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CC: "Pullin, Nicolaas" <npullin@DowneyBrand.com>
Date: 11/19/2007 4:56 PM
Subject: Docket No. 06-AFC-6 Eastshore Energy Center's Prehearing Conference Statement
November 19, 2007 [3 of 3]
Attachments: Scan001.PDF

Docket Clerk: Attached is 06-AFC-6 Eastshore Energy Center's Prehearing Conference Statement November 19, 2007. This is transmission 3 of 3, this is the Attachment 2 Exhibit.

Hard copy will follow via U.S. Mail. If you have any questions or have problems opening this document, please contact me at the number listed below, Ext. 6337.

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DATE	NOV 19 2007
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-----Original Message-----

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Subject: Scan from a Xerox WorkCentre Pro 14W-WCP65

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Proposed Revisions to Conditions of Certification – Eastshore Energy Center 06-AFC-6

Staff-Recommended Conditions of Certification

Air Quality

AQ-SC1 **Air Quality Construction 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. 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 activities as warranted by applicable construction 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 construction project manager (CPM).

Verification: At least 45 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 Mitigation Plan (AQCMP):** The project owner shall provide, for approval, an AQCMP that details the steps to be taken and the reporting requirements necessary to ensure compliance with conditions of certification AQ-SC3, AQ-SC4 and AQ-SC5.

Verification: At least 45 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 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 linear construction sites shall be watered as frequently as necessary to comply with the dust mitigation objectives of AQ-SC4. The frequency of watering may be either reduced or eliminated during periods of precipitation.

- b. No vehicle shall exceed 10 miles per hour within the construction site.
- c. The construction site entrances shall be posted with visible speed limit signs.
- d. All construction equipment vehicle tires shall be inspected and washed as necessary to be 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 site shall be graveled or treated to prevent track-out to public roadways.
- g. All construction vehicles shall enter the construction site through the treated entrance roadways unless an alternative route has been submitted to and approved by the CPM.
- h. Construction 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 run-off to roadways.
- i. All paved roads within the construction site shall be swept at least twice daily (or less during periods of precipitation) on days when construction activity occurs to prevent the accumulation of dirt and debris.
- j. At least the first 500 feet of any public roadway exiting from the construction site shall be swept at least twice daily (or less during periods of precipitation) on days when construction activity occurs or on any other day when dirt or run-off from the construction site is visible on the public roadways.
- k. All soil storage piles and disturbed areas that remain inactive for longer than 10 days shall be covered or 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 emissions shall be provided with a cover, or the materials shall be sufficiently wetted and loaded onto the trucks 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 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.

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; 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 an AQCMM delegate shall monitor all construction activities for visible dust plumes. Observations of visible dust plumes with the potential to be transported off the project site, 200 feet beyond the centerline of the construction of linear facilities, or within 100 feet upwind of any regularly occupied structures not owned by the project owner indicate that existing mitigation measures are not providing effective mitigation. The AQCMM or delegate shall then 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 emissions 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 shutdown 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 AQCMP shall include a section detailing how additional mitigation measures will be accomplished within specified time limits.

AQ-SC5 **Diesel-Fueled Engine Control:** The AQCMM shall submit to the CPM, in the MCR, a construction mitigation report that demonstrates compliance with the following mitigation measures for purposes of controlling diesel construction-related emissions. Any deviation from the following mitigation measures shall require prior CPM notification and approval.

- a. All diesel-fueled engines used in the construction 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 diesel engines with a rating of 100 hp or higher shall meet, at a minimum, the Tier 2 California Emission Standards for Off-Road Compression-Ignition Engines, as specified in California Code of Regulations, Title 13, section 2423(b)(1), unless certified by the on-site AQCMM that such engine is not available for a particular item of equipment. In the event that a Tier 2 engine is not available for any off-road engine larger than 100 hp, that engine shall be equipped with a Tier 1 engine. In the event a Tier 1 engine is not available for any off-road

engine larger than 100 hp, that engine shall be equipped with a catalyzed diesel particulate filter (soot filter) 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 soot filter that has been certified by either the California Air Resources Board or U.S. Environmental Protection Agency for the engine in question; or
 2. The construction equipment is intended to be on site for 10 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 possible.
- c. The use of a soot filter may be terminated immediately if one of the following conditions exists, provided that the CPM is informed within 10 working days of the termination:
1. The use of the soot filter is excessively reducing the normal availability of the construction equipment due to increased down time for maintenance, and/or reduced power output due to an excessive increase in back pressure.
 2. The soot filter is causing or is reasonably expected to cause significant engine damage.
 3. The soot filter is causing or is reasonably expected to cause a significant 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-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 equipment shall not idle for more than five minutes, to the extent practical.

Verification: The project owner shall include in the MCR: (1) a summary of all actions taken to maintain compliance with this condition; (2) 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 the equipment has been properly maintained; 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-SC6 The project owner shall provide emission reduction credits (ERCs) to offset NOx and POC emissions. The project owner shall demonstrate that NOx and POC emission reduction credits are provided in the form and amount required by the District. The project owner shall surrender the ERCs from among those that are listed in the table below or a modified list, as allowed by this condition. If additional ERCs are submitted, the project owner shall submit an updated table including the additional ERCs to the CPM. The project owner shall request CPM approval for any substitutions, modifications, or additions to the listed credits. 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.

Emission Reduction Certificate Number, Location	Amount (tpy)	Pollutant
823, Crown Cork & Seal Company, Union City	71.000	POC
1015, Koch Supply and Trading LP, Fremont	22.778	POC
1016, Koch Supply and Trading LP, Fremont	15.518	POC
1017, Koch Supply and Trading LP, San Leandro	4.4	POC
1022, Koch Supply and Trading LP, Cupertino	19.718	POC
1019, Koch Supply & Trading LP, Milpitas	15.856	POC
1006, Koch Supply and Trading LP, Union City	23.4	POC

Verification: The project owner shall submit to the CPM records showing that the project's offset requirements have been met prior to initiating construction. If the CPM approves a substitution or modification to the list of ERCs, the CPM shall file a statement of the approval with the project owner and commission docket. The CPM shall maintain an updated list of approved ERCs for the project.

AQ-SC7 Deleted.

AQ-SC8 The project owner shall obtain and surrender emission reduction credits (ERCs) to offset 20.4 tons per year of PM10 emissions and 3.0 tons per year of SO2 emissions. The emission reduction credits (ERCs) shall originate, to the extent feasible, from sources in the areas of Oakland, Hayward, Fremont, San Jose, and San Francisco. If project owner is unable to obtain ERCs from the aforementioned areas despite a good faith effort to do so, project owner shall be permitted to provide ERCs from any location within the BAAQMD.

PM10 emissions during the November 1 through February 28 PM10 nonattainment season shall not exceed 6.8 tons and SO2 emissions shall not exceed 1.0 tons except as provided below. SO2 ERCs may be substituted for

PM10 ERCs at a ratio of ~~3.05-3~~ to-1.0. Compliance with this condition will be established by use of the most recent District-approved source test data, and the average load-based (grams/bhp-hr) PM10 and SO2 emission rates from all engines tested.

The project owner shall notify the CPM if the project exceeds the PM10 emission limit in this condition. The owner shall surrender additional ERCs or other CPM-approved mitigation for any excess emission (equaling the difference between calculated actual emissions and the emission limit). Surrendering additional ERCs will establish a new, annual emission limitation equal to 6.8 tons PM10 and 1.0 tons SO2 plus the quantity of reductions surrendered for November 1 through February 28.

Fireplace or wood burning stove retrofits for Hayward residents, or other CPM-approved mitigation, may be used to satisfy any additional mitigation requirement and shall be credited using the following factors for each certified unit retrofit: 2 lb PM10/PM2.5 per year per fireplace without insert, 19 lb PM10/PM2.5 per year per fireplace with insert, and 24 lb PM10/PM2.5 per year per wood stove. The program may be made available to all residents in the cities of Fremont, Newark, Union City, San Leandro, Oakland, Emeryville, Albany, Piedmont, Berkeley, Alameda, and the unincorporated areas of Alameda County west of the Oakland/East Bay hills after twelve (12) months from the start date of the mitigation fireplace retrofit ~~/woodstove replacement~~ program. The emission reductions from any CPM-approved mitigation program fireplace or wood-burning stove retrofits, must occur in accordance ~~to~~ with the following schedule:

- a. achieving 15% of the mitigation (3.1 tons per year) of PM10 within six (6) months after start of construction,
- b. achieving 30% of the mitigation (6.2 tons per year) of PM10 within nine (9) months after start of construction.
- c. achieving 50% of the mitigation (10.2 tons per year) of PM10 within twelve (12) months after start of construction.
- d. achieving 80% of the mitigation (16.3 tons per year) of PM10 within eighteen (18) months after start of construction.
- e. achieving 100% of the mitigation (20.4 tons per year) within twenty four (24) months after start of construction.

During the 24-month period following the start of construction, ERCs may also be used to supply additional mitigation.

Verification: At least ninety (90) days before the start of construction, the project owner shall submit to the CPM a plan detailing the fireplace/woodstove replacement program, or other proposed mitigation, for approval. The plan should include at a minimum, the description of the program, the amount of rebates or other mitigation funding provided, the person (or agency) who oversees program implementation, the responsible person who reports to the CPM on the progress of the program implementation, the target

~~milestones, and procedures to follow if target milestones have not been met, prior to initiating construction evidence of surrendering the emission reduction credits or evidence that sufficient emission reductions from any fireplace or wood stove retrofit program will be achieved in accordance with the specified schedule.~~ The project owner shall notify the CPM within 10 days of exceeding the PM10 emission limit in this condition. The owner shall surrender additional ERCs or other CPM-approved mitigation for any excess emission (equaling the difference between calculated actual emissions and the emission limit) within 60 days of the date that actual emissions exceed the limit in this condition. Quarterly status reports on the program meeting the milestones following the start of construction shall be submitted to the CPM.

AQ-SC9 The project owner shall submit to the CPM for review and approval any modification proposed by the project owner to any project air permit. 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 of its submittal either by: 1) the project owner to an agency, or 2) receipt of proposed modifications from an agency. The project owner shall submit all modified air permits to the CPM within 15 days of receipt.

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 as an insignificant change, any change to an air quality condition of certification, 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 notify the CPM in writing of 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 Until the California Global Warming Solutions Act of 2006 (AB32) is implemented, the project owner shall either participate in a greenhouse gas (GHG) registry approved by the CPM, or report on an annual basis to the CPM the quantity of greenhouse gases emitted as a direct result of facility electricity production.

The project owner shall maintain a record of fuels types and carbon content used on-site for the purpose of power production. These fuels shall include but are not limited to each fuel type burned: (1) all fuel burned in internal combustion engines; (2) fuel used in fuel gas heaters and emergency

equipment; and (3) all fuels used in any capacity for the purpose of facility startup, shutdown, operation, or emission controls.

The project owner may perform annual source tests of CO₂ and CH₄ emissions from the exhaust stacks while firing the facility's primary fuel, using the following test methods or other test methods as approved by the CPM. The project owner shall produce fuel-based emission factors in units of lbs CO₂ equivalent per mmBtu of fuel burned from the annual source tests. If a secondary fuel is approved for the facility, the project owner may also perform these source tests while firing the secondary fuel.

Pollutant	Test Method
CO ₂	EPA Method 3A
CH ₄	EPA Method 18 (POC measured as CH ₄)

As an alternative to performing annual source tests, the project owner may use the Intergovernmental Panel on Climate Change (IPCC) Methodologies for Estimating Greenhouse Gas Emissions (MEGGE). If MEGGE is chosen, the project owner shall calculate the CO₂, CH₄ and N₂O emissions using the appropriate fuel-based carbon content coefficient (for CO₂) and the appropriate fuel-based emission factors (for CH₄ and N₂O).

The project owner shall convert the N₂O and CH₄ emissions into CO₂ equivalent emissions using the current IPCC Global Warming Potentials (GWP). The project owner shall maintain a record of all SF₆ that is used for replenishing on-site transformers. At the end of each reporting period, the project owner shall total the mass of SF₆ used and convert that to a CO₂ equivalent emission using the IPCC GWP for SF₆. The project owner shall maintain a record of all PFCs and HFCs used for replenishing on-site refrigeration and chillers directly related to electricity production. At the end of each reporting period, the project owner shall total the mass of PFCs and HFCs used and convert that mass to a CO₂ equivalent emission using the IPCC GWP.

On an annual basis, the project owner shall report the CO₂ and CO₂ equivalent emissions from the described emissions of CO₂, N₂O, CH₄, SF₆, PFCs, and HFCs.

Verification: The project annual greenhouse gas emissions shall be reported, as a CO₂ equivalent, by the project owner to a climate action registry approved by the CPM, or to the CPM as part of the fourth quarterly operation report (AQ-SC12) or the annual air quality report, until such time that GHG reporting requirements are adopted and in force for the project as part of the California Global Warming Solutions Act of 2006.

AQ-SC12 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. The quarterly operation report will specifically note or highlight incidences of noncompliance.

Verification: The project owner shall submit quarterly operation reports to the CPM and APCO no later than 30 days following the end of each calendar quarter. The report for the fourth quarter can be an annual compliance summary for the preceding year. This information shall be maintained on site for a minimum of five years and shall be provided to the CPM and District personnel upon request.

District-Recommended Conditions of Certification

The following sources would be subject to the proposed conditions of certification.

- S-1 Natural Gas Fired Engine Generator Set, 8.4 MW (gross), 11,660 HP, Wärtsilä Model 20V34SG, abated by A-1 Selective Catalytic Reduction System and A-15 Oxidation Catalyst
- S-2 Natural Gas Fired Engine Generator Set, 8.4 MW (gross), 11,660 HP, Wärtsilä Model 20V34SG, abated by A-2 Selective Catalytic Reduction System and A-16 Oxidation Catalyst
- S-3 Natural Gas Fired Engine Generator Set, 8.4 MW (gross), 11,660 HP, Wärtsilä Model 20V34SG, abated by A-3 Selective Catalytic Reduction System and A-17 Oxidation Catalyst
- S-4 Natural Gas Fired Engine Generator Set, 8.4 MW (gross), 11,660 HP, Wärtsilä Model 20V34SG, abated by A-4 Selective Catalytic Reduction System and A-18 Oxidation Catalyst
- S-5 Natural Gas Fired Engine Generator Set, 8.4 MW (gross), 11,660 HP, Wärtsilä Model 20V34SG, abated by A-5 Selective Catalytic Reduction System and A-19 Oxidation Catalyst
- S-6 Natural Gas Fired Engine Generator Set, 8.4 MW (gross), 11,660 HP, Wärtsilä Model 20V34SG, abated by A-6 Selective Catalytic Reduction System and A-20 Oxidation Catalyst
- S-7 Natural Gas Fired Engine Generator Set, 8.4 MW (gross), 11,660 HP, Wärtsilä Model 20V34SG, abated by A-7 Selective Catalytic Reduction System and A-21 Oxidation Catalyst
- S-8 Natural Gas Fired Engine Generator Set, 8.4 MW (gross), 11,660 HP, Wärtsilä Model 20V34SG, abated by A-8 Selective Catalytic Reduction System and A-22 Oxidation Catalyst
- S-9 Natural Gas Fired Engine Generator Set, 8.4 MW (gross), 11,660 HP, Wärtsilä Model 20V34SG, abated by A-9 Selective Catalytic Reduction System and A-23 Oxidation Catalyst
- S-10 Natural Gas Fired Engine Generator Set, 8.4 MW (gross), 11,660 HP, Wärtsilä Model 20V34SG, abated by A-10 Selective Catalytic Reduction System and A-24 Oxidation Catalyst

- S-11 Natural Gas Fired Engine Generator Set, 8.4 MW (gross), 11,660 HP, Wärtsilä Model 20V34SG, abated by A-11 Selective Catalytic Reduction System and A-25 Oxidation Catalyst
- S-12 Natural Gas Fired Engine Generator Set, 8.4 MW (gross), 11,660 HP, Wärtsilä Model 20V34SG, abated by A-12 Selective Catalytic Reduction System and A-26 Oxidation Catalyst
- S-13 Natural Gas Fired Engine Generator Set, 8.4 MW (gross), 11,660 HP, Wärtsilä Model 20V34SG, abated by A-13 Selective Catalytic Reduction System and A-27 Oxidation Catalyst
- S-14 34SG, abated by A-14 Selective Catalytic Reduction System and A-28 Oxidation Catalyst
- S-15 Emergency Standby Generator Set; Diesel Engine; Caterpillar Model C9ATAAC, 369 HP

Conditions for the Engines S-1 through S-14 during the Commissioning Period

- AQ-1** The owner/operator of the Eastshore Energy Center (EEC) shall minimize emissions of carbon monoxide and nitrogen oxides from S-1 through S-14 Lean Burn Internal Combustion Engines to the maximum extent possible during the commissioning period.
- a. At the earliest feasible opportunity, in accordance with the recommendations of the equipment manufacturers and the construction contractor, the owner/operator shall tune each engine S-1 through S-14 after first fire to minimize the emissions of carbon monoxide and nitrogen oxides during commissioning.
 - b. At the earliest feasible opportunity, in accordance with the recommendations of the equipment manufacturers and the construction contractor, the owner/operator shall install, adjust, and operate A-1 through A-14, SCR Systems, and A-15 through A-28, Oxidation Catalyst systems, to minimize the emissions during commissioning.
 - c. The owner/operator of the EEC shall submit a plan to the District Engineering Division and the CEC CPM prior to the firing of any of the engines that shall describe the process to be followed during the commissioning of each engine. The plan shall include a description of each commissioning activity, the anticipated duration of each activity in hours, and the purpose of the activity. The activities described shall include, but not be limited to, engine tuning activities (such as air/fuel ratio settings, engine timing, turbocharger pressure); the installation, tuning, and operation of the SCR systems and oxidation catalysts; the installation, calibration, and testing of the CO and NOx continuous emission monitors; and any activities requiring the firing of the IC engines without abatement by their respective abatement devices. None of the engines shall be fired sooner than 28 days after the District receives the commissioning plan. (Basis: BACT, Offsets)

Verification: The project owner shall submit a monthly compliance report to the CPM during the commissioning period demonstrating compliance with this condition.

