construction Site Security Plan for the construction phase shall be prepared and made available to the CPM for review and approval. The Construction Security Plan shall include the following:

1. perimeter security consisting of fencing enclosing the construction area;

2. security guards;

3. site access control consisting of a check-in procedure or tag system for construction personnel and visitors;

4. written standard procedures for employees, contractors and vendors when encountering suspicious objects or packages on site or off site;

5. protocol for contacting law enforcement and the CPM in the event of suspicious activity, incident or emergency; and,

6. evacuation procedures.

Verification: At least 30 days prior to commencing construction, the project owner shall notify the CPM that a site-specific Construction Security Plan is available for review and approval.

HAZ-8 The project owner shall also prepare a site-specific security plan for the commissioning and operational phases that would be available to the CPM for review and approval. The project owner shall implement site security measures that address physical site security and hazardous materials storage. The level of security to be implemented shall not be less than that described below (as per NERC Security Guideline for the Electricity Sector: Physical Security v1.9).

The Operation Security Plan shall include the following:

1. permanent full perimeter fence or wall, at least eight feet high and topped with barbed wire or the equivalent (and with slats or other methods to restrict visibility if a fence is selected);

2. main entrance security gate, either hand operated or motorized;

3. evacuation procedures;

4. protocol for contacting law enforcement and the CPM in the event of suspicious activity or emergency;

5. written standard procedures for employees, contractors, and vendors when encountering suspicious objects or packages on site or off site;

   A. a statement (refer to sample, **Attachment A**), signed by the project owner certifying that background investigations have been conducted on all project personnel. Background investigations shall be restricted to determine the accuracy of employee identity and employment history and shall be conducted in accordance with state and federal laws regarding security and privacy;

   B. a statement(s) (refer to sample, **Attachment B**), signed by the contractor or authorized representative(s) for any permanent contractors or other technical contractors (as determined by the CPM after consultation with the project owner), that are present at any time on the site to repair, maintain, investigate, or conduct any other technical duties involving critical components (as determined by the

CPM after consultation with the project owner) certifying that background investigations have been conducted on contractors who visit the project site;

6. site access controls for employees, contractors, vendors, and visitors;

7. a statement(s) (refer to sample, **Attachment C**), signed by the owners or authorized representative of hazardous materials transport vendors, certifying that they have prepared and implemented security plans in compliance with 49 CFR 172.880, and that they have conducted employee background investigations in accordance with 49 CFR Part 1572, subparts A and B;

8. closed circuit TV (CCTV) monitoring system, recordable, and viewable in the power plant control room and security station (if separate from the control room) with cameras able to pan, tilt, and zoom, have low-light capability, and are able to view 100 percent of the perimeter fence, the ammonia storage tank, the outside entrance to the control room, and the front gate; and,

9. additional measures to ensure adequate perimeter security consisting of either:

   A. security guard(s) present 24 hours per day, seven days per week; **or**

   B. power plant personnel on site 24 hours per day, seven days per week, and perimeter breach detectors **or** on-site motion detectors.

The project owner shall fully implement the security plans and obtain CPM approval of any substantive modifications to those security plans. The CPM may authorize modifications to these measures, or may require additional measures such as protective barriers for critical power plant components—transformers, gas lines, and compressors—depending upon circumstances unique to the facility or in response to industry-related standards, security concerns, or additional guidance provided by the U.S. Department of Homeland Security, the U.S. Department of Energy, or the North American Electrical Reliability Corporation, after consultation with both appropriate law enforcement agencies and the project owner.

Verification: At least 30 days prior to the initial receipt of hazardous materials on site, the project owner shall notify the CPM that a site-specific operations site security plan is available for review and approval. In the annual compliance report, the project owner shall include signed statements similar to Attachments A and B that all current project employee and appropriate contractor background investigations have been performed, and that updated certification statements have been appended to the operations security plan. In the annual compliance report, the project owner shall include a signed statement similar to Attachment C that the operations security plan

includes all current hazardous materials transport vendor certifications for security plans and employee background investigations.

HAZ-9: The project owner shall not allow any fuel gas pipe cleaning activities on site, either before placing the pipe into service or at any time during the lifetime of the facility, that involve “flammable gas blows” where natural (or flammable) gas is used to blow out debris from piping and then vented to atmosphere. Instead, an inherently safer method involving a non-flammable gas (e.g. air, nitrogen, steam) or mechanical pigging, shall be used as per the latest edition of NFPA 56, Standard for Fire and Explosion Prevention during Cleaning and Purging of Flammable Gas Piping Systems. A written procedure shall be developed and implemented as per NFPA 56, section 4.4.1.

Verification: At least 30 days before any fuel gas pipe cleaning activities begin, the project owner shall submit a copy of the Fuel Gas Pipe Cleaning Work Plan (as described in the 2014 NFPA 56, section 4.4.1) which shall indicate the method of cleaning to be used, what gas will be used, the source of pressurization, and whether a mechanical PIG will be used, to the CBO for information and to the CPM for review and approval.

NOISE AND VIBRATION PROPOSED CONDITIONS OF CERTIFICATION

Staff proposes the following Noise and Vibration conditions of certification:

PUBLIC NOTIFICATION PROCESS

NOISE-1 Prior to the start of ground disturbance, the project owner shall notify all residents within one mile of the project site and one-half mile of the linear facilities, and the employer of the farm workers in the agricultural field approximately 800 feet from the Puente's power block, by mail or by other effective means, of the commencement of project construction. At the same time, the project owner shall establish a telephone number for use by the public to report any undesirable noise conditions associated with the construction, demolition, and operation of the project. If the telephone is not staffed 24 hours a day, the project owner shall include an automatic answering feature, with date and time stamp recording, to answer calls when the phone is unattended. This telephone number shall be posted at the project site during construction where it is visible to passersby. This telephone number shall be maintained until the project has been operational for at least one year and all subsequent demolition activities associated with MGS Units 1 and 2 have been completed.

Verification: At least 15 days prior to ground disturbance, the project owner shall transmit to the compliance project manager (CPM) a statement, signed by the project owner's project manager, stating that the above notification has been performed, and describing the method of that notification. This communication shall also verify that the telephone number has been established and posted at the site, and shall provide that telephone number.

NOISE COMPLAINT PROCESS

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

- use the Noise Complaint Resolution Form (below), or a functionally equivalent procedure acceptable to the CPM, to document and respond to the 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

[2] A project-related noise complaint is a complaint about noise that is caused by the Puente project, as opposed to another source, and may constitute a violation by the project of any noise condition of certification, which is documented by an individual or entity affected by such noise.

- 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.

Verification: Within five days of receiving a noise complaint, the project owner shall file with the CPM a Noise Complaint Resolution Form, shown below, that documents the resolution of the complaint. If mitigation is required to resolve the complaint, and the complaint is not resolved within a three business-day period, the project owner shall submit an updated Noise Complaint Resolution Form when the mitigation is implemented.

EMPLOYEE NOISE CONTROL PROGRAM

NOISE-3 The project owner shall submit to the CPM for review and approval a noise control program. The noise control program shall be used to reduce employee exposure to high (above permissible) noise levels during construction and demolition in accordance with Title 8, California Code of Regulations, Sections 5095-5099, and Title 29, Code of Federal Regulations, Section 1910.95.

Verification: At least 30 days prior to the start of ground disturbance, the project owner shall submit the noise control program to the CPM. The project owner shall make the program available to Cal-OSHA upon request.