AQ-2 During the commissioning period, the owner/operator of the EEC shall demonstrate compliance with Condition AQ-6 through the use of properly operated and maintained continuous emission monitors and data recorders for the following parameters:

- a. Firing hours for each engine
- b. Fuel flow rates to each engine
- c. Stack gas nitrogen oxide emission concentrations at P-1 through P-14
- d. Stack gas carbon monoxide emission concentrations at P-1 through P-14
- e. Stack gas oxygen concentrations at P-1 through P-14

The monitored parameters shall be recorded at least once every 15 minutes (excluding normal calibration periods or when the monitored source is not in operation) for the engines. The owner/operator shall use District-approved methods to calculate heat input rates, NO_x mass emission rates, carbon monoxide mass emission rates, and NO_x and CO emission concentrations, summarized for each calendar day. All records shall be retained on site for at least 2 years from the date of entry and made available to District staff upon request. (Basis: BACT, Offsets)

Verification: The project owner shall submit a monthly compliance report to the CPM during the commissioning period demonstrating compliance with this condition.

AQ-3 The owner/operator shall install, calibrate, and make operational continuous emission monitors for NO_x, CO and O₂ for each engine prior to first firing of that engine. After first firing of an individual engine, the detection range of the continuous emission monitor for that engine shall be adjusted as necessary to accurately measure the resulting range of CO and NO_x emission concentrations. The type, specifications, and location of these monitors shall be subject to District review and approval. (Basis: BACT, Offsets)

Verification: The project owner shall submit a monthly compliance report to the CPM during the commissioning period demonstrating compliance with this condition. In addition, the project owner shall provide evidence of the District's approval of the emission monitoring system to the CPM prior to first firing of each engine.

AQ-4 The owner/operator shall operate the facility such that the total number of firing hours of each Engine S-1 through S-14 without abatement of nitrogen oxide and CO emissions by its SCR System and Oxidation Catalyst System shall not exceed 300 hours per engine during the commissioning period. Such operation of S-1 through S-14 without abatement shall be limited to discrete commissioning activities that can only be properly executed without the SCR or Oxidation Catalyst Systems fully operational. Upon completion of these activities, the owner/operator shall provide written notice to the District Engineering Division and Enforcement and Compliance

Division and the unused balance of the 300 firing hours per engine without abatement shall expire. (Basis: BACT, Offsets)

Verification: The project owner shall submit a monthly compliance report to the CPM during the commissioning period demonstrating compliance with this condition.

AQ-5 The owner/operator shall use District approved calculation methods to estimate the total mass emissions of NO_x (as NO₂), CO, POC, PM₁₀, and SO₂ that are emitted by Engines S-1 through S-14 and S-15 during the commissioning and facility startup period. These emissions count towards the consecutive twelve-month emission limitations specified in Condition AQ-13. Emission totals shall include emissions during the startup and shutdown of the engines.

Verification: The project owner shall submit a monthly compliance report to the CPM during the commissioning period demonstrating compliance with this condition.

AQ-6 The owner/operator shall not operate the engines S-1 through S-14 in a manner such that the combined pollutant emissions from these sources will exceed the following limits during the commissioning period. These emission limits shall include emissions resulting from the start-up and shutdown of the engines S-1 through S-14.

NO_x (as NO₂) 3058.4 pounds per calendar day

CO 4033.5 pounds per calendar day

POC (as CH₄) 975.1 pounds per calendar day

Total Particulate Matter 757.8 pounds per calendar day

PM₁₀ 757.8 pounds per calendar day

PM_{2.5} 757.8 pounds per calendar day SO₂ 79.53 pounds per calendar day (Basis: BACT, Offsets)

Verification: The project owner shall submit a monthly compliance report to the CPM during the commissioning period demonstrating compliance with this condition.

Conditions for the Engines S-1 through S-14 Post-Commissioning Period

AQ-7 The owner/operator shall ensure that S-1 through S-14 IC Engines are fired on PUC natural gas exclusively. (Basis: BACT for PM₁₀, Cumulative Increase for SO₂)

Verification: The project owner shall complete, on a monthly basis, a laboratory analysis showing the sulfur content of natural gas being burned at the facility. The sulfur analysis reports shall be incorporated into the quarterly operation reports (AQ-SC12).

AQ-8 The Owner/operator shall operate each engine such that the heat input rate for each engine S-1 through S-14 is less than or equal to 72.8 MMBtu/hr (HHV, 72.1 MMBtu/hr for Annual Average), averaged over an hour period, including startup/shutdown periods. The owner shall obtain heating value data for the natural gas on a monthly basis from the gas supplier. The heating value data shall be used to calculate a monthly average for heating value that may be used to demonstrate compliance with these conditions. (Basis: BACT, Cumulative Increase)

Verification: Information on the date, time, and duration of any violation of this permit condition shall be incorporated into the quarterly operation reports (AQ-SC12).

AQ-9 The Owner/operator shall operate each engine such that the heat input rate for each engine S-1 through S-14 is less than or equal to 1730 MMBTU/day per calendar day, including startups/shutdowns. (Basis: Cumulative Increase)

Verification: Information on the date, time, and duration of any violation of this permit condition shall be incorporated into the quarterly operation reports (AQ-SC12).

AQ-10 The Owner/operator shall operate each engine such that the heat input rate for all engines S-1 through S-14 combined is less than or equal to 4,036,480 MMBTU/yr on a rolling 12-month average basis, including startups/shutdowns. (Basis: Offsets)

Verification: Information on the date, time, and duration of any violation of this permit condition shall be incorporated into the quarterly operation reports (AQ-SC12).

AQ-11 The owner/operator shall limit the total annual operating hours for engines S-1 through S-14 to 56,000 hours. (Basis: Offsets, Cumulative Increase)

Verification: Information on the date, time, and duration of any violation of this permit condition shall be incorporated into the quarterly operation reports (AQ-SC12).

AQ-12 The owner/operator shall properly operate and maintain the A-1 to A-14 Selective Catalytic Reduction (SCR) Systems, except as provided during the Commissioning Period, whenever fuel is combusted at the corresponding source S-1 through S-14, respectively, and the individual catalyst bed has reached minimum operating temperature specified by the abatement device manufacturer. The owner/operator shall not inject ammonia into the SCR units (A-1 through A-14) until the catalyst bed reaches the minimum operating temperature specified by the abatement device manufacturer (Basis: BACT for NO_x).

Verification: Information on any non-operation of the selective catalytic reduction systems or operation of the ammonia injection prior to the catalyst bed reaching the minimum operating temperature shall be incorporated into the quarterly operation reports (AQ-SC12). The information shall include, at a minimum, the date and description of the problem and the steps taken to resolve the problem.

AQ-13 The owner/operator shall ensure that the cumulative combined emissions from S-1 through S-14 Engines and S-15 do not exceed the following limits during any consecutive twelve-month period, including emissions generated during engine startups and shutdowns:

54.35 tons of NO_x (as NO₂) per rolling 12 month period;

84.45 tons of CO per rolling 12 month period;

76.11 tons of POC (as CH₄) per rolling 12 month period;

40.31 tons of Total Particulate Matter per rolling 12 month period; and

40.31 tons of PM₁₀ per rolling 12 month period; and

40.31 tons of PM2.5 per rolling 12 month period; and; and

6.63 tons of SO2 per rolling 12 month period.

(Basis: Offsets, Cumulative Increase)

Verification: The project owner shall submit to the CPM the quarterly operation reports (AQ-SC12).

AQ-14 The owner/operator shall comply with requirements (a) through (e) below under all operating scenarios, except during engine startup and shutdown (although startup and shutdown emissions shall be included in determining compliance with the facility-wide daily Total Particulate Matter emissions limit as set forth in subsection (c)).

- a. The nitrogen oxide concentration at each point P-1 through P-14 shall not exceed 5 ppmv, on a dry basis, corrected to 15% O₂, averaged over any 1-hour period. (Basis: BACT for NO_x)
- b. The carbon monoxide concentration at each point P-1 through P-14 shall not exceed 13 ppmv, on a dry basis, corrected to 15% O₂, averaged over any 1-hour period. (Basis: BACT for CO)
- c. Total Particulate Matter, PM₁₀, and PM_{2.5} emissions from any engine shall not exceed 1.3 lb/hr except as provided in Condition 16, and in any event shall not exceed 1.9 lb/hr. Total Particulate Matter, PM₁₀, and PM_{2.5} emissions from all fourteen engines shall not exceed 461.65 lb/day. (Basis: BACT, Cumulative Increase)
- d. The POC concentration at each point P-1 through P-14 with the corresponding engine operating at 75% or more of full load shall not exceed 25 ppmv on a dry basis, corrected to 15% O₂, averaged over any 1-hour period. (Basis: BACT for POC)
- e. Ammonia (NH₃) emission concentrations at each point P-1 through P-14 shall not exceed 10 ppmv, on a dry basis, corrected to 15% O₂, averaged over any rolling 3-hour period. The owner/operator shall quantify, by continuous recording, the ammonia injection rate to A-1 through A-14 SCR Systems. The correlation between the engine heat input and the SCR System ammonia injection rates as determined in accordance with Condition AQ-19 shall be used to calculate the corresponding ammonia emission concentration at emission points P-1 through P-14. The facility will notify the Engineering Division Permit Evaluation Manager in writing when any engine operates for 3 consecutive hours at a calculated ammonia slip rate equal to or greater than 10 ppmvd corrected to 15% O₂ (in addition to any reporting required by District Regulation 1). The notification shall be provided to the District within one week of an engine operating at a calculated slip rate equal to or greater than 10 ppmvd corrected to 15% O₂. If the parametric monitoring indicates a corresponding ammonia slip of 10 ppm corrected to 15% O₂ for 3 consecutive hours, then the District may require a District approved source test for ammonia slip to demonstrate ongoing

compliance and to update the parametric monitoring correlation as necessary.
(Basis: Regulation 2, Rule 5)

Verification: The quarterly operation reports (AQ-SC12) shall include the following information:

- a. operating parameters of emission control equipment, including but not limited to ammonia injection rate, NO_x emission rate, and ammonia slip;
- b. total plant operation time (hours), number of start-ups, hours in start-up, and hours in shutdown;
- c. date and time of the beginning and end of each start-up and shutdown period;
- d. average plant operation schedule (hours per day, days per week, weeks per year);
- e. all continuous emissions data reduced and reported in accordance with the district-approved CEMS protocol;
- f. maximum hourly, maximum daily, total quarterly, and total calendar year emissions of NO_x, CO, PM₁₀, POC and SO_x (including calculation protocol);
- g. a log of all excess emissions, including the information regarding malfunctions/breakdowns;
- h. any permanent changes made in the plant process or production that would affect air pollutant emissions, and indication of when changes were made; and
- i. any maintenance to any air pollutant control system (recorded on an as-performed basis).

AQ-15 The owner/operator shall demonstrate compliance with Conditions AQ-13 and AQ-14 by using properly operated and maintained continuous monitors during all hours of operation including equipment start-up and shutdown periods for all of the following parameters:

- a. Firing Hours and Fuel Flow Rates for each source
- b. Carbon Dioxide (CO₂) or Oxygen (O₂) concentrations, Nitrogen Oxides (NO_x) concentrations, and Carbon Monoxide (CO) concentrations at emission points P-1 through P-14
- c. Ammonia injection rate at A-1 through A-14 SCR Systems The owner/operator shall record all of the above parameters every fifteen (15) minutes (excluding normal calibration periods) and shall summarize all of the above parameters in accordance with the relevant permit limits. The owner/operator shall use the parameters measured above and District approved calculation methods to calculate the following parameters for each engine:
- d. Corrected NO_x concentrations, NO_x mass emissions (as NO₂), corrected CO concentrations, and CO mass emissions at each emission point for every 1-hour period
- e. Total Heat Input Rate for every clock hour

- f. The cumulative total Heat Input (MMBTU) for each calendar day for each engine
- g. Calculate NO_x mass emissions (as NO₂) and CO mass emissions, for each calendar day for each engine, and for the previous consecutive twelve-month period using CEM data.
- h. Calculate the mass emissions of PM-10, POC, and SO_x (as SO₂) for each calendar day for each engine and for the previous twelve-month period using District approved emission factors. (Basis: 1-520.1, 9-9-501, BACT (except for SO_x), Offsets, Cumulative Increase)

Verification: The project owner shall submit to the CPM the quarterly operation reports (AQ-SC12). At least 30 days before first fire, the project owner shall submit to the CPM a plan on how the measurements, recordings, and calculations required by this condition will be performed. Prior to first fire, the project owner shall provide evidence of the District's approval of the calculation methods to the CPM.

AQ-16 The owner/operator shall demonstrate compliance with the 1.3 lb/hr Total Particulate Matter emissions limit in Condition AQ-14(c) by performing tests for Total Particulate Matter emissions as required by these conditions. If Total Particulate Matter emissions for an engine generator set exceed 1.9 lb/hr, then that engine generator set shall be deemed to be in violation of Condition AQ-14(c). If Total Particulate Matter emissions for any engine generator set exceed 1.3 lb/hr, but do not exceed 1.9 lb/hr, then that engine generator set shall not be considered to be in violation of Condition AQ-14(c) if the owner/operator can demonstrate, subject to approval by the APCO, that the engine has been installed, operated, and maintained properly in accordance with all manufacturer's specifications and instructions. The owner/operator shall so demonstrate by:

- (i) retesting emissions within 45 days after receiving the final test report from the initial test exceeding 1.3 lb/hr, unless the APCO determines that a retest for Total Particulate Matter is not appropriate (in accordance with the source testing requirements set forth in Condition AQ-20);
- (ii) submitting to the APCO, within 30 days after receiving the final test report from the initial test exceeding 1.3 lb/hr, adequate documentation to verify that the engine has been installed, operated, and maintained properly in accordance with all manufacturers' specifications and instructions.

Within 30 days of receipt of the results of the retest and the documentation required by subsections (i) and (ii) above, the APCO shall make a determination whether the engine has been installed, operated, and maintained in accordance with manufacturers' specifications and instructions. If the APCO determines that the engine has been properly installed, operated, and maintained, then the engine shall be deemed not to be in violation of the single-engine hourly emission limit in Condition AQ-14(c) (although emission from the engine will still be counted for purposes of the facility-wide limit). If the APCO determines that the given engine has not been properly installed, operated, and maintained, then the engine shall be deemed to be in violation of Condition AQ-14(c). Engines that operate pursuant to

the provisions of this Condition AQ-16 shall continue to be tested on a regular basis according to these Conditions.

Verification: The project owner shall submit to the CPM the quarterly operation reports (AQ-SC12).

AQ-17 Within 136 days of the beginning of the startup period (start of commissioning period for a given engine) for each engine at EEC, the Owner/operator shall conduct a District-approved initial source test for Particulate Matter, and POC on the corresponding emission point P-1 through P-14 with the corresponding source engine operating at least 80% of full load to determine compliance with these Permit Conditions. The Owner/operator shall conduct a District-approved initial source test for SO_x on one of the fourteen emission points with the corresponding source engine operating at least 80% of full load to determine compliance with these Permit Conditions. (Basis: 2-1-411).

Verification: No later than 20 working days before the commencement of the source tests, the project owner shall submit to the District and the CPM a detailed source test plan designed to satisfy the requirements of this condition. The project owner shall provide evidence of the District's approval of the source test plan to the CPM prior to executing the tests. The project owner shall notify the District and the CPM at least seven working days prior to the planned source test date, and source test results shall be submitted to the District and the CPM within 60 days of completing the tests.

AQ-18 Prior to the end of the commissioning period, the Owner/operator shall conduct a District and CEC Compliance Program Manager (CPM) approved source test to establish emissions during startup and shutdown. The source test shall determine NO_x, CO, POC and PM₁₀ emissions during cold startup of the engines. The source test shall measure PM₁₀ emissions during a cold startup of no fewer than 3 engines; one 30 minute test run shall be conducted per engine. The source test shall determine NO_x, CO, and POC emissions during shutdown of the engines. The POC emissions shall be analyzed for methane and ethane to account for the presence of unburned natural gas. Twenty (20) working days before the execution of the source tests, the Owner/operator shall submit to the District and the CEC CPM a detailed source test plan designed to satisfy the requirements of this Condition, including specification of the number of tests. The Owner/operator shall notify the District and the CEC CPM at least seven (7) working days prior to the planned source testing date. Source test results shall be submitted to the District within 60 days of the date that source testing is completed at the facility.

Verification: No later than 20 working days before the commencement of the source tests, the project owner shall submit to the District and the CPM a detailed source test plan designed to satisfy the requirements of this condition. The project owner shall provide evidence of the District's approval of the source test plan to the CPM prior to executing the tests.

AQ-19 The owner/operator shall conduct an initial District-approved source test to determine the SCR System ammonia injection rate and the corresponding NH₃ emission concentration at two of the fourteen emission points P-1 through P-14. The

source test shall be conducted over the expected operating load range of the engines (including, but not limited to, 75% and 100% load) to establish the ammonia injection rates necessary to achieve NO_x emission limits while maintaining ammonia slip levels. A correlation between NO_x ppmv stack exit concentration, ammonia injection rate, heat input, and ammonia exit concentration shall be established for the two engines that were source tested. The test data shall be used as input for the calculation for the remaining engines. Ongoing compliance shall be demonstrated through calculations of corrected ammonia concentrations based upon the source test correlation and continuous records of ammonia injection rate. (Basis: Regulation 2, Rule 5).

Verification: Within 136 days of start-up of the facility, the source test to satisfy this condition shall be conducted. No later than 20 working days before the commencement of the source tests, the project owner shall submit to the District and the CPM a detailed source test plan designed to satisfy the requirements of this condition. The project owner shall provide evidence of the District's approval of the source test plan to the CPM prior to executing the tests.

AQ-20 The owner/operator shall obtain approval for all source test procedures from the Technical Services Division prior to conducting any tests. The owner/operator shall comply with all applicable testing requirements for continuous emission monitors as approved by the Technical Services Division. Twenty (20) working days before the execution of source testing, the owner/operator shall submit to the District and the CEC CPM a detailed source test plan designed to satisfy the requirements of any of these Conditions, including specification of the number of tests. The Owner/operator shall notify the District at least seven (7) working days prior to the planned source test date. Source test results shall be submitted to the District and the CEC CPM within 60 days of completing the tests. (Basis: BACT)

Verification: The project owner shall provide evidence of the District's approval of all source test procedures to the CPM prior to executing the tests.

AQ-21 The owner/operator shall conduct a District approved source test no later than 365 days after than the initial Total Particulate Matter source test. The District approved source test shall determine the NH₃ emission concentration from two of the fourteen emission points to demonstrate ongoing compliance and to verify the parametric monitoring correlation. The District approved test shall measure the Particulate Matter mass emission rate and POC emission concentration at emission points P-1 through P-14 with the corresponding source engine operating at least 80% of full load to determine compliance with these Permit Conditions. (Basis: Cumulative Increase, BACT)

Verification: The project owner shall notify the District and the CPM at least seven working days before conducting the source tests required in this condition. Source test results shall be submitted to the District and to the CPM within 60 days of the date of the tests. The project owner shall provide evidence of the District's approval of all source test procedures to the CPM prior to executing the tests.

AQ-22 After completion of the initial source test and the first annual source test, the owner/operator shall conduct a District approved source test on each engine every 8,760 hours of operation or every 3 years whichever comes first. The District approved source test shall determine the NH₃ emission concentration from two of the fourteen emission points to demonstrate ongoing compliance and to verify the parametric monitoring correlation. The District approved source test shall measure the Total Particulate Matter mass emission rate and POC emission concentration at emission points P-1 through P-14 with the corresponding source engine operating at least 80% of full load to determine compliance with these Permit Conditions. (Basis: Cumulative Increase, BACT)

Verification: The project owner shall notify the District and the CPM at least seven working days before conducting the source tests required in this condition. Source test results shall be submitted to the District and to the CPM within 60 days of the date of the tests. The project owner shall provide evidence of the District's approval of all source test procedures to the CPM prior to executing the tests.

AQ-23 The owner/operator shall not allow the maximum projected annual toxic air contaminant emissions from all emission points P-1 through P-14 combined to exceed the following limits:

1,3-Butadiene 872 pounds per year
Formaldehyde 11,200 pounds per year
unless the following requirement is satisfied:

The owner/operator shall perform a health risk assessment to determine the total facility risk using the emission rates determined by source testing and the most current Bay Area Air Quality Management District approved procedures and unit risk factors in effect at the time of the analysis. The owner/operator shall submit the risk analysis to the District and the CEC CPM within 60 days of the source test date. The owner/operator may request that the District and the CEC CPM revise the carcinogenic compound emission limits specified above. If the owner/operator demonstrates to the satisfaction of the APCO that these revised emission limits will not result in a significant cancer risk, the District and the CEC CPM may administratively adjust the carcinogenic compound emission limits listed above. (Basis: Regulation 2, Rule 5)

Verification: The project owner shall notify the District and the CPM at least seven working days before conducting the source tests required in this condition. Source test results shall be submitted to the District and to the CPM within 60 days of the date of the tests. The project owner shall provide evidence of the District's approval of all source test procedures to the CPM prior to executing the tests.

AQ-24 Within 136 days of start-up of the facility, the owner/operator shall conduct an initial District-approved source test on one of the fourteen emission points P-1 through P-14 with the corresponding engine operating at least 80% of full load to demonstrate compliance with Condition AQ-23 and to demonstrate that the facility complies with Regulation 2, Rule 5. The initial District approved source test for toxic air contaminants shall quantify the emission rates from one engine of the following

compounds: 1,3 Butadiene, Formaldehyde, Acetaldehyde, Benzene, Toluene, Xylene, and Polycyclic Aromatic Hydrocarbons. The toxic air contaminant source test results will be converted into emission factors in units of lb/MMBtu, and the annual firing rates for each of the fourteen engines will be used to calculate annual emissions of toxic air contaminants from the facility. The owner/operator shall use the results of the initial source test for toxic air contaminants to perform a health risk assessment to determine the total facility risk using District approved procedures and unit risk factors.

Verification: The project owner shall notify the District and the CPM at least seven working days before conducting the source tests required in this condition. Source test results shall be submitted to the District and to the CPM within 60 days of the date of the tests. The project owner shall provide evidence of the District's approval of all source test procedures to the CPM prior to executing the tests. Health risk assessment results shall be submitted to the District and to the CPM within 90 days of the date of the tests.

AQ-25 The owner/operator shall conduct an additional District approved source test within 3 years of the initial test on one of the fourteen emission points P-1 through P-14 with the corresponding engine operating at least 80% of full load to demonstrate compliance with Condition AQ-23. The toxic air contaminant source test results will be converted into emission factors in units of lb/MMBtu, and the annual firing rates for each of the fourteen engines will be used to calculate annual emissions of toxic air contaminants from the facility. (Basis: Regulation 2, Rule 5)

Verification: The project owner shall notify the District and the CPM at least seven working days before conducting the source tests required in this condition. Source test results shall be submitted to the District and to the CPM within 60 days of the date of the tests. The project owner shall provide evidence of the District's approval of all source test procedures to the CPM prior to executing the tests.

Conditions for S-15 Emergency Stand-by Generator at all Times

AQ-26 Operation of S-15 for reliability-related activities is limited to 50 hours per year. (Basis: Stationary Diesel Engine ATCM, 17 C.C.R. § 93115(e)(2)(A)(3).)

Verification: The project owner shall submit to the CPM the quarterly operation reports (AQ-SC12).

AQ-27 The owner/operator shall operate engine S-15 only for the following purposes: to mitigate emergency conditions, for emission testing to demonstrate compliance with a District, state or Federal emission limit, or for reliability-related activities (maintenance and other testing, but excluding emission testing). Operating hours while mitigating emergency conditions or while emission testing to show compliance with District, state or Federal emission limits is not limited. (Basis: Stationary Diesel Engine ATCM, 17 C.C.R. § 93115(e)(2)(A)(3).)

Verification: The project owner shall submit to the CPM the quarterly operation reports (AQ-SC12).

AQ-28 The owner/operator shall operate engine S-15 only when a non-resettable totalizing meter (with a minimum display capability of 9,999 hours) that measures the hours of operation for the engine is installed, operated and properly maintained. (Basis: Stationary Diesel Engine ATCM, 17 C.C.R. § (e)(4)(G)(1).)

Verification: The project owner shall submit to the CPM the quarterly operation reports (AQ-SC12).

AQ-29 Records: The owner/operator shall maintain the following monthly records in a District-approved log for at least 36 months from the date of entry. Log entries shall be retained on-site, either at a central location or at the engine's location, and made immediately available to the District staff upon request.

- a. Hours of operation of S-15 for reliability-related activities (maintenance and testing).
- b. Hours of operation of S-15 for emission testing to show compliance with emission limits.
- c. Hours of emergency operation of S-15.
- d. For each emergency, the nature of the emergency condition.
- e. Fuel usage for S-15. (Basis: Stationary Diesel Engine ATCM, 17 C.C.R. § 93115(e)(4)(I).)

Verification: During site inspection, the project owner shall make all records and reports available to the District, ARB, U.S. EPA or Energy Commission staff.

AQ-30 At School and Near-School Operation: If S-15 is located on school grounds or within 500 feet of any school grounds, the owner/operator shall not operate it for non-emergency use, including maintenance and testing, during the following periods:

- a. Whenever a school-sponsored activity is taking place at the school (if the engine is located on school grounds).
- b. Between 7:30 a.m. and 3:30 p.m. on days when school is in session. "School" or "School Grounds" means any public or private school used for the purposes of the education of more than 12 children in kindergarten or any of grades 1 to 12, inclusive, but does not include any private school in which education is primarily conducted in a private home(s). "School" or "School Grounds" includes any building or structure, playground, athletic field, or other areas of school property but does not include unimproved school property. (Basis: Stationary Diesel Engine ATCM, 17 C.C.R. § 93115(e)(2)(A)(1).)

Verification: The project owner shall submit to the CPM the quarterly operation reports (AQ-SC12).

Biological Resources

Designated Biologist Selection

BIO-1 The project owner shall submit the resume, including contact information, of the proposed designated biologist to the compliance project manager (CPM) for approval.

Verification: The project owner shall submit the specified information at least 60 days before the start of any site (or related facilities) mobilization. Site and related facility activities shall not begin until an approved designated biologist is available on site.

The designated biologist must meet the following minimum qualifications:

1. A 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 the project area.

If a designated biologist needs to be replaced, the specified information of the proposed replacement must be submitted to the CPM at least 10 working days before the termination or release of the preceding designated biologist.

Designated Biologist Duties

BIO-2 The designated biologist shall perform the following during any site (or related facilities) mobilization, ground disturbance, grading, construction, operation, and closure activities.

1. Advise the project owner's construction/operation manager and supervising construction and operations engineer on the implementation of the biological resources Conditions of Certification;
2. Be available to supervise or conduct mitigation, monitoring, and other biological resources compliance efforts, particularly in areas requiring avoidance or containing sensitive biological resources such as wetlands and special status species or their habitat;
3. Clearly mark sensitive biological resource areas and inspect these areas at appropriate intervals for compliance with regulatory terms and conditions;
4. Notify the project owner and the CPM of any non-compliance with any biological resources Condition of Certification; and
5. Respond directly to inquiries of the CPM regarding biological resource issues.

Verification: The designated biologist shall maintain written records of both the tasks described above and the summaries of these records. Both shall be submitted in the monthly compliance reports.

During project operation, the designated biologist shall submit record summaries in the annual compliance report.

Biological Monitor Qualifications

BIO-3 The project owner's CPM - approved designated biologist shall submit the resume, at least three references, and the contact information for the proposed biological monitors to the CPM for approval. The resume shall demonstrate, to the satisfaction of the CPM, the appropriate education and experience to accomplish the assigned biological resource tasks.

Biological monitor(s)' training by the designated biologist shall include familiarity with the Conditions of Certification and the biological resources mitigation implementation and monitoring plan (BRMIMP), worker environmental awareness program, and all permits.

Verification: The project owner shall submit the specified information to the CPM for approval at least 30 days before the start of any site (or related facilities) mobilization. The designated biologist shall submit a written statement to the CPM confirming that individual biological monitors 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 10 days before 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 compliance with the biological resources Conditions of Certification.

If required by the designated biologist and 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 he or she determines that there would be an unauthorized adverse impact to biological resources 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 to any activities and advise the CPM of any corrective actions that have been taken, or will be taken, as a result of the work stoppage.
4. 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 following morning of the incident, or Monday morning in the case of a weekend) of any non-compliance or a halt to any site mobilization, ground disturbance, grading, construction, and/or operation activities. The project owner shall notify the CPM of the circumstances and actions taken to resolve the problem.

Whenever corrective action is taken by the project owner, a determination of success or failure will be made by the CPM within five working days after receipt of notice that corrective action is completed, or the project owner will be notified by the CPM that coordination with other agencies will require additional time before a determination can be made.

Biological Resources Mitigation Implementation and Monitoring Plan

BIO-5 The project owner shall submit to the CPM for review and approval a copy of the final BRMIMP and, once approved, shall implement the measures identified in the plan.

Protocol: The BRMIMP shall identify:

- a. All biological resources mitigation, monitoring, and compliance measures proposed and agreed to by the project owner;
- b. All biological resource conditions included in the Energy Commission's final decision;
- c. All locations, on a map of suitable scale, of areas requiring temporary protection and avoidance during construction;
- d. Duration for each type of monitoring and a description of monitoring methodologies and frequency;
- e. Performance standards used to help decide if/when proposed mitigation is or is not successful;
- f. All performance standards and remedial measures implemented if performance standards are not met;
- g. A discussion of biological resource-related facility closure measures;
- h. A process for proposing plan modifications to the CPM;
- i. A discussion of bird flight diverters and how they will be installed, replaced, and maintained during the life of the project; and
- j. Detailed descriptions of all measures that will be implemented to avoid and/or minimize impacts to special status species and reduce habitat disturbance.

Verification: At least 30 days before the start of any site mobilization activities, the project owner shall provide the CPM with the final version of the BRMIMP for the project and the CPM will determine the plan's acceptability. The project owner shall notify the CPM five working days before implementing any CPM-approved modifications to the BRMIMP.

Within 30 days after completion of project construction, the project owner shall provide to the CPM, for review and approval, a written report identifying which items of the BRMIMP have been completed, a summary of all modifications to mitigation measures made during the project's construction phase, and what mitigation and monitoring plan items are still outstanding.

Worker Environmental Awareness Program

BIO-6 The project owner shall develop and implement a CPM-approved worker environmental awareness program in which each of its employees, as well as employees of contractors and subcontractors who work on the project site or related facilities during construction and operation, are informed about sensitive biological resources associated with the project.

The worker environmental awareness program must:

- i. Be developed by the designated biologist and consist of an on-site or training center presentation in which supporting written material is made available to all participants;
- ii. Discuss the locations and types of sensitive biological resources on the project site and adjacent areas;
- iii. Present the reasons for protecting these resources;
- iv. Present the meaning of various temporary and permanent habitat protection measures; and
- v. Identify whom to contact if there are further comments and/or questions about the material discussed in the program.

The specific program can be administered by a competent individual(s) acceptable to the designated biologist.

Each participant in the on-site worker environmental awareness program shall sign a statement declaring that the individual understands and shall abide by the guidelines set forth in the program materials. The person administering the program shall also sign each statement.

Verification: No fewer than 30 days before the start of any site mobilization activities, the project owner shall provide copies of the worker environmental awareness program and all supporting written materials prepared by the designated biologist and the name and qualifications of the person(s) administering the program to the CPM for approval. The project owner shall state in the monthly compliance report the number of persons who have completed the training in the prior month, and keep a record of all persons who have completed the training to date. The signed statements for the construction phase shall be kept on file by the project owner and made available for examination by the CPM for a period of at least six months after the start of commercial operation. During project operation, signed statements for active project operational personnel shall be kept on file for the duration of their employment and for six months after their termination.

Impact Avoidance Measures

BIO-7 Anytime the project owner modifies or finalizes the project design, he or she shall incorporate all feasible measures that avoid or minimize impacts to the local biological resources, including the following:

1. Design, install, and maintain transmission line poles, access roads, pulling sites, and storage and parking areas to avoid identified sensitive resources;
2. Design, install, and maintain transmission lines and all electrical components in accordance with the Avian Power Line Interaction Committee's (APLIC) Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006, to reduce the likelihood of the electrocution of large birds;
3. Eliminate any California exotic pest plants of concern (CalEPPC) List A species from landscaping plans;
4. Prescribe a road sealant that is non-toxic to wildlife and plants and use only fresh water when adjacent to wetlands, rivers, or drainage canals;
5. Design, install, and maintain facility lighting to prevent side casting of light; and
6. Install bird flight diverters at 5-meter intervals on aboveground transmission lines.

Verification: All mitigation measures and their implementation methods shall be included in the BRMIMP. The Designated Biologist shall report implementation of the measures in the Monthly Compliance Reports. Within thirty (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.

Facility Closure

BIO-8 The project owner will incorporate into the planned permanent or unexpected permanent closure plan measures that address local biological resources. The biological resource facility closure measures will also be incorporated into the project BRMIMP.

Verification: At least 12 months (or a mutually agreed upon time period) before the beginning of closure activities, the project owner shall address all biological resource-related issues associated with facility closure in a biological resources element. The biological resources element will be incorporated into the facility closure plan and include a complete discussion of both local biological resources and proposed facility closure mitigation measures.

Bird Flight Diverters

BIO-9 Bird flight diverters shall be placed on the overhead ground wire associated with the Eastshore transmission line. During construction of the transmission line, bird flight diverters shall be installed to the manufacturer's specifications. Energy Commission staff will provide the final approval of the bird flight diverter to be installed.

Verification: No fewer than 30 days before energizing the new Eastshore transmission line, the project owner will provide photographic verification to the Energy Commission CPM that bird flight diverters have been installed to the manufacturer's specifications. A discussion of how the bird flight diverters will be maintained during the life of the project will be included in the project's BRMIMP.