OPERATIONAL NOISE RESTRICTIONS

NOISE-4 The project design and implementation shall include appropriate noise mitigation measures adequate to ensure that the noise levels due to the project operation alone do not exceed an hourly average exterior noise level of 45 dBA L_{50} measured at or near monitoring location LT-1, an hourly average exterior noise level of 42 dBA L_{eq} measured at or near monitoring location LT-2, and an hourly average exterior noise level of 48 dBA L_{50} measured at or near monitoring location LT-3.

No new pure-tone components (as defined in **Noise Table A1**, last row) shall be caused by the project. No single piece of equipment shall be allowed to stand out as a source of noise that draws project-related 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 LT-1, LT-2, and LT-3, or at a closer location acceptable to the CPM and include L_{50}, L_{eq}, and L_{90} readings. 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 (e.g., 400 feet from the plant boundary) and this measured level then mathematically extrapolated to determine the plant noise contribution to the monitoring locations. 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 exceeds the above values at the above receptors, 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**, below.

Verification: The above noise survey shall take place within 30 days of the project first achieving a sustained output of 85 percent or greater of its rated capacity.

Within 15 days after completing the 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.

OCCUPATIONAL NOISE SURVEY

NOISE-5 Following the project's attainment of a sustained output of 85 percent or greater of its rated capacity, the project owner shall conduct an occupational noise survey to identify any noise hazardous areas within the power plant.

The survey shall be conducted by a qualified person in accordance with the provisions of Title 8, California Code of Regulations, Sections 5095-5099 (Article 105) and Title 29, Code of Federal Regulations, Section 1910.95. The survey results shall be used to determine the magnitude of employee noise exposure.

The project owner shall prepare a report of the survey results and, if necessary, identify proposed mitigation measures to be employed in order to comply with the above regulations.

Within 30 days after completing each survey, the project owner shall submit the noise survey report to the CPM. The project owner shall make the report available to OSHA and Cal-OSHA upon request from OSHA and Cal-OSHA.

CONSTRUCTION AND DEMOLITION NOISE RESTRICTIONS

NOISE-6 Heavy equipment operation and noisy[3] work associated with the construction and demolition work relating to any project features, including pile driving and linear facilities, shall be restricted to the times delineated below:

Mondays through Saturdays:	7:00 a.m. to 6:00 p.m.
Sundays and federal holidays:	Construction and demolition not allowed

Demolition and construction work shall be performed in a manner to avoid excessive noise[4] and reduce the potential for noise complaints as much as practicable. Haul trucks and other engine-powered equipment shall be equipped with adequate mufflers and other state-required noise attenuation devices. Haul trucks shall be operated in accordance with posted speed limits. Truck engine exhaust brake use (jake braking) shall be limited to emergencies.

Verification: Prior to ground disturbance, the project owner shall transmit to the CPM a statement acknowledging that the above restrictions will be observed throughout the construction and demolition work associated with this project.

Construction and demolition equipment generating excessive noise shall be updated or replaced. Temporary acoustic barriers shall be installed around stationary construction and demolition noise sources if beneficial in reducing the noise. The project owner shall reorient construction and demolition equipment, and relocate construction staging areas, when possible, to minimize the noise impact to nearest noise-sensitive receptors.

PILE DRIVING MANAGEMENT

NOISE-7 The project owner shall perform pile driving in a manner to reduce the potential for any project-related noise complaints. The project owner shall notify the residents in the vicinity of pile driving prior to start of pile driving activities. Vibrations from pile driving shall be limited to a peak particle velocity of 0.16 inches per second at receptors LT-1, LT-2, and LT-3.

Verification: At least 15 days prior to first pile driving, the project owner shall submit to the CPM a description of the pile driving technique to be employed, including calculations showing its projected noise impacts at monitoring locations LT-1, LT-2, and LT-3.

[3] Noise that draws a project-related complaint. For definition of a “project-related complaint”, see the footnote in Condition of Certification **NOISE-2**.
[4] Noise that draws a project-related complaint.

At least 10 days prior to first pile driving, the project owner shall notify the residents within one mile of the pile driving. In this notification, the project owner shall state that it will perform this activity in a manner to reduce the potential for any project-related noise complaints as much as practicable. The project owner shall submit a copy of this notification to the CPM prior to the start of pile driving.

SOCIOECONOMICS PROPOSED CONDITIONS OF CERTIFICATION

Staff proposes the following Socioeconomics conditions of certification:

SOCIO-1 The project owner shall pay the one-time statutory school facility development fee to the Oxnard School District and to the Oxnard Union High School District as required by Education Code Section 17620.

Verification: At least 30 days prior to the start of project construction, the project owner shall provide to the compliance project manager (CPM) proof of payment to the Oxnard School District and to the Oxnard Union High School District of the statutory development fees.

SOIL AND WATER RESOURCES PROPOSED CONDITIONS OF CERTIFICATION

Staff proposes the following Soil and Water Resources conditions of certification:

CONSTRUCTION - NPDES GENERAL PERMIT

SOIL&WATER-1: The project owner shall fulfill the requirements contained in the State Water Resources Control Board's *National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2009-0009-DWQ, NPDES No. CAS000002)* and all subsequent revisions and amendments. The project owner shall develop and implement a construction Storm Water Pollution Prevention Plan (SWPPP) for the construction of the project. The SWPPP shall also include demolition activities of MGS Units 1 and 2, unless documentation from the State Water Resources Control Board or the Regional Water Quality Control Board is provided that shows the NPDES Permit is not required for proposed demolition activities.

Verification: At least thirty days prior to site mobilization, the project owner shall submit the construction SWPPP to the compliance project manager (CPM) and a copy of the approved SWPPP shall be kept accessible onsite at all times. The project owner shall submit to the CPM a copy of any correspondence between the project owner and the State Water Resources Control Board or the Regional Water Quality Control Board, within ten days of its mailing or receipt, about the general NPDES permit for discharge of storm water associated with this activity. This information shall include the notice of intent, the notice of termination, and any updates to the construction SWPPP.

CONSTRUCTION - NPDES WASTEWATER DISCHARGES

SOIL&WATER-2: The project owner shall fulfill the requirements contained in the following NPDES permits adopted by Los Angeles Regional Water Quality Control Board (LARWQCB), and all subsequent revisions and amendments, which specifically regulate discharges of hydrostatic test waters and construction dewatering, as applicable: NPDES Permit No. CAG674001: *Discharges of Low Threat Hydrostatic Test Water to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties* and NPDES Permit No. CAG994004*: Discharges of Groundwater from Construction and Project Dewatering to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties*.

Verification: The project owner shall submit to the CPM copies of all relevant correspondence between the project owner and the SWRCB or LARWQCB regarding the above NPDES permits within ten days of its receipt or submittal. This information shall include copies of the Notice of Intent and Notice of Termination for the project. A letter from the SWRCB or LARWQCB indicating that there is no requirement for the wastewater discharge of hydrostatic testing or construction dewatering would satisfy the corresponding portion of this condition.

CONSTRUCTION – DEWATERING PLAN

SOIL&WATER-3: Prior to any groundwater dewatering, the project owner shall submit a dewatering plan to the CPM for review and approval. The dewatering plan shall provide details of the dewatering methods, the locations and dimensions of anticipated dewatering areas, and the expected dates of dewatering. The plan shall also include maximum daily and average daily pumping rates, total volume expected to be pumped during dewatering, estimates of drawdown that may occur at the wetlands north of the project site, and procedures for groundwater elevation monitoring. The plan shall identify potential mitigation, as needed, and describe under what circumstances such mitigation would be implemented.

Construction dewatering shall not occur until the dewatering plan is approved by the CPM and the project owner obtains the NPDES permit for dewatering, per **SOIL&WATER-2**. After project construction is complete, the project owner shall submit a report to the CPM summarizing construction dewatering activities, comparing actual pump rates and drawdown to the estimates calculated for the plan, and detailing the implementation and effectiveness of mitigation that occurred.

Verification: At least thirty days prior to any construction groundwater dewatering, the project owner shall submit a dewatering plan to the CPM for review and approval. At least seven days prior to construction groundwater dewatering, the project owner shall provide documentation of a NPDES permit for dewatering per **SOIL&WATER-2**. No later than thirty days after project construction is complete, the project owner shall submit a report to the CPM summarizing construction dewatering activities. The project owner shall include all calculations and assumptions made in development of the plan and interpretations, calculations, and assumptions used in development of any reports.

OPERATION – WASTE WATER DISPOSAL AND REPORTING

SOIL&WATER-4: Prior to operations, the project owner shall obtain the applicable Los Angeles Regional Water Quality Control Board (LARWQCB) Waste Discharge Requirements (WDR) permits for municipal domestic wastewater discharge through the existing subsurface septic system and for storm water and process wastewater discharges to the Edison Canal. It is the Commission's intent that these requirements be enforceable by both the Commission and LARWQCB. In furtherance of that objective, the Commission hereby delegates the enforcement of these requirements, and associated monitoring, inspection and annual fee collection authority, to LARWQCB. Accordingly, the Commission and LARWQCB shall confer with each other and coordinate, as needed, in the enforcement of the requirements. The project owner shall pay the annual waste discharge permit fee associated with this facility to the LARWQCB. In addition, LARWQCB may "prescribe" these requirements as waste discharge requirements pursuant to Water Code Section 13263 solely for the purposes of enforcement,

monitoring, inspection, and the assessment of annual fees, consistent with Public Resources Code Section 25531, subdivision (c).

The project owner shall ensure compliance with WDR permits, and all subsequent revisions and amendments, for the life of the project. The project owner shall notify the CPM of any violations of discharge limits or amounts. A monthly summary of industrial wastewater discharge shall be submitted to the CPM in the annual compliance report.

Verification: At least sixty days prior to any wastewater discharge to the Edison Canal, the project owner shall provide documentation to the CPM demonstrating compliance with the WDRs established by LARWQCB. At least thirty days prior to operations, the project owner shall provide documentation to the CPM demonstrating compliance with updated WDR established by LARWQCB for discharges to the onsite septic system. The project owner shall submit to the CPM any updates or amendments of the above WDRs within ten days of adoption by the LARWQCB. The project owner shall notify the CPM of any violations, exceedances, enforcement actions, or corrective actions within ten days of receipt from the LARWQCB and fully explain the situation and corrective action taken in the annual compliance report. The annual compliance report shall include a monthly summary of daily industrial wastewater discharge and an estimate of reclaimed storm water used to offset potable water use.

WATER USE AND REPORTING

SOIL&WATER-5: The project owner shall record daily water use for project construction and operation, and the decommissioning and demolition of MGS. The project owner shall comply with the water use limits and reporting requirements described below. If water use is forecasted to exceed the maximum annual use, the project owner shall notify the CPM and develop a plan to address exceedances.

Water supply for construction needs shall be potable water supplied from the city of Oxnard. Potable water use for construction activities, including related domestic uses, shall not exceed 2.8 acre-feet per calendar year. A monthly summary of project construction daily water use shall be submitted to the CPM in the monthly compliance report.

Water supply for MGS decommissioning and demolition needs shall be potable water supplied from the city of Oxnard. Total potable water use for these purposes shall not exceed 2.9 acre-feet per calendar year. A monthly summary of MGS decommissioning and demolition daily water use shall be submitted to the CPM in the monthly compliance report.

Water supply for operation and domestic needs shall be potable water supplied from the city of Oxnard. Total potable water use for these purposes shall not exceed 19 acre-feet per calendar year. A monthly summary of daily water use, differentiating between operational and domestic use, shall be submitted to the CPM in the annual compliance report for the life of project operation.

Verification: The monthly compliance report shall include a monthly summary of daily water use for project construction, MGS decommissioning, and MGS demolition (as applicable). The annual compliance report shall include a monthly summary of daily water use, differentiating between operational and domestic use.

The project owner shall notify the CPM within fourteen days upon forecast to exceed the maximum annual water use as described above. Prior to exceeding the maximum use, the owner shall provide a plan to address exceedances.

OPERATION - BEACH AND DUNE MONITORING PLAN

SOIL&WATER-6: Prior to project construction, the project owner shall submit a Beach and Dune Monitoring Plan to California Coastal Commission for review and comment and CPM for approval. The plan shall identify representative monitoring locations that can be dedicated and accessed over the life of the project. The plan shall discuss how the monitoring locations will be measured and the frequency of monitoring necessary to demonstrate if any significant changes in beach and dune morphology are occurring. The plan shall also include triggers for further action based on the degree of beach narrowing and/or dune loss, and identify measures that could halt or slow the observed erosion without construction of shoreline protective devices. An annual summary shall be submitted to the CPM in the annual compliance report.

In the event that the project, including any future improvements, is threatened with damage or destruction from coastal hazards, or is damaged or destroyed by coastal hazards, protective structures (including but not limited to seawalls, revetments, groins, deep piers/caissons, etc.) shall be prohibited. The project owner waives any right to construct such protective structures, including any that may exist under Public Resources Code Section 30235.

Verification: At least sixty days prior to project construction, the project owner shall submit a Beach and Dune Monitoring Plan to the CPM for review and approval.

TRAFFIC AND TRANSPORTATION PROPOSED CONDITIONS OF CERTIFICATION

TRANS-1 Roadway Use Permits and Regulations

The project owner shall comply with limitations imposed by the California Department of Transportation (Caltrans) and other relevant jurisdictions, including the city of Oxnard, the County of Ventura, and the city of Ventura, on vehicle sizes and weights, driver licensing, and truck routes.

Verification: In the Monthly Compliance Reports (MCRs), the project owner shall identify the permits received during that reporting period (copies of actual permits are not required in the MCR) to demonstrate project compliance with limitations of relevant jurisdictions for vehicle sizes, weights, driver licensing, and truck routes. The project owner shall retain copies of permits and supporting documentation on-site for compliance project manager (CPM) inspection if requested.

TRANS-2 Traffic Control Plan, Heavy Haul Plan, and Parking/Staging Plan

Prior to the start of construction, the project owner shall prepare a Traffic Control Plan (TCP) for the project's construction and operation traffic and for Mandalay Generating Station (MGS) decommissioning and demolition traffic. The TCP shall address the movement of workers, vehicles, and materials, including arrival and departure schedules and designated workforce and delivery routes.

The project owner shall consult with Caltrans District 7 office, the County of Ventura, the city of Oxnard, and the city of Ventura in the preparation and implementation of the TCP. The project owner shall submit the proposed TCP to these agencies in sufficient time for review and comment, and to the CPM for review and approval prior to the proposed start of construction and implementation of the plan.