Burrowing Owl Mitigation

BIO-10 Burrowing owl surveys shall be conducted before any ground disturbing activities. Survey methods shall be consistent with those described in the CDFG's Staff Report on Burrowing Owl Mitigation (CDFG 1995), and shall include winter surveys (December 1 through January 31) and nesting season surveys (April 15 through July 15). If resident burrowing owls or active burrow nest sites are discovered within approximately 500 feet from proposed construction activities avoidance and mitigation measures outlined in CDFG's Staff Report on Burrowing Owl Mitigation (CDFG 1995) shall be implemented before performing ground-disturbing activities.

Verification: Survey results shall be provided to the CPM within 14 days for the completion of surveys. If burrowing owls are found on the project site, a report on the mitigation measures implemented and the results of those measures shall be provided to the CPM within 14 days of completion.

Cultural Resources

CUL-1 Prior to the start of preconstruction site mobilization; construction ground disturbance; construction grading, boring, and trenching; and construction, the project owner shall obtain the services of a Cultural Resources Specialist (CRS), and one or more alternates, if alternates are needed. The CRS shall manage all monitoring, mitigation, curation, and reporting activities required in accordance with the Conditions of Certification (Conditions). The CRS may elect to obtain the services of Cultural Resources Monitors (CRMs) 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 to the California Register of Historical Resources (CRHR) of any cultural resources that are newly discovered or that may be affected in an unanticipated manner (Discovery). No preconstruction site mobilization; construction ground disturbance; construction grading, boring and trenching; or construction shall occur prior to CPM approval of the CRS, unless such activities are specifically approved by the CPM. Approval of a CRS may be denied or revoked for non-compliance on this or other projects.

Cultural Resources Specialist

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

1. The CRS's qualifications shall be appropriate to the needs of the project and shall include a background in anthropology, archaeology, history, architectural history, or a related field; and
2. At least three years of archaeological or historic, as appropriate, resource mitigation and field experience in California.

The resume of the CRS shall include the names and telephone numbers of contacts familiar with the work of the CRS on referenced projects, and demonstrate that the CRS has the appropriate education and experience to accomplish the cultural resources tasks that must be addressed during ground disturbance, grading, construction, and operation.

Cultural Resources Monitors

CRMs shall have the following qualifications:

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

Cultural Resources Technical Specialists

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

Verification:

1. At least 45 days prior to the start of preconstruction site mobilization, construction ground disturbance, construction grading, boring and trenching, and construction, the project owner shall submit the resume for the CRS, and alternate(s) if desired, to the CPM for review and approval.
2. At least 10 days prior to a termination or release of the CRS, or within 10 days after the resignation of a CRS, the project owner shall submit the resume of the proposed new CRS to the CPM for review and approval. At the same time, the project owner shall also provide to the proposed new CRS the AFC and all cultural documents, field notes, photographs, and other cultural materials generated by the project.
3. At least 20 days prior to preconstruction site mobilization, construction ground disturbance, construction grading, boring and trenching, and construction, the CRS shall provide a letter naming any CRMs for the project and stating that the identified CRMs meet the minimum qualifications for cultural resources monitoring required by this Condition. If additional CRMs are obtained during the project, the CRS shall provide additional letters to the CPM identifying the CRMs and attesting to the qualifications of the CRMs, at least five days prior to the CRMs beginning on-site duties.

4. At least 10 days prior to beginning tasks, the resume(s) of any additional technical specialists shall be provided to the CPM for review and approval.
5. At least 10 days prior to the start of preconstruction site mobilization, construction ground disturbance, construction grading, boring and trenching, and construction, the project owner shall confirm in writing to the CPM that the approved CRS will be available for onsite work and is prepared to implement the cultural resources Conditions.

CUL-2 Prior to the start of preconstruction site mobilization, construction ground disturbance, construction grading, boring and trenching, and construction, if the CRS has not previously worked on the project, the project owner shall provide the CRS with copies of the AFC, data responses, and confidential cultural resources reports for the project. The project owner shall also provide the CRS and the CPM with maps and drawings showing the footprint of the power plant and all linear facilities. Maps shall include the appropriate USGS quadrangles and a map at an appropriate scale (e.g., 1:2000 or 1" = 200') 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 submittals and, in consultation with the CRS, approve those that are appropriate for use in cultural resources planning activities. No preconstruction site mobilization, construction ground disturbance, construction grading, boring and trenching, and construction activities shall occur prior to CPM approval of maps and drawings, unless such activities are specifically approved by the CPM.

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

At a minimum, the CRS shall consult weekly with the project construction manager to confirm area(s) to be worked during the next week, until ground disturbance is completed.

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

Verification:

1. At least 40 days prior to the start of preconstruction site mobilization, construction ground disturbance, construction grading, boring and trenching, and construction, the project owner shall provide the AFC, data responses, and confidential cultural resources documents 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. If there are changes to any project-related footprint, revised maps and drawings shall be provided at least 15 days prior to start of preconstruction site mobilization, construction ground disturbance, construction grading, boring and trenching, and construction for those changes.

3. If project construction is phased, if not previously provided, the project owner shall submit the subject maps and drawings 15 days prior to each phase.
4. On a weekly basis during preconstruction site mobilization, construction ground disturbance, construction grading, boring and trenching, and construction, a current schedule of anticipated project activity shall be provided to the CRS and CPM by letter, email, or fax.
5. Within five days of identifying changes, the project owner shall provide written notice of any changes to scheduling of construction phase.

CUL-3 Prior to the start of preconstruction site mobilization, construction ground disturbance, construction grading, boring and trenching, and construction, the project owner shall submit the Cultural Resources Monitoring and Mitigation Plan (CRMMP), as prepared by or under the direction of the CRS, to the CPM for review and approval. The CRMMP shall be provided in the Archaeological Resource Management Report (ARMR) format, and, per ARMR guidelines, the author's name shall appear on the title page of the CRMMP. The CRMMP shall identify general and specific 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 monitor, and the project owner's on-site construction manager. No preconstruction site mobilization, construction ground disturbance, construction grading, boring and trenching, or construction shall occur prior to CPM approval of the CRMMP, unless such activities are specifically approved by the CPM.

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

1. 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. A prescriptive treatment plan may be included in the CRMMP for limited resource types. A refined research design will be prepared for any resource where data recovery is required.
2. The following statement included in the Introduction: "Any discussion, summary, or paraphrasing of the Conditions in this CRMMP is intended as general guidance and as an aid to the user in understanding the Conditions and their implementation. The Conditions, as written in the Commission Decision, shall supersede any summarization, description, or interpretation of the Conditions in the CRMMP. The Cultural Resources Conditions of Certification from the Commission Decision are contained in Appendix A."
3. Specification of the implementation sequence and the estimated time frames needed to accomplish all project-related tasks during ground disturbance, construction, and post-construction 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 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 construction and how long they would be needed to protect the resources from project-related effects.
7. A statement that all cultural resources encountered shall be recorded on a State of California Department of Parks and Recreation DPR-523 form, mapped and photographed. In addition, all archaeological materials collected as a result of the archaeological investigations (survey, testing, data recovery) shall be curated in accordance with the State Historical Resources Commission's Guidelines for the Curation of Archaeological Collections, into a retrievable storage collection in a public repository or museum.
8. A statement that the project owner will pay all curation fees and a copy of an agreement with, or other written commitment from, a curation facility to accept artifacts from this project. Any agreements concerning curation will be retained and available for audit for the life of the project.
9. A statement that the CRS has access to equipment and supplies necessary for site mapping, photographing, and recovering any cultural resources materials encountered during construction.
10. A description of the contents and format of the Cultural Resources Report (CRR), which shall be prepared according to ARMR guidelines.

Verification:

1. At least 30 days prior to the start of preconstruction site mobilization, construction ground disturbance, construction grading, boring and trenching, and construction, the project owner shall submit the subject CRMMP to the CPM for review and approval. Preconstruction site mobilization, construction ground disturbance, construction grading, boring and trenching, or construction may not commence until the CRMMP is approved, unless specifically approved by the CPM.
2. At least 30 days prior to the start of preconstruction site mobilization, construction ground disturbance, construction grading, boring and trenching, and construction, a letter shall be provided to the CPM indicating that the project owner agrees to pay curation fees for any materials collected as a result of the archaeological investigations (survey, testing, data recovery).

CUL-4 The project owner shall submit the Cultural Resources Report (CRR) to the CPM for approval. The CRR shall be written by or under the direction of the CRS and shall be provided in the ARMR format. The CRR shall report on all field activities including dates, times and locations, findings, samplings, and analyses. All survey reports, DPR-523 forms, and additional research reports not previously submitted to the California Historical Resources Information System (CHRIS) and the State Historic Preservation Officer (SHPO) shall be included as an appendix to the CRR.

If the project owner requests a suspension of 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 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 90 days after completion of ground disturbance (including landscaping), the project owner shall submit the 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.
2. Within 10 days after CPM approval, the project owner shall provide documentation to the CPM that copies of the CRR have been provided to the SHPO, the CHRIS, and the curating institution, if archaeological materials were collected.
3. 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.

CUL-5 Prior to and for the duration of preconstruction site mobilization, construction ground disturbance, construction grading, boring and trenching, and construction, the project owner shall provide Worker Environmental Awareness Program (WEAP) training to all new workers within their first week of employment. The 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 shall be available (by telephone or in person) to answer questions posed by employees. The training shall include:

1. A discussion of applicable laws and penalties under the law;
2. Samples or visuals of artifacts that might be found in the project vicinity;
3. Instruction that the CRS, alternate CRS, and CRMs have the authority to halt construction 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;
4. Instruction that employees 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;

5. An informational brochure that identifies reporting procedures in the event of a Discovery;
6. An acknowledgement form signed by each worker indicating that they have received the training; and
7. A sticker that shall be placed on hard hats indicating that environmental training has been completed.

No preconstruction site mobilization, construction ground disturbance, construction grading, boring and trenching, and construction, shall occur prior to implementation of the WEAP program, unless specifically approved by the CPM.

Verification:

1. At least 30 days prior to the beginning of pre-construction site mobilization, the CRS shall provide the training program draft text and graphics and the informational brochure to the CPM for review and approval, and the CPM will provide to the project owner a WEAP Training Acknowledgement form for each WEAP-trained worker to sign.
2. On a monthly basis, the project owner shall provide in the Monthly Compliance Report (MCR) the WEAP Training Acknowledgement forms of persons who have completed the training in the prior month and a running total of all persons who have completed training to date.

CUL-6 The project owner shall ensure that the CRS, alternate CRS, or CRMs monitor preconstruction site mobilization; construction ground disturbance; construction grading, boring, and trenching; and construction full time, to ensure there are no impacts to undiscovered resources and to ensure that known resources are not impacted in an unanticipated manner (Discovery), anywhere there is excavation into undisturbed native soils on the plant site, at the HDD bore pits, and at each location where a new transmission line pole is installed or an old transmission line pole is removed along the transmission line route.

Full-time archaeological monitoring for this project shall be the archaeological monitoring of all native-soil-removing activities on the construction site or along the linear facility routes for as long as the activities are ongoing. Full-time archaeological monitoring shall require at least one monitor per excavation area where machines are actively removing native soils. If an excavation area is too large for one monitor to effectively observe the soil removal, one or more additional monitors shall be retained to observe the area.

In the event that the CRS determines 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 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. From these logs, the CRS shall compile a monthly monitoring summary report to be included in the MCR. Copies of the daily monitoring logs shall be provided by the CRS to the CPM, if requested by the CPM. If there are no monitoring activities, the summary report shall specify why monitoring has been suspended. The CRS or alternate CRS shall report daily to the CPM on the status of cultural resources-related activities at the construction site, unless reducing or ending daily reporting is requested by the CRS and approved by the CPM.

The CRS, at his or her discretion, or at the request of the CPM, may informally discuss cultural resource monitoring and mitigation activities with Energy Commission technical staff (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 by telephone or e-mail within 24 hours. The CRS shall also recommend corrective action to resolve the problem or achieve compliance with the Conditions. When the issue is resolved, the CRS shall write a report describing the issue, the resolution of the issue, and the effectiveness of the resolution measures. This report shall be provided in the next MCR for the review of the CPM.

A Native American monitor shall be obtained to monitor ground disturbance in areas where Native American artifacts have been discovered. Informational lists of concerned Native Americans and guidelines for monitoring shall be obtained from the Native American Heritage Commission. Preference in selecting a monitor shall be given to Native Americans with traditional ties to the area that shall be monitored.

Verification:

1. At least 30 days prior to the start of preconstruction site mobilization; construction ground disturbance; construction grading, boring and trenching; and construction, the CPM will provide to the CRS an electronic copy of a form to be used as a daily monitoring log. While monitoring is on-going, the project owner shall include in each MCR a copy of the monthly summary report of cultural resources-related monitoring prepared by the CRS.
2. Daily, the CRS shall provide a statement that "no cultural resources over 50 years of age were discovered" to the CPM as an e-mail, or in some other form acceptable to the CPM. If the CRS concludes that daily reporting is no longer necessary, a letter or e-mail providing a detailed justification for the decision to reduce or end daily reporting shall be provided to the CPM for review and approval at least 24 hours prior to reducing or ending daily reporting.

3. At least 24 hours prior to implementing a proposed change in monitoring level, documentation justifying the change shall be submitted to the CPM for review and approval.

CUL-7 The project owner shall grant authority to halt construction to the CRS, alternate CRS, and the CRMs 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 cultural resources over 50 years of age or considered exceptionally significant are found, or impacts to such resources can be anticipated, construction shall be halted or redirected in the immediate vicinity of the Discovery sufficient to ensure that the resource is protected from further impacts. The halting or redirection of construction 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 eligibility, and recommendations for mitigation of any cultural resources Discoveries, whether or not a determination of significance has been made.
2. The CRS has completed field notes, measurements, and photography for a DPR 523 primary form. The "Description" entry of the 523 form shall include a recommendation on the significance of the find. The project owner shall submit completed forms to the CPM.
3. 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.

Verification:

1. At least 30 days prior to the start of preconstruction site mobilization, construction ground disturbance, construction grading, boring and trenching, and construction, 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 construction activities 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. Completed DPR form 523s 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 is more appropriate for the subject cultural material.

Hazardous Materials Management

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, a list of hazardous materials contained at the facility.

HAZ-2 The project owner shall concurrently provide a Business Plan and a Risk Management Plan (RMP) prepared pursuant to the California Accidental Release Program (CalARP) to the Hazardous Materials Division of the Hayward Fire Department and the CPM for review. After receiving comments from the Hazardous Materials Division of the Hayward Fire Department and the CPM, the project owner shall reflect all recommendations in the final documents. Copies of the final Business Plan and RMP shall then be provided to the Hazardous Materials Division of the Hayward Fire Department for information and to the CPM for approval. **Verification:** At least thirty (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 Business Plan to the CPM for approval. At least thirty (30) days prior to delivery of aqueous ammonia to the site, the project owner shall provide the final RMP to the CUPA for information and to the CPM for approval.

Verification: At least thirty (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 Business Plan to the CPM for approval. At least thirty (30) days prior to delivery of aqueous ammonia to the site, the project owner shall provide the final RMP to the CUPA 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. 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 thirty (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 tank shall be designed to either the ASME Pressure Vessel Code and ANSI K61.6 or to API 620. In either case, the storage tank and the tanker truck transfer pad shall include a subsurface or covered secondary

containment basin capable of holding 125 percent of the storage volume or the storage volume plus the volume associated with 24 hours of rain assuming the 25-year storm. The tank and transfer pad shall also be equipped with ammonia sensors. The final design drawings and specifications for the ammonia storage tank, secondary containment structure, and the number, location, and specifications of the ammonia sensors shall be submitted to the CPM.

Verification: At least thirty (30) days prior to delivery of aqueous ammonia to the facility, the project owner shall submit final design drawings and specifications for the ammonia storage tank, the secondary containment structure, and the number, location, and specifications of ammonia sensors to the CPM for review and approval.

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 DOT Code MC-307.

Verification: At least thirty (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 The project owner shall direct all vendors delivering any hazardous material to the site to use only the route approved by the CPM. Trucks will travel on SR-92 and exit at the Clawiter Road interchange and then travel north along Clawiter Road to the plant site. When aqueous ammonia is transported to the power plant, the project owner shall provide a flagman on Clawiter Road to stop traffic and assist the tanker truck in making the left turn into the power plant site. The project owner shall obtain approval of the CPM if an alternate route is desired.

Verification: At least thirty (30) days prior to receipt of any hazardous materials on site, the project owner shall submit copies of the required transportation route limitation direction 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 or emergency; and
6. Evacuation procedures.

Verification: At least thirty (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 will 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 2002).

The operation security plan shall include the following:

1. permanent full perimeter fence or wall, at least 8 feet high;
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;
6. (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;
7. site access controls for employees, contractors, vendors, and visitors;
8. 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;
9. closed circuit TV (CCTV) monitoring system, recordable, and viewable in the power plant control room and security station (if separate from the control room) capable of viewing, at a minimum, the main entrance gate and the ammonia storage tank; and

10. additional measures to ensure adequate perimeter security consisting of either:

a. a security guard present 24 hours per day, 7 days per week;

or

b. power plant personnel on site 24 hours per day, 7 days per week, and all of the following:

1. the CCTV monitoring system required in number 9., above, shall include cameras able to pan, tilt, and zoom, have low-light capability, are recordable, 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 from a monitor in the power plant control room; and
2. 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 --e.g., 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 Council, after consultation with both appropriate law enforcement agencies and the applicant.