The TCP shall include:

- Routes used for construction- and demolition-related trips for workers, deliveries, and heavy-haul trucks. The plan shall require that vehicles exit the site by turning right onto southbound Harbor Boulevard, unless a flagger is present to direct traffic on Harbor Boulevard while the vehicles turn left onto northbound Harbor Boulevard
- Location and type of signage on Harbor Boulevard warning traffic to use caution and to be aware of construction and demolition vehicles exiting the power plant site
- Timing of construction and demolition-related trips for workers, deliveries, and heavy-haul trucks, with trips scheduled for off-peak hours to the maximum extent possible, and staggered if occurring during the peak hours.

- Parking/Staging Plan (PSP) for project construction, MGS demolition, outfall removal/ beach restoration and project operation. The PSP must comply with the city of Oxnard's parking regulations by providing sufficient on-site parking for all workers and construction vehicles
- Placement of necessary signage, lighting, and traffic control devices at the project construction site and laydown areas
- A heavy haul plan addressing the transport and delivery of heavy and oversized loads requiring permits from Caltrans, other state or federal agencies, and/or the affected local jurisdictions. Heavy haul trips should be planned for off-peak commute periods

  Means of access for emergency vehicles to the project site

Verification: At least 60 calendar days prior to the start of construction, the project owner shall submit the TCP to Caltrans District 7 office, the County of Ventura, the city of Oxnard, and the city of Ventura for review and comment and to the CPM for review and approval. The project owner shall also provide the CPM with a copy of the transmittal letter to the agencies requesting review and comment.

At least 30 calendar days prior to the start of construction, the project owner shall provide copies of any comment letters received from the agencies, along with any changes to the TCP for CPM review and approval.

TRANS-3 Restoration of All Public Roads, Easements, and Rights-of-Way

The project owner shall restore all public roads, easements, rights-of-way, and any other transportation infrastructure damaged due to project-related construction and demolition activities and traffic. Restoration to the infrastructure's original condition shall be completed in a timely manner.. Restoration of significant damage which could cause hazards (such as potholes, deterioration of pavement edges, or damaged signage) shall take place immediately after the damage has occurred.

Prior to the start of site mobilization, the project owner shall notify the relevant agencies, including the city of Oxnard, County of Ventura, city of Ventura, and Caltrans District 7, of the proposed schedule for project construction and MGS demolition. The purpose of this notification is to request that these agencies consider postponement of any planned public right-of-way repairs or improvement activities in areas affected by project construction until construction is completed, and to coordinate any concurrent activities that cannot be postponed.

Verification: Prior to the start of site mobilization, the project owner shall video all public roads, easements, right-of-way segment(s), and intersections along the route construction and demolition vehicles would take in the vicinity of the project site. The project owner shall provide the videos or other recorded visual media to the CPM.

If damage to any public road, easement, or right-of-way occurs during construction or demolition, the project owner shall notify the CPM and the affected agency/agencies to

identify the sections to be repaired. At that time, the project owner and CPM shall establish a schedule for completion and approval of the repairs with which the project owner must comply, unless approval for a schedule change is provided by the CPM. Following completion of any repairs, the project owner shall provide the CPM with letters signed by the affected agency/agencies stating their satisfaction with the repairs.

TRANS-4 Transportation of Hazardous Materials

The project owner shall contract with licensed hazardous materials delivery and waste hauler companies for the transportation of hazardous materials and wastes.

Verification: In the Monthly Compliance Reports (MCRs) during construction and demolition and the Annual Reports during operation, the owner shall provide the names of the contracted hazardous materials delivery and waste hauler companies used, as well as licensing verification. Licensing verification only needs to be included in the MCRs when a new company is used. If a company's licensing verification has already been submitted in an MCR, it is not necessary to submit it again. Licensing verification must be included in all Annual Reports, even if the company has already been used.

TRANS-5 Federal Aviation Administration Notification

The project owner shall submit the following filings to the Federal Aviation Administration (FAA):

- Form 7460-1, Notice of Proposed Construction or Alteration, regarding the use of any construction cranes exceeding 188 feet in height;
- Form 7460-2, Notice of Actual Construction or Alteration, for the combustion turbine generator (CTG) stack within 5 days after it reaches its greatest height.

The project owner shall comply with any conditions imposed by the FAA on the use of construction cranes exceeding 188 feet in height.

Verification: At least 60 days prior to ground disturbance, the project owner shall submit a copy of the FAA Determination of No Hazard to Navigable Airspace regarding the construction cranes to the CPM.

Within 10 days following the date the CTG stack reaches its greatest height, the project owner shall submit to the CPM a copy of the Form 7460-2 submitted to the FAA.

TRANS-6 Obstruction Marking and Lighting

The project owner shall install obstruction marking and lighting on the CTG stack. Lighting on the CTG stack shall consist of top-mounted flashing red L-864 lights consistent with the standards set in FAA Advisory Circular 70/7460-1L, Obstruction Marking and Lighting, particularly Section 5.5 "Chimneys, Flare Stacks, and Similar Solid Structures". Lighting shall be as close to the top of the CTG stack as possible for pilot visibility. Lighting need not be installed on lower levels. Obstruction marking shall also be near the top of the CTG stack and need not be installed on lower levels.

Lighting and marking shall be operational for the life of project operation.

Verification: At least 60 days prior to the start of construction of the CTG stack, the project owner shall submit to the CPM for approval final design plans for the CTG stack that depict the required obstruction marking and lighting. Prior to the start of plant operation, the project owner shall install and activate permanent obstruction marking and lighting consistent with the approved design plans and shall inform the CPM in writing within 10 days of installation and activation.

Any future upgrades to the required lighting configurations, types, location, or duration or to obstruction marking shall not be implemented before approval by the CPM.

TRANS-7 Pilot Notification and Awareness. The project owner shall initiate the following actions to ensure pilots are aware of the project location and potential hazards to aviation:

1. Submit a letter to the FAA requesting a Notice to Airmen (NOTAM) be issued advising pilots of the location of the power plant and recommending avoidance of overflight. The letter should also request that the NOTAM be maintained in active status until all navigational charts and Airport Facility Directories (AFDs) have been updated.

2. Submit a letter to the FAA requesting a power plant depiction symbol be placed at the power plant site location on the Los Angeles Sectional Chart with a notice to avoid direct overflight.

3. Submit a request to the Oxnard Airport Manager to add new remarks to the Automatic Terminal Information Service (ATIS) and to the AFD. The remarks shall identify the location of the power plant and advise pilots to avoid direct overflight as they approach or depart the airport.

4. Submit aerodrome remarks describing the location of the power plant and advising against direct overflight to the:

   a. FAA Chart Supplement for California Jeppesen (Airway Manual Services - Western U.S. Airport Directory)

   b. Pilots Guide to California Airports- PDF Edition

5. Work with the Director of the Ventura County Department of Airports to fund a revision to the Oxnard Airport Pilot Guide showing the location of the power plant and a note advising pilots to avoid direct overflight.

Verification: Within 60 days following the start of construction, the project owner shall submit to the CPM for review and approval draft language for the letters of request to the FAA, the Oxnard Airport Manager, the Director of the Ventura County Department of Airports, and the listed publications. The letters should request a response within 30 days that includes a timeline for implementing the required actions.