Verification: At least thirty (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 a statement 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 statement that the operations security plan includes all current hazardous materials transport vendor certifications for security plans, and employee background investigations.

Land Use

LAND-1 The project owner shall ensure that the project and its associated facilities, including the temporary construction parking and laydown area(s), are constructed and operated in compliance with the city of Hayward's Industrial Zoning District's lot and yard requirements, height limits, and minimum design and performance standards; and other applicable municipal code requirements.

The project owner shall submit a development plan to the city of Hayward Planning Department in sufficient time for review and comment, and to the Energy Commission's Compliance Project Manager (CPM) for review and approval prior to the proposed start of construction. The development plan shall

include all elements normally required for review and permitting of a similar project, including site plan, structural dimensions, design and exterior elevation(s), and proof of any required permits.

Verification: At least ~~90~~ 45 calendar days prior to the start of construction, including any grading or site remediation on the power plant project site or its associated easements, the project owner shall submit the proposed development plan to the city of Hayward Planning Department 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 city of Hayward.

At least 30 calendar days prior to the start of construction, the project owner shall provide copies of any comment letters received from the local jurisdiction, along with any changes to the proposed development plan, to the CPM for review and approval.

Noise and Vibration

NOISE-1 At least 15 days prior to the start of ground disturbance, the project owner shall notify all residents within one-half mile of the site and the linear facilities, and Fremont Bank's Operations Center at 25151 Clawiter Road in Hayward, 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 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.

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

- use the Noise Complaint Resolution Form (below), or a functionally equivalent procedure acceptable to the CPM, to document and respond to each noise complaint;
- attempt to contact the person(s) making the noise complaint within 24 hours;
- conduct an investigation to determine the source of noise in the complaint;

- if the noise is project related, take all feasible measures to reduce the source of the noise; and
- submit a report documenting the complaint and actions taken. The report shall include: a complaint summary, including the final results of noise reduction efforts and, if obtainable, a signed statement by the complainant stating that the noise problem has been resolved to the complainant's satisfaction.

Verification: Within five days of receiving a noise complaint, the project owner shall file a Noise Complaint Resolution Form, shown below, with both the local jurisdiction and the CPM, that documents the resolution of the complaint. If mitigation is required to resolve the complaint, and the complaint is not resolved within a three-day period, the project owner shall submit an updated Noise Complaint Resolution Form when the mitigation is performed and complete.

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 in accordance to the applicable OSHA and Cal-OSHA standards.

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.

Noise Restrictions

NOISE-4 The project design and implementation shall include appropriate noise mitigation measures adequate to ensure that the operation of the project will not cause the noise levels due to plant operation alone, ~~during the four quietest consecutive hours of the nighttime~~, to exceed an average of ~~46~~49 dBA measured at or near monitoring location R1 (2765 Depot Road). **No new pure-tone components at R1 shall be caused by the project. No single piece of equipment shall be allowed to stand out as a source of noise that draws legitimate complaints.** The project design and implementation shall include appropriate noise mitigation measures adequate to ensure that the operation of the project will not cause the exterior noise levels due to plant operation alone to exceed an hourly average of ~~60~~70 dBA measured at the northern wall of the north building of the Fremont Bank's Operational Center (25151 Clawiter Road).

~~No new pure-tone components shall be caused by the project. No single piece of equipment shall be allowed to stand out as a source of noise that draws legitimate complaints.~~

- When the project first attains a sustained output of 95 percent or higher of its rated capacity, the project owner shall conduct a 25-hour community noise survey at monitoring location R1, **or at other locations acceptable to the CPM. or at a closer location acceptable to the CPM.** This survey during the power plant's full-load operation shall also include the 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, that is closer to the plant (for example, 400 feet from the plant boundary). This measured level will then be mathematically extrapolated to determine the plant noise contribution at the affected residence. The character of the plant noise shall be evaluated at the affected receptor locations to determine the presence of pure tones or other dominant sources of plant noise.

- B. During the period of this survey, the project owner shall conduct a short-term noise survey during the daytime hours, from 7 a.m. to 10 p.m., at or near the northern wall of the north building of the Fremont Bank's Operational Center, or at another location acceptable to the CPM, in order to measure the power plant's contribution to the exterior noise level at the Bank. This survey during the power plant's full-load operation shall also include the measurement of one-third octave band sound-pressure levels to ensure that no new pure-tone noise components have been caused by the project.
- C. If the results from the noise survey indicate that the power plant average noise levels at the affected receptor sites exceed the above values during the above specified time periods, mitigation measures shall be implemented to reduce noise to a level of compliance with these limits.
- D. If the results from the noise survey indicate that pure tones are present at R1, mitigation measures shall be implemented to eliminate those pure tones.

Verification: The survey shall take place within 30 days (or when otherwise approved by the CPM) when the project first attains a sustained output of 95 percent or higher of its rated capacity. Within 15 days after completing the survey, the project owner shall submit a summary report of the survey to the CPM. Included in the survey report will 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 those measures. When these measures are 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.

NOISE-5 Following the project's attainment of a sustained output of 95 percent or greater of its rated capacity, the project owner shall conduct an occupational noise survey to identify any noise hazardous areas in the facility.

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 applicable California and federal regulations.

Verification: Within 30 days after completing the 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.

Construction Restrictions

NOISE-6 Heavy equipment operation and noisy construction work relating to any project features shall be restricted to the times delineated below, unless a special permit has been issued by the City of Hayward:

Any day except Sundays and holidays: 7 a.m. to 7 p.m.

Sundays and holidays: 10 a.m. to 6 p.m.

Haul trucks and other engine-powered equipment shall be equipped with adequate mufflers. Haul trucks shall be operated in accordance with posted speed limits. Truck engine exhaust brake use 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 of the project.

Public Health

PUBLIC HEALTH-1 The project owner shall, within 270 days of starting commercial operations, provide the results of a source test on the number of engine exhaust stacks required below and a human health risk assessment (HRA) to the Compliance Project Manager (CPM). The source test and human health risk assessment shall be conducted according to protocols reviewed and commented on by the Bay Area Air Quality Management District and reviewed and approved by the CPM, and shall be submitted to the CPM not less than 60 days after the date of starting commercial operations. The source test and HRA shall include the quantitative analysis and assessment of the following toxic air contaminants: acetaldehyde, ~~acrolein~~, benzene, 1,3-butadiene, ethyl benzene, formaldehyde, naphthalene and all PAHs (including speciation of all PAHs emitted in the gaseous and particulate phases), propylene, toluene, and xylenes. **Acrolein shall be included in source testing if the Bay Area Air Quality Management District or California Air Resources Board have developed an acceptable test method by the date source testing is completed.** The source test results and human health risk assessment shall confirm that the theoretical maximum cancer risk at the point of maximum impact is less than 10 in one million and the acute and chronic Hazard Indices are less than 1.0. If the health risk assessment shows a cancer risk greater than 10 in one million or a Hazard Index greater than 1.0, operation of the power plant shall be restricted to the number of engines that the CPM determines will represent a risk of less than 10 in one million or a Hazard Index of less than 1.0

until the project owner can certify that the risk of operating all engines does not create a theoretical maximum cancer risk greater than 10 in one million or an acute or chronic Hazard Index greater than 1.0 at the point of maximum impact.

~~The number of engine exhaust stacks to be sampled shall be determined in the following manner:~~

- ~~1. Four (4) engines shall be randomly chosen by the owner for stack testing and approved by the CPM. If stack testing results for each contaminant described above on all four engines falls within two standard deviations of the arithmetic mean of each individual contaminant, no further engines need be tested.~~
- ~~2. If any contaminants measured in the stack test fall outside two standard deviations of the arithmetic mean for that contaminant, an additional four (4) engines, chosen at random by the owner and approved by the CPM, shall be stack tested for all contaminants that fell outside two standard deviations of the arithmetic mean. If stack testing results for each contaminant described above on all eight engines tested fall within two standard deviations of the arithmetic mean of each individual contaminant, no further engines need be tested. The project owner may request relief from further stack testing requirements by providing the CPM a written request with documentation explaining that further testing would not result in a significant change in the health risk assessment results.~~
- ~~3. This process shall be continued until either the results for all engines tested fall within two standard deviations of the arithmetic mean of each individual contaminant for all engines tested or all fourteen (14) engines are tested.~~

One engine exhaust stack shall be sampled for valid data in three test runs, according to Bay Area Air Quality Management District-approved standards and procedures. If source testing is deemed valid by BAAQMD, non-detect data will be considered valid data. If testing of an engine yields non-valid test results for any single test run, additional engines will be tested until three valid test runs for all compounds are obtained from a single engine.

- 4.—The HRA described above shall be based on **the mean of all valid data produced for the all engine(s) tested under this protocol. Not detect values will be handled according to BAAQMD policies and procedures.**

Verification: Not less than sixty (60) days after the start of commercial operations, the project owner shall provide a copy of the source test and human health risk assessment protocols to the BAAQMD for review and comment and to the CPM for review and approval. Included in the test protocol shall be **a description of the list of four (4) engine(s) randomly chosen for the initial sampling. Subsequent to the initial testing, any additional engines chosen for testing shall be submitted to the CPM for review and approval. Not less than thirty (30) days after each group of source tests has been completed, the project owner shall provide the source test results to the BAAQMD and the CPM. If the source testing is consistent with item #2 above, †The owner shall submit the HRA to the BAAQMD for review and comment and to the CPM for review and approval not later than sixty (60) days after the date of the test. If additional tests are required, the project owner shall submit in**

~~sequence the next set of randomly chosen engines for testing to the CPM for approval until either all testing conforms to the protocol described above or all 14 engines are tested. When the project owner has fulfilled the requirement for testing as described above, the project owner shall submit all test results and the HRA to the BAAQMD for review and comment and to the CPM for approval within sixty (60) days of the date of the last test or not later than 270 days after the date of starting commercial operations, whichever is sooner.~~

Socioeconomics

Socio- 1 The project owner shall pay the one-time statutory school development fee to the Hayward Unified School District, as required by Education Code Section 17620.

Verification: At least 30 days prior to start of project construction, the project owner shall provide the Compliance Project Manager proof of payment of the statutory development fee.

Soil and Water Resources

SOIL & WATER-1 The project owner shall comply with the requirements of the General National Pollutant Discharge Elimination System (NPDES) Permit for Discharges of Stormwater Associated with Construction Activity. The project owner shall develop and implement a Stormwater Pollution Prevention Plan (SWPPP) for the construction of the Eastshore site, laydown area, and all linear facilities. The construction SWPPP shall abide by the city of Hayward's (city) Stormwater Management and Urban Runoff Control Ordinances (Chapter 11, Article 5) set forth in NPDES Permit No. CA0029831 and San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) Order R2-2003-0021.

Verification: The project owner shall submit to the CPM a copy of the construction SWPPP that has been reviewed and approved by the SFBRWQCB which includes the requirements of Hayward Municipal Code Chapter 11, Article 5, for Stormwater Management and Urban Runoff Control (Provision C.3 requirements) prior to site mobilization, and retain a copy on site. The project owner shall submit copies to the CPM of all correspondence between the project owner and the SFBRWQCB about the construction SWPPP within 10 days of its receipt or submittal. The project owner shall submit copies to the CPM of all correspondence between the project owner and the city about the city's Stormwater Management and Urban Runoff Control Ordinances within 10 days of its receipt or submittal. This information shall include copies of the Notice of Intent and Notice of Termination for the project.

SOIL & WATER-2 Prior to site mobilization, the project owner shall obtain CPM approval for a site-specific Drainage, Erosion and Sedimentation Control Plan (DESCP), which will ensure the protection of water quality and soil resources at the Eastshore site, laydown area, and all linear facilities for both the mobilization and construction of the project. The DESCP shall address appropriate methods and actions, both temporary and permanent, for the protection of water quality and soil resources, demonstrate no increase in the potential for off-site flooding, meets the County of Alameda (county) Development Services Department grading and drainage requirements, and identifies all monitoring and maintenance activities. The plan shall be consistent with the grading and drainage plan as required by

Condition of Certification CIVIL-1, and may incorporate by reference any Stormwater Pollution Prevention Plan (SWPPP) developed in conjunction with any NPDES permit. At a minimum, the DESCOP shall contain the following elements.

- A. **Vicinity Map** – A map(s) at a minimum scale of 1"=100' shall be provided that shows the location of all project elements, with depictions of all significant geographic features including swales, storm drains, and sensitive areas.
- B. **Site Delineation** – All areas subject to soil disturbance for the Eastshore project (project site, laydown area, all linear facilities, landscaping areas, and any other project elements) shall be delineated showing the boundary lines of all construction areas and the locations of all existing and proposed structures, pipelines, roads, and drainage facilities.
- C. **Watercourses and Critical Areas** – The DESCOP shall show the location of all nearby watercourses including swales, storm drains, and drainage ditches, as well as indicate the proximity of those features to the Eastshore project construction, laydown, and landscape areas and all transmission and pipeline construction corridors.
- D. **Drainage Map** – The DESCOP shall provide a topographic site map(s) at a minimum scale 1"=100' showing all existing, interim, and proposed drainage systems and drainage area boundaries. On the map, spot elevations and contours shall be extended off site for a minimum distance of 100 feet.
- E. **Drainage Narrative** – The DESCOP shall include a narrative of the drainage measures to be taken to protect the site and downstream facilities. The narrative should include the summary pages from the hydraulic analysis prepared by a professional engineer/erosion control specialist. The narrative shall also state the watershed size(s) in acres used in the calculation of drainage control measures. The hydraulic analysis should be used to support the selection of BMPs and structural controls to divert off-site and on-site drainage around or through the Eastshore project construction and laydown areas.
- F. **Clearing and Grading Plans** – The DESCOP shall provide a delineation of all areas to be cleared of vegetation and areas to be preserved. The plan shall provide elevations, slopes, locations, and the extent of all proposed grading as shown by contours, cross sections, or by other means. The locations of any disposal areas, fills, or other special features will also be shown. It shall also illustrate existing and proposed topography, tying in proposed contours with existing topography.
- G. **Clearing and Grading Narrative** – The DESCOP shall include a table with the quantities of material excavated or filled for the site and all project elements of the Eastshore project (project site, laydown areas, transmission corridors, and pipeline corridors). This shall include those materials removed from the site due to demolition, whether such excavations or fill are temporary or permanent, in addition to the amount of material to be either imported or exported. The table shall distinguish whether such excavations or fill are

temporary or permanent, and the amount of material to be either imported or exported.

- H. **Best Management Practices** – The DESCPC shall identify on the topographic site map(s) the location of the site-specific BMPs to be employed during each phase of construction (initial grading/demolition, excavation and construction, and final grading/stabilization). Treatment control BMPs used during construction should facilitate the testing of stormwater run-off prior to discharge to the storm-water system. BMPs shall include measures designed to prevent wind and water erosion in areas with existing soil contamination. Treatment control BMPs used during construction should facilitate the testing of both groundwater and stormwater. If run-off shows unacceptable levels of contaminants including petroleum hydrocarbons, VOC, or insecticide constituents, the run-off must be treated to acceptable levels before it is discharged.
- I. **Best Management Practices Narrative** – The DESCPC shall show the location (as identified in H., above), timing, and maintenance schedules of all erosion and sediment control BMPs to be used prior to initial grading/demolition and during project excavation and construction, final grading/stabilization, and post-construction. Separate BMP implementation schedules shall be provided for each project element for each phase of construction. The maintenance schedule should include the post-construction maintenance of structural control BMPs, or provide a statement when the information is available.

Verification: No later than 90 days prior to the start of site mobilization, the project owner shall submit a copy of the DESCPC to the county's Development and Services Department for review and comment that meets the county's grading and drainage requirements and includes a completed Drainage Review Checklist. No later than 60 days prior to the start of site mobilization, the project owner shall submit the DESCPC and the county's comments to the CPM for review and approval. The CPM shall consider comments received from the county on the DESCPC before issuing his or her approval. The DESCPC shall be consistent with the grading and drainage plan as required by Condition of Certification CIVIL-1, and relevant portions of the DESCPC shall clearly show approval by the Chief Building Official. The DESCPC shall be consistent with the SWPPP developed in conjunction with the city's municipal NPDES Permit No. CA0029831 for Construction Activity. The project owner shall provide a narrative in the monthly compliance report on the effectiveness of the drainage, erosion, and sediment control measures, the results of monitoring and maintenance activities, and the dates of any dewatering activities.

SOIL & WATER- 3 The project owner shall comply with the requirements of the General NPDES Permit for Discharges of Stormwater Associated with Industrial Activity. The project owner shall develop and implement a Stormwater Pollution Prevention Plan (SWPPP) for operation of the Eastshore project. The Industrial SWPPP shall abide by the city of Hayward's Stormwater Management and Urban Runoff Control Ordinances (Chapter 11, Article 5) set forth in NPDES Permit No. CA0029831.

Verification: The project owner shall submit to the CPM a copy of the Industrial SWPPP, including all requirements of Hayward Municipal Code Chapter 11, Article 5 for Stormwater Management and Urban Runoff Control that has been review and approved by the San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) prior to commercial operation, and retain a copy on site. The project owner shall submit copies to the CPM of all correspondence between the project owner and the SFBRWQCB about the Industrial SWPPP within 10 days of its receipt or submittal. The project owner shall submit copies to the CPM of all correspondence between the project owner and the city about the city's Stormwater Management and Urban Runoff Control Ordinance within 10 days of its receipt or submittal. The Industrial SWPPP shall include a copy of the Notice of Intent for the project.