Within 60 days after CPM approval of the draft language, the project owner shall submit the required letters of request to the FAA, the Oxnard Airport Manager, the Director of the Ventura County Department of Airports, and the identified publications. The project owner shall submit copies of these requests to the CPM. A copy of any resulting correspondence shall be submitted to the CPM within 10 days of receipt. If the FAA, Oxnard Airport Manager, the Director of the Ventura County Department of Airports, or the listed publications do not respond within 30 days, the project owner shall contact the CPM.

TRANSMISSION SYSTEM ENGINEERING PROPOSED CONDITIONS OF CERTIFICATION

Staff proposes the following Transmission System Engineering conditions of certification:

TSE-1 The project owner shall furnish to the compliance project manager (CPM) and the chief building official (CBO) a schedule of transmission facility design submittals, a Master Drawing List, a Master Specifications List, and a Major Equipment and Structure List. The schedule shall contain a description and list of proposed submittal packages for design, calculations, and specifications for major structures and equipment. To facilitate audits by Energy Commission staff, the project owner shall provide designated packages to the CPM when requested.

Verification: Prior to the start of construction of transmission facilities, the project owner shall submit the schedule, a Master Drawing List, and a Master Specifications List to the CBO and to the CPM. The schedule shall contain a description and list of proposed submittal packages for design, calculations, and specifications for major structures and equipment (see list of major equipment in **Table 1:** Major Equipment List below). Additions and deletions shall be made to the table only with CPM and CBO approval. The project owner shall provide schedule updates in the monthly compliance report.

Table 1: Major Equipment List

Breakers
Step-up transformer
Switchyard
Busses
Surge arrestors
Disconnects
Take-off facilities
Electrical control building
Switchyard control building
Transmission pole/tower
Grounding system

TSE-2 For the power plant switchyard, outlet line and termination, the project owner shall not begin any construction until plans for that increment of construction have been approved by the CBO. These plans, together with design changes, and design change notices, shall remain on the site for one year after completion of construction. The project owner shall request that the CBO inspect the installation to ensure compliance with the requirements of applicable LORS. The following activities shall be reported in the monthly compliance report:

a) receipt or delay of major electrical equipment;

b) testing or energization of major electrical equipment; and

c) the number of electrical drawings approved, submitted for approval, and still to be submitted to the CBO.

Verification: Prior to the start of each increment of construction, the project owner shall submit to the CBO for review and approval the final design plans, specifications, and calculations for equipment and systems of the outlet line and termination, including a copy of the signed and stamped statement from the responsible electrical engineer verifying compliance with all applicable LORS, and send the CPM a copy of the transmittal letter in the next monthly compliance report.

TSE-3 The project owner shall ensure that the design, construction, and operation of the proposed transmission facilities will conform to all applicable LORS and the requirements listed below. The project owner shall submit the required number of copies of the design drawings and calculations, as determined by the CBO. Once approved, the project owner shall inform the CPM and CBO of any anticipated changes to the design, and shall submit a detailed description of the proposed change and complete engineering, environmental, and economic rationale for the change, to the CPM and CBO for review and approval.

a) The power plant outlet line shall meet or exceed the electrical, mechanical, civil, and structural requirements of CPUC General Order 95 or National Electric Safety Code (NESC); Title 8 of the California Code of Regulations (Title 8); Articles 35, 36 and 37 of the *High Voltage Electric Safety Orders*, California ISO standards, National Electric Code (NEC) and related industry standards.

b) Breakers and busses in the power plant switchyard and other switchyards, where applicable, shall be sized to comply with a short-circuit analysis.

c) Outlet line crossings and line parallels with transmission and distribution facilities shall be coordinated with the transmission line owner and comply with the owner's standards.

d) The project conductors shall be sized to accommodate the full output of the project.

e) Termination facilities shall comply with applicable SCE interconnection standards.

f) The project owner shall provide to the CPM:

i) Special Protection System (SPS) sequencing and timing if applicable,

ii) A letter stating that the mitigation measures or projects selected by the transmission owners for each reliability criteria violation, for which the project is responsible, are acceptable,

iii) A copy of the executed Large Generator Interconnection Agreement (LGIA) signed by the California ISO and the project owner and approved by the Federal Energy Regulatory Commission.

Verification: Prior to the start of construction or start of modification of transmission facilities, the project owner shall submit to the CBO for approval:

a) Design drawings, specifications, and calculations conforming with CPUC General Order 95 or National Electric Safety Code (NESC); Title 8 of the California Code and Regulations (Title 8); Articles 35, 36 and 37 of the *High Voltage Electric Safety Orders*, California ISO standards, National Electric Code (NEC) and related industry standards, for the poles/towers, foundations, anchor bolts, conductors, grounding systems, and major switchyard equipment;

b) For each element of the transmission facilities identified above, the submittal package to the CBO shall contain the design criteria, a discussion of the calculation method(s), a sample calculation based on "worst case conditions,"[5] and a statement signed and sealed by the registered engineer in responsible charge, or other acceptable alternative verification, that the transmission element(s) will conform with CPUC General Order 95 or National Electric Safety Code (NESC); Title 8 of the California Code and Regulations (Title 8); Articles 35, 36 and 37 of the *High Voltage Electric Safety Orders*, California ISO standards, National Electric Code (NEC), and related industry standards;

c) Electrical one-line diagrams signed and sealed by the registered professional electrical engineer in charge, a route map, and an engineering description of the equipment and configurations covered by requirements **TSE-3** a) through f);

d) Special Protection System (SPS) sequencing and timing, if applicable, shall be provided concurrently to the CPM.

e) A letter stating that the mitigation measures or projects selected by the transmission owners for each reliability criteria violation, for which the project is responsible, are acceptable,

f) A copy of the executed LGIA signed by the California ISO and the project owner and approved by the Federal Energy Regulatory Commission.

Prior to the start of construction of or modification of transmission facilities, the project owner shall inform the CBO and the CPM of any anticipated changes to the design that are different from the design previously submitted and approved and shall submit a detailed description of the proposed change and complete engineering, environmental, and economic rationale for the change, to the CPM and CBO for review and approval.

[5] Worst-case conditions for the foundations would include for instance, a dead-end or angle pole.

TSE-4 The project owner shall provide the following Notice to the California Independent System Operator (California ISO) prior to synchronizing the facility with the California Transmission system:

1. At least one week prior to synchronizing the facility with the grid for testing, provide the California ISO a letter stating the proposed date of synchronization; and

2. At least one business day prior to synchronizing the facility with the grid for testing, provide telephone notification to the California ISO Outage Coordination Department.

Verification: The project owner shall provide copies of the California ISO letter to the CPM when it is sent to the California ISO one week prior to initial synchronization with the grid. The project owner shall contact the California ISO Outage Coordination Department, Monday through Friday, between the hours of 7:00 am and 3:30 pm at (916) 351-2300 at least one business day prior to synchronizing the facility with the grid for testing. A report of conversation with the California ISO shall be provided electronically to the CPM one day before synchronizing the facility with the California transmission system for the first time.

TSE-5 The project owner shall be responsible for the inspection of the transmission facilities during and after project construction, and any subsequent CPM and CBO approved changes thereto, to ensure conformance with CPUC GO-95 or NESC, Title 8, CCR, Articles 35, 36 and 37 of the "High Voltage Electric Safety Orders", applicable interconnection standards, NEC and related industry standards. In case of non-conformance, the project owner shall inform the CPM and CBO in writing, within 10 days of discovering such non-conformance, and describe the corrective actions to be taken.

Verification: Within 60 days after first synchronization of the project, the project owner shall transmit to the CPM and CBO:

a) "As built" engineering description(s) and one-line drawings of the electrical portion of the facilities signed and sealed by the registered electrical engineer in responsible charge. A statement attesting to conformance with CPUC GO-95 or NESC, Title 8, California Code of Regulations, Articles 35, 36 and 37 of the "High Voltage Electric Safety Orders", and applicable interconnection standards, NEC, related industry standards.

b) An "as built" engineering description of the mechanical, structural, and civil portion of the transmission facilities signed and sealed by the registered engineer in responsible charge or acceptable alternative verification. "As built" drawings of the electrical, mechanical, structural, and civil portion of the transmission facilities shall be maintained at the power plant and made available, if requested, for CPM audit as set forth in the "**Compliance Monitoring Plan**".

c) A summary of inspections of the completed transmission facilities, and identification of any nonconforming work and corrective actions taken, signed and sealed by the registered engineer in charge.

TRANSMISSION LINE SAFETY AND NUISANCE PROPOSED CONDITIONS OF CERTIFICATION

Staff proposes the following Transmission Line Safety and Nuisance conditions of certification:

TLSN-1 The project owner shall construct the proposed 220-kV transmission lines according to the requirements of California Public Utility Commission's GO- 95, GO-52, GO-131-D, Title 8, and Group 2, High Voltage Electrical Safety Orders, sections 2700 through 2974 of the California Code of Regulations, and Southern California Edison's EMF reduction guidelines.

Verification: At least 30 days prior to start of construction of the transmission lines or related structures and facilities, the project owner shall submit to the compliance project manager (CPM) a letter signed by a California registered electrical engineer affirming that the lines will be constructed according to the requirements stated in the condition.

TLSN-2 The project owner shall ensure that the route of the proposed transmission lines is kept free of combustible material, as required under the provisions of GO-95 and section 1250 of Title 14 of the California Code of Regulations.

Verification: During the first five years of plant operation, the project owner shall provide a summary of inspection results and any fire prevention activities carried out along the proposed route and provide such summaries in the Annual Compliance Report on transmission line safety and nuisance-related requirements.

TLSN-3 The project owner shall ensure that all permanent metallic objects within the proposed route are grounded according to industry standards.

Verification: At least 30 days before the lines are energized, the project owner shall transmit to the CPM a letter confirming compliance with this condition.

TLSN-4 The project owner shall measure the maximum strengths of the line electric and magnetic fields at the edge of the right-of-way to validate the estimates the applicant has provided for these fields. These measurements shall be made (a) according to the standard procedures of the American National Standard Institute/Institute of Electrical and Electronic Engineers (ANSI/IEEE) and (b) before and after energizing. The measurements shall be completed no later than six months after the start of operations.

Verification: The project owner shall file copies of the pre-and post-energizing measurements with the CPM within 60 days after completion of the measurements

VISUAL RESOURCES PROPOSED CONDITIONS OF CERTIFICATION

Staff proposes the following Visual Resources conditions of certification:

Surface Treatment of Project Structures and Buildings

VIS-1 The project owner shall prepare and implement a Surface Treatment Plan addressing treatment of the surfaces of all project structures, buildings, fences, and walls 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) and the Planning Director of the city of Oxnard, 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) 2 and KOP 3 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 transmission structures 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 and the Planning Director of the city of Oxnard for simultaneous review and comment. The project owner shall provide the CPM with a copy of the transmittal letters submitted to the city requesting their review of the Surface Treatment Plan. The CPM shall deem the Surface Treatment Plan acceptable to the city if comments are not provided 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. 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 project, 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.

Site Lighting – Project Demolition, Construction, and Commissioning

VIS-2 Consistent with applicable worker safety regulations, the project owner shall ensure that lighting of demolition and construction areas and construction worker parking lots minimizes potential night lighting impacts by implementing the following measures:

A. All fixed-position lighting shall be hooded and shielded to direct light downward and toward the construction area to be illuminated to prevent illumination of the night sky and minimize light trespass (i.e., direct light

extending beyond the boundaries of the parking lots and construction sites, including any security-related boundaries).

B. Lighting of any tall construction equipment (e.g., scaffolding, derrick cranes, etc.) shall be directed toward areas requiring illumination and shielded to the maximum extent practicable.

C. Task-specific lighting shall be used to the maximum extent practicable.

D. Wherever and whenever feasible, lighting shall be kept off when not in use and motion sensors shall be installed and used to the maximum extent practicable.

E. The CPM shall be notified of any demolition- and construction-related lighting complaints. 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: Within seven calendar days after the first use of construction and demolition lighting, the project owner shall notify the CPM that the lighting is ready for inspection. If the CPM determines that modifications to the lighting are needed for any construction milestone, within 14 calendar days of receiving that notification, the project owner shall correct the lighting and notify the CPM that modifications have been completed.

Within 48 hours of receiving a lighting complaint for any construction activity, 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 lighting complaints and document their resolution in the Monthly Compliance Report for the project, accompanied by copies of completed complaint report and resolution forms for that month.

Lighting Management Plan – Project Operation

VIS-3 The project owner shall prepare and implement a comprehensive Lighting Management Plan. The comprehensive Lighting Management Plan shall be submitted to the CPM, and the Planning Director of the city of Oxnard for simultaneous review and comment. Any comments on the plan from the city 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.

Consistent with applicable worker safety regulations, the project owner shall design, install, and maintain 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 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.

The 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 project, the project owner shall submit the comprehensive Lighting Management Plan to the CPM and the Planning Director of the city of Oxnard for simultaneous review and comment. The project owner shall provide the CPM with a copy of the transmittal letters submitted to the city requesting their review of the Lighting Management Plan. The CPM shall deem the Lighting Management Plan acceptable to the city of Oxnard if comments are not provided 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 Oxnard. 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 project, the project owner shall notify the CPM that installation of permanent lighting for the project 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.

WASTE MANAGEMENT PROPOSED CONDITIONS OF CERTIFICATION

Staff proposes the following Waste Management conditions of certification:

WASTE-1 The project owner shall prepare and submit to the compliance project manager (CPM) a Soils Management Plan (SMP) prior to any earthwork. The SMP must be prepared by a California Registered Geologist or a California Registered Civil Engineer with sufficient experience in hazardous waste management. The SMP shall be updated as needed to reflect changes in laws, regulations or site conditions. All earthwork at the site shall be conducted in accordance with the SMP. An SMP summary report, which includes all analytical data and other findings, must be submitted once the earthwork has been completed. Topics covered by the SMP shall include, but not be limited to:

- Land use history, including description and locations of known contamination.
- The nature and extent of previous investigations and remediation at the site.
- The nature and extent of unremediated areas at the project site.
- A listing and description of institutional controls, such as the county's excavation ordinance, and other local, state, and federal regulations and laws that would apply to the project.
- Names and positions of individuals involved with soils management and their specific role.
- An earthwork schedule.
- A description of protocols for the investigation and evaluation of historically related chemicals such as DDE and previously unidentified contamination that may be potentially encountered, including any temporary and permanent controls that may be required to reduce exposure to onsite workers, visitors, and the public.
- Requirements for a site-specific Health and Safety Plan (HSP) to be prepared by all contractors at the project. The HSP should be prepared by a Certified Industrial Hygienist and would protect on-site workers by including engineering controls, personal protective equipment, monitoring, security to prevent unauthorized entry, and to reduce construction related hazards. The HSP should address the possibility of encountering subsurface hazards including hazardous waste contamination and include procedures to protect workers and the public.
- Hazardous waste determination and disposal procedures for known and previously unidentified contamination.