SOIL & WATER-4 Prior to site mobilization, the project owner shall provide the CPM with two copies of an executed and final Water Supply Agreement in accordance with the city of Hayward (city) Municipal Code Section 11, Article 2, and any other service agreements with the city for obtaining potable water for the construction and operation of the Eastshore project. The agreement(s) shall detail any requirements, conditions, or restrictions on the project owner for the use of potable water. The project owner shall not connect to the city's potable water system without final approval from the city. The project owner shall provide the CPM copies of the final approval from the city and all monitoring or other reports required by the agreement(s). The project owner shall notify the CPM of any violations of the agreement(s) terms and conditions, the actions taken or planned to bring the project back into compliance with the agreement(s) and the date(s) compliance was reestablished.

Verification: At least 60 days prior to site mobilization, the project owner shall submit to the CPM two copies of the executed water supply agreement and any other service agreements between the project owner and the city for obtaining potable water for construction and operation of the Eastshore project, in accordance with the city of Hayward Municipal Code Section 11, Article 2. The project owner shall submit results of any water quality monitoring required by the city to the CPM in the annual compliance report. The project owner shall submit any notice of violation of the agreement's terms and conditions to the CPM within 10 days of receipt and fully explain the corrective actions taken in the next monthly compliance report or annual compliance report, as appropriate.

SOIL & WATER-5 Prior to commercial operation, the project owner shall provide the CPM and the city of Hayward (city) with all information and data necessary to satisfy city of Hayward Municipal Code Section 11, Article 3, for the discharge of sanitary and plant wastewater into the city's municipal sewer system. During operation, any monitoring reports provided to the city shall also be provided to the CPM. The CPM shall be notified of any violations of discharge limits or amounts.

Verification: At least 60 days prior to commercial operation, the project owner shall submit the information and data required to satisfy city of Hayward Municipal Code Section 11, Article 3, to the city for review and comment, and to the CPM for review and approval. During operations, the project owner shall submit any water quality monitoring required by the city to the CPM in the annual compliance report. The project owner shall

submit any notice of violations from the city to the CPM within 10 days of receipt and fully explain the corrective actions taken in the annual compliance report.

SOIL & WATER-6 The project owner shall use potable water supplied by the city of Hayward (city) for construction and operation of the Eastshore project. Prior to the use of potable water from the city, the project owner shall install and maintain metering devices as part of the water supply and distribution system to monitor and record (in gallons per day) the total volume of water supplied to the Eastshore project. These metering devices shall be operational for the life of the project.

The project owner shall prepare an annual water use summary, which will include both the monthly range and monthly average of daily potable water consumption (in gallons per day), and total water used by the project on a monthly and annual basis, expressed in acre feet. Potable water use on site shall be recorded monthly. For subsequent years, the annual water use summary shall also include both the yearly range and the yearly average water use by the project. The annual water use summary shall be submitted to the CPM as part of the annual compliance report.

Verification: At least 60 days prior to mobilization for the Eastshore project, the project owner shall submit to the CPM evidence that metering devices have been installed and are operational on the potable water supply and distribution system. Potable water use may be based upon either metering or billing statements from the city.

The project owner shall submit a water use summary to the CPM in the monthly compliance report during project construction and in the annual compliance report during project operation. The project owner shall also provide a report on the servicing, testing, and calibration of the metering devices in the annual compliance report.

Traffic and Transportation

TRANS-1 The project owner shall prepare a traffic control and implementation plan for the project and its associated facilities, containing, as proposed by the applicant:

- A Traffic Management Plan (TMP) addressing the movement of vehicles and materials, including arrival and departure schedules, designated workforce and delivery routes, hazardous materials delivery schedules and coordination with Caltrans, and other traffic-related activities and resulting impacts during both construction and operation of the proposed facility.
- A Heavy Haul Plan (HHP), addressing the transport and delivery of heavy and oversized loads requiring permits from Caltrans or other state and federal agencies.

The project owner shall consult with the City of Hayward Public Works Department and Caltrans (if applicable) in the preparation of the traffic control and implementation plan and shall submit the proposed traffic control plan to the City of Hayward Public Works Department and Caltrans (if applicable) in sufficient time for review and comment, and to the Energy Commission's Compliance Project Manager (CPM) for review and approval prior to the

proposed start of construction. The traffic control plan shall include all elements normally required for review and permitting of a similar project. The project owner shall provide a copy of any written comments from the City of Hayward or Caltrans and any changes to the traffic control plan to the CPM prior to the proposed start of construction.

Verification: At least 90 calendar days prior to the start of construction, including any grading or site remediation on the power plant project site or its associated easements, the project owner shall submit the proposed traffic control and implementation plan to the City of Hayward Public Works Department and Caltrans 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 City of Hayward and Caltrans 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 either the City of Hayward or Caltrans, along with any changes to the proposed development plan, to the CPM for review and approval.

TRANS-2 The project owner shall consult with the City of Hayward in the preparation of a parking and staging plan for the pre-construction, construction, and operation phases of the project and shall submit the parking plan to the City of Hayward Planning Department in sufficient time for review and comment and to the Energy Commission's Compliance Project Manager (CPM) for review and approval prior to the proposed start of construction. The project owner shall provide a copy of any written comments from the City of Hayward or Caltrans and any changes to the traffic control plan to the CPM prior to the proposed start of construction.

The parking plan shall include all elements normally required for review and permitting of a similar project. The parking plan shall also include a policy, to be enforced by the project owner, stating all project-related parking would occur on-site or in designated off-site parking areas as shown on the plan.

The parking plan shall provide a plot plan showing the location of the proposed parking area(s); parking spaces, including ADA-compliant, van-accessible spaces; travel aisles and circulation patterns, car/van pool loading and unloading area(s), signage, height restrictions, and any other City of Hayward standards. Dimensions shall be shown for all parking spaces, travel lanes, encroachments, loading/unloading ramps, and turning radii, in accordance to the requirements stipulated in the applicable City of Hayward parking standards

Verification: At least 90 calendar days prior to the start of construction, including any grading or site remediation on the power plant project site or its associated easements, the project owner shall submit the proposed parking and staging plan to the City of Hayward Public Works 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 City of Hayward 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 City of Hayward, along with any changes to the proposed development plan, to the CPM for review and approval.

TRANS-3 Prior to any ground disturbance or obstruction of traffic (e.g., detours, temporary delays) within any public road, easement, or right-of-way, the project owner or its contractor(s) shall coordinate with the City of Hayward or Alameda County Public Works Department and Caltrans (if applicable) and obtain all required permits (e.g., encroachment). All activities by the project owner or its contractor(s) shall comply with the applicable requirements of any affected local jurisdiction and Caltrans.

Verification: Prior to ground disturbance or interruption of traffic in or along any public road, easement, or right-of-way, the project owner shall provide copies of all permit(s) received from Caltrans or other affected jurisdiction to the CPM. In addition, the project owner shall retain copies of the issued/approved permit(s) and supporting documentation in its compliance file for a minimum of 180 calendar days after the start of commercial operation.

TRANS-4 The project owner shall restore all public roads, easements, and rights-of-way that have been damaged due to project-related construction activities to original or near original condition in a timely manner.

Prior to the start of site mobilization, the project owner shall consult with Alameda County, the City of Hayward, and Caltrans (if applicable) and notify them of the proposed schedule for project construction. The purpose of this notification is to request the local jurisdiction(s) and Caltrans consider postponement of public right-of-way repair or improvement activities in areas affected by project construction until construction is completed and to coordinate any concurrent construction-related activities that are planned or in progress and cannot be postponed with the project owner.

Verification: Prior to the start of site mobilization, the project owner shall photograph or videotape all affected public roads, easements, and right-of-way segment(s) and/or intersections and shall provide the CPM, the affected local jurisdiction(s), and Caltrans (if applicable) with a copy of these images.

Within 60 calendar days after completion of construction, the project owner shall meet with the CPM, the affected local jurisdiction(s), and Caltrans (if applicable) to identify sections of public right-of-way to be repaired. At that time, the project owner shall establish a schedule to complete the repairs and to receive approval for the action(s). Following completion of any public right-of-way repairs, the project owner shall provide a letter signed by the affected local jurisdiction(s) and Caltrans stating their satisfaction with the repairs to the CPM.

Transmission Line Safety and Nuisance

TLSN-1 The project owner shall construct the proposed transmission lines according to the requirements of CPUC 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 PG&E's EMF-reduction guidelines.

Verification: At least 30 (or fewer, as mutually agreed between the project owner and the compliance project manager) days before beginning construction of the transmission line or its related structures and facilities, the project owner shall submit to the compliance project manager 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 every reasonable effort will be made to identify and correct, on a case-specific basis, any complaints of interference with radio or television signals from the operation of project-related lines and associated switchyards. The project owner shall maintain written records, for a period of five years, of all complaints of radio or television interference attributable to plant operation, together with the corrective action(s) taken to address each complaint. All complaints shall be recorded to include notations of corrective actions taken. Complaints not resulting in a specific action, or for which there was no resolution, should be both noted and explained. The record shall be signed by both the project owner and the complainant, if possible, to indicate concurrence with the corrective action or agreement with the justification for a lack of action.

Verification: All reports of line-related complaints shall be summarized for project-related lines and included, during the first five years of plant operation, in the annual compliance report.

TLSN-3 The project owner shall hire a qualified consultant to measure the strength of EMFs both before and after the line is energized. The measurements shall be made according to American National Standard Institute/Institute of Electrical and Electronic Engineers (ANSI/IEEE) standard procedures at the locations of maximum field strengths along the proposed route. These measurements shall be completed no later than six months after the beginning of operations.

Verification: The project owner shall file copies of the pre- and post-energization measurements with the CPM within 60 (or fewer, as mutually agreed between the project owner and the compliance project manager) days after completion of those measurements.

TLSN-4 The project owner shall ensure that the rights-of-way of the proposed transmission line are kept free of combustible material, as required under the provisions of Section 4292 of the Public Resources Code 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 along with all fire prevention activities carried out along the right-of-way, and provide those summaries in the annual compliance report.

TLSN-5 The project owner shall ensure that all permanent metallic objects within the right-of-way of the project-related lines are grounded according to industry standards, regardless of ownership. In the event of a refusal by any property owner to permit this grounding, the project owner shall notify the CPM. This notification shall include, when possible, the owner's written objection. Upon receipt of this notice, the CPM may waive the requirement for grounding the object involved.

Verification: At least 30 (or fewer, as mutually agreed between the project owner and the compliance project manager) days before the lines are energized, the project owner shall transmit, to the CPM, a letter confirming compliance with this condition.

Visual Resources

Surface Restoration

VIS-1 The project owner shall remove all evidence of construction activities, and shall restore the ground surface to the original condition or better condition, including the replacement of any vegetation or paving removed during construction where project development does not preclude this. The project owner shall submit to the Compliance Project Manager (CPM) for review and approval a surface restoration plan the proper implementation of which will satisfy these requirements. The project owner shall complete surface restoration within 60 days after the start of commercial operation.

Verification: At least 60 days prior to the start of commercial operation, the project owner shall submit the surface restoration plan to the CPM for review and approval.

If the CPM notifies the project owner that any revisions of the surface restoration plan are needed, within 30 days of receiving that notification the project owner shall submit to the CPM a plan with the specified revisions.

The project owner shall complete surface restoration within 60 days after the start of commercial operation. The project owner shall notify the CPM within seven days after completion of surface restoration that the restoration is ready for inspection.

Surface Treatment of Project Structures and Buildings

VIS-2 The project owner shall color and finish the surfaces of all project structures and buildings visible to the public to ensure that they: (1) minimize visual intrusion and contrast by blending with the landscape; (2) minimize glare; and (3) comply with local design policies and ordinances. The transmission line conductors shall be non-specular and non-reflective, and the insulators shall be non-reflective and non-refractive.

The project owner shall submit a surface treatment plan to the CPM for review and approval. The treatment plan shall include:

- A. A description of the overall rationale for the proposed surface treatment, including the selection of the proposed color(s) and finishes;
- B. A list of each major project structure, building, tank, pipe, and wall; transmission line towers and/or poles; and fencing, specifying the color(s) and finish proposed for each. Colors must be identified by vendor, name, and number; or according to a universal designation system;
- C. One set of color brochures or color chips showing each proposed color and finish;

- D. One set of 11" x 17" color photo simulations at life size scale of the proposed treatment for project structures, including structures treated during manufacture at the least from the selected KOP 3 (Visual Resources Figure 18);
- E. A specific schedule for completing the treatment; and
- F. A procedure to ensure proper treatment maintenance for the life of the project.

The project owner shall not request vendor treatment of any buildings or structures during their manufacture, or perform final field treatment on any buildings or structures, until the project owner has received treatment plan approval by the CPM.

Verification: At least 45 days prior to specifying vendor color(s) and finish(es) for structures or buildings to be surface treated during manufacture, the project owner shall submit the proposed treatment plan to the CPM for review and approval and simultaneously to the city of Hayward Community and Economic Development, Planning Division for review and comment. The project owner shall provide the CPM with the city's comments at least 30 days prior to the estimated date of providing paint specification to vendors.

If the CPM determines that the plan requires revision, the project owner shall provide to the CPM a plan with the specified revision(s) for review and approval by the CPM before any treatment is applied. Any modifications to the treatment plan must be submitted to the CPM for review and approval.

Within ninety (90) days after the start of commercial operation, the project owner shall notify the CPM that surface treatment of all listed structures and buildings has been completed and is ready for inspection; and shall submit one set of electronic color photographs from selected KOP 3 at the least.

The project owner shall provide a status report regarding surface treatment maintenance in the Annual Compliance Report. The report shall specify a) the condition of the surfaces of all structures and buildings at the end of the reporting year; b) maintenance activities that occurred during the reporting year; and c) the schedule of maintenance activities for the next year.

Permanent Exterior Lighting

VIS-3 To the extent feasible, consistent with safety and security considerations and commercial availability, the project owner shall design and install all permanent exterior lighting such that a) light fixtures do not cause obtrusive spill light beyond the project site; b) lighting does not cause excessive reflected glare; c) direct lighting does not illuminate the nighttime sky; d) illumination of the project and its immediate vicinity is minimized, and e) lighting complies with local policies and ordinances. The project owner shall submit to the CPM for review and approval and simultaneously to the city of Hayward Community and Economic Development, Planning Division for review and comment a lighting mitigation plan that includes the following:

- A. A process for addressing and mitigating complaints received about potential lighting impacts;

- B. Lighting shall incorporate commercially available fixture hoods/shielding, with light directed downward or toward the area to be illuminated;
- C. Light fixtures shall not cause obtrusive spill light beyond the project boundary;
- D. All lighting shall be of minimum necessary brightness consistent with operational safety and security; and
- E. Lights in high illumination areas not occupied on a continuous basis (such as maintenance platforms) shall have (in addition to hoods) switches, timer switches, or motion detectors so that the lights operate only when the area is occupied.

Verification: At least 45 days prior to ordering any permanent exterior lighting, the project owner shall contact the CPM to determine the required documentation for the lighting mitigation plan.

At least 60 days prior to ordering any permanent exterior lighting, the project owner shall submit to the CPM for review and approval and simultaneously to the city of Hayward Community and Economic Development, Planning Division for review and comment a lighting mitigation plan. The project owner shall provide the city's comments to the CPM at least 10 days prior to the date lighting materials are ordered.

If the CPM determines that the plan requires revision, the project owner shall provide to the CPM a revised plan for review and approval by the CPM.

The project owner shall not order any exterior lighting until receiving CPM approval of the lighting mitigation plan.

Prior to commercial operation, the project owner shall notify the CPM that the lighting has been installed and is ready for inspection. If after inspection the CPM notifies the project owner that modifications to the lighting are needed, within 30 days of receiving that notification the project owner shall implement the modifications and notify the CPM that the modifications have been completed and are ready for inspection.

Within 10 days of receiving a lighting complaint, the project owner shall provide the CPM with a complaint resolution form report as specified in the Compliance General Conditions including a proposal to resolve the complaint, and a schedule for implementation. The project owner shall notify the CPM within 10 days after completing implementation of the proposal. A copy of the complaint resolution form report shall be submitted to the CPM within 30 days of complaint resolution.

Landscaping

VIS-4 The project owner shall provide landscaping consistent with the conceptual landscape plan, dated May 4, 2007, shown on Visual Resources Figure 16. The landscaping shall comply with the city of Hayward municipal code requirements stipulated in section 10-1.1645 l. Landscaping.

The project owner shall submit to the CPM for review and approval and simultaneously to city of Hayward Community and Economic Development,

Planning Division for review and comment a landscaping plan whose proper implementation will satisfy these requirements.

The project owner shall not implement the plan until the project owner receives approval of the plan from the CPM. The planting must be completed by the start of commercial operation, and the planting must occur during the optimal planting season.

Verification: Prior to commercial operation and at least 45 days prior to installing the landscaping, the project owner shall submit the landscaping plan to the CPM for review and approval and simultaneously to city of Hayward Community and Economic Development, Planning Division for review and comment. The project owner shall provide the city's comments 30 days prior to the installation of the landscaping.

If the CPM determines that the plan requires revision, the project owner shall provide to the CPM and city of Hayward Community and Economic Development, Planning Division a plan with the specified revision(s) for review and approval by the CPM before the plan is implemented.

The project owner shall simultaneously notify the CPM and city of Hayward Community and Economic Development, Planning Division within seven days after completing installation of the landscaping, that the landscaping is ready for inspection.