- Requirements for site-specific techniques at the site to minimize dust, manage stockpiles, run-on and run-off controls, waste disposal procedures, etc.
- Copies of relevant permits or closures from regulatory agencies.

Verification: At least 45 days prior to any earthwork, the project owner shall submit the SMP to the CPM for review and approval. A SMP summary shall be submitted to the CPM within 25 days of completion of any earthwork.

WASTE-2 The project owner shall provide the resume of an experienced and qualified professional engineer or professional geologist, who shall be available for consultation during site characterization (if needed), demolition, excavation, and grading activities, to the CPM for review and approval. The resume shall show experience in remedial investigation and feasibility studies.

The professional engineer or professional geologist shall be given full authority by the project owner to oversee any earth moving activities that have the potential to disturb contaminated soil.

Verification: At least 30 days prior to the start of site mobilization, the project owner shall submit the resume to the CPM for review and approval.

WASTE-3 If potentially contaminated soil is identified during site characterization, demolition, excavation, or grading at either the proposed site or linear facilities, as evidenced by discoloration, odor, detection by handheld instruments, or other signs, the professional engineer or professional geologist shall inspect the site, determine the need for sampling to confirm the nature and extent of contamination, and provide a written report to the project owner, representatives of Department of Toxic Substances Control, and the CPM stating the recommended course of action.

Depending on the nature and extent of contamination, the professional engineer or professional geologist shall have the authority to temporarily suspend construction activity at that location for the protection of workers or the public. If, in the opinion of the professional engineer or professional geologist, significant remediation may be required, the project owner shall contact the CPM and representatives of the Department of Toxic Substances Control for guidance and possible oversight.

Verification: The project owner shall submit any final reports filed by the professional engineer or professional geologist to the CPM within five days of their receipt. The project owner shall notify the CPM within 24 hours of any orders issued to halt construction.

WASTE-4 The project owner shall prepare a Construction and Demolition (C & D) Environmental Resources Management and Recycling Plan for demolition and construction wastes generated and shall submit a copy of the plan to

the city of Oxnard Public Works Department for review and comment, and to the CPM for approval. The plan shall contain, at a minimum, the following information:

- a description of all construction waste streams, including projections of frequency, amounts generated, and hazard classifications;
- management methods to be used for each waste stream, including temporary on-site storage, housekeeping and best management practices to be employed, treatment methods and companies providing treatment services, waste-testing methods to assure correct classification, methods of transportation, disposal requirements and sites, and recycling and waste minimization/source reduction plans.
- a method for collecting weigh tickets or other methods for verifying the volume of transported and or location of waste disposal; and,
- a method for reporting to demonstrate project compliance with construction waste diversion requirements of 50 percent pursuant to the CalGreen Code and city of Oxnard's Construction & Demolition Ordinance.

Verification: The project owner shall submit the C & D Environmental Resources Management and Recycling Plan to the city of Oxnard Public Works Department for review, and the CPM for review and approval, no less than 30 days prior to the initiation of demolition activities at the site.

The project owner shall also document in each monthly compliance report (MCR) the actual volume of wastes generated and the waste management methods used during the year; provide a comparison of the actual waste generation and management methods used to those proposed in the original Construction and Demolition Waste Management Plan; and update the Construction and Demolition Waste Management Plan, as necessary, to address current waste generation and management practices.

WASTE-5 Prior to demolition of pipelines, buildings, and associated structures, the project owner shall complete and submit a copy of a Ventura County Air Pollution Control District's Notification of Demolition or Renovation form to the CPM and the APCD. The project owner shall remove all asbestos-containing material (ACM) from the site prior to demolition.

Verification: No less than 60 days prior to commencement of structure demolition, the project owner shall provide the Notification of Demolition or Renovation form to the CPM for review. The project owner shall inform the CPM, via the Monthly Compliance Report, of the data when all ACM is removed from the site.

WASTE-6 The project owner shall report new or temporary hazardous waste generator identification numbers from the United States Environmental Protection Agency prior to generating any hazardous waste during demolition, construction, and operations.

Verification: The project owner shall keep a copy of the identification number(s) on file at the project site and provide documentation of the hazardous waste generation and notification and receipt of the number to the CPM in the next scheduled Monthly Compliance Report after receipt of the number. Submittal of the notification and issued number documentation to the CPM is only needed once, unless there is a change in ownership, operation, waste generation, or waste characteristics, which requires a new notification to USEPA. Documentation of any new or revised hazardous waste generation notifications or changes in identification number shall be provided to the CPM in the next scheduled compliance report.

WASTE-7 Upon becoming aware of any impending waste management-related enforcement action by any local, state, or federal authority, the project owner shall notify the CPM of any such action taken, or proposed to be taken, against the project itself, or against any waste hauler or disposal facility or treatment operator with which the owner contracts.

Verification: The project owner shall notify the CPM in writing within ten days of becoming aware of an impending enforcement action. The CPM shall notify the project owner of any changes that will be required in the way project-related wastes are managed.

WASTE-8 The project owner shall prepare an Operation Waste Management Plan for all wastes generated during operation of the facility and shall submit the plan to the CPM for review and approval. The plan shall contain, at a minimum, the following:

- a detailed description of all operation and maintenance waste streams, including projections of amounts to be generated, frequency of generation, and waste hazard classifications;
- management methods to be used for each waste stream, including temporary on-site storage, housekeeping and best management practices to be employed, treatment methods and companies providing treatment services, waste testing methods to assure correct classification, methods of transportation, disposal requirements and sites, and recycling and waste minimization/source reduction plans;
- information and summary records of conversations with the local Certified Unified Program Agency and the Department of Toxic Substances Control regarding any waste management requirements necessary for project activities. Copies of all required waste management permits, notifications of enforcement actions, and/or authorizations shall be included in the plan and updated as necessary;
- a detailed description of how facility wastes will be managed and any contingency plans to be employed in the event of an unplanned closure or planned temporary facility closure; and
- a detailed description of how facility wastes will be managed and disposed upon closure of the facility.

Verification: The project owner shall submit the Operation Waste Management Plan to the CPM for approval no less than 30 days prior to the start of project operation. The project owner shall submit any required revisions to the CPM within 20 days of notification from the CPM that revisions are necessary.

The project owner shall also document in each Annual Compliance Report the actual volume of wastes generated and the waste management methods used during the year; provide a comparison of the actual waste generation and management methods used to those proposed in the original Operation Waste Management Plan; and update the Operation Waste Management Plan as necessary to address current waste generation and management practices.

WASTE-9 The project owner shall ensure that all spills or releases of hazardous substances, materials, or waste, are reported, cleaned up, and remediated as necessary, in accordance with all applicable federal, state, and local requirements.

Verification: The project owner shall document all unauthorized releases and spills of hazardous substances, materials, or wastes that occur on the project property or related pipeline and transmission corridors. The documentation shall include, at a minimum, the following information: location of release; date and time of release; reason for release; volume released; amount of contaminated soil/material generated; how release was managed and material cleaned up; if the release was reported; to whom the release was reported; release corrective action and cleanup requirements placed by regulating agencies; level of cleanup achieved and actions taken to prevent a similar release or spill; and disposition of any hazardous wastes and/or contaminated soils and materials that may have been generated by the release. Copies of the unauthorized spill documentation shall be provided to the CPM within 48 hours of the date the release was discovered.