Outdoor Storage

VIS-5 Minor open storage shall be a secondary use permitted on the project site provided the materials, products, or equipment stored are necessary to the operations of the use being conducted on the site. Open storage shall not be placed within the yard or parking areas stipulated by the city's Industrial Zone. Open storage shall be visually compatible with adjoining land uses (for example, adequately screened, set back or not too high, and not visually unpleasant as with outside storage of appliances in conjunction with applicant sales/service). Open storage conducted on the project site shall be subject to the review and approval of the CPM.

Verification: Prior to start of commercial operation, the project owner shall inform the city of Hayward Community and Economic Development, Planning Division and the CPM of the location of proposed open storage area(s), if any, on the project site.

The project owner shall provide any letters pertaining to open storage received from the city of Hayward Community and Economic Development, Planning Division (comments or complaints) to the CPM.

If the CPM notifies the project owner that modifications to the proposed open storage are needed, within 30 days of receiving that notification the project owner shall implement the modifications and notify the CPM that the modifications have been completed.

Signage

VIS-6 The project owner shall install minimal signage visible to the public, which shall a) have unobtrusive colors and finishes that prevent excessive glare; and b) be consistent with the policies and ordinances of city of Hayward Community and

Economic Development, Planning Division. The design of any signs required by safety regulations shall conform to the criteria established by those regulations. The project owner shall submit a signage plan for the project to the CPM for review and approval and simultaneously to city of Hayward Community and Economic Development, Planning Division for review and comment. The project owner shall not implement the plan until the project owner receives approval of the submittal from the CPM.

Verification: Prior to the start of commercial operation and at least 60 days prior to installing signage, the project owner shall submit the signage plan to the CPM for review and approval and simultaneously to city of Hayward Community and Economic Development, Planning Division for review and comment.

If the CPM determines that the plan requires revision, the project owner shall provide to the CPM a plan with the specified revision(s) for review and approval by the CPM before any signage visible to the public is installed.

The project owner shall provide the CPM with electronic color photographs after completing installation of signage.

Waste Management

WASTE-1 The project owner shall provide the resume of a Registered Professional Engineer or Geologist, who will be available for consultation during soil excavation and grading activities, to the CPM for review and approval. The resume shall demonstrate experience in remedial investigation and feasibility studies.

The registered professional engineer or geologist shall be given full authority by the project owner to oversee any earth-moving activities that could disturb contaminated soil.

Verification: At least 30 days before the start of site mobilization, the project owner shall submit the resume of the Registered Professional Engineer or Geologist to the CPM for review and approval.

WASTE-2 If potentially contaminated soil is unearthed during excavation at either the proposed site or at linear facilities, as indicated by discoloration, odor, detection by handheld instruments, or other signs, the Registered Professional Engineer or Geologist shall inspect the site, determine the need for sampling to confirm the nature and extent of contamination, and file a written report to the project owner and to the CPM stating his or her recommended course of action.

Depending upon the nature and extent of contamination, the Registered Professional Engineer or Geologist shall have the authority to temporarily suspend construction at that location for the protection of workers or the public. If, in the opinion of the Registered Professional Engineer or Geologist, significant remediation may be required, the project owner shall contact representatives of the City of Hayward Fire Department and the CPM for guidance and possible oversight.

Verification: The project owner shall submit any final reports filed by the Registered Professional Engineer or 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-3 The project owner shall obtain a hazardous waste generator identification number from the Department of Toxic Substances Control prior to generating any hazardous waste during operations.

Verification: The project owner shall keep its copy of the identification number on file at the project site and notify the CPM of its receipt in the relevant monthly compliance report.

WASTE-4 Upon learning of any impending waste management-related enforcement action by any local, state, or federal authority for violation of requirements imposed by federal law, the project owner shall notify the CPM of any 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 10 days of learning of an impending enforcement action. The CPM shall notify the project owner of any changes that will be required to the manner in which project-related wastes are managed.

WASTE-5 The project owner shall prepare both a Construction Waste Management Plan and an Operation Waste Management Plan for all wastes generated during construction and operation of the facility, and shall submit both plans to the CPM for review and approval. The plans shall contain, at a minimum, the following:

- A description of all waste streams, including projections of frequency, amounts generated and hazard classifications; and
- Methods of managing each waste, including temporary on-site storage, treatment methods, and companies contracted with for treatment services, waste testing methods to assure correct classification, methods of transportation, disposal requirements and sites, and recycling and waste minimization/reduction plans.

Verification: No fewer than 30 days before the start of site mobilization, the project owner shall submit the Construction Waste Management Plan to the CPM for approval.

The Operation Waste Management Plan shall be submitted to the CPM no fewer than 30 days before the start of project operation for approval. The project owner shall submit any required revisions within 20 days of notification by the CPM.

In the annual compliance reports, the project owner shall document the actual waste management methods used during the year and provide a comparison of the actual methods used with those proposed in the original Operation Waste Management Plan.

WASTE-6 The project owner shall ensure that the site is properly characterized and remediated. The project owner shall ensure that a clean-up plan or soil management plan is developed describing the number and location of samples of soil, soil gas, and groundwater to be obtained and analyzed, and soil removal

and disposal plans. The project owner shall assure this plan is submitted to the City of Hayward Fire Department for review and comment, and to the CPM for review and approval. Sampling related to the potential migration of chemicals from within the building shall be conducted at the time the building is demolished and concrete flooring removed. If contaminated soil is found, the project owner shall contact the City of Hayward Fire Department and the CPM for further guidance and possible oversight. In no event shall any project construction commence that involves either the movement of contaminated soil or construction on contaminated soil until the CPM has determined that all necessary remediation has been accomplished.

Verification: Following demolition and at least 30 days before the start of construction, the project owner shall provide documentation that the site has been appropriately characterized and remediated to the CPM for review and approval. The project owner shall provide a copy of all correspondence with the City of Hayward Fire Department to the CPM within 10 days of its receipt. In the event that certain specific site activities need to start before full characterization and remediation, the project owner shall request review and approval from the CPM.

WASTE-7 Before demolition of the building, the project owner shall conduct an asbestos survey to determine if lead-based paint and/or asbestos-containing material are present in the building. The project owner shall remove any such materials, and any other regulation building materials such as lead-based-paints, following the proper removal and disposal practices defined in the BAAQMD Regulation 11-2 procedures.

Verification: At least 60 days before the start of site mobilization, the project applicant shall provide any results submitted to the BAAQMD to the CPM for review and comment.

Worker Safety and Fire Protection

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

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

The Personal Protective Equipment Program, the Exposure Monitoring Program, and the Injury and Illness Prevention Program shall be submitted to the CPM for review and approval concerning compliance of the program with all applicable Safety Orders. The Construction Emergency Action Plan and the Fire Prevention Plan shall be submitted to the Hayward 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 Safety and Health Program. The project owner shall provide a copy of a letter to the CPM from the Hayward Fire Department stating the Fire Department's comments on the Construction Fire Prevention Plan and Emergency Action 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 Program (8 CCR § 3221); and
- Personal Protective Equipment Program (8 CCR §§ 3401-3411).

The Operation Injury and Illness Prevention Plan, Emergency Action Plan, and Personal Protective Equipment Program shall be submitted to the CPM for review and comment concerning compliance of the program with all applicable Safety Orders. The Operation Fire Prevention Plan and the Emergency Action Plan shall also be submitted to the Hayward 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 of a letter to the CPM from the Hayward Fire Department stating the Fire Department's comments on the Operations Fire Prevention Plan and Emergency Action Plan.

WORKER SAFETY-3 The project owner shall provide a site Construction 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 over-all 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 & 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, emergency response reports for injuries, and inform the CPM of safety-related incidents; and
- Assure that all the plans identified in 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 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; and
- Report of accidents and injuries that occurred during the month.

WORKER SAFETY-4 The project owner shall make payments to the Chief Building Official (CBO) for the services of a Safety Monitor based upon a reasonable fee schedule to be negotiated between the project owner and the CBO. Those services shall be in addition to other work performed by the CBO. The Safety Monitor shall be selected by and report directly to the CBO, and will be responsible for verifying that the Construction Safety Supervisor, as required in Worker Safety 3, implements all appropriate Cal/OSHA and Commission safety requirements. The Safety Monitor shall conduct on-site (including linear facilities) safety inspections at intervals necessary to fulfill those responsibilities.

Verification: 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 cardiac defibrillator 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 and commissioning, a representative number of workers consistent with American Heart Association guidelines shall be trained in its use. 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 cardiac defibrillator exists on site and a copy of the training and maintenance program for review and approval.

WORKER SAFETY-6 The project owner shall immediately notify the Hayward Fire Department and the CPM of any incident involving fire, hazardous materials, or an Emergency Medical Service response, however small or short-lived, that occurs within the power plant site, as soon as power plant personnel become aware of the incident.

Verification: At least 30 days prior to the start of site mobilization, the project owner shall submit to the CPM a copy of the Policy and Procedures that direct all power plant personnel to immediately notify the Hayward Fire Department and the CPM when an incident occurs within the project site.

Facility Design

GEN-1 The project owner shall design, construct and inspect the project in accordance with the 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 that edition that has been adopted by the California Building Standards Commission and published at least 180 days previously.) The project owner shall insure that all the provisions of the above applicable codes be enforced during any construction, addition, alteration, moving, demolition, repair, or maintenance of the completed facility [2001 CBC, Section 101.3, Scope]. All transmission facilities (lines, switchyards, switching stations and substations) are handled in Conditions of Certification in the **Transmission System Engineering** section of this document.

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 insure that all contracts with contractors, subcontractors and suppliers shall clearly specify that all work performed and materials supplied on this project comply with the codes listed above.

Verification: Within 30 days after receipt of the Certificate of Occupancy, the project owner shall submit to the Compliance Project Manager (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 [2001 CBC, Section 109 – Certificate of Occupancy].

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 which may require CBO approval for the purpose of complying with the above stated codes. The CPM will then determine the necessity of CBO approval on the work to be performed.

GEN-2 Prior to submittal of the initial engineering designs for CBO review, the project owner shall furnish to the CPM and to the CBO a schedule of facility design submittals, a Master Drawing List and a Master Specifications List. The schedule

shall contain a list of proposed submittal packages of designs, calculations and specifications for major structures and equipment. To facilitate audits by Energy Commission staff, the project owner shall provide specific packages to the CPM when requested.

Verification: At least 60 days (or project owner and CBO approved alternative timeframe) prior to the start of rough grading, the project owner shall submit to the CBO and to the CPM the schedule, the Master Drawing List and the 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 and equipment listed in Facility Design Table 1 below. Major structures and equipment shall be added to or deleted from the table only with CPM approval. The project owner shall provide schedule updates in the Monthly Compliance Report.

Table 1: Major Structures and Equipment List

Equipment/System	Quantity (Plant)
Engine Genset w/ Auxiliary Module Foundation and Connections	14
Selective Catalytic Reduction Unit Foundation and Connections	14
Oxidation Catalyst Unit Foundation and Connections	14
Exhaust Stack Structure, Foundation and Connections	14
Closed-Loop Cooling System Structure, Foundation and Connections	2
Main Step-up Transformer Foundation and Connections	2
Auxiliary or Station Service Transformer Foundation and Connections	2
Fuel gas Heater Foundation and Connections	1
Fire Protection System	1
Raw Water Storage Tank Foundation and Connections	4
Aqueous Ammonia Storage Tank Foundation and Connections	2
Aqueous Ammonia Handling System Foundation and Connections	1
Waste Water Holding Tank Foundation and Connections	1
Clean Lube Oil Storage Tank Foundation and Connections	1
Dirty Lube Oil Storage Tank Foundation and Connections	1
Engine Hall, Warehouse/Shop, and Control Room Structure, Foundation and Connections	1
Start Air System	2
Instrument and Service Air System	1
Miscellaneous Ancillary Equipment	1 Lot
Black Start Emergency Diesel Generator Foundation and Connections	1
Potable Water Systems	1 Lot
Drainage Systems (including sanitary drain and waste)	1 Lot
Plant Control System	1 Lot
HVAC and Refrigeration Systems	1 Lot
1 Lot Temperature Control and Ventilation Systems (including water and sewer connections)	1 Lot
Building Energy Conservation Systems	1 Lot
Switchyard, Buses and Towers	1 Lot
Electrical Duct Banks	1 Lot

GEN-3 The project owner shall make payments to the CBO for design review, plan check and construction inspection 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 2001 CBC [Chapter 1, Section 107 and Table 1-A, Building Permit Fees; Appendix Chapter 33, Section 3310 and Table A-33-A, Grading Plan Review Fees; and Table A-33-B, Grading Permit Fees], 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 as otherwise agreed 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 the applicable fees have been paid.

GEN-4 Prior to the start of rough grading, the project owner shall assign a California registered architect, structural engineer or civil engineer, as a resident engineer (RE), to be in general responsible charge of the project [Building Standards Administrative Code (Cal. Code Regs., tit. 24, § 4-209, Designation of Responsibilities)]. All transmission facilities (lines, switchyards, switching stations and substations) are handled in Conditions of Certification in the Transmission System Engineering section of this document.

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 each part is clearly defined as a distinct unit. Separate assignment of general responsible charge may be made for each designated part.

The RE shall:

1. Monitor construction progress of work requiring CBO design review and inspection to ensure compliance with LORS;
2. Ensure that construction of all the facilities subject to CBO design review and inspection conforms in every material respect to the applicable LORS, these Conditions of Certification, approved plans, and specifications;
3. Prepare documents to initiate changes in the approved drawings and specifications when directed by the project owner or as required by conditions on the project;
4. Be responsible for providing the project inspectors and testing agency(ies) with complete and up-to-date set(s) 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 as not conforming to the approved plans and specifications.

The RE shall have the authority to halt construction and to require changes or remedial work, if the work does not conform to applicable 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 timeframe) 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) are 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-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) a civil engineer; and B) a soils engineer, or a geotechnical engineer or a civil engineer experienced and knowledgeable in the practice of soils engineering. 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: C) 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; D) a mechanical engineer; and E) an electrical engineer. [California Business and Professions Code section 6704 et seq., and sections 6730, 6731 and 6736 requires state registration to practice as a civil engineer or structural engineer in California.] All transmission facilities (lines, switchyards, switching stations and substations) are handled in Conditions of Certification in the Transmission System Engineering section of this document.

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 (e.g., 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 [2001 CBC, Section 104.2, Powers and Duties of Building Official].

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 Report, Geotechnical Report or Soils Report 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 design, 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 in 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 Report, Geotechnical Report or Soils Report containing field exploration reports, laboratory tests and engineering analysis detailing the nature and extent of the soils that may be susceptible to liquefaction, rapid settlement or collapse when saturated under load [2001 CBC, Appendix Chapter 33, Section 3309.5, Soils Engineering Report; Section 3309.6, Engineering Geology Report; and Chapter 18, Section 1804, Foundation Investigations];
3. Be present, as required, during site grading and earthwork to provide consultation and monitor compliance with the requirements set forth in the 2001 CBC, Appendix Chapter 33; Section 3317, Grading Inspections (depending on the site conditions, this may be the responsibility of either the soils engineer or 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 with predicted conditions used as a basis for design of earthwork or foundations [2001 CBC, section 104.2.4, Stop orders].

C. 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.

D. 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 with all of the mechanical engineering design requirements set forth in the Energy Commission's Decision.

E. 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 timeframe) 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 and soils (geotechnical) engineer assigned to the project.

At least 30 days (or project owner and CBO approved alternative timeframe) 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, 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 2001 CBC, Chapter 17 [Section 1701, Special Inspections; Section 1701.5, Type of Work (requiring special inspection)]; and Section 106.3.5, Inspection and observation program. All transmission facilities (lines, switchyards, switching stations and substations) are handled in Conditions of Certification in the Transmission System Engineering section of this document.

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. Observe 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 [2001 CBC, Chapter 17, Section 1701.3, Duties and Responsibilities of the Special Inspector]; 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 and specifications and the applicable provisions of the applicable edition of the 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).

Verification: At least 15 days (or project owner and CBO approved alternative timeframe) 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 the corrective action required [2001 CBC, Chapter 1, Section 108.4, Approval Required; Chapter 17, Section 1701.3, Duties and Responsibilities of the Special Inspector; Appendix Chapter 33, Section 3317.7, Notification of Noncompliance]. 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, the 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 [2001 CBC, Section 106.4.2, Retention of Plans].

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 final approved engineering plans, specifications and calculations as described above, the project owner shall submit to the CPM a letter stating that the above documents have been stored and indicate the storage location of such documents.

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. Related calculations and specifications, signed and stamped by the responsible civil engineer; and
4. Soils Report, Geotechnical Report or Foundation Investigations Report required by the 2001 CBC [Appendix Chapter 33, Section 3309.5, Soils Engineering Report; Section 3309.6, Engineering Geology Report; and Chapter 18, Section 1804, Foundation Investigations].

Verification: At least 15 days (or project owner and CBO approved alternative timeframe) 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 [2001 CBC, Section 104.2.4, Stop orders].

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 2001 CBC, Chapter 1, Section 108, Inspections; Chapter 17, Section 1701.6, Continuous and Periodic Special Inspection; and Appendix Chapter 33, Section 3317, Grading Inspection. 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 [2001 CBC, Appendix Chapter 33, Section 3317.7, Notification of Noncompliance]. 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 as-built 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 [1998 CBC, Section 3318, Completion of Work].

Verification: Within 30 days (or project owner and CBO approved alternative timeframe) 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, with a copy of the transmittal letter to the CPM. 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 construction of any major structure or component listed in Facility Design Table 1 of Condition of Certification GEN-2, above, the project owner shall submit to the CBO for design review and approval the proposed

lateral force procedures for project structures and the applicable designs, plans and drawings for project structures. Proposed lateral force procedures, designs, plans and drawings shall be submitted for the following items (from Table 1, above):

1. Major project structures;
2. Major foundations, equipment supports and anchorage; and
3. Large field fabricated tanks. Construction of any structure or component shall not commence until the CBO has approved the lateral force procedures to be employed in designing that structure or component.

Construction of any structure or component shall not commence 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 (i.e., 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 [2001 CBC, Section 108.4, Approval Required];
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 [2001 CBC, Section 106.4.2, Retention of plans; and Section 106.3.2, Submittal documents];
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 [2001 CBC, Section 106.3.4, Architect or Engineer of Record]; and
Submit to the CBO the responsible design engineer's signed statement that the final design plans conform to the applicable LORS [2001 CBC, Section 106.3.4, Architect or Engineer of Record].

Verification: At least 60 days (or project owner and CBO approved alternative timeframe) prior to the start of any increment of construction of any structure or component listed in Facility Design Table 1 of Condition of Certification GEN-2 above, 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 are in compliance with the requirements set forth in the 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 2001 CBC, Chapter 17, Section 1701, Special Inspections; Section 1701.5, Type of Work (requiring special inspection); Section 1702, Structural Observation and Section 1703, Nondestructive Testing.

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 [2001 CBC, Chapter 17, Section 1701.3, Duties and Responsibilities of the Special Inspector]. 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 2001 CBC, Chapter 1, Section 106.3.2, Submittal documents and Section 106.3.3, Information on plans and specifications, 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 Chapter 3, Table 3-E of the 2001 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 timeframe) 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 Facility Design Table 1, Condition of Certification GEN-2, above. Physical layout drawings and drawings not related to code compliance and life safety need not be submitted. 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 said construction [2001 CBC, Section 106.3.2, Submittal Documents; Section 108.3, Inspection Requests; Section 108.4, Approval Required; 2001 California Plumbing Code, Section 103.5.4, Inspection Request; Section 301.1.1, Approval].

The responsible mechanical engineer shall stamp and sign all plans, drawings and calculations for the major piping and plumbing systems subject to the CBO design review and approval, and submit a signed statement to the CBO when the said proposed piping and plumbing systems have been designed, fabricated and installed in accordance with all of the applicable laws, ordinances, regulations and industry standards [Section 106.3.4, Architect or Engineer of Record], which may include, but not be 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);
- 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
- Specific City/County code.

The CBO may deputize inspectors to carry out the functions of the code enforcement agency [2001 CBC, Section 104.2.2, Deputies].

Verification: At least 30 days (or project owner and CBO approved alternative timeframe) prior to the start of any increment of major piping or plumbing construction listed in Facility Design Table 1, Condition of Certification GEN-2 above, 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 the 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 the 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 said installation [2001 CBC, Section 108.3, Inspection Requests].

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 timeframe) 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 said 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 [2001 CBC, Section 108.7, Other Inspections; Section 106.3.4, Architect or Engineer of Record].

Verification: At least 30 days (or project owner and CBO approved alternative timeframe) 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 electrical equipment and systems 480 volts and higher, listed below, with the exception of underground duct work and any physical layout drawings and drawings not related to code compliance and life safety, the project owner shall submit, for CBO design review and approval, the proposed final design, specifications and calculations [CBC 2001, Section 106.3.2, Submittal documents]. 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 [2001 CBC, Section 108.4, Approval Required, and Section 108.3, Inspection Requests]. All transmission facilities (lines, switchyards, switching stations and substations) are handled in Conditions of Certification in the **Transmission System Engineering** section of this document.

A. Final plant design plans to include:

1. one-line diagrams for the 13.8 kV, 4.16 kV and 480 V systems; and
2. system grounding drawings.

- B. Final plant calculations to 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 13.8 kV, 4.16 kV and 480 V systems;
 6. system grounding requirements; and
 7. lighting energy calculations.
- 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 energization 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 timeframe) 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

General conditions of certification with respect to Geology are covered under proposed Conditions of Certification **GEN-1**, **GEN-5**, and **CIVIL-1** in the **Facility Design** section. Proposed paleontological conditions of certification follow.

PAL-1 The project owner shall provide the Compliance Project Manager (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, the project owner shall obtain CPM approval of the replacement PRS. The project owner shall submit to the CPM to keep on file resumes of the qualified Paleontological Resource Monitors (PRMs). If a PRM is replaced, the resume of the replacement PRM shall also be provided to the CPM.

The PRS 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 vertebrate paleontologist as described in the Society of Vertebrate Paleontology (SVP) guidelines of 1995. 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; and
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 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 one year experience monitoring in California; or
- AS or AA in geology, paleontology or biology and 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 owner shall submit a resume and statement of availability of its designated PRS for on-site work.
2. At least 20 days prior to ground disturbance, the PRS or project owner shall provide a letter with resumes naming anticipated monitors for the project and stating that the identified monitors meet the minimum qualifications for paleontological resource monitoring required by the condition. 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 no later than one week prior to the monitor beginning on-site duties.
3. Prior to the termination or release of a PRS, the project owner shall submit the resume of the proposed new PRS to the CPM for review and approval.

PAL-2 The project 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 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 should show the location, depth, and extent of all ground disturbances and can be at a scale of 1 inch = 40 feet to 1 inch = 100 feet range. If the footprint of the power plant or linear facility changes, the project owner shall provide maps and drawings reflecting these changes to the PRS and CPM.

If construction of the project will proceed 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. Prior to work commencing on affected phases, the project owner shall notify the PRS and CPM of any construction phase scheduling changes.

At a minimum, the project owner shall ensure that the PRS or PRM consults weekly with the project superintendent or construction field manager to confirm area(s) to be worked during the next week, until ground disturbance is completed.

Verification:

1. At least 30 days prior to the start of ground disturbance, the project 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 owner shall submit a letter to the CPM within 5 days of identifying the changes.

PAL-3 The project owner shall ensure that the PRS prepares, and the project owner submits to the CPM for review and approval, a Paleontological Resources Monitoring and Mitigation Plan (PRMMP) to identify general and specific measures to minimize potential impacts to significant paleontological resources. 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 and sampling activities and may be modified with CPM approval. This document shall be used as a basis for discussion in the event that on-site decisions or changes are proposed. Copies of the PRMMP shall reside with the PRS, each monitor, the project 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, 1995) and shall include, but not be limited to, the following:

1. 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 the PRMMP procedures;

2. Identification of the person(s) expected to assist with each of the tasks identified within the PRMMP and the 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, how, and how much sampling is expected to take place and in what 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 the monitoring and sampling;
6. A discussion of the procedures to be followed in the event of a significant fossil discovery, halting construction, resuming construction, and 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, which meets the Society of Vertebrate Paleontology standards and requirements for the curation of paleontological resources;
9. Identification of the institution that has agreed to receive any 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; and
10. A copy of the paleontological Conditions of Certification.

Verification: At least 30 days prior to ground disturbance, the project owner shall provide a copy of the PRMMP to the CPM. The PRMMP shall include an affidavit of authorship by the PRS, and acceptance of the PRMMP by the project owner evidenced by a signature.

PAL-4 Prior to ground disturbance and for the duration of construction, the project owner and the PRS shall prepare and conduct weekly CPM-approved training for all recently employed project managers, construction supervisors and workers who are involved with or operate ground disturbing equipment or tools. Workers shall not excavate in sensitive units prior to receiving CPM-approved worker training. Worker training shall consist of an initial in-person PRS training during the project kick-off for those mentioned above. Following initial training, 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 any other areas of interest or concern. If appropriate, multi-lingual training shall be provided for workers not fluent in

English. No ground disturbance shall occur prior to CPM approval of the Worker Environmental Awareness Program (WEAP), unless specifically approved by the CPM.

The WEAP shall address the potential to encounter paleontological resources in the field, the sensitivity and importance of these resources, and the legal obligations to preserve and protect such resources.

The training shall include:

1. A discussion of applicable laws and penalties under the law;
2. Good quality photographs or physical examples of vertebrate fossils shall be provided for project sites containing units of high paleontologic sensitivity;
3. Information that the PRS or PRM has the authority to halt or redirect construction in the event of a discovery or unanticipated impact to a paleontological resource;
4. Instruction that employees are to halt 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 Certification of Completion of WEAP form signed by each worker indicating that they have received the training; and
7. A sticker that shall be placed on hard hats indicating that environmental training has been completed.

Verification:

1. At least 30 days prior to ground disturbance, the project owner shall submit the proposed WEAP including the brochure with the set of reporting procedures the workers are to follow.
2. At least 30 days prior to ground disturbance, the project owner shall submit the script and final video to the CPM for approval if the project owner is planning on using a video for interim training.
3. If the owner requests an alternate paleontological 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 training prior to CPM authorization.
4. In the Monthly Compliance Report (MCR) the project 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 or video) offered that month. The MCR shall also include a running total of all persons who have completed the training to date.

PAL-5 The project owner shall ensure that the PRS and PRM(s) monitor consistent with the PRMMP all construction-related grading, excavation, trenching, and augering in

areas where potentially 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 owner shall notify and seek the concurrence of the CPM.

The project owner shall ensure that the PRS and PRM(s) have the authority to halt or redirect construction if paleontological resources are encountered. The project 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 different from the accepted schedule presented in the PRMMP shall be proposed in a letter or email from the PRS and the project owner to the CPM prior to the change in monitoring and 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 owner shall ensure that the PRM(s) keeps a daily log of monitoring of paleontological resource activities. The PRS may informally discuss paleontological resource monitoring and mitigation activities with the CPM at any time.
3. The project owner shall ensure that the PRS immediately 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 owner or the PRS shall notify the CPM within 24 hours or Monday morning in the case of a weekend when construction has been halted due to a paleontological find.

The project owner shall ensure that the PRS prepares a summary of the monitoring and other paleontological activities that will be placed in the Monthly Compliance Reports (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, etc. A section of the report shall include the geologic units or subunits encountered; descriptions of sampling within each unit; and a list of identified fossils. 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 and 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: The project owner shall ensure that the PRS submits the summary of monitoring and paleontological activities in the MCR. When feasible, the CPM shall be notified 10 days in advance of any proposed changes in monitoring different from the plan

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-6 The project owner, through the designated PRS, shall ensure that all components of the PRMMP are adequately performed including collection of fossil materials, preparation of fossil materials for analysis, analysis of fossils, identification and inventory of fossils, the preparation of fossils for curation, and the delivery for curation of all significant paleontological resource materials encountered and collected during the project construction.

Verification: The project owner shall maintain in their compliance file copies of signed contracts or agreements with the designated PRS and other qualified research specialists. The project owner shall maintain these files for a period of three years after completion and approval of the CPM-approved Paleontological Resource Report (See **PAL-7**). The project owner shall be responsible to pay any curation fees charged by the museum for fossils collected and curated as a result of paleontological mitigation. A copy of the letter of transmittal submitting the fossils to the curating institution shall be provided to the CPM.

PAL-7 The project owner shall ensure preparation of a Paleontological Resources Report (PRR) by the designated PRS. The PRR shall be prepared following completion of the ground disturbing activities. The PRR shall include an analysis of the collected fossil materials and related information and submitted to the CPM for review and approval.

The report shall include, but is not limited to, a description and inventory of recovered fossil materials; a map showing the location of paleontological resources encountered; determinations of sensitivity and significance; and a statement by the PRS that project impacts to paleontological resources have been mitigated below the level of significance.

Verification: Within 90 days after completion of ground disturbing activities, including landscaping, the project owner shall submit the Paleontological Resources Report under confidential cover to the CPM.

Power Plant Efficiency

No conditions of certification are proposed.

Power Plant Reliability

No conditions of certification are proposed.

Transmission System Engineering

TSE-1 The project owner shall provide the Compliance Project Manager (CPM) and the Chief Building Official (CBO) with 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 both a description and a 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: At least 60 days (or fewer, if mutually agreed upon by the project owner and the CBO) before the start of construction, the project owner shall submit the schedule, a master drawing list, and a master specifications list to both the CBO and 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 a list of major equipment in Table 1: Major Equipment List below). Additions and deletions shall be made to the table only with both 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 Before the start of construction, the project owner shall assign to the project an electrical engineer and at least one of each of the following:

- A. a civil engineer;
- B. a geotechnical engineer or a civil engineer experienced and knowledgeable in the practice of soils engineering;
- C. a design engineer who is either a structural engineer or a civil engineer and fully competent and proficient in the design of power plant structures and equipment supports; or
- D. a mechanical engineer (Business and Professions Code Sections 6704 et seq. require state registration to practice as either a civil engineer or a 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, e.g., proposed earthwork, civil structures, power plant structures, or 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 civil, geotechnical, or civil and design engineer, assigned as required by Facility Design Condition GEN-5, may be responsible for design and review of the TSE facilities.

The project owner shall submit to the CBO, for review and approval, the names, qualifications, and registration numbers of all engineers assigned to the project. If any one of the designated engineers is subsequently 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. This engineer shall be authorized to halt earth work and require changes; if site conditions are unsafe or do not conform with the predicted conditions used as the basis for design of earth work or foundations.

The electrical engineer shall:

1. be responsible for the electrical design of the power plant switchyard, outlet, and termination facilities; and
2. sign and stamp electrical design drawings, plans, specifications, and calculations.

Verification: At least 30 days (or fewer if mutually agreed to by the project owner and the CBO) before the start of rough grading, the project owner shall submit to the CBO for review and approval, the names, qualifications, and registration numbers of all the responsible engineers assigned to the project. The project owner shall notify the CPM of the CBO's approvals of the 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 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 within five days of the approval.

TSE-3 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 corrective action (2001 California Building Code, Chapter 1, section 108.4, approval required; Chapter 17, section 1701.3, *Duties and Responsibilities of the Special Inspector*; Appendix Chapter 33, section 3317.7, *Notification of Noncompliance*). The discrepancy documentation shall become a controlled document and shall be submitted to the CBO for review and approval and refer to this condition of certification.

Verification: The project owner shall submit a copy of the CBO's approval or disapproval of any corrective action taken to resolve a discrepancy to the CPM within 15 days of receipt. If disapproved, the project owner shall advise the CPM, within five days, the reason for the disapproval, along with the revised corrective action required to obtain the CBO's approval.

TSE-4 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.

Verification: At least 30 days (or fewer if mutually agreed to by the project owner and the CBO) before 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 power plant switchyard, and 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-5 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.

- A. The Eastshore project will be interconnected to PG&E's Eastshore Substation via a single 115 kV transmission line, approximately 1.2 miles long, with 715 kcmil aluminum conductor or conductor with a higher rating.
- B. The generation tie line will require the replacement of 10 to 12 transmission poles that accommodate both the 12 kV and 115 kV lines.
- C. The existing Eastshore Substation will require a new 115 kV generation tie breaker and associated protective relays to facilitate interconnection of the project.
- D. The proposed protection requirements will consist of a fully redundant, double-pilot current differential protection scheme.
- E. 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 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.
- F. Breakers and busses in the power plant switchyard and other switchyards, where applicable, shall be sized to comply with a short-circuit analysis.
- G. 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.
- H. The project conductors shall be sized to accommodate the full output of the project.
- I. Termination facilities shall comply with applicable PG&E interconnection standards.
- J. The project owner shall provide to the CPM:

- i. the final Detailed Facility Study (DFS), including a description of facility upgrades, operational mitigation measures, and/or special protection system sequencing and timing if applicable;
 - ii. executed project owner and California ISO facility interconnection agreement.
- K. A request for minor changes to the facilities described in this condition may be allowed if the project owner informs the CBO and CPM and receives approval for the proposed change. A detailed description of the proposed change and complete engineering, environmental, and economic rationale for the change shall accompany the request. Construction involving changed equipment or substation configurations shall not begin without prior written approval of the changes by the CBO and the CPM.

Verification: At least 60 days before the start of construction of transmission facilities (or fewer days if mutually agreed upon by the project owner and CBO), 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, CA 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"¹ 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-5 a) through k), above;
 - D. the final DFS, including a description of facility upgrades, operational mitigation measures, and/or SPS sequencing and timing if applicable, shall be provided concurrently to the CPM;
 - E. at least 60 days prior to the construction of transmission facilities, the project owner shall inform the CBO and the CPM of any impending changes which may not conform to the facilities described in this condition and request approval to implement such changes.
- TSE-6** The project owner shall provide the following notice to the California ISO prior to synchronizing the facility with the California electric transmission system:

- A. at least one week prior to synchronizing the facility with the grid for testing, provide the California ISO with a letter stating the proposed date of synchronization; and
- B. at least one business day prior to synchronizing the facility with the grid for testing, provide telephone notification to the California ISO's 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 before initial synchronization with the grid. The project owner shall contact the California ISO's outage coordination department (Monday through Friday, between the hours of 7:00 a.m. and 3:30 p.m. at (916) 351-2300) at least one business day prior to synchronizing the facility with the grid for testing. A report of that conversation with the California ISO shall be provided electronically to the CPM one day before synchronizing the facility with the California electric transmission system for the first time.

TSE-7 The project owner shall be responsible for inspection of the transmission facilities during and after project construction, and for any subsequent CPM- and CBO-approved changes, to ensure conformance 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. In cases of non-conformance, the project owner shall inform the CPM and CBO, in writing and within 10 days of the discovery of such non-conformance, and the actions that will be taken to correct it.

Verification: Within 60 days after the 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 charge. A statement verifying conformity 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;
- 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 charge or an 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.