WORKER SAFETY AND FIRE PROTECTION PROPOSED CONDITIONS OF CERTIFICATION

Staff proposes the following Worker Safety and Fire Protection conditions of certification:

WORKER SAFETY-1 The project owner shall submit to the compliance project manager (CPM) a copy of the Project Construction Health and Safety 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.
- a Mandalay Generating Station Demolition Health and Safety Program

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, the Fire Prevention Plan, and the Mandalay Generating Station Demolition Health and Safety Program shall be submitted to the Oxnard Fire Department for review and comment prior to submittal to the CPM for approval.

Verification: 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 and Safety and Health Program. The project owner shall provide to the CPM a copy of a letter from the Oxnard Fire Department stating the fire department's comments on the Construction Fire Prevention Plan and Emergency Action Plan. At least 30 days prior to the start of the demolition of the Mandalay Generation Station, the project owner shall submit to the CPM for review and approval a copy of the Mandalay Generating Station Demolition Plan. The project owner shall provide a copy to the CPM of a letter from the Oxnard Fire Department stating the fire department's comments on the Mandalay Generating Station Demolition Plan.

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);

- Fire Protection System Impairment Program; and
- Personal Protective Equipment Program (Cal Code Regs, tit.8, §§ 3401—3411).

The Operation Injury and Illness Prevention Plan, Hazardous Materials Management Program, Emergency Action Plan, Fire Prevention Plan, Fire Protection System Impairment Program, 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, Fire Protection System Impairment Program, and the Emergency Action Plan shall also be submitted to the Oxnard Fire Department for review and comment.

Verification: At least 30 days prior to the start of first-fire or commissioning, the project owner shall submit to the CPM for approval a copy of the Project Operations and Maintenance Safety and Health Program. The project owner shall provide a copy to the CPM of a letter from the Oxnard Fire Department stating the fire department's timely comments on the Operations Fire Prevention Plan, Fire Protection System Impairment Program, and Emergency Action Plan.

WORKER SAFETY-3 The project owner shall provide a site Construction/Demolition Safety Supervisor (CSS) who, by way of training and/or experience, is knowledgeable of power plant construction activities and relevant laws, ordinances, regulations, and standards; is capable of identifying workplace hazards relating to the construction activities; and has authority to take appropriate action to assure compliance and mitigate hazards. The CSS shall:

- have overall authority for coordination and implementation of all occupational safety and health practices, policies, and programs;
- assure that the safety program for the project complies with Cal/OSHA and federal regulations related to power plant projects;
- assure that all construction and commissioning workers and supervisors receive adequate safety training;
- complete accident and safety-related incident investigations and emergency response reports for injuries and inform the CPM of safety-related incidents; and
- assure that all the plans identified in Conditions of Certification Worker Safety-1 and -2 are implemented.

Verification: At least 30 days prior to the start of site mobilization, the project owner shall submit to the CPM the name and contact information for the Construction/Demolition Safety Supervisor (CSS). The contact information of any replacement CSS shall be submitted to the CPM within one business day.

The CSS shall submit in the Monthly Compliance Report a monthly safety inspection report to include:

- record of all employees trained for that month (all records shall be kept on site for the duration of the project);
- summary report of safety management actions and safety-related incidents that occurred during the month;
- report of any continuing or unresolved situations and incidents that may pose danger to life or health;
- report any visits from Cal/OSHA and/or any complaints from workers to Cal/OSHA; and
- report of accidents and injuries that occurred during the month.

WORKER SAFETY-4 the project owner shall make payments to the Delegate Chief Building Official (DCBO) for the services of a Safety Monitor based upon a reasonable fee schedule to be negotiated between the project owner and the DCBO. Those services shall be in addition to other work performed by the DCBO. The Safety Monitor shall be selected by and report directly to the DCBO and will be responsible for verifying that the Construction Safety Supervisor, as required in Condition of Certification **WORKER SAFETY-3**, implements all appropriate Cal/OSHA and Energy Commission safety requirements. The Safety Monitor shall conduct on-site (including linear facilities) safety inspections at intervals necessary to fulfill those responsibilities.

Verification: At least 60 days prior to the start of construction, the project owner shall provide proof of its agreement to fund the Safety Monitor services to the CPM for review and approval.

WORKER SAFETY-5 the project owner shall ensure that a portable automatic external defibrillator (AED) is located on site during construction and operations and shall implement a program to ensure that workers are properly trained in its use and that the equipment is properly maintained and functioning at all times. During construction, commissioning, and demolition, the following persons shall be trained in its use and shall be on site whenever the workers that they supervise are on site: the Construction/Demolition Project Manager or delegate, the Construction/Demolition Safety Supervisor or delegate, and all shift foremen. During operations, all power plant employees shall be trained in its use. The training program shall be submitted to the CPM for review and approval.

Verification: At least 30 days prior to the start of site mobilization, the project owner shall submit to the CPM proof that a portable automatic external defibrillator (AED) is available to be on site and a copy of the training and maintenance program for review and approval.

WORKER SAFETY-6 The project owner shall prepare an Emergency Access Plan that shows a secondary emergency access to the Puente site where the specifications of the roadway will comply with the Oxnard Municipal Code and the 2013 (or latest edition) California Fire Code. A secondary access must be maintained to the standards listed above for the life of the project.

Verification: At least 60 days prior to the start of construction, or within a time frame approved by the CPM, the project owner shall submit the Emergency Access Plan showing the secondary emergency access to the Oxnard Fire Department for review and timely comment, and to the CPM for review and approval. If the secondary access to the site changes, the project owner must inform the CPM that the secondary access will be changing 90 days before it occurs. The project owner must also submit an updated Emergency Access plan to the CPM for approval that shows the new location/arrangement for the new secondary emergency access road.

WORKER SAFETY- The project owner shall adhere to all applicable provisions of the latest version of NFPA 850: Recommended Practice for Fire Protection for Electric Generating Plants and High Voltage Direct Current Converter Stations as the minimum level of fire protection. The project owner shall interpret and adhere to all applicable NFPA 850 recommended provisions and actions stating “should” as “shall.” In any situations where both NFPA 850 and the state or local LORS have application, the more restrictive shall apply.

Verification: The project owner shall ensure that the project adheres to all applicable provisions of NFPA 850. At least 60 days prior to the start of construction of the fire protection system, the project owner shall provide all fire protection system specifications and drawings to the Oxnard Fire Department for review and comment, to the CPM for review and approval, and to the DCBO for plan check and construction inspection.

WORKER SAFETY-8 If the natural gas compressor building is enclosed with a roof, the project owner shall ensure that the natural gas compressor building at the Puente Power Project will comply with NFPA requirements for compressor enclosures and that it will also comply with the requirements set forth in 40 CFR 192 Sections 163 through 173 and sections 731 through 736 regarding fire and explosion protection systems. All documentation of plans for the compressor enclosure shall be submitted to the CPM for review and approval.

Verification: At least 90 days prior to the start of construction of the natural gas compressor building the project owner shall submit to the OFD for review and comment, and to the CPM for review and approval, documentation of plans for the compressor enclosure at the Puente Power Project demonstrating compliance with the condition described above